

**The
Arapaho
Language**

THE ARAPAHO LANGUAGE

Andrew Cowell, with Alonzo Moss Sr.

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CONTENTS

Preface	<i>xiii</i>
----------------	-------------

List of Abbreviations	<i>xv</i>
------------------------------	-----------

Introduction	1
---------------------	----------

1 The Arapaho People and the Social Contexts of the Arapaho Language	1
2 The Aims and Purposes of this Grammar	4
3 The Arapaho Language Sources Used	4
4 General Introduction to the Structure of the Arapaho Language	7
5 Organization of the Grammar	12

PHONOLOGY

1. Phonology	13
---------------------	-----------

1.1 Phonemes and Phonological Characteristics	13
1.2 Intermorphemic Rules	16
1.3 Pitch Accent	22
1.4 Notes on Phonological Analyses in the Remainder of the Grammar	49

MORPHOLOGY—INFLECTION

2. Inflection—Nouns	51
2.1 Preliminary: Animacy and Inanimacy	51
2.2 Plurals	54
2.3 Obviation	57
2.4 Noun/Verb Agreement	59
2.5 Possession	60
2.6 Vocative	68
2.7 Locative	70
3. Inflection—Verbs	73
3.1 Preliminary: Initial Change	73
3.2 Affirmative Order	75
3.3 Non-affirmative Order	81
3.4 Imperative Order	84
3.5 Conjunct Order	86
3.6 Tense and Aspect	92
3.7 Tense, Aspect, and Negation with Vowel-Initial Stems: Morpho- phonemic Details	95
3.8 Conclusion	96

MORPHOLOGY—DERIVATION

4. Derivation—Nouns	99
4.1 The Base Noun Stem	99
4.2 Derivational Suffixes	104
4.3 Grammatical Initials, Prenouns, and Proclitics Used with Nouns	106
4.4 Overall Morphosyntax of the Noun	107
4.5 Deverbalisation Processes	108
4.6 Verbal Nouns	118
5. Derivation—Verb Finals	121
5.1 Introduction	121
5.2 Preliminary Remarks: Grammatical vs. Semantic Transitivity	123
5.3 Derivational Finals	125
5.4 Secondary Derivation and Valence Shifting	150
5.5 Passives	151
5.6 Causation	156
5.7 Rapid Action	158
5.8 Multiple Secondary Derivational Finals	159
5.9 Derivation from Verb to Noun and Noun to Verb	162
5.10 Samples of Various Verb Stems Based on the Same Root	163

6. Derivation—Verb Medials and Concrete Finals	165
6.1 Introduction	165
6.2 Object/Undergoer Construction	168
6.3 Body Part Medials	169
6.4 Instrumental Construction	172
6.5 Mode of Action Construction	174
6.6 Topic Construction	177
6.7 Sensation Construction	180
6.8 Self-sensation Construction	181
6.9 Natural Forces Construction	182
6.10 Contrasting Independent and Dependent (Final) Verbs	183
6.11 Dependent Verb Finals with Nominal-like Initial Elements	184
6.12 Additional Nominal Incorporations	186
6.13 Derivation of Additional Medials and Concrete Finals from Verbs	188
7. Derivation—Denominalizations	189
7.1 Possessive Construction	189
7.2 ‘Have as a . . .’ Construction	191
7.3 Gathering/producing Construction	192
7.4 Predicative Construction, ‘to be a . . .’	192
7.5 Similitive Construction, ‘to be like a . . .’	193
7.6 Existential Construction, ‘there is . . . here’	193
7.7 Impersonal Verb	194
8. Derivation—Reduplication	197
8.1 Formation	197
8.2 Semantics of Reduplication	199
8.3 Multiple Reduplications—of Different Morphemes—in One Word	203
8.4 Lexicalized Reduplications	204
9. Derivation—Preverbs and Verb Initials	205
9.1 Introduction	205
9.2 Aspect	209
9.3 Auxiliary/Modal Forms	209
9.4 Qualifiers, Quantifiers, Intensifiers, and Delimiters	211
9.5 Direction and Location	213
9.6 Time	217
9.7 Manner	218
9.8 General Remarks on the Semantics of Arapaho Preverbs/Initials	219
9.9 Unusual Verb Initial Roots	220
9.10 Derivation of Additional Preverbs and Verb Initials	221
9.11 A Derivational Sample	222
9.12 The Abstract, Deictic Directionals	223

9.13 /eti/ Preverb: Unrealized Actions in Main Clauses	227
9.14 Comparatives and Superlatives	228
9.15 Semi-independent Detachment Construction	231
10. Proclitics	233
10.1 Introduction	233
10.2 Phonology	234
10.3 Morphosyntax	235
10.4 Syntax and Semantics	236
10.5. Proclitic/Particle Interaction	238
USAGE	
11. Usage—Non-affirmative Order	241
11.1 Wh-/Substantive Questions	241
11.2 Other Details of Question Constructions	248
11.3 Admonitive Construction with /ibeexu/	252
11.4 Desiderative Construction with <i>kookóós=</i>	253
11.5 Potential Construction with /eebeh/	253
11.6 ‘How . . .!’ Construction	253
11.7 ‘Whether’ Construction: Embedded Yes/No Questions	254
11.8 ‘Probably’ Construction	255
11.9 Contrary-to-fact, Negative Judgment Construction	256
11.10 ‘Seems . . .’ Construction with <i>wootíí</i>	256
11.11 ‘Should be known that . . .’ Construction with <i>wóóce’</i>	257
11.12 Emphatic Negative Construction	257
11.13 ‘I suppose . . .’ Construction	257
11.14 Additional Negative Roots, Preverbs, Proclitics, and Particles	257
11.15 Affirmative Order Negative Markers	259
11.16 Narrative Past Tense /e’ih/ and Other Special Features of Narrative	260
11.17 Personal Names	264
11.18 Non-affirmative Inflections with Commands and Requests	264
11.19 The Concept of Irrealis and Uncertainty in Arapaho	265
12. Usage—Imperatives and the Imperative Order	271
12.1 Lexical Imperatives	271
12.2 Use of Deictic Directionals with the Imperative	273
12.3 Indirect Imperatives	274
12.4 Suggestive/Potential Imperative	275
12.5 Future Imperative	277
12.6 Conjunct Order Semi-imperative/Hortatory Construction with /eetih/	279

12.7 Impersonal Verbs as Command Forms	279
12.8 Pragmatic Particle <i>tous</i> as Consent to Commands or Suggestions	280
12.9 Future Tense as Imperative	281
12.10 Imperative Morphosyntax and Syntax	281
12.11 Special Forms Used in Prayers	283
13. Usage—Conjunct Order	285
13.1 Conjunct Order, Simple Conjunct Mode	285
13.2 Conjunct Order, Subjunctive Mode	291
13.3 Conjunct Order, Iterative Mode	294
COMPLEX CLAUSES AND SYNTAX	
14. The Noun Phrase	301
14.1 Adjectival Modification	301
14.2 Demonstratives	306
14.3 Presentational Constructions	309
14.4 Noun Sequences	312
14.5 Definiteness and Indefiniteness	314
14.6 Pronouns	319
14.7 Noun Phrase Syntax	323
15. The Verb Phrase—Particles	325
15.1 General Particles	326
15.2 Locative Particles	326
15.3 Multiple Particles Together	328
15.4 Particle/Verb Stem Interactions	328
15.5 Adverbial Particles	330
16. The Verb Phrase—Noun-Verb Agreement	349
16.1 Proximates and Obviatives	349
16.2 Object-marking on Verb Stems: A Broader Perspective	354
16.3 Transitive vs. Semi-transitive Stems: A Text Sample	358
16.4 / <i>tii</i> / Semi-transitive Stems	361
16.5 / <i>yei</i> / Semi-transitive Stems	364
16.6 Ditransitive Verbs and Secondary Objects	366
16.7 Secondary Derivation to Shift the Object Marked on Verb Stems	367
16.8 Aesthetic and Poetic Factors in Marking Arguments on the Verb	370
17. The Verb Phrase—Subordinate Clauses	373
17.1 Relative Clauses	373
17.2 Adverbial Clauses	384
17.3 Complement Clauses	390

17.4 Relative Roots/Preverbs and Independent Verbs	395
17.5 Relativizer/Complementizer/Adverbial Clause Markers /toh/ and /tih/	396
18. Syntax—Main Clauses and Sentence-level	399
18.1 NP Occurrence in Main Clauses	400
18.2 Marked Syntactic Order: NP-V	400
18.3 Pragmatic Saliency as Determining Factor for Preposed NPs	403
18.4 Left Dislocation and Apposition	405
18.5 Shifting from Focused to Unfocused Position	406
18.6 Tendencies in NP Occurrence and Placement	407
18.7 Clauses with Two NPs	410
18.8 Comparative Example: A Text from John Goggles (1883–1952)	413
18.9 Word Order and Focus: Beyond NPs	415
18.10 Syntax of Subordinate Clauses	416
18.11 Discontinuous Constituents	422
18.12 Cleft Constructions	423
18.13 Appositions/Pseudo-clefts, and Right Dislocation	425
18.14 Copulatives	426
18.15 Multi-verb Serial Sequences	429
19. Discourse-level Features	431
19.1 Presentational Particles	431
19.2 Pragmatic Particle <i>wohéi</i>	439
19.3 Pragmatic Particle <i>nohuusóho'</i> and Other Summational Devices	440
19.4 Sequential preverb /e'ne'i'/ or 'ne'i'/	440
19.5 Sequencing Particles	441
19.6 Emphatic and Gendered Particles and Proclitics	443
19.7 Emphatic Citational Form	448
19.8 Greetings and Departures	449
19.9 Substitutionary/Pausal Particles	449
20. Numbers, Counting, Times, and Dates	451
20.1 Count Numbers	451
20.2 Basic AI/II Number Verbs	452
20.3 Ordinal Numbers	454
20.4 Group-Count Forms	455
20.5 Special Derivational Nominal Suffix for 'Number of Days'	455
20.6 Special Number Preverb for Numbers Used as Substantives	456
20.7 Number Particles	456
20.8 The Semantics of Counting in Arapaho	456
20.9 Times and Dates	457

21. Variation in Arapaho	463
21.1 Northern vs. Southern Arapaho	463
21.2 Northern Arapaho Internal Variation	464
21.3 Incipient Obsolescence as a Source of Variation	466
22. Beyond Grammar	471
Appendices	475
Verb Tables	479
Bibliography	501
Index	505

PREFACE

The first people we thank in this preface are the many Arapaho individuals who have worked for over a century with outside linguists and with their fellow Arapaho-language experts to document the Arapaho language in both Oklahoma and Wyoming. Their patience and goodwill has made this grammar possible. In addition, I thank the many other Arapahos who, although not fluent speakers of the language, have helped support me and this larger effort with their time, money, and efforts.

Thanks also go to the earlier researchers on the Arapaho language—including Alfred Kroeber, Truman Michelson, Jesse Rowledge, and Cleaver Warden—whose documentation of Arapaho-language texts has provided a priceless resource. Special thanks go to Zdeněk Salzmán, whose grammar and dictionary work and text collections from the late 1940s through the early 1980s laid the groundwork for all that has followed.

Special note should be taken of the many Northern Arapahos who have worked to produce Arapaho-language curricular and other materials over the last twenty

years or more. Much of this material has been cited in the grammar, and their creative efforts have provided numerous crucial examples of vocabulary and structures that would have been virtually impossible to elicit or predict, and that are also extremely unlikely to occur in narratives (the main form of texts documented for Arapaho). Richard Moss and Ambrose Brown are especially notable for their contributions.

A huge amount of recognition should go to Alonzo Moss. He has collaborated in much of the production of curricular materials, and even when he did not produce the materials, he has often either physically written down other speakers' words or checked the writing for errors—without him, the existing Arapaho-produced corpus would be both smaller and far less accurate and usable. He is also the co-editor of the *Arapaho Historical Traditions* told by his father Paul Moss, as well as the co-editor of *Modern Arapaho Narratives* told by Richard Moss, his older brother. These are the two single most important textual sources used for the examples in the grammar, which would not have been possible in its current form without those sources and his work producing them.

Alonzo Moss has also undertaken a huge amount of independent research on Arapaho, both on his own and with Cowell, and that work has been crucial to our understanding of the language. This includes both retranscription and retranslation of sources collected by Michelson and others early last century, and contemporary research documenting personal names, place names, rarer morphological forms, and forms such as emphatic particles, which are otherwise very difficult to elicit or find in narrative texts. His willingness to discuss the grammar of the language for hours on end has been extraordinarily valuable.

We also cite three other people in particular, among the many who have worked with Cowell, whose contributions have been very important: William C'Hair, Richard Moss, and Mary Kate Underwood have provided extensive data, both elicited and narrative, as well as many useful comments on the language. William C'Hair in particular has been very insightful on the social contexts and determinants of language use.

Finally, a big thank you to Lisa Conathan for reviewing an earlier draft of this manuscript and providing many, many useful comments, as well as making her large collection of transcribed and translated texts available. Conversations with Hartwell Francis on Arapaho were also a tremendous help in this project. The errors that no doubt remain in a work such as this are of course entirely the responsibility of the authors.

Moving beyond the realm of Arapaho, Cowell would like to thank his wife and son, Puahau and Kawena, for putting up with long absences due to fieldwork and supporting him in this work. Thanks to Puahau for introducing me to indigenous languages and cultures via Hawaiian, and thanks to the many folks in Hawaii at 'Aha Punana Leo and elsewhere who inspired me to work on this endangered language through their efforts with Hawaiian. Ke mahalo aku nei au ia 'oukou. 'O 'oukou ke kumu, 'o makou na lala. E ola mau na 'olelo 'oiwi.

LIST OF ABBREVIATIONS

=	following a form, indicates proclitic
:	indicates preceding vowel is lengthened, if short
-	preceding or following a form, indicates non-independence; indicates morpheme boundaries
.	indicates syllable boundaries
~	“varies freely with”
()	indicates appears optionally in surface pronunciation
[]	line one of analyses: indicates deleted element, grammatical error by speaker; line two of analyses: indicates underlying element of noun stem that is deleted as part of inflectional processes (see pp. 57–58; lines three and four: additional, clarifying content, not literally part of the Arapaho expression
0	inanimate “person”

LIST OF ABBREVIATIONS

1	first person
2	second person
3	third person
4	“fourth” person/obviative
12	first person inclusive (Note: where no S or PL is used following the person marker gloss, the marker in question does not distinguish number)
ADMON	admonitive
ADV	adverbial
AI	animate subject, intransitive verb stem
AIO	animate subject, intransitive verb stem, but semantically transitive
ALLAT	allative
AN	animate
APPLIC	applicative
C	consonant
CAUS	causative
COMPL	complementizer
CONTR	contrary to fact
DEP	dependent (participle)
DERIV	derivational element
DET	detachment marker for prefix, preverb, or prenoun
DIM	diminutive
DUBIT	dubitative
EMPH	emphatic
EP	epenthetic vowel
EXCL	exclusive
EXIST	existential (pseudo)-verb
FUT	future tense
GL	glide consonant
HABIT	habitual
IC	initial change
II	inanimate subject, intransitive verb stem
IMPER	imperative
IMPERF	imperfective
IMPERS	impersonal
IN	inanimate noun

INCL	inclusive
INDEF	indefinite
INDIR	indirect
INSTR	instrumental
INTERR	interrogative
ITER	iterative mode
LOC	locative
MID	middle voice
OBV	obviative
NEG	negative
NPAST	narrative past tense
PA	Proto-Algonquian
PART	participle
PASS	passive
PAST	past tense
PERF	perfective
PL	plural
POSS	possessive
POTENT	potential
PROHIB	prohibitive
PROX	proximate
RECIP	reciprocal
REFL	reflexive
S	singular
SUBJ	subjunctive mode
SUGG	suggestive imperative
TA	transitive verb stem, animate subject
TI	transitive verb stem, inanimate subject
V	vowel with pitch accent (Note: where V and v are not used contrastively [i.e., after chapter 1], V is simply used to indicate a vowel, whether having pitch accent or not)
v	vowel without pitch accent
VOC	vocative
X	syllable with pitch accent
x	syllable without pitch accent (used only in chapter 1)

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INTRODUCTION

1. THE ARAPAHO PEOPLE AND THE SOCIAL CONTEXTS OF THE ARAPAHO LANGUAGE

The Arapaho language is an Algonquian language currently spoken in two very closely related dialects. Northern Arapaho is spoken fluently by probably 250 people on and around the Wind River Reservation in Wyoming, all in their late fifties and older (as well as some people of the same age living elsewhere in the United States). Southern Arapaho is spoken fluently by only a handful of people in and around western Oklahoma, all near eighty or older. In Wyoming, many people in their thirties and older have varying competence in the language—quite a few are near-fluent passive understanders, and some have limited speaking ability.

Until the late nineteenth century, the Arapaho were nomadic buffalo hunters of the classic Great Plains culture type (although they also spent significant time in the mountains). Throughout that century, they occupied a homeland centered

on central and northern Colorado and southern Wyoming, but they ranged south into Texas, Oklahoma, and New Mexico and north to Montana. Earlier, they appear to have occupied more northerly areas, and the closely related Gros Ventre Tribe occupied southern Alberta and Saskatchewan and northern Montana. The development of trading posts at Ft. Laramie on the North Platte River and Bent's Fort on the Arkansas in the 1830s and 1840s is often cited as a factor leading to a split between northern and southern bands. The Treaty of Ft. Laramie in 1851 allotted the Arapaho and Cheyenne the lands between the Arkansas and North Platte Rivers, from the continental divide east into Kansas and Nebraska. The Southern Arapaho and Cheyenne reservation reached its final form in 1869, and the Northern Arapaho settled at Wind River in 1878.

The Northern Arapaho share the Wind River Reservation with their traditional enemies, the Eastern Shoshone. It is fairly isolated, with few non-Indians living in the main reservation settlements of Ft. Washakie, Ethete, Arapahoe, and St. Stephens. As a result, until recently, there was comparatively little intermingling or intermarriage between the two tribes or with non-Indians, and the Northern Arapaho remained a quite cohesive cultural and linguistic group. But after World War II, there was a major—and very rapid—cultural shift, and children began to be raised speaking English rather than Arapaho; the youngest speakers alive today were born in the 1940s. Interestingly, speakers continued to use Arapaho preferentially among themselves even as they used English with their children. As a result, a rich Arapaho-language environment persisted on the reservation through the 1970s and into the 1980s. Thus, there are people born in the late 1930s and early 1940s who are completely fluent and use the language regularly, but they have siblings born in the late 1940s who have very little speaking ability, although they have fluent passive comprehension abilities. Even today, there are some older people who are more fluent in Arapaho than English and use Arapaho as their first language on a daily basis—at least whenever possible. Current population on the reservation is perhaps 5,000.

The Southern Arapaho shared their reservation with their traditional allies, the Southern Cheyenne. The reservation was effectively dissolved by allotment in the early twentieth century, and both groups now live intermingled among a majority non-Indian population. As a result, there was extensive intermarriage and language shift in the early twentieth century. The few living fluent speakers of Southern Arapaho were a minority among their own generation born in the 1920s and early 1930s and learned the language because they were raised by non-English-speaking grandparents. Most members of the Southern Cheyenne and Arapaho Tribe (which has a single tribal government) do not identify specifically as Arapaho, although there are over 1,000 who do among the population of over 10,000.

The Northern Arapaho have made a number of efforts to maintain their language. There is a Language and Culture Commission, which has engaged in documentation activities, especially using audio and video. They have also produced curricular materials. There is a preschool immersion program; however, it ends once the children enroll in regular kindergarten and it does not have a large number of students. The language is taught in the schools in all grades, but for only limited

time each day and as an optional subject in the later grades; therefore, few students gain knowledge beyond some common memorized nouns, commands, and other phrases. The language is also taught through the Wind River Tribal College. Some students of college age are now acquiring the ability to actively manipulate the language, but still only at a basic level. There are also community language classes at locations such as the Tribal Casino and the Tribal Housing Department for workers. These classes provide basic words and phrases only. There are a few traditionally oriented families where younger members are working with elders in what are effectively informal, low-intensity master-apprentice programs. A few adults ranging from their twenties to their forties who are part of these families are actively improving their listening comprehension in the language and probably have the best active speaking ability among learners, although none are fluent or even near-fluent at this time. The Northern Arapaho have also produced extensive curricular materials, both written and taped, some of which are quite interesting linguistically. Few fluent speakers are literate in the language, but many learners now know how to read and write (within the limits of their overall language ability) using the standard orthography developed in the late 1970s.

In general, there is a high awareness of language loss among the Northern Arapaho, a very positive attitude toward the language among the older speakers, and a general positive attitude among most members of the tribe, as well as a willingness on the part of the tribal government to spend money on preservation efforts. Many young people continue to take classes and show interest in the language. However, there is a lack of effective learning due to a number of social, economic, organizational, and pedagogical limitations; in addition, although many younger people express a desire to learn the language, few have shown the willingness to commit the time and effort required to effectively learn it well, especially in the face of the obstacles just mentioned. Underlying the general expression of positive attitudes toward the language is a profound ambivalence among most members of the tribe about the exact value and purpose of Arapaho, which often translates into lack of full commitment to language teaching, learning, and programs. Few express a desire to see Arapaho as the daily language again—even as some elders continue to use it in this manner—and most desire simply to know it (often expressing the belief that the culture is embedded in the language) or to use it for a limited range of activities, such as singing, ceremonies, and religious purposes.

Among the Southern Arapaho, the language is in general less highly valued, and there is less expression of interest in it, at least broadly speaking. Until recently, no active preservation or documentation efforts were being done, other than by isolated individuals, and there is passive resistance (especially financial) to these efforts at the level of the tribal government. There are however a small core of individuals who share attitudes similar to those shared by most Northern Arapahos, and within the last two to three years, distance-learning courses have been conducted via video, taught by teachers in Colorado or Wyoming. Several dozen Oklahoma Arapaho individuals have been involved in these courses, and some momentum seems to be developing.

2. THE AIMS AND PURPOSES OF THIS GRAMMAR

This grammar is intended as a reference grammar of the Arapaho language. However, it is also written from a functional/pragmatic perspective on the Arapaho language. The main author is a specialist first and foremost in linguistic anthropology, ethnopoetics, and traditional literatures, and his bias may be apparent in the grammar, which pays a good deal of attention to the pragmatic and communicative functions of the language.

This approach is chosen because of our belief that pragmatic factors drive much of Arapaho morphology, morphosyntax, and syntax. Arapaho has no fixed word order; pragmatic factors largely determine word order. Transitivity and intransitivity also work very differently in Arapaho than they do in English and other better-known languages of the world. In this case as well, pragmatic factors drive many of the choices speakers make in terms of the derivational and inflectional morphology used with transitive and intransitive verb stems, and noun-verb agreement can be understood as a function of pragmatics to a significant extent. Finally, Arapaho is a highly polysynthetic language, which incorporates many different elements into complex verbs. The choices of what to incorporate, not incorporate, or deincorporate are driven to a significant extent by pragmatic factors.

Thus, this grammar has a broad theoretical perspective. But we have chosen to use this perspective specifically because we believe it *clarifies* the grammar of this particular language as a whole, not out of any commitment to general claims about the fundamentally pragmatic organization of all languages. We have also been mindful of the need to present as much data as possible, in as transparent a manner as possible, and for as wide a range of users as possible. We feel this is especially important for a relatively little-known indigenous language for which this could conceivably be the *only* grammar ever written. For this reason, we have avoided using vocabulary and frameworks specifically linked to any explicit theory of the moment. We have used a fairly traditional set of grammatical terms with minimal new coinages, have tried to respect the analytical tradition already in existence for Algonquian languages wherever possible, and have provided references to that tradition where we depart from it.

3. THE ARAPAHO LANGUAGE SOURCES USED

As this is primarily a reference grammar, we have not cited much theoretical linguistic literature. We have chosen to give some cross-references to other Algonquian languages, in two instances usually. The first concerns occasions where Arapaho shares a feature with another Algonquian language that is otherwise less common within the Algonquian family. The second concerns features that are common in Algonquian but less familiar or less common cross-linguistically. In this case, we have tried to cite five exemplary sources: Goddard and Bragdon 1988 on Massachusetts, an interesting broad survey of an eastern Algonquian language that relies on native texts; Valentine 2001 on Nishnaabemwin (Ojibwe), a massive and highly detailed

study of a central Algonquian language; Wolfart 1996 on Plains Cree, a very clear, succinct sketch of another central Algonquian language that is likely to be familiar to a large number of readers due to its appearance in the *Languages* volume of the *Handbook of North American Indians*; Frantz 1991 on Blackfoot, a grammar of a Plains Algonquian language with close geographic connections to Arapaho; and Leman 1980 on Cheyenne, a reference grammar of another Plains Algonquian language with even closer geographic (and historical) connections to Arapaho.

We have tried to take Arapaho usage examples from texts and natural discourse as much as possible. We have taken an especially large number from the anthology of stories of Paul Moss published in 2005, as this offers high-quality Arapaho language that is also readily available to linguists and others who want to further examine the context of the examples critically. Although work was completed on that collection just two years ago, Cowell has learned a good deal more in the intervening, intense two years required to complete this grammar, and so several of the glosses from the anthology have been slightly improved—or in a few cases, corrected—in this grammar. All sources used are listed below, with a letter code that is referenced in the source citations in the text. All examples without a source citation either are taken from Andrew Cowell's field notes and recordings or were provided by Alonzo Moss Sr., a fluent native speaker. In a few cases, we cite dictionary entries.

There are three English-Arapaho dictionaries. The first, produced by Zdeněk Salzmänn in 1983, provides reasonable coverage of basic vocabulary. The second, a revision of Salzmänn's work (with some additions by Jeffrey Anderson), was produced by Alonzo Moss in 2002 and provides more extensive vocabulary coverage, although without pitch accents indicated, and includes changes to a number of the English glosses and Arapaho spellings. The third, under production, is by Lisa Conathan. She is also producing an Arapaho-English dictionary at this time. Both of these are online.

Most of the texts used and cited in this grammar were (re)transcribed, edited, and/or translated by the authors. Most of the Wyoming Indian Schools' materials were produced at least partly by Alonzo Moss Sr. When the texts are cited in the grammar, additional information, such as sections, line numbers, pages, titles, and so forth, is given after the code, with the exact nature of this information depending on the organization of the texts in the sources. The following sources were used:

- A = Kroeber 1916: 3 brief texts.
- B = Salzmänn 1956b, c: 10 short texts, recorded 1949–1952, around 500 lines total.
- C = Salzmänn 1983: dictionary.
- D = Haas and Moss 1993: 260 sentences, mostly short, with a fair number of repetitions; accompanying audiotape.
- E = Brown et al. 1993a: 320 sentences, accompanying audiotape.
- F = Brown et al. 1993b: a narrative of Arapaho history; around 70 sentences.
- G = R. Moss and Haas 1993: a booklet about traditional Arapaho music; around 25 sentences.

INTRODUCTION

- H = A. Moss and Haas 1995: 200 sentences, with some repetition; accompanying audiotape.
- I = R. Moss et al. 1995: 60 sentences, with some repetition.
- J = A. Moss 1997: 320 sentences.
- K = Cowell and Northern Arapaho Tribe 2001: 2 texts, recorded in 2000 from Richard Moss, containing around 400 lines; video with subtitles plus booklet.
- L = Cowell and Moss 2004a: texts originally transcribed and translated by Truman Michelson in Oklahoma, 1910–1929; retranscribed and retranslated by the authors; 4 texts in Arapaho, 159 lines, no audio.
- M = Cowell and Moss 2004c: texts originally transcribed and translated by Truman Michelson in Oklahoma, 1910–1929; retranscribed and retranslated by the authors; 6 texts in Arapaho, 149 lines, no audio.
- N = Cowell and Moss 2005a: text originally transcribed and translated by Truman Michelson in Oklahoma, 1910; retranscribed and retranslated by the authors; 234 lines, no audio.
- O = Cowell and Moss 2005b: 12 long texts, recorded in the 1980s and 1990s from Paul Moss, father of Alonzo Moss, containing around 4,000 lines; accompanying CD-ROMs available.
- P = Cowell and Moss 2005c: text originally transcribed and translated by Jesse Rowledge in Oklahoma, 1929; retranscribed and retranslated by the authors; around 150 lines, no audio.
- Q = Cowell and Moss 2005d: text originally transcribed and translated by Jesse Rowledge in Oklahoma, 1929; retranscribed and retranslated by the authors; 400+ lines, no audio.
- R = A. Moss and Cowell 2006: 27 texts of variable length, recorded mostly in the early 2000s from Richard Moss, containing 1,500–2,000 lines of Arapaho; book plus 3 CD-ROMs.
- S = Cowell and Borsik 2006: 5 prayers and speeches originally transcribed and translated by Alfred Kroeber, 1899–1901; retranscribed and retranslated by the authors; 143 lines, no audio.
- T = Francis 2006: dissertation.
- U = Woxuu niibeii/Bear Singer. Annual Chapbook. Wyoming Indian High School, 1990–2000: contains at least 300–400 lines of Arapaho written by fluent high school teachers working with Arapaho-language students.
- V = Conathan 2004–2006: several dozen texts, totaling over 3,000 lines, from many speakers on a wide range of topics.

As can be seen, the text sources can be grouped as follows:

- ca. 1,200 lines of material originally recorded in the early twentieth century and retranscribed/retranslated by Cowell and Moss.
- ca. 500 lines of material recorded by Salzmann around 1950.
- ca. 1,600+ lines of material produced by Wyoming Indian Schools for use as curriculum, in the 1990s, much done by Moss.

- ca. 6,000–6,500 lines of material recorded by Cowell and Moss in the 1980s–2000s.
- ca. 3000+ lines recorded by Conathan in the 2000s.

The total textual corpus used for this project thus runs to somewhat over 13,500 sentences of Arapaho, either produced as naturally occurring speech or written by native speakers. The corpus includes material recorded over the space of more than a century, in both Wyoming and Oklahoma, from a number of different speakers—primarily men, but several women as well. Some of the Wyoming Indian Schools materials are available within the Arapaho Language Archives section of the Web site for the Center for the Study of Indigenous Languages of the West (CSILW) at the University of Colorado (www.colorado.edu/csilw/). The materials funded by the Wyoming Council for the Humanities are available for sale through CSILW (see Outreach on the Web site), as are some additional, older materials. The materials funded by the Endangered Language Fund (ELF) are distributed by Wind River Tribal College in Ethete, Wyoming, with copies deposited with ELF at Yale University. Copies of all Wyoming Indian Schools curricular materials are held in the CSILW archives. Conathan's texts are at the University of London, Hans Rausing Endangered Languages Documentation Program archives, in London, with a copy held by CSILW.

In addition to the texts listed above, the field notes and recordings of Cowell have been used extensively, as have notes taken by Alonzo Moss Sr. The two authors have also recorded, transcribed, and/or retranscribed a number of additional texts that have not been cited in the grammar but have informed their view of the language. These include well over 100 song texts, Christian religious materials from the late nineteenth and early twentieth centuries, several hundred personal names, over 200 place names, and several dozen narratives from other contemporary speakers. They have also consulted many other curricular materials containing at least several hundred additional lines of Arapaho. A major unpublished source not consulted is Kroeber's manuscript transcription of several dozen stories from around 1900, now at National Anthropological Archives (NAA).

Additional published sources that cover details of the language, and are useful supplements to this grammar, are included in the bibliography.

4. GENERAL INTRODUCTION TO THE STRUCTURE OF THE ARAPAHO LANGUAGE

4.1 Incorporation

It could be said, loosely speaking, that Arapaho, being a polysynthetic language, wants as much information as possible to be in the verb. As a result, many Arapaho sentences in both conversation and narrative consist only of a verb. Thus, the morphosyntax of the verb is the structural and conceptual heart of the language. The verb can be very roughly described as potentially including the following elements in the following order:

1. PROCLITIC + 2. PERSON MARKER + 3. TENSE/ASPECT/MODE PRE-
 VERB + 4. LEXICAL PREVERB + 5. VERB STEM + 6. DIRECTION OF
 ACTION THEME + 7. PERSON/NUMBER SUFFIX + 8. MODAL SUFFIX

This is not a complete analysis of the various positions within the verb phrase. Several of the categories listed (proclitic, the preverbs) can have multiple members simultaneously, and the order of these is usually fixed relative to each other. In addition, there are other, less important element positions not included in the simplified schema above, such as those of the instrumental prefix or the suffixed obviative marker. Nevertheless, this schema gives a good sense of the general structure of Arapaho verbs.

As a first-order approximation, the proclitics tend to have modal and evidential functions. The person inflections mark first, second, and third person. The preverbs indicate tense and aspect, as well as negation and *wh*- questions. Other preverbs are primarily adverbial in function, indicating direction, location, time, or manner of actions, but also include a number of modal auxiliaries (like to . . . , go to . . . , want to . . . , etc.) and other elements. The verb stem is itself typically internally complex. The theme occurs with transitive verb stems and indicates the direction of action when multiple arguments are marked on the verb (i.e., who is acting on whom). With some verbal modes, person is marked finally rather than initially. Singular and plural are marked as well. The mode refers to markers that indicate iterative and subjunctive constructions. It should be noted that the categories of preverb and verb stem are not always clear-cut—many adverbial preverbs that precede full verb stems can also occur as the initial element of a verb stem itself when combined with verbal medials and finals.

The verb stem normally contains at least a lexical initial root and an abstract derivational final. Together, these form the verb stem. The finals serve to create four classes of verb stems: transitive verbs with animate objects (TA) or inanimate objects (TI), for which two arguments are obligatorily marked on the verb inflectionally, and intransitive verbs with animate subjects (AI) or inanimate subjects (II), for which one argument is marked on the verb inflectionally. The stem classes largely determine the specific sets of person and number markers that are used inflectionally on the verbs.

As noted above, the Arapaho language can be seen as putting as much information as possible in the verb. An important way of incorporating this information is through the use of verbal medials and concrete finals, which are not required for the formation of full verb stems but occur very commonly. These medials and/or concrete finals refer to common nominal objects (horses, wood, bags), which are acted upon as indicated by the verbal initial; to common non-volitional themes or topics (the weather, grass, foliage), which are described by the verbal initial; or common instruments and means of action (by speech, by hand, by flying, by running), which further specify the action indicated by the verbal initial. Less common objects, themes, instruments, and means are expressed through the use of independent nominal constructions, whereas less common adverbial concepts are expressed by independent adverbial constructions rather than by preverbs.

4.2 Saliency and Emphasis: Deincorporation

Competing with the tendency to incorporate as much information as possible into the verb is the fact that highly salient information is typically expressed through the use of independent nominals and adverbial particles. This is the case not just for the “less common” elements just mentioned, which lack medial, concrete final, or preverb forms and thus cannot be incorporated into verbs, but for any highly salient element or any information that the speaker wishes to emphasize (cf. Wolfart 1996:398 on Plains Cree, in which full nouns occur primarily where “new or contrastive information” is involved). Thus, nominal elements such as grass, foliage, horses, or wood can be “extracted” from the verb and replaced by full noun phrases, as can instruments and means of action, which are expressed independently in combination with a special instrumental prefix on the verb. Likewise, through the use of a special adverbial suffix, virtually any lexical element occurring prior to the verb stem (prefixes and preverbs) can be extracted from the verb and expressed as an independent particle. The adverbial particle formation in particular is also important for the sake of efficiency; when someone says ‘I’m going to town’, the listener can isolate the prefix ‘when?’ (which cannot otherwise occur independently), add the adverbial suffix, and say simply ‘when?’ rather than responding with the unnecessarily prolix ‘when are you going to town?’

4.3 Hierarchies of Saliency: Varying Ways of Expressing Nominal Elements

The expression of nominal arguments is not obligatory in Arapaho. As long as the referents are clear, speakers can simply mark participants on the verb with person and number markers, and in fact, there are no true independent pronouns in Arapaho. If we assume a conversation about my father, a book, and my sister, with all three referents identifiable, the verbal sentence *héét-biin-oo-t*, which can be glossed as ‘he will give it to her’, effectively states ‘my father will give my sister the book.’ The theme marker /oo/ indicates third person acting on another third person, whereas the /t/ indicates singular third person actor. The verb stem /biin/ semantically indexes a giver, a receiver, and a given object automatically, and *heet-* indicates future tense. This example makes clear that the person and number inflections are not agreement markers.

Speakers then have a number of choices in relation to the nominal arguments. They can leave them out entirely, as above. Or they can mention any or all three of them specifically: *neisónoo héétbiinoot* ‘my father will give it to her’; *héétbiinoot hínee wo3onohóe* ‘he will give her that book’; *neisónoo héétbiinoot nebio* ‘my father will give it to my (older) sister’. Note that all of these sentences refer to exactly the same real-world event. The choice of whether or not to use an explicit noun phrase is largely governed by pragmatic considerations involving saliency and emphasis.

In addition, the speaker has a choice of where to place the noun phrase. A single phrase can be placed before or after the verb. When two phrases occur, either of them can go before the verb, with the other after, or both can follow or (rarely)

precede the verb. These choices are also largely governed by pragmatic considerations of saliency, which interact with general, language-level rules that establish hierarchies of referents. All things being equal, referents new to a conversation tend to be both named explicitly and placed before the verb, as do contrastive referents. Thus *neisónoo héétbíínoot* suggests that the speaker is emphasizing that it is his father, rather than someone else, who will give the sister the book, or that the father is new to the conversation. All things are not quite equal, however, as people are considered hierarchically above animals, whereas inanimate objects are lower still. Proximate (focused) third persons are hierarchically superior to obviative (less focused) third persons. Agents are hierarchically superior to patients. Thus it is comparatively rare to find inanimate subjects or obviative third persons placed before the verb. But the pragmatic saliency rules sometimes override the hierarchical saliency rules, both in determining whether to use an explicit noun phrase at all and in determining where it will be placed. Thus, if an obviative third person is particularly salient pragmatically, this noun phrase can occur prior to the verb. Thus, Arapaho has no fixed word order.

The use and placement of noun phrases is clearly a central and very interesting feature of Arapaho syntax, and of the language more generally. But the various choices available to speakers are even more subtle and complex, and they interact with the morphosyntax of the verb as well. This is due to the fact that once speakers decide to use an NP, and decide where to place it, they can also decide whether or not to mark it on the verb. Speakers can say either *hootóónéé-noo wo'óhno* 'I am buying (INTR) shoes' or *hootóónóót-o-woo wo'óhno* 'I am buying (TR) shoes'. Notice the different form of the stems for 'buy' in the two cases (/noo/ and /woo/ both indicate first person). In the second case, the shoes are marked on the verb, since it is a transitive stem, with the /o/ theme indicating action on an inanimate object. In the first case, the shoes are not marked on the verb. This example suggests the surprising conclusion that transitivity and intransitivity in Arapaho have less to do with whether there are one or two referents involved in the action in the real-world situation, or whether one or two arguments are mentioned in the sentence, and much more to do with the relative saliency of the patient argument. We have not yet defined "saliency" technically (see 18.3), but it includes a number of different considerations. Here, the primary one seems to be the definiteness of the patient argument. The first sentence is close to English 'I'm buying shoes' or even 'I'm shoe-shopping' whereas the second sentence is closer to English 'I'm buying these shoes'.

Clearly, the issue of saliency (which will be defined technically later) is central to Arapaho morphosyntax (including verb stem formation) and syntax. One final point in relation to this topic, which illustrates the characteristic "gestalt" of Arapaho, is the issue of valence shifting. Although most inflecting languages typically mark agents, patients, and other fairly central participants on verb stems, Arapaho speakers have wide latitude both to shift the valence of the stem and to choose the particular participant who or which will be marked on the stem by using a combination of verbal prefixes and derivational finals. Once again, these shifts tend to be done with regard to the saliency of various arguments and participants. An example that both

shifts valency and also marks a co-participant on the stem as a grammatical object is the following:

- 1a) *heniiyó'ootinoo*.
 iiyo'ooti-noo
 IC.argue(AI)-1S
 'I am arguing about something [with someone].'
- 1b) *heniiyó'ootiiwó'*.
 iiyo'ootiiw-o'
 IC.argue(TA)-1S/3S
 'I am arguing about something with him/her.'

In the first example, the verb is grammatically intransitive. Semantically, of course, arguing requires a second person. Thus, semantically, the first sentence already contains an arguer, a co-arguer, and a topic of argument. But only the subject arguer is marked inflectionally on the verb. In the second example, a secondary derivational final has been added to the original verb stem to form a transitive stem. Now both arguer and co-arguer are marked inflectionally on the stem, thereby increasing the valence and marking the co-participant on the stem. Many other categories of arguments can be marked as grammatical objects on stems as well, including recipients, benefactees, goals, and even locations of action:

- 2) *3i'ookúútowoo nuhu' biito'owúú'*.
 3i'ookuut-o-woo nuhu' biito'owu-i'
 IC.stand(TI)-intr. object-1S this earth-LOC
 'On this earth I stand.' [line from an Arapaho gospel song]

This concludes the introduction to the fundamental character of the Arapaho language. We started by looking at the fundamental incorporational tendency of the language and its morphosyntax, and then looked at processes of deincorporation, which are centrally connected to the syntax of the language and driven by pragmatic concerns. We have concluded by looking at ways in which noun phrases referring to a very wide range of argument types are inflectionally incorporated into the verb phrase. We have established a broad hierarchy for the way noun phrases are treated, based on their saliency, in four categories. Note that the following table does not indicate absolute rules, only tendencies:

	<i>Explicit Mention?</i>	<i>Position?</i>	<i>Inflectional Marking?</i>	<i>Incorporated?</i>
More salient NP	yes	preverbal	yes	no
Less salient NP	no	postverbal	no	yes

Clearly, the ways of marking saliency can interact, and one can make use of just one or two of the options, so that there are many more than two possibilities for treating nominal arguments. And as we have seen, saliency is a complex category involving at least language-level rules of hierarchical importance, degree of definiteness of referent, degree of newness of referent, degree of contrastiveness of referent,

and general emphatic intentions of speakers. The remainder of this grammar will examine all aspects of the language in order to provide a basis for better understanding the characteristic way in which Arapaho speakers talk about the world and, in particular, for appreciating the extent to which pragmatic features—especially saliency—fundamentally motivate the morphology, morphosyntax, and syntax of the language.

5. ORGANIZATION OF THE GRAMMAR

Chapter 1 treats phonology. Chapters 2 and 3 treat inflectional morphology. Chapters 4 through 10 treat non-inflectional morphology, especially derivational processes. Chapters 11 through 13 look at the language in use, examining the particularities of the different inflectional orders. Chapters 14 through 18 examine noun and verb phrases and syntax. Chapter 19 discusses various topics beyond the level of the sentence, related mainly to discourse. Chapter 20 treats the special topic of numbers, times, and dates, and chapter 21 examines internal variation within Arapaho. The conclusion briefly summarizes some important socio-cultural factors influencing the ethnography of communication within the Arapaho speech community.

1

PHONOLOGY

1.1 PHONEMES AND PHONOLOGICAL CHARACTERISTICS

Arapaho has twelve consonants, four vowels (with contrastive length), and three diphthongs (also showing contrastive length). Arapaho also has a complex pitch accent system, with a related system of vowel syncope. The pitch accent system involves underlying accent on morphemes, intermorphemic shift in pitch accent at the word level, and grammatical shifts in pitch accent related to inflectional and derivational forms such as plurals, locatives, iteratives, and participles. Finally, Arapaho has two forms of vowel harmony, with non-parallel effects and distribution.

1.1.1 Consonants

The twelve consonants, with their standard Arapaho orthographic correspondents (which will be used in this book), are:

	<i>Labial</i>	<i>Dental</i>	<i>Alveolar</i>	<i>Palatal</i>	<i>Velar</i>	<i>Glottal</i>
Stop	b(b)		t(t)		k(k)	ʔ(ʔ)
Affricate				tʃ(c)		
Fricative		θ(θ)	s(s)		x(x)	h(h)
Nasal			n(n)			
Semivowel	w(w)			j(y)		

Allophony

The phoneme /b/ has a voiceless allophone /p/ preconsonantly and finally. The phonemes /c/, /k/, and /t/ are normally unaspirated but are aspirated preconsonantly and finally. Aspiration of syllable-initial consonants occurs prior to syllable-final /h/ when the intervening vowel is short, as in the grammatical prefixes *cih-* and *tih-*. In this same environment, /b/ is not only aspirated but also sometimes devoiced virtually to /p/, as in *héétbih'ínkúútiinoo* 'I will turn out the lights'. (Salzmann 1956a provides more detailed phonetic analyses of the behavior of the consonant phonemes.)

All consonants can occur initially, intervocalically, and finally, although the glottal stop occurs initially only in a few emphatic particles, and (non-phonemic) /h/ occurs initially only as the result of underlying vowel-initial forms; Arapaho does not allow vowels word-initially, and /h/ is always added to such forms.

Consonant clusters

True (i.e., underlying) consonant clusters are rare intra-morphemically, with /hC/ being the only regular one. At the word level, there are no initial consonant clusters, and /hC/ is the only one that occurs finally. On the other hand, consonant clusters other than /hC/ are common as the product of inter-morphemic combinations, in non-initial and non-final positions, and as a result of vowel syncope, although no more than two consonants ever cluster. (Salzmann 1956a and 1961 provide detailed lists and examples of consonant clusters.)

1.1.2 Vowels

The four vowels are listed here:

- e [ɛ]
- i [ɪ]
- o [ɔ]
- u [ʊ]

These vowels can occur in two different lengths, short and long:

- | | |
|------------------------|-------------------------|
| 1) <i>hísi'</i> 'tick' | 2) <i>hócoo</i> 'steak' |
| <i>híisi'</i> 'day' | <i>hóócoo</i> 'devil' |

3) <i>bis-</i>	'all'	4) <i>-óku-</i>	'to sit'
<i>biis-</i>	'hairy'	<i>-óókuu-</i>	'to stand'

When the vowels occur long, they show changes in quality as well as quantity. In particular, /ii/ and /uu/ have values approaching [i] and [u].

The vowels also take pitch accent, which occurs as either high or normal pitch, as well as a falling pitch, from high to normal, on long vowels and diphthongs only. This is explained more fully in section 1.7.

Diphthongs

The diphthongs are /ei/, /ou/, and /oe/, with /ie/ marginally a diphthong. Diphthongs can occur either short or long:

5) <i>hou</i>	'blanket'	6) <i>bei</i>	'needle'
<i>houu</i>	'crow'	<i>beii</i>	'shell'

Salzmann 1961 provides detailed lists and examples of the various vowel sequences. In addition to long diphthongs, three-vowel sequences can occur, either with a single vowel, such as *hóóó* 'bed', or with two or three different vowels, such as *hihéio* 'his aunt (OBV)'.

Allophony of i and u

The vowel /u/ is only minimally a phoneme in Arapaho. With the single exception of the determiner *núhu*, the phonemic consonants /b/, /c/, /n/, /s/, /t/, /ʒ/, and /y/ never occur prior to /u/ (/ʒ/ does occur in this position in underlying form, but mutates to /x/). Conversely, the phonemic consonants /k/, /w/, and /x/ essentially never occur prior to /i/ (or /y/). (The free variants *kokiy/kokúy* 'gun', *kookiyón/kookuyón* 'for no reason', and *bí'oxiyoo/bí'oxíyoo* 'Found in the Grass' [a mythological character] do occur—apparently due to the influence of the /y/. There is also a single example of the sequence /wi/, in the particle *wih* meaning 'oops!'.) Thus, only with /h/ and /' could contrastive pairs /hi/ vs. /hu/ and /'i/ vs. /'u/ theoretically be found. However, the sequences /hu/ and /'u/ never occur word-initially except under the influence of external sandhi effects for most speakers, and in medial and final syllables, the alternations are entirely controlled by vowel harmony with the preceding syllable. Thus, there are no minimal pairs based on an /i/ vs. /u/ contrast in the language. Goddard 1974 reconstructs a three-vowel system for Proto-Arapahoan, consisting of /e/, /i/, and /o/. The u vowel then arises subsequently as a result of diachronic vowel harmony processes. Synchronically, virtually all occurrences of /u/ can be explained by i~u vowel harmony (see rule 6 below).

In contemporary Arapaho, however, there are a few instances of unmotivated /u/. Examples include *núhu* 'this', /ibeexu/ ADMON, /beexu/ 'a little', and /kuu/ 'rapid or violent action', the latter of which always occurs in this single form, no matter what the preceding vowel, as in /ihcikuutii/ 'to toss upward'. Synchronically at

least, these occurrences of /u/ cannot be explained as the result of vowel harmony acting on underlying /i/, and normally underlying /xi/ and /ki/ would produce /si/ and /ci/ (see rule 7a below). Thus, underlying /u/ must be posited in these limited circumstances—but note that since neither **-xi-* nor **-ki-* occur in surface pronunciation (with the one exception noted above), there are still no minimal pairs involved with these examples. The closest one can get to a minimal pair is *núhu* 'vs. *nihí*' < /ih/ IC.PAST + /i/ INSTR, 'X was done with Y', although the latter always occurs as a bound form.

1.2 INTERMORPHEMIC RULES

Note: in the examples in this chapter, both preverbal and pronominal elements, as well as prefixed and suffixed inflections, will be separated from the noun and verb stem by a dash.

Rule 1: Epenthetic Vowel: C + C > CiC (see two exceptions below with /h/ and /y/)

When consonant-final morphemes are combined with consonant-initial following morphemes, an epenthetic /i/ is added, *except* when the first consonant is /h/, or the second consonant is /y/. This /i/ often disappears in surface pronunciation due to vowel syncope, but its effects are nevertheless visible in the form of consonant mutation (as in example 8).

- 7) /béteen/ 'holy' + /too/ 'to act, do' > *béteenitoo-noo* 'I am worshipping'
- 8) /bebii3/ 'correct, proper' + /tii/ AI FINAL > *nih-bebiistii-t* 's/he fixed it'
- 9) /ni/ 'good' + /too/ 'do' > *nii'itoo-noo* 'I am doing well, doing good'

Note that there are a number of forms that in theory should have an intervening, underlying vowel between the two consonants (probably /i/). However, no inflected or derived forms of these words can be elicited in which such an underlying vowel receives pitch accent or otherwise appears. Thus, the forms are simply written with underlying adjacent consonants. Several are recorded by Kroeber with intervening /i/, however, in his work from 1900: *hiiwóonhéhe* 'now' as *hiiwóonihéhe*, for example. Thus, these sequences are probably all explainable by vowel syncope.

Rule 2: n > Ø / _y

- 10) /en/ 'long' + /yóó/ II.FINAL > *heeyóó-* 'it is long'
- 11) /en/ 'long' + /yóón/ 'leg' + /ee/ AI.FINAL > *heeyóónee-t* 's/he has long legs'

Rule 3: y > Ø / _i, y

Note that rule 3 must follow rule 1.

- 12) /kotóy/ 'shelter, cover' + /sine/ 'lie' > /kotóyisine/ (by rule 2) > /kotóisine/ > *kootóusine-noo* 'I am staying under cover, in hiding' (by rule 6)
 cf. /toeyinóy/ 'rest' > *tooyeinóusine-noo* 'I am resting'; /tókóy/ 'shade' > *tonókóusine-noo* 'I am in the shade'
- 13) /ítoy/ 'damp' + /yóó/ II FINAL > *hítoyóó-* 'it is damp'
 cf. /ítoy/ 'damp' + /éhi/ AI FINAL > *hítoyéhi-t* 's/he is damp'

Rule 4: (e)e, (o)o > ei, oi / _i

For the purposes of this rule, intervening glottal stops are disregarded. Note that Rule 4 feeds Rule 6.

- 14) /iisétee/ 'ripe' + /'i/ OPL > *henísetéi'-i* 'they are ripe'
 15) /ceenise/ 'fall' + /'i/ OPL > *ceenséi'-i* 'they are falling'
 16) /níhooyóó/ 'yellow' + /'i/ OPL > /nihooyoi'/ > *níhooyóú-'u* 'they are yellow' (by rule 6)
 17) /nih'óó3oo/ 'white person' + /in/ DERIV + /'éc/ 'water' > /nih'óó3oinéc/ > /nih'óó3oinéc/ > (by rule 5) > *nih'óó3ounéc* 'whiskey' (by rule 6)

Rule 5: Vowel/vowel Junctures

When sequences of *three or more* vowels come together intermorphemically, these are reduced to no more than the largest vocalic unit of the two morphemes in question. In other words, 2V + 2V > 2V, 3V + 1V > 3V, 2V + 1V > 2V, 1V + 2V > 2V. The first vowels absorb the second vowels, with diphthongization due to rule 4 occurring first.

- 18) /óóxuu/ 'across' + /óúwu/ 'swim' > *hónooxúúwu-noo* 'I am swimming across'
 19) /nóuu/ 'outside' + /íhcehí/ 'rapid motion' > *nonouúhcehí-noo* 'I have jumped outside'
 20) /ne/ 1S + /ii/ IMPERF > /nei-ii/ (by rule 4) > *nei-* 'I habitually . . .'
 21) /ii/ IMPERF + /íhoowu/ NEG > *híhoowu-* 's/he habitually doesn't . . .'

See examples 135 and 136 below for sequences of V + V, where the result is simply VV.

Rule 6: Vowel Harmony: i ~ u

Note that rule 6 must follow rule 1, since epenthetic /i/ undergoes vowel harmony, as well as rules 3 and 4.

Arapaho shows two forms of vowel harmony that occur intermorphemically. The first is i~u harmony, and it is *progressive*, with /o/ causing a shift from /i/ to /u/ in the following syllable (or immediately following vowel). Note the contrast between the following pairs, with harmony occurring in the second word in each case:

- | | |
|--|---|
| <p>22) /cew/i/see/
/past/EP/go by foot/ >
cebísee- 'to walk (along)'</p> | <p>23) /oow/i/see/
/downward/EP/go by foot/ >
hoowúsee- 'to walk downward'</p> |
| <p>24) /biin/in/
/IC.give s.o. s.t./2S acting on 1S/ >
béniinín 'you are giving it to me'</p> | <p>25) /nóóhow/in/
/IC.see s.o./2S acting on 1S/ >
nonóóhowún 'you see me'</p> |
| <p>26) /cih/biin/i/
/to here/give s.o. s.t./1S/ >
cíhbiini 'give it to me!'</p> | <p>27) /bíxoo3/i/
/love s.o./1S/ >
bíxooxú 'love me!'</p> |

Harmony occurs recursively, including following secondary /u/:

- 28) /oow/iíhi'/ > /oowúúhi'/ > /oowúúhu'/ hoowúúhu'
/down/ADV/ 'down(ward)'

Since only a few consonants permit a following /u/, vowel harmony is often blocked. It occurs following /k/, /w/, /x/, /3/ (which mutates to /x/), /h/, and /'/. Note, however, that neither /ou/ nor /u/ produces vowel harmony across /3/—only /o/ produces such harmony; contrast *bíxooxú* above with the following examples:

- | | |
|---|---|
| <p>29) /éet/i/kuu3/in/
/push/EP/rapid action/3.IMPER/ >
hée3kuusin 'push him!'</p> | <p>30) /tóú3/i/too/
/what/EP/do/ >
tóústoó 'what is s/he doing?'</p> |
|---|---|

In examples 29 and 30, the /s/ is the product of the mutation of /3/ caused by /i/. In contrast, the other five consonants do allow harmony following syllables with /ou/ or /u/ (as in example 28).

The consonants /b/, /c/, /n/, /s/, /t/, and /y/ block i~u vowel harmony. Picard 1994:51–58 contains an extensive discussion of the historical phonological changes involved in both vowel harmony and in the related shifts in the consonant pairs /b/w/, /c/k/, and /s/x/. He shows that historically, the PA consonants *p, *m, and *s first shifted to /k/, /w/, and /x/, respectively, in Arapaho and only later shifted to /c/, /b/, and /s/ before front vowels (53–54).

Note that i~u vowel harmony rules operate *beyond* the limits of the phonological and morphological word, producing external sandhi effects across morphological word boundaries:

- 31) *hísei* 'woman' > *nuhu'úsei* 'this woman'
32) *hiiwóonhéhe* 'now' > *noh huuwóonhéhe* 'and now'

Rule 7: Consonant Mutation

Note that rule 7 must follow rule 6, since, for example, the form /oow/i/see/ produces *hoowúsee-*. Were this not the case, consonant fronting would produce **hoobísee-*.

Rule 7a: k, x, w > c, s, b / _e/i/y (see below for one exception)

- 33) /écex/ 'small' + /íhi/ ADVERBIAL > hécesíhi 'small' (cf. *hecexo'óowú* 'small house')
- 34) /nóohow/ 'see s.o.' + /é3en/ 1PL/2PL > nonóohobé3en 'I see you'
- 35) /nook/ 'white' + /yóó/ II FINAL > nonoocóó- 'it is white' (cf. *nóók-ox* 'white bear')
- 36) /écex/ 'small' + /i/ DERIV + /nówo/ 'fish' > hécesnówo 'small fish'
- 37) /néik/ 'my arrow' + /i/ N.I.S > néic (cf. *néik-o* 'my arrows')
- 38) /bex/ 'wood, stick' + /i/ N.I.S > bes 'stick, piece of wood' (cf. *béx-o* 'sticks, pieces of wood')

Rule 7a is *blocked*, however, for the consonants /k/ and /x/ in the environment /o_e/:

- 39) /nook/ 'white' + /éhi/ AI FINAL > nonookéih-t 'it(AN) is white'
- 40) /nóox/ 'tracks' + /éhi/ AI FINAL > nonóoxéih-t 's/he has left tracks'

Note that sequences of /ocei/ and /osei/ occur morpheme-internally as a result of diachronic processes, but this rule is no longer operative intermorphemically.

The combination of the back vowel and the velar consonants together prevent fronting. However, the labial semi-consonant /w/ does undergo shift to /b/ in this environment:

- 41) /ihoow/ NEG + /éhi/ AI FINAL + /:ton/ AI.PART > hóobeihít 'something not possessed'

Rule 7b: 3 > s/ _i/y

- 42) /tóú3/ 'how' + /yóó/ II FINAL > tóusóó 'how is it?'
- 43) /bebú3/ 'proper, correct' + /íhi/ ADVERBIAL > bebúsihi 'properly'
- 44) /inónó'éiti3/ 'speak to s.o.' + /í3i/ 3PL/ 1S > hiinónó'éitisi3i 'they speak Arapaho to me'
- 45) /bé'i3/ 'one's nose' + /i/ N.I.S > bé'i3 (cf. *be(i)'i3-o* 'noses')
- 46) /néé'ee3/ 'thus' + /i/ DERIV + /nihí/ 'say' + /noo/ 1S > néé'eesinihiinoo 'that's what I'm saying'

This mutation does not occur with the following forms, however, for unexplained reasons, and the forms also show aberrant blocking of vowel harmony across /3/ (see rule 6). They behave as if deriving from underlying /ot/ and /woosoot/, although this does not match their PA cognates:

- 47) /ó3/ 'arrow' + /ii/ PL > hó3ii 'arrows'
- 48) /wóosóó3/ 'arrowhead' + /ii/ PL > wóosóó3ii 'arrowheads'

Rule 7c: 3 > x/ _u

This /u/ is always the secondary product of i~u vowel harmony.

- 49) /bixoo3/ 'to love s.o.' + /i/ > ú/ 1S > *bixooxú* 'love me!' (cf. *bixoo3-éi'ce* 'love us!')
- 50) /ciibéhcih/ PROHIB.EMPH + /céno'oo3/ 'to jump at s.o.' + /i/ > u/ 1S > *ciibéhcihcéno'ooxu* 'don't jump at me!' [C:122]
- 51) /ce'éinó3/ 'bag' + /i/ > u/ N.I.S > *ce'éinóx* (cf. *ce'éinó3-o* 'bags', *ce'éino3-éhe* 'little bag')

Rule 7d: t > 3/ _i/y

- 52) /íiyoot/ 'clean' + /yóó/ II FINAL > *heníyoo3óó-* 'it is clean'
- 53) /toot/ 'near, close' + /íihi/ ADVERBIAL > *too3íihi* 'nearby'
- 54) /eebét/ 'big' + /i/ DERIV + /kóh'ok/ 'bee' > *héébe3kóh'ok* 'bumblebee'
- 55) /eebét/ 'big' + /i/ DERIV + /nówo/ 'fish' > *heebe3nówo* 'big fish'
- 56) /béicit/ 'one's tooth' + /i/ N.I.S > *béici3* (cf. *béicit-o* 'one's teeth')
- 57) /éét/ 'large' + /ookút/ 'tooth' (medial/final) + /i/ N.I.S > *héétookú3* 'canine tooth' (cf. *héétookút-o* 'canine teeth')

For unknown reasons, this rule is violated when the dependent verb stem /see/ 'to go on foot' occurs:

- 58) /oséit/ 'backward, away' + /i/ EP + /see/ 'go on foot' > *hooséitisee-noo* 'I am walking backward.'

Likewise, the TA inflectional suffix /ot/ (2S/3S) becomes /oti/ in the iterative (whereas the TA inflectional suffix /oot/ (3S/4) becomes /oo3i/ in the iterative).

Finally, this rule may actually be morphological rather than phonological; there are numerous intra-morphemic examples of /ti/ sequences in Arapaho that do not undergo this shift and that do not seem to share any blocking environment (-yeiti- AI 'to speak', -tii- AI abstract final, -ooti- II concrete final, involving cloth, sheets, -eti- AI REFL/RECIP etc.). However, the shift does occur with epenthetic /i/, derivational /i/, NI inflectional /i/, the grammatical morphemes /iihi/ (chapter 15), /yoo/ (chapter 5), /yei/ (chapter 5), and many others. One solution to this problem is simply to postulate underlying initial /y/ for all the grammatical morphemes in question, and then rewrite the rule as t > 3/ _y. However, it is unclear where this /y/ would originate from historically, and cases such as the one above of /ot-i/ > -oti vs. /oot-i/ > -oo3i remain problematic. Moreover, forms such as *cebe'éinihi* 'beyond' make it clear that /yihhi/ could not be postulated in this case, as it would produce **cebe'eiyihhi* by rule 2. Thus, this rule must remain provisional for the moment.

Rule 8: Vowel Harmony: e~o

Rule 8 must follow rule 7, as explained below.

The second form of vowel harmony is e~o harmony, and it is *regressive*, with /o/ causing shift from /e/ to /o/ in preceding syllables:

- | | |
|---|---|
| 59) /be'/éé/
/IC.red/II FINAL/ >
bee'éé-'it is red' | 60) /be'/óowú/
/IC.red/to flow, be watery/ >
boo'óowú-'the water flows red' |
|---|---|

E~o harmony occurs across the consonants /k/, /w/, /x/ (optionally), /h/, and /'—the same consonants involved in i~u harmony, with the exception of /3/ in the latter. When it occurs with suffixed grammatical forms, it regressively alters the verb or noun stem. In the following, the second of each pair shows vowel harmony (with the first pair showing fronting of consonants before front vowels).

- | | |
|--|--|
| 61) /ní'eenew/é3en/
/IC.like s.o./1S acting on 2S/ >
ní'eenebé3en 'I like you' | 62) /ní'eenew/o'/
/IC.like s.o./1S acting on 3S/ >
ní'eenówo' 'I like him' |
| 63) /ék/etii/
/obstruct/mouth/ >
hécetii 'close your mouth!' | 64) /ék/ouni/'/
/IC.obstruct/trajectory/0S/ >
hóókouni' 'it is dammed up' |
| 65) /écex/i3é3oo/
/little/finger/ >
héces3é3oo 'little finger' | 66) /écex/onóh'e/
/little/boy/ >
hecóxonóh'oe 'young boy' |

Regressive harmony, by the way, causes most of the intra-morphemic sequences /bo/, /co/, and /so/, which are otherwise rare in Arapaho (cf. *bo'onóókee* 'red buffalo bull', *bo'óókec* 'red cow', and other forms listed in Salzmänn 1961:154, as well as *co'ohóe* 'fist' < /ce'/ 'round, spherical' + /ohóe/ 'hand' and *só'oo3oo* 'rug, carpet' < /sé'/ 'flat' + /oo3oo/ 'laid out, arranged object'). Regressive harmony, in alternation with consonant fronting before front vowels where harmony does not occur, is also responsible for the many characteristic allomorph pairs in Arapaho of the form *hec-/hok-* 'block', *teb-/tow-* 'separate', *tec-/tok-* 'calculate, measure', *heec-/hook-* 'to one's own home', *ceb-/cow-* 'past, by'. This also indicates that rule 7 must follow rule 6, since the shift of /w/, /k/, and /x/ to /b/, /c/, and /s/ must occur prior to the vowel harmony rules that cause /e/ > /o/.

Picard (1994:58) argues that e~o harmony is progressive as well. Although this was apparently true diachronically (producing intra-morphemic shifts visible in the language today), it does not seem to be true intermorphemically at the present.

E/o harmony is blocked by /b/, /c/, /n/, /s/, /t/, /3/, and /y/, and sometimes by /x/ (there is free variation in the case of /x/). Examples of the blocking of e/o harmony are the following:

- | | | |
|--|--|--|
| 67–69) /eebét/ookúú/
/big/mouse/ >
heebétookúú 'rat' | /és/o'óó/noo/
/IC.intense/motion(AI)/1S/ >
héeso'óónoo 'I am fast' | /en/yóón/ee/t/
/IC.long/leg/possess/3S/ >
heeyóóneet 's/he has a long leg' |
|--|--|--|

However, in two particular circumstances this is *not* true. The person prefixes for indefinite first and second person, when used with either verb or noun stems, show vowel harmony with the first vowel of the stem no matter what the intervening consonant, alternating between *no/ne-*, *ho/he-*, and *wo/be-*; contrast:

- | | |
|--|---|
| 70) /e/tou3/ihi'/
/2S/how/named/ >
<i>hotousihi</i> 'what is your name?' | 71) /koo/e/téi'éhi/
/INTERR/2S/strong/ >
<i>koohetéi'éh</i> 'are you strong?' |
|--|---|

Secondly, when initial change is applied (see section 3.1), the initial vowel of the /en/ element that occurs as the first syllable in underlying long-vowel forms harmonizes across the /n/ with the long vowel of the following syllable:

- | |
|---|
| 72) /ciisisee/ 'to walk far' > <i>cenisisee-noo</i> 'I am walking a long way' |
| 73) /sóootéhi/ 'to be messy' > <i>sonóotéhi-noo</i> 'I am messy' |

Note that unlike *i~u* harmony, *e~o* harmony does not operate beyond the boundaries of a word. It also is blocked by the presence of derivational /i/, which is attached to roots to form preverbs and prenouns (see chapters 9 and 4) but often disappears in surface pronunciation due to syncope. Thus, one finds forms such as the following, with no harmony affecting the first vowel, although based on the surface form, one would initially expect that there would be harmony:

- | | |
|--|--|
| 74) /ce'i/oowu/niih/ihi'/
/back(PREV)/down/along/ADV/
<i>ce'oowúniihihi</i> 'back down stream' | 75) /ne'i/óókoo3/éit/
/then(PREV)/take home/4 acting
on 3S/
<i>ne'óókoo3éit</i> 'then he took him home' |
|--|--|

Rule 9: $y > \emptyset / C_$

Note that rule 9 must follow rule 7.

- | |
|---|
| 76) /íiyoot/ 'clean' + /yóó/ II FINAL > <i>heníiyoo3óó-</i> 'it is clean' |
| 77) /tóxu/ 'sharp' + /yóó/ II FINAL > <i>tóóxu'óó-</i> 'it is sharp' |

Rule 10: $\#v > hv$ (where *v* is any vowel)

- | |
|---|
| 78) /esítee/ 'to be hot' > <i>heesítee-</i> 'it is hot' |
| 79) /é3/ 'dog' > <i>he3</i> |

1.3 PITCH ACCENT

The following section is probably the most problematic in this grammar. It represents an attempt to describe “most” of what happens with Arapaho pitch accent patterns, or what “usually” happens, but the authors frankly admit that they have not established rules that can completely account for all Arapaho pitch accent patterns.

To do so will probably require consideration of diachronic phonology (see Goddard 1974 and Picard 1994), as well as complete and accurate specification of the underlying pitch accent on all morphemes, which has not yet been achieved.

Pitch accent has resisted attempts at explanation up to the present (see Goddard 1979:84–85). It also occurs in Blackfoot (see Frantz 1991:3–4), where it is also not fully understood, and is the subject of competing analyses. Looking through dictionaries that mark pitch accent, users of this grammar will certainly be able to find exceptions to the general tendencies listed below. However, they should also bear in mind that some of the marked pitch accents in dictionaries (Salzmann 1983, for example) are incorrect—as are a few in the anthology of Paul Moss’s stories published in 2005, and possibly a few in this grammar, despite our best efforts. The pitch accents can be difficult to hear for non-native speakers, and although native speakers obviously hear them quite well, they are not necessarily good at explicitly marking them. Elicitation sessions can also produce distortions that interfere with analysis. Furthermore, there is significant minor speaker variation, which speakers themselves often point out and are very aware of; and finally, the relative prominence of the pitch accent varies considerably both within and between words. As a rule of thumb, initial pitch accents have lowered prominence, as do some final pitch accents on short vowels. Conversely, final non-pitch-accented syllables ending in a glottal stop tend to have increased prominence and can be difficult to distinguish from syllables with pitch accent.

All Arapaho vowels can have one of two pitches, high or normal (with various allophonic levels, which we will not attempt to deal with here). In addition, long vowels and diphthongs can have a falling (high to normal) pitch accent. In many cases, this falling accent is a secondary allophone conditioned by the pitch accent of surrounding morphemes, but in some cases, it is the underlying pitch accent of the morpheme in question, occurring as the result of diachronic phonological evolution. Goddard 1974:110–111 notes, for example, that loss of PA-derived glottal stops leads to phonemic contrasts in pitch accent in the modern language: Proto Arapaho-Atsina *oiθine- > Arapaho *hou3íne-* ‘to hang’, whereas Proto A-A *oiʔθine- > Arapaho *hóu3íne-* ‘to float’.

Thus, pitch accents are contrastive, and other minimal pairs occur (*tecénoo* ‘door’ vs. *téceño* ‘roll it out!’; *hónoosóó* ‘it is fancy’ vs. *honoosóó* ‘it is raining’). However, such pairs are comparatively rare, and it is extremely difficult to find minimal pairs of nouns based on pitch accent, so the pitch accent system is certainly not equivalent to tonal systems in languages such as Mandarin Chinese, where such minimal pairs are pervasive.

High pitch is marked by use of an accent mark, as seen in all the preceding examples. When words are monosyllabic, pitch accent was typically not marked in Salzmann’s 1983 dictionary, and we have continued that practice here for the sake of consistency. Pitch accent is a morpheme-level phenomenon that is not predictable (at least synchronically)—the pitch is part of the underlying form of the morpheme. However, when morphemes are combined in phonological words, predictable, word-level pitch accent rules cause redistribution of the pitch accents to avoid

adjacent syllables with pitch accent (with a few, unexplained exceptions) within the word. These rules not only produce falling pitch on long vowels and diphthongs prior to another pitch-accented syllable but can lead to loss of pitch accent on short vowels and, as a secondary result of this loss, vowel syncope. Pitch accent distribution also controls a number of phonological processes in Arapaho, including glottal-stop metathesis, introduction of secondary glottal stops, creation of secondary diphthongs, and reduction of non-accented diphthongs. Pitch accent processes thus interact with syllable structure and surface phonology in crucial ways.

In addition, word-level pitch accent can undergo various secondary *grammatical* derivational shifts, which are largely predictable (again, with unexplained exceptions). For example, pitch accent shifts to the right one syllable when verbs are inflected for the plural, and derived participles (and lexicalized nominal forms based on them) likewise shift pitch accent to the right:

- | | | | | | |
|-----|-------------------------|--------------|---|----------------------|------------------|
| 80) | <i>tenéi'éłhi-noo</i> | 'I am tired' | > | <i>tenéi'eihí-3i</i> | 'they are tired' |
| 81) | <i>heesówobéłhi-noo</i> | 'I am sick' | > | <i>heesówobeihít</i> | 'illness' |

1.3.1 Non-predictable, Underlying Pitch Accent

The following pairs of words show that pitch accent is not a predictable, prosodic phenomenon.

Two syllables, two short vowels:

- | | | | |
|-----|-----|--------------|---------------|
| 82) | V-v | <i>bénes</i> | 'one's arm' |
| 83) | v-V | <i>wonó'</i> | 'one's ankle' |

Two syllables, two long vowels:

- | | | | |
|-----|-------|----------------|---------|
| 84) | VV-vv | <i>néécee</i> | 'chief' |
| 85) | vv-VV | <i>biicíís</i> | 'leaf' |
| 86) | Vv-VV | <i>bíixúút</i> | 'shirt' |

Two syllables, one long and one short vowel:

- | | | | |
|-----|------|---------------|---------------|
| 87) | vv-V | <i>koo'óh</i> | 'coyote' |
| 88) | VV-v | <i>híisi'</i> | 'day' |
| 89) | Vv-V | <i>béécét</i> | 'one's hand' |
| 90) | V-vv | <i>wó'oo3</i> | 'one's leg' |
| 91) | v-VV | <i>betééc</i> | 'one's brain' |

Three-vowel sequences of single vowels (Vvv or VvV only):

- | | | | |
|-----|-----|-------------------|------------------|
| 92) | Vvv | <i>hinóoox</i> | 'bark of a tree' |
| 93) | VvV | <i>beténeyóoo</i> | 'one's body' |

Three syllables (where x is a syllable, and X is an accented syllable):

- | | | | |
|-----|-----|------------------|---------|
| 94) | Xxx | <i>béi'ci3e'</i> | 'metal' |
| 95) | xXx | <i>hiwóxuu</i> | 'elk' |

- 96) XxX *3íikoné'* 'skull'
 97) xxX does not occur? (but note *wonotóno'* 'one's ear'—xxXx)
 98) x(Vv)X *betóó3ét* 'one's saliva'
 99) (Vv)Xx *wóosóó3-ii* 'arrowheads'

Examinations of verb stems likewise prove that pitch accent is not a prosodic phenomenon. Although the nouns above suggest that it might perhaps be a feature of alternating syllables or some variant of that, one can find words with three and even four consecutive unaccented syllables. In the following, the main verb stem is marked off from preverbal elements by a hyphen. The examples show that pitch accent is not a simple prosodic process, either within or beyond the level of the stem. Note that long unaccented strings can occur word-initially or between accented syllables but are quite rare finally.

Four consecutive unaccented:

- 100) *tih'íikóxuu-bise'eikóohúútooni-'*.
 'When one would stick one's head up in a different place each time.' [O:Enemy Trail, 49]
 101) *né'nih'íis-iixooohóó3ihéé-noo*.
 'That was how I was taught.' [O:Buffalo Wheel, 52]
 102) *tih'íicii-bobóóteenebéihí-3i'*.
 'When they weren't respected.' [O:Shade Trees, 5]
 103) *híihoowu-nee'ééstoo*.
 'A person doesn't do that.' [O:Enemy Trail, 66]

Three consecutive unaccented within stem:

- 104) *nii-nóononoo'oentih'ohu-t*.
 'It would fly soaring around in circles.' [O:Buffalo Wheel, 28]
 105) *niiseiyoono3óo*.
 'pocketbook' [C:161, transcription modified]
 106) *heneenetí3-oot*.
 'S/he is speaking to him/her.'
 107) *héétn-iisíténowoo-noo*.
 'I will catch them for myself.' [O:Scouts, 35] (Note final position of unaccented syllables.)

Four consecutive unaccented in stem:108) *honoonoyooohów-oot.*

'He is watching over him, guarding him.' [C:106]

Suprasegmental pitch accent

A number of morphemes in Arapaho lack underlying pitch accent but require a pitch accent on the preceding syllable, if one is present. Others have pitch accent on the second or later syllable but also require pitch accent on the preceding syllable, if one is present. An example is the independent AI verb stem /*nihíí*/ 'to say s.t.'. In the grammar, when pitch accent is specifically under discussion, these forms will be presented as underlying /*X-nihíí*/ and so forth. Note the pitch accent falls on an epenthetic or derivational /*i*/ in cases where the preceding morpheme is consonant-final:

- 109) /*néé'eesi*/ 'thus(PREVERB)' + /*X-nihíí*/ 'say' > *néé'eesinihíí-noo* 'that's what I'm saying'
 110) /*óóxoé*/ 'exchange' + /*X-nihíí*/ 'say' > *honooxóénihií-noo* 'I am answering you'
 111) /*ce'i*/ 'again(PREVERB)' + /*X-nihíí*/ > *ce'inihií* 'repeat it!'

Such forms also produce pitch accent on the additional syllable produced by initial change (when the underlying initial vowel is long), and on grammatical preverbs. Contrast:

- 112) /*X-oosóó*/ 'to be fancy' > *hónoosóó* 'it is fancy', *nih'oosóó* 'it was fancy'
 113) /*oosóó*/ 'to rain' > *honoosóó* 'it is raining', *nih'oosóó* 'it rained'

Additional examples include:

- 114) /*X-niibéi*/ 'to sing'
néniibéi-noo 'I am singing'
neihoowuusi-niibéi 'I haven't sung yet'
neihoowú-niibéi 'I am not singing'
- 115) *niihíí-noo* 'I am saying s.t.'
nihkóhtowú-nihíí-t 's/he said something funny or inappropriate'
- 116) /*X-biin*/ 'to give'
béniin-é3en 'I am giving it to you'
hetí-biin-oo 'you should give it to him'
honooxóé-biin-é3en 'I am trading it to you'
- 117) /*X-(n)oo'óó*/ Inchoative
bee'i-noo'óó- 'it is turning red'
ceenectéén-oo'óó- 'it is turning green/blue'
heesnonéén-oo'óó-noo 'I am getting angry'

- 118) /X-boo3/ 'to fight someone'
heibeexú-boo3-oo 'you should fight him'
heebe3i-boo3-etít 'big battle' (place-name in Rocky Mountain NP)

See also in this chapter examples 7, 9, 22, 23, 24, 26, 46, 66, and 74. A complete list of these morphemes is not currently available, but common ones (not including theme and inflectional morphemes) are /beé/ 'excrement'; /bex/ 'wood'; /betée/ 'to dance'; /biin/ 'to give'; /-bin/ 'berry' (medial); /boo3/ 'fight'; /cee'ih/ 'to give permanently'; /ce'ée'/ 'potato, fruit'; /-kobee/ 'to act like . . .' (final); /-eenéét/ and /-eenew/ 'by mental action' (TI and TA finals); /nec/ 'water'; /neyéi3éi/ 'to learn'; /nihí/ 'to say'; /niibéi/ 'to sing'; /niih/ 'along, beside'; /nii'éhiih/ 'bird'; /ni/ 'able to; good, well'; /-(n)oo'óo/ INCHOATIVE; /-ocon/ 'bread' (medial/final); /oosóo/ 'fancy'; /-otíw/ 'wheel, car'; /-see/ 'go, walk' (final); /3ecóo/ 'thinking, by thought' (final); /-tii/ 'to do s.t.' (final; commonly X, but variable); /-too/ 'to do' (final; commonly X, but variable); /wox/ 'bear'; /wooyóo/ 'to be new'; and /yihóo/ 'to go'. There are certainly more. Note that none have an accent on the first syllable. On some rare occasions, these forms are treated as if they were actually vowel-initial, that is, as /ibex/, /ineyei3ei/, and so forth—see comments following example 56 in chapter 2 and example 12 in chapter 11. However, comparison with Proto-Algonquian shows that the above forms (where a PA cognate is available) have generally *not* lost an initial vowel diachronically.

There are also morphemes that seem to require a pitch accent on the *following* syllable, although it is not clear whether this is possibly a secondary result of forcing accent onto the preceding syllable. Contrast the final sentence in each set below with the others (all from Salzmann 1983):

- 119) *koo'-ookút-ee-noo* 'I had a tooth pulled' (medial 'tooth')
toow-ón-ee-noo 'I have a broken leg' (medial 'leg')
nenii'-íib-ee-noo 'I am blowing my nose' (medial 'nose')
béncebéés-et-ée-noo 'I have big ears' (medial 'ear')
- 120) *seesúin-ookút-oo'óo-noo* 'I have a toothache'
seneesesúin-oo'óo-noo 'I am aching all over' (reduplication)
seesúin-béé3ei-'óo-noo 'I have a stomachache' (medial '[big?] belly')
seesúin-et-óo'oo-noo 'I have an earache'

In both cases, the medial /et/ 'ear' seems to require pitch accent on the following syllable. The alternate analysis is that /et/ requires pitch accent on the preceding syllable, and this shift secondarily causes pitch accent to move onto the following syllable as well. The answer is simply not clear at the moment. But there are certainly a few (grammatical) preverbs that occur word-initially and seem to control pitch accent placement on the following syllables. One is /eetih/ 'in order that'. Another is the prohibitive marker /ciibéh/. Note the shift of pitch accent on /nó'ot/ in the following:

- 121) *nii-nó'o3íkobeet* 's/he's acting tough'
ciibéh-cih-nó'o3íkabee 'don't act tough!' (EMPH)
ciibéh-no'o3íkabee 'don't act tough!' [accent suppressed]

A similar example is:

- 122) *nóóhohóúhu-noo* 'I am hurrying'
nii-nóhohóúhu-noo 'I hurry'
ciibéh-nohohóúhu 'don't hurry!' [accent suppressed]

On the other hand, in the following example, the suppression of accent normally produced by /ciibéh/ competes with the presence of the morpheme /X-ni'/. and the latter trumps the former, producing two adjacent syllables with pitch accent.

- 123) *nii-cii-ni'í3ecoo-noo* 'I feel bad'
 124) *ciibéh-cii-ni'í3ecoo* 'don't feel bad!'

Different speakers have different solutions to this kind of problem. In the verb *nii'eenéét-owoo* 'I like it' (see paradigm in appendix), some speakers place accent on the *nii'*, apparently due to the presence of /X-eeenéét/, but others do not, saying *nii'eenéét-owoo*, apparently due to the fact that the first morpheme is underlying /X-ni'/.

There is at least one morpheme that suppresses pitch accent in preceding syllables—the inverse direction-of-action theme marker /éi/:

- 125) *nonóóhob-é3en* 'I see you'
 126) *nonoohob-éínoo* 's/he sees me'

Finally, we have already seen in the discussion of noun and verb stems that pitch accent is not a simple prosodic phenomenon. One might nevertheless be tempted to claim, based on the above examples, that single-syllable morphemes without pitch accent—or multiple-syllable morphemes with pitch accent on the second syllable—simply require that the syllable preceding the morpheme receive pitch accent. But such a straightforward solution to the pitch accent problem is not available. Notice the following three closely parallel verbs (which all occur in consecutive lines of a narrative, conveniently enough, and also all involve /X-eeenew/):

- 127) *tih'ii^{cii}-bobóót-eenebéihí-3i'* 'when they weren't respected'
 128) *tih'ii^{cii}-nó'o3-(h)éé'-eenebéihí-3i'* 'when they weren't considered dependable'
 129) *tih'ii^{cii}-ni'-oono3i'-eenebéihí-3i'* 'when they weren't considered suitable to be asked to do something' [P. Moss, Shade Trees, 5]

Example 129 shows /X-ni'/. requiring accent on the preceding syllable. Example 128 has pitch accent on the first syllable of the morpheme /nó'ot/. Example 127 has pitch accent on the second syllable of the morpheme /bobóót/, but no accent on the syllable preceding it—that is, one does not find **ciibobóót-*.

The one general rule of thumb that can be stated from this discussion is that most grammatical preverbs (such as /cii/ NEG) lack underlying pitch accent and

only take it when forced to by following elements. The other even more important corollary is that pitch accent rules are continuous across entire words, including preverbs, prenouns, and pre- and post-stem inflectional morphemes (e.g., /X-otíí/ ‘car’ > *nót-otíí* ‘my car’), not just across stems.

1.3.2 Word-level Pitch Accent Redistribution

Although underlying pitch accent is not synchronically predictable, once morphemes are combined, one can predict the surface contour of the resulting word. Arapaho does not normally tolerate adjacent pitch-accented syllables within noun or verb stems, or in preverb-verb and prenoun-noun combinations (see chapters 4 and 9 for definitions of “prenoun” and “preverb”).

1.3.2.1 VV + V combinations

Where sequences of VV-V result, the surface form is Vv-V.

- 130) /iisíiten/ ‘to catch, grab s.o.’ + /é3en/ ‘1S acting on 2S’ > *heniisíiten-é3en* ‘I have caught you’
- 131) /iisíiten/ + /X-oot/ ‘3S acting on 4’ > *heniisítén-oot* ‘s/he has caught him/her’
(See also examples 42 and 58 in this chapter.)

1.3.2.2 V + V(V) combinations

Where sequences of V-VV result, the surface form is v-VV. In stems, the pitch accent is then pushed back onto the preceding syllable, if present, as in examples 132 and 133. With prenouns and preverbs, however (as in example 134), this is variable; contrast example 54:

- 132) /ciinén/ ‘to put s.t. down’ + /owoo/ ‘1S’ > *ceniinén-owoo* ‘I am putting it down’
but: /ciinén/ + /ó’u/ ‘3PL’ > *ceníinen-óu’u* ‘they are putting it down’
- 133) /eebét/ ‘big’ + /óóku/ ‘rabbit’ > *héébetóóku* ‘kangaroo’
- 134) /eebét/ ‘big’ + /nówo/ ‘fish’ > *heebe3-nówo*

As can be seen from all the preceding rules, the second syllable’s accent dominates that of the first. This is the general rule for Arapaho pitch accent distribution.

1.3.2.3 Combinations of adjacent vowels

When vowel-final and vowel-initial morphemes come together, the pitch accent of the second syllable is transferred onto the first syllable as well:

- 135) /néé’eesi/ ‘thus’ (PREVERB) + /íni/ DERIV > *néé’eesíini* ‘it is thus’
- 136) /ne/ 1S + /íhoowu/ NEG + /nokóóyei/ ‘thirsty’ > *néíhoownokóóyei* ‘I’m not thirsty’

1.3.3 Grammatical Pitch Accent Shift

The addition of various derivational and inflectional suffixes, as well as other types of derivational processes, leads to predictable, grammatical pitch accent shifts in Arapaho. Most of these shifts end up moving the pitch accent one syllable to the right, but the details are complex: some of the morphemes require the pitch accent on the morpheme itself, others require it on the immediately preceding morpheme. Also, when the word accent is already in the required position, no further shift will occur.

As already seen in the discussion of word-level pitch accent, the rightmost member of a pair of morphemes dominates the left member's pitch accent. A variety of this same phenomenon occurs with the derivational and inflectional suffixes, which are added to the rightmost edge of stems. Thus, many of the grammatical shifts could be analyzed as morpheme-specific, as in section 1.3.3.10, with the morphemes simply happening to be abstract grammatical elements. However, other such shifts seem to be part of larger grammatical pitch accent templates, unrelated to a specific morpheme. Below, we present a list of the grammatical pitch accent shifts that appear to be of a templatic nature:

1. verb stems: plural (affirmative and conjunct order)—shift to right, penultimate syllable
2. verb stems: non-affirmative—shift to left, penultimate syllable
3. verb stems: iterative—shift to right, penultimate syllable
4. verb stems: subjunctive—shift to right, final syllable
5. verb stems: imperative—shift to left, antepenultimate syllable in TI
6. verb stems: participles—shift to right, final (surface) syllable
7. noun stems: locative—shift to right, penultimate syllable
8. noun stems: vocative—shift to right, final syllable
9. noun stems: agent—shift to right, penultimate syllable

1.3.3.1 Plural shift in verbs

The majority of verbs show shift of pitch accent one syllable to the right when plural person suffixes are used, sometimes as /eihí/ and sometimes as /éihí/. Others, which do not have accent on the penultimate syllable of the stem, simply add this accent in the plural as in example 141:

137)	<i>ni'óubéihi-noo</i>	'I feel well'	>	<i>nii'óubeihi-3i'</i>	'they feel well'
138)	<i>heniisétee-</i>	'it is ripe'	>	<i>heníseté'i-</i>	'they are ripe'
139)	<i>beetéee-noo</i>	'I am dancing'	>	<i>beeteéé-3i'</i>	'they are dancing'
140)	<i>néniibéi-t</i>	[more often <i>néniibéi'i-t</i>]	>	<i>néniibéi-3i'</i>	[more often <i>néniibéi'i-3i'</i>]
		's/he is singing'			'they are singing'
141)	<i>bíiskooti-</i>	'it is blooming'	>	<i>bíiskooti'i</i>	'they are blooming'

Note all the shifts above produce penultimate pitch accent. When the pitch accent in the singular falls on the final syllable of the stem, the addition of plural inflections automatically produces accent on the penultimate syllable of the word, so no shift occurs:

- | | | | |
|------|---------------------------------------|---|--|
| 142) | <i>níihooyóó-</i> 'it is yellow' | > | <i>níihooyóú-</i> 'u' 'they are yellow' |
| 143) | <i>beniibi3ehi-noo</i> 'I am praying' | > | <i>beniibi3ehi-3i</i> 'they are praying' |

1.3.3.2 Non-affirmative shift in verbs

In verbs that have penultimate stem accent in the singular affirmative, with accent on a short syllable, the accent shifts to the left one syllable (and the final vowel of the stem is dropped) in the non-affirmative. When the penultimate accent is on a long syllable, the accent remains, although the final vowel of the stem is still dropped.

- | | | | |
|------|------------------------------------|---|---|
| 144) | <i>3ii'óku-noo</i> 'I am sitting' | > | <i>néihoow-3i'ok</i> 'I am not sitting' |
| but: | <i>nenéetéíhi-noo</i> 'I am tired' | > | <i>neihoow-néetéíh</i> 'I am not tired' |

1.3.3.3 Iterative shift in verbs

Iterative verbs *always* show a shift of the pitch accent to the penultimate syllable:

- | | | | |
|------|--|---|---|
| 145) | <i>beetée-t</i> 's/he is dancing' | > | <i>beetéeé-3i</i> 'whenever s/he dances' |
| 146) | <i>bééne-noo</i> 'I am drinking' | > | <i>beene-nóóni</i> 'whenever I drink' |
| 147) | <i>heniisétee-</i> 'it is ripe' | > | <i>heniisetéi-'i</i> 'whenever it is ripe' |
| 148) | <i>henéénetíitooni-</i> 'people are talking' | > | <i>henéénetíitooni-'i</i> 'whenever people are talking' |

1.3.3.4 Subjunctive shift in verbs

Verbs *always* show addition of pitch accent to the final syllable in the subjunctive. In two-syllable stems, this often leads to suppression of the pitch accent on the stem, for unexplained reasons.

- | | | | |
|------|----------------------------------|---|--------------------------------------|
| 149) | <i>bééne-noo</i> 'I am drinking' | > | <i>bééne-noohók</i> 'if I drink' |
| 150) | <i>nonóóhob-é3en</i> 'I see you' | > | <i>noohob-é3enéhk</i> 'if I see you' |

1.3.3.5 Imperative shift in TI verbs

TI imperative verbs usually show a shift of pitch accent one syllable to the left when the final syllable of the stem has a short vowel:

- | | | | |
|------|---|---|---------------------------------|
| 151) | <i>ceniién-o-</i> 's/he is putting it down' | > | <i>ciínen-oo</i> 'put it down!' |
| 152) | <i>hiitén-o-</i> 's/he has gotten it' | > | <i>híten-oo</i> 'take it!' |
| 153) | <i>woo3onóh-owoo</i> 'I am writing it' | > | <i>wo3ónoh-oo</i> 'write it!' |
- (Contrast *noohóót-oo* 'see it!' and *ní'eenéét-oo* 'like it!'.)

1.3.3.6 Participle shift

When nominal participles are formed from verb stems (see chapter 4), pitch accent on the verb stem usually shifts to the final surface syllable of the participle. The underlying form of these participles is usually /VVton/, however, so the pitch is on the penultimate syllable of the underlying stem:

- | | | |
|------|--------------------------|------------------------|
| 154) | <i>hesówobéíhi-noo</i> | 'I am sick' (AI) |
| | <i>hesówobeíhiit</i> | 'sickness' (NI) |
| | <i>hesówobeíhiiton-o</i> | 'illnesses' |
| 155) | <i>cebísee-noo</i> | 'I am walking' (AI) |
| | <i>ceb(i)xóót</i> | 'act of walking' (NI) |
| 156) | <i>níhi'kóóhu-t</i> | 's/he is running' (AI) |
| | <i>níhi'kookúút</i> | 'act of running' (NI) |

The accent is *always* on this syllable in the plural. In the singular, however, a small percentage of these participles show retention of pitch accent on the penultimate syllable of the stem, for unexplained reasons:

- | | | |
|------|-------------------------|------------------------|
| 157) | <i>cenéestóó-noo</i> | 'I am earning money' |
| | <i>cééstoot</i> | 'compensation, income' |
| | <i>ceestóóton-o</i> | 'earnings' |
| 158) | <i>hówooyéíti-noo</i> | 'I am praying' |
| | <i>hówooyéítiit</i> | 'prayer' |
| | <i>hówooyéítiiton-o</i> | 'prayers' |
| 159) | <i>se'éictoot</i> | 'apron' |
| | <i>se'éictóóton-o</i> | 'aprons' |

1.3.3.7 Locative shift

When a locative suffix (see chapter 2) is added to nouns, the pitch accent shifts to maintain penultimate position, the only exception being when the final syllable is long (due to fusion of the locative suffix with the final syllable of the noun stem), in which case the accent shifts to that syllable (if necessary):

- | | | | |
|------|-----------------------------|---|-----------------------------------|
| 160) | <i>ni'ec</i> 'lake' | > | <i>ni'éci</i> 'at the lake' |
| 161) | <i>niicíi</i> 'river' | > | <i>niicíihéhe</i> 'at the river' |
| 162) | <i>biito'ówu-</i> 'earth-S' | > | <i>biito'owúú'</i> 'on the earth' |
| 163) | <i>ho'óowú-</i> 'house-S' | > | <i>ho'óowúú'</i> 'in the house' |

1.3.3.8 Vocative shift

In vocative formations (see chapter 2), a shift of pitch accent to the final syllable normally occurs:

- 164) *nési* ‘my uncle’ > *nesihóó* ‘uncle!’
 165) *hé3ebii* ‘dogs’ > *he3ebíín* ‘doggy!’

The fact that this shift is a part of the overall derivational process is demonstrated by the fact that speakers can produce and gloss additional forms that are not in fact used or even heard in spoken Arapaho but show this same pattern of shift (as in the asterisked form below):

- 166) *betébi* ‘old woman’
 **betebihíín* ‘old woman!’

1.3.3.9 Agent shift

When nominal agents are formed with the suffix /*(i)hííh/* (see chapter 4), the pitch accent always falls on /*(i)hííh/* in the plural (*-ihíího*). In the singular, the accent normally shifts one syllable back to the left to maintain penultimate stress placement:

- 167) *neh’éíhii* ‘killer’ *neh’ehíího* ‘killers’
 168) *betéihii* ‘dancer’ *beteéhíího* ‘dancers’

A small percentage of these forms maintain the plural pitch accent pattern in the singular and do not make this shift, but also drop the accent on the final syllable:

- 169) *wo3onóheihii* ‘secretary’ (lit. ‘writer’) *wo3onóheihíího* ‘secretaries’
 170) *hotóónehii* ‘merchant, trader’ *hotóónehíího* ‘merchants, traders’

1.3.3.10 Pitch accent shifts specific to individual grammatical morphemes

Within the verbal inflection system in particular, there are many individual morphemes that force pitch accent shifts on the preceding syllables of the verb stem. These morphemes always have the same pitch accent and force the same changes. Examples of the interactions are:

- 171) TA, 1S/2S inflection: /*é3e/ + /n/ > /é3en/*
nonóóhob-é3en ‘I see you(S)’
nih’éí’towuun-é3en ‘I told you(S)’
- 172) TA, 1S/2PL inflection: /*é3e/ + /X-nee/ > /e3énee/*
nonóóhob-e3énee ‘I see you(PL)’
nih’éí’towuun-e3énee ‘I told you(PL)’
- 173) TA, 1S/2PL ITER inflection: /*é3e/ + /X-nee/ + /X-i/ > /é3enéí’i/*
nonóóhob-é3enéí’i ‘whenever I see you(PL)’
henéí’towuun-é3enéí’i ‘whenever I tell you(PL)’
- 174) TA, 3S/4 inflection: /*X-oo/ + /t/ > /X-oot/*
nonoohów-oot ‘s/he loves him/her/them’
nih’éí’towíúún-oot ‘s/he told him/her/them’

- 175) TA, 1S/3S NON-AFF inflection: /X-oo/
néihoow-noohów-oo 'I don't see him/her'
néih'oow-éí'towúún-oo 'I didn't tell him/her'
- 176) TA, 4S/4 inflection: /X-oo/ + /ní3/ > /X-ooní3/
nonoohów-ooní3 'the one sees the other one(s)'
nih'éí'towúún-ooní3 'the one told the other one(s)'
- 177) TA, 3PL/4 NON-AFF inflection: /X-ee/ + /nó'/ > /X-eenó'/
hoow-noohób-eenó' 'they don't see him/her/them'
hih'oow-éí'towúún-eenó' 'they didn't tell him/her/them'

The underlying pitch accent of the verbal theme signs in Arapaho (see chapter 3) is the following:

TA LOCAL, 1Ssubj	é3e
TA LOCAL, 1Sobj	<i>variable, í or i</i>
TA LOCAL, 1PLsubj	X-ee or X-eé
TA LOCAL, 1PLobj	éí'ee
TA DIRECT	X-oo
TA INVERSE	éí or éi
TI	X-o

The underlying pitch accent of the suffixed inflections, if we analyze these individually rather than as part of the more general grammatical pitch accent shifts, is:

	AFFIRM	NON-AFFIRM	IMPER (OBJ)
1S	noo	N/A	<i>variable, í(') or í(')</i>
2S	n	N/A	N/A
3S	t	N/A	ín(ee), X-e'
4S	ní3	n	ín(ee), X-e'
1PL	X-' or X-ní'	X-be	éí'ee(')
12	X-no'	n	N/A
2PL	X-nee	X-be	N/A
3PL	X-3í'	nó'	ín(ee), X-e'
4PL	ní3i	níno	ín(ee), X-e'
0	'	-	oo, owu'
0PL	X-'i	X-no	oo, owu'
ITER	X-i	N/A	N/A
SUBJ	hék, hók	N/A	N/A

As the examples above show, the theme sign pitches shift under the influence of person and number inflections, as well as the mode inflections, with the rightmost element controlling the overall result:

- 178) 1S/2S é3en > 1S/2PL e3énee > 1S/2PL.ITER é3enéí'i
 179) 3S/4 X-oot > 3PL/4 óó3i' (*nonoohówoot* > *nonóóhowóó3i'*)

Thus, theme signs can alter stem pitch accent (as in 3/4 X-oot), but plural and iterative inflections can alter theme sign inflections (and iterative can alter plural). As a secondary effect, plural and/or iterative inflections can retroactively undo the alterations induced by the theme signs on the stem. The larger point is that the rightmost element dominates the pitch accent distribution not only at the level of the word (see 1.3.2) but at the grammatical level as well.

1.3.4 Lexical Pitch Accent Shifts and Possible Templates

In a few cases in Arapaho, pitch accent shifts seem unrelated to either word-level distribution rules or grammatical rules but instead serve to distinguish related lexical items from each other. This process is most productive with deverbal nouns (see chapter 4).

When deverbal forms are created from verb stems with the derivational final /yoo/, the vast majority show two different pitch accent patterns: (1) /X-yóó/ or /Vvyóó/ and (2) /x-yóo/ or /x-yóó/ (with a good deal of speaker variation among these latter two for the same word—thus the pairing). These pitch accent patterns are not predictable from the pitch accent of the verb stem. In fact, both patterns can occur on the same deverbal:

180)	<i>woo3ónohéi-noo</i>	'I am writing [s.t.]' (AI) >
	<i>wo3onóhoé</i>	'pen, pencil' (NA)
	<i>wo3onohóé</i>	'book, paper' (NI)
181)	<i>hóókouni'</i>	'it is dammed' (II) >
	<i>hókouyóó</i>	'dam' (NI)
	<i>hokóuyóó</i>	'reservoir' (NI); 'overflow from irrigation ditch, mud puddle' (NI)

Readers may want to glance at section 4.5, which covers instrument and product nominalizations—the derivational result of deverbals. Some of the deverbals turn out to be product nominalizations, whereas others turn out to be instrument nominalizations. But as is clear above, both semantic meanings can occur with a single participle with differing pitch accent patterns indicating either instrument (first noun above) or product/result (second noun above).

It would be nice if this constituted a neat pattern, but unfortunately it does not. The first problem is that the correlation between type of nominalization and pitch accent pattern is not regular—note above that the /X-yóó/ patterns corresponds to the instrument with the first set but to the product/result with the second set (although Alonzo Moss says that the *hokóuyóó* actually means 'dam'; but William C'Hair, another key consultant from the other side of the reservation, says the opposite). Secondly, at least at the present, most speakers do not or cannot produce both accent types with a given pair with any regularity or disagree among themselves about the relationship between accent and meaning. Speakers in fact frankly admit

that they themselves have been puzzled by the details of these types of forms, even before facing questions from a linguist.

For what it is worth, Alonzo Moss says that he believes the /X-yoó/ pattern is connected to instruments and the other pattern is connected to products. He offers the following sets of examples (among others):

- | | | |
|------|----------------------|----------------------------------|
| 182) | <i>hoo'éinoxúyoó</i> | 'a farm rake, for hay' |
| | <i>hoo'éinoxuyóó</i> | 'rakings' |
| 183) | <i>ce'iskúú3oo</i> | 'television set, movie camera' |
| | <i>ce'iskuu3óó</i> | 'movie, television show' |
| 184) | <i>3éiyóó</i> | 'cupboard' |
| | <i>3éiyóó</i> | 'the things put in the cupboard' |

William C'Hair, the other key consultant, offered the following pair (in addition to the dam/reservoir pair above):

- | | | |
|------|---|--|
| 185) | <i>wóteikúú3oo</i> | 'doorbell—the button that is pushed' |
| | [note the similarity to Moss's 'movie camera', but without final -oó] | |
| | <i>woteikuu3óó</i> | 'telephone—the sound/ringing that is produced by a call' |
| | [note the similarity to Moss's 'movie'] | |

There is certainly the suggestion of some kind of pattern here. But due to dialectal differences on the reservation, individual speaker variation, an imperfectly developed or only partially operational lexical pitch accent system in the language itself (contrasting pairs of the type above are not common, at least as lexicalized items), language obsolescence, or some combination of the above, the system has proved exceedingly hard to pin down and describe adequately. It is certain that there is significant speaker variation—Salzmann's glossary lists *só'oo3oo* for 'rug' but *so'óo3óó* for 'carpet', but these clearly are the same word, evidently recorded from two different speakers (unless the difference represents a mishearing). No individual Cowell worked with made any distinction between 'rug' and 'carpet' in his or her own idiolect (with the second form far more common).

Other lexical pitch accent shifts

There are a few verb forms in which slight shifts in pitch accent produce slightly different meanings on what appears to be otherwise the same stem:

- | | | |
|------|----------------------|-------------------------------|
| 186) | <i>hootóonée-noo</i> | 'I am buying or selling s.t.' |
| | <i>hootóonee-noo</i> | 'I am borrowing s.t.' |

Such examples are quite limited, so this situation seems similar to that described in the preceding section—a series of perhaps isolated instances, but no generalizable pattern that can be described for the language as a whole. We should also point out that there are many homophones, among completely unrelated roots and stems, that show *no* difference in pitch accent. An example is:

- 187) *ciinóhowoo* 'pour yourself something!' < /ciinoh-owoo/
 or 'quit dancing!' < /ciin-ohowoo/

1.3.5 The Case of Singular Nouns: Unexplained Pitch Accent Shifts and Their Secondary Interaction with Pitch Accent Rules

As stated earlier, this section on pitch accents is intended to describe prototypical patterns, while recognizing that there are quite a number of unexplained exceptions to the patterns described. Here, we examine one area that shows such irregularity in order to exemplify the nature of the problems more clearly. This area is the occasional shift or loss or addition of pitch accent from the underlying noun stem (visible in the plural) to the singular.

1.3.5.1 The basic pattern (Pattern 1a)

Nouns normally retain the pitch accent on the underlying accented syllable when inflected for the plural (and obviative) and the singular. Note that the plural suffix normally lacks pitch accent.

1.3.5.2 Unpredictable *loss* of pitch accent in final syllable of stem in singular (Pattern 1b)

When a final underlying /n/, /h/, or /w/ (after long vowels) is lost, the singular stem sometimes shows reduction of the pitch accent on the final syllable, so that $XxX + x(PL) > Xxx$. This avoids pitch accent on a final syllable.

- 188) *bíixonóón-o* 'plumes' (NA) > *bíixonoo* 'plume'
 189) *só'oo3óón-o* 'rugs, mats' (NI) > *só'oo3oo* 'rug, mat'

Note that very often, final, unaccented /vn/, /vh/, and /vw/ are lost in singular forms, whereas underlying accented /Vn/, /Vh/, and /Vw/ are retained, but in words of stem form (x)XxX + x(PL), the stem may go to (x)Xx, losing a final /Vn/. Note that this preserves accent on the penultimate syllable and again avoids accent on a final syllable.

- 190) *wotóhko'ón-o* 'jaws' (NI) > *wotóhko* 'jaw'
 191) *wóto'ón-o* 'napes' (NI) > *wóto* 'nape'

1.3.5.3 Unpredictable left *shifts* in the stem in the singular (Pattern 1c)

A small percentage of nouns (less than 10 percent) show unpredictable left shift of pitch accent in the singular, following loss of final consonants. Note that all of the shifts below serve to maintain pitch accent on the penultimate syllable and avoid final-syllable pitch accent. Note also that these forms show the same pattern of loss of final /vh/, /vn/, and /vw/, followed by further loss of final /h,n,w/ after a long vowel, as the words in the preceding section.

192)	<i>wotóóh-o</i> ‘plural pairs of pants’ (NI)	>	<i>wótoo</i> ‘single pair of pants’
193)	<i>necécén-o</i> ‘chiefs’ (NA)	>	<i>néécee</i> ‘chief’
	also: <i>né-necécéeb</i> ‘my chief’		
contrast:	<i>henéécéen-o</i> ‘buffalo bulls’	>	<i>henéécee</i> ‘buffalo bull’ (NA)
194)	<i>hooxéihin-o</i> ‘wolves’ (NA)	>	<i>hóóxei</i> ‘wolf’
195)	<i>be3én-o</i> ‘breasts’ (NI)	>	<i>bé3en</i> ‘breast’
196)	<i>be3ítin-o</i> ‘anuses’ (NI)	>	<i>bé3it</i> ‘anus’

All three sets of lists suggest a tendency to avoid final-syllable pitch accent in nouns. But as the examples in 1.3.1 show, there is no general restriction on this feature in Arapaho (cf. *koo’óhw-uu* ‘coyotes’, *koo’óh* ‘coyote’; *béesibin-o* ‘plums’, *béesib* ‘plum’). Thus, there is no clear underlying synchronic phonological motivation for the pitch accent losses and left shifts seen above.

1.3.5.4 Predictable word-level Vv-V patterns in the plural (Pattern 2)

There are a number of nouns that show *unpredictable* high pitch accent on the plural suffix (around 20 percent of the sample). Note that this final high pitch is relatively lower than the pitch on the stems, and it is sometimes ambiguous—several nouns marked by Salzmann in this way in his dictionary were judged to lack such pitch by Cowell during re-elicitation; not coincidentally, these nouns also did not show changes to the underlying pitch accent of the stem.

As a result of the pitch accent addition in the plural, word-level rules force accented long vowels in the preceding syllable to predictably shift to a falling vowel. When the plural suffix disappears in the singular, however, the words lose this pitch pattern, showing that the underlying stem has a long, pitch-accented vowel.

197)	<i>hisée3-íí</i> ‘pines’ (NA)		
or:	<i>hiséet-ó</i> ‘pines’ (NA)	<	<i>hiséé3</i> ‘pine’
198)	<i>bei3ées-íí</i> ‘testicles’ (NA)	<	<i>bei3éés</i> ‘testicle’
199)	<i>ní3ouyóon-ó</i> ‘udders’ (NI)	<	<i>ní3ouyóó</i> ‘udder’
200)	<i>nohúux-ó</i> ‘nests’ (NI)	<	<i>nohúúx</i> ‘nest’
201)	<i>nóokh-ó</i> ‘rabbits’ (NA)	<	<i>nóóku</i> ‘rabbit’

In contrast to the above examples, other words do *not* show a pitch accent shift in the singular when the plural pitch accent is removed, showing that the underlying stem has a falling accent, or has been reanalyzed as such.

202)	<i>wot(i)tóotn-ó</i> ‘matches’ (NI)	>	<i>wot(i)tóot</i> ‘match, fire flint’
203)	<i>noyóotn-ó</i> ‘traps’ (NI)	>	<i>noyóot</i> ‘trap’
204)	<i>hitéin-ó</i> ‘branches’ (NI)	>	<i>hitéi</i> ‘branch’
205)	<i>3óox-úú</i> ‘entrails’ (NI)	>	<i>3óox</i> ‘entrail’

1.3.5.5 Unpredictable *addition* of pitch accent in the singular (Pattern 3)

Another set of nouns show unpredictable addition of a pitch accent to the final syllable of the stem in the singular. This converts the pitch pattern of the underlying stem from VV to the expected Vv-V pitch accent pattern. Note that this is effectively the opposite of what occurs in 1.3.5.2, where the final syllable *loses* underlying pitch accent:

206)	<i>híikon-o</i> ‘lungs’ (NI)	>	<i>híikón</i> ‘lung’
207)	<i>be3íi3iiw-o</i> ‘warts’ (NA)	>	<i>be3íi3[ííb]</i> ‘wart’ (cf. <i>ne3íi3ííb</i> ‘my wart’)
208)	<i>hehíixoon-o</i> ‘napkins’ (NI)	>	<i>hehíixóó</i> ‘napkin’
209)	<i>wóóxoh-o</i> ‘knives’ (NI)	>	<i>wóóxé</i> ‘knife’
cf.	<i>3óóxoh-o</i> ‘gloves, mittens’ (NA)	>	<i>3óóxé</i> ‘glove, mitten’

In summary, the following pitch accent relationships occur between plural and singular noun stems:

Pattern 1a: no pitch accent on PL inflection; no change in pitch accent of S stem

Pattern 1b: no pitch accent on PL inflection; loss of final pitch accent in S stem

Pattern 1c: no pitch accent on PL inflection; left shift of pitch accent in S stem

Pattern 2a: pitch accent on PL inflection > Vv-V; reversion to VV in S stem

Pattern 2b: pitch accent on PL inflection; Vv-(V) pattern in S and PL stems

Pattern 3: no pitch accent on PL inflection; addition of final accent in S > Vv-V in S stem

1.3.5.6 Predicting pitch accent based on phonological shape

As the last example of the preceding section is meant to suggest, words of similar phonological shape in Arapaho show similar pitch accent patterns. This is not surprising, since Arapaho pitch accent is the product of diachronic phonological processes (there was no pitch accent in Proto-Algonquian), and we would expect regularity in these processes. For example, nouns ending in plural VCv-V show singular pitch accent of VCv-’:

210)	<i>coo3óni-’</i>	‘prairie dog’ (NA)
	<i>coo3óni-í</i>	‘prairie dogs’
211)	<i>béxko-’</i>	‘squash’ (NA)
	<i>béxko-ú</i>	‘squashes’
212)	<i>hééni-’</i>	‘ant’ (NA)
	<i>hééni-í</i>	‘ants’
213)	<i>hóte-’</i>	‘sheep’ (NA)
	<i>hóte-í</i>	‘sheep, plural’
214)	<i>hooníno-’</i>	‘porcupine quill’ (NA)
	<i>hooníno-ú</i>	‘porcupine quills’

A variant of the pattern (see rule 12b below) occurs as follows:

- 215) *seeníwo-ʔ* ‘lizard’ (NA)
seeníwou-ú ‘lizards’
- 216) *hoséíno-ʔ* ‘meat’ (NI)
hoséínou-ú ‘pieces of meat’

The pattern here is unusually regular, however. As noted above, many patterns remain unpredictable.

1.3.6 Prosodics and Syllable Structure

Once surface pitch accent is assigned to Arapaho words, a series of secondary phonological effects occur, controlled by the placement of pitch accent. It should be noted that Cowell and Moss 2005b (source O), which is otherwise a major source of examples in this grammar, used a somewhat abstract orthography, as explained in the editorial principles of that work, as does A. Moss and Cowell 2006 (source R)—in both cases, the aim was to try to preserve underlying similarities between roots and stems on the surface to help both readers and learners. Neither of those sources should be used alone to examine syllable structure or syncope processes, as the representation of these components of the language is incomplete in the orthography of these two sources. Salzman 1983 (source C) uses a less abstract orthography, but it also does not illustrate the full range of surface features discussed below. In general, the variations in transcription between Kroeber, Michelson, Salzman, Conathan, and Cowell and Moss, as well as in various Arapaho curricular materials, can be explained almost entirely by either the varying representation of the features to be discussed below or by the variance over time or among speakers of these same features. The most reliable documents with which to study the features below are Alonzo Moss’s very close transcriptions of Paul Moss’s stories, which are archived at CSILW (see introduction), and Arapaho-produced curricular materials, which tend away from abstraction. Forms such as *hé’hii-* for more abstract (or careful speech form) *hé’ih’ii-* NPASt.IMPERF are very common in those transcriptions. The rules that produce *hé’hii-* (syncope of short, unaccented /i/ and reduction of /h’/ to /h/) will be explained below, along with others. Hopefully, this work will help to further regularize transcription conventions and standard orthography for Arapaho, or at least better clarify the choices involved.

1.3.6.1 Prosodically controlled phonological rules

The following rules describe secondary phonological results of the placement of pitch accent on the word in Arapaho. Unlike the intermorphemic rules (1–10), these rules are somewhat variable from speaker to speaker and also depend to an extent on speed of delivery.

Rule 11: Glottal Stop Metathesis and Secondary Short Vowels

Rule 11a

CV'vC > CVv'C (when the two v's are different and V is a high-pitch vowel). (Note that a similar phenomenon occurs in Blackfoot—see Frantz 1991:85).

- 217) /3i'otox/ 'nine' > 3io'tox
 218) /niikó'etee'/ 'it pops' > niikóe'tee'

This is the source of the many allomorph pairs in Arapaho of the type /ko'/kou'/ 'become separate'; /3o'/3ou'/ 'deteriorate, to pieces'; /be'/bei'/ 'red'; /bo'/bou'/ 'red'; and /se'/sei'/ 'flat'.

Rule 11b

When the two vowels are capable of forming a diphthong, the pitch accent is normally strengthened and added to the second vowel as well:

- 219) /é'inoo/ 'know it!' > /éi'noo/ > héi'noo

Rule 11c

Finally, for some speakers, with diphthong-forming pairs, a secondary /i/ is then inserted after the glottal stop as well: *héi'inoo* 'know it!'.

Note: when the two v's are the SAME, the unstressed short vowel is normally simply dropped—see the discussion of syncope.

Rule 12: Secondary Glottal Stops and Secondary Diphthongs

Rule 12a: V1v2v2 (long diphthongs) > V1V2'v2 or V1V2'v1v2

Due to the strengthening of accented syllables, most speakers pronounce long diphthongs with a secondary (often partial) glottal stop, with the pitch accent extended to both vowels prior to the diphthong, and sometimes as a double diphthong. This also involves extension of the pitch accent to additional vowels:

- 220) /otou3óuubéhi/ 'how are you feeling?' > hotou3óú'ubéih > hotou3óú'oubéih

Rule 12b: V1v2 > V1V2'v2; v1V2 > v1v2'V2

A similar phenomenon to the above occurs in two syllables involving two unlike vowels that may form diphthongs, where only one of the vowels receives the pitch accent. The first vowel is diphthongized, and a secondary glottal stop is inserted. This feature is especially prominent finally.

- 221) /néniibéit/ 's/he is singing' > néniibéi't
 222) /néniibeí3i'/ 'they are singing' > néniibeí'í3i'

Alternately, for some speakers, the second situation produces $v1V2 > v1'VIV2$

223) /wo3onóhoé/ 'pen, pencil' > wo3onóho'óé

Rule 12c: V1v1v1 > V1'v1

In sequences of three like vowels, a secondary stop is often inserted in place of the second vowel:

224) /níiinon/ 'tepee' > ní'inon

225) /óoón/ 'bed' > hó'o

Rule 13: Long Vowel/Diphthong Reduction

Rule 13a: V1V2 > v1 (where V1V2 is a diphthong)

226) *nii'éthii* 'bird' > *nii'éhíth-o'* 'birds'

227) *tenéi'élhi-noo* 'I am strong' > *tenéi'éhí-3i'* 'they are strong'

A variant, for some speakers, is reduction of the diphthong to a long vowel:

228) *betéihii* 'dancer' > *betehíih-o'* 'dancers'

Note: historically, this should be analyzed as the opposite process: diphthongization of accented short /e/ and /o/ prior to syllables with /i/ and /u/, respectively. Synchronically, however, the form /ei/ is sometimes retained even when unaccented.

Rule 13b: VvV > Vv (where VvV is a three-vowel sequence of the same vowel)

This occurs when final VvV takes an inflection. There are actually different sub-patterns of this reduction, which will be discussed in more detail shortly.

229) *bóó* 'road' > *bóon-ó* 'roads'
> *bóon-é'* 'on the road'

Rule 14: Reduction of /h'/ Cluster

When it precedes a syllable with pitch accent, the cluster /h'/ is often reduced to /h/ in normal speech. Thus:

230) /nih'óó3oo/ 'white person' > *nihóó3oo*

Rule 15: Shift and Loss of Intervocalic /h/

The sequences /(*i*)íhe/ and /(*ó*)óhe/ shift to /ieh/ and /óeh/, respectively, sometimes further reducing to /eh/ when the first vowel is short. Both of these processes are evident in the following form:

231) /cebííhēt-íhehkóni/ 'if they gamble' > /cebíeht-íehhkóni/ > *cebíeht-ehkóni*'

The /h/ is lost finally, thus producing (as variants of *niicíi* and *neisíi*)

232) /neisííheh(i)/ 'my grandchild' > *neisíe*

233) /niicííheh(e)/ '(little) river' > *niície*

Rule 16: Vowel Harmony: ee~oe Following /o/

For most speakers, /ee/ following a syllable with /o/ shifts to /oe/ at least some of the time. The frequency and degree of shift varies considerably. Thus:

234) *néíhoow-é(é)*'in 'I don't know' > *néíhoow-óé*'in

Rule 17: Secondary Loss of Word-initial /h/

When /h/ occurs at the beginning of a phonological word following a consonant, whether this is at a prenoun/preverb boundary (through syncope of derivational /i/), following a proclitic, or following a word ending in a consonant, it drops secondarily in normal speech:

235) *núhu' hísei* 'this woman' > *núhu'úsei*

236) *tóónhei'íihi* 'sometime' > *tóónei'íihi*'

237) *néíhoow(u)-hésnee* 'I'm not hungry' > *néíhoow-ésnee*

Rule 18: Reduction of Like Consonants

Due to vowel syncope, like consonants often occur together (see 1.3.7). In many cases, these consonants are further reduced to a single consonant. Contrast:

238) /woníneyéi3éi/ 'go study!' > *woníneyéi3éi*

239) /woninótitonín/ 'go ask him!' > *wonnóttonín* (via syncope) > *wonótónín*

Example of variation: A further examination of rule 13b

The rule concerning three-vowel-sequence reduction stated above is valid for most speakers. However, there is some variation. In the following, we examine in detail the treatment of triple vowels in three restricted similar environments.

A number of nouns end in /óóón/. Plurals, obviatives, and forms with locative suffixes show three different treatments of this final vowel sequence in Arapaho. One pattern reduces the triple vowel sequence to a pitch-accented double vowel in such circumstances, with no accent on the inflectional suffix (secondary glottal stops are ignored in the following):

240) *bóóó* 'road' (NI)
bóón-e' 'on the road'

PHONOLOGY

- 241) *hóóó* 'bed' (NI)
hóób-e' 'in the bed'
- 242) *bíí3hiitóóó* 'table' (NI)
bíí3hiitóón-o 'tables'
- 243) *betényóóó* 'body' (NI)
betényóón-o 'bodies'
- 244) *híicóóó* 'pipe' (NA)
híicóón 'pipe' (OBV)

In free variation with this pattern is another that maintains the triple vowel but shifts the pitch accent from -VvV- to -Vvv while also adding a pitch accent to the suffix:

- 245) *wokóóó* 'back' (NI)
wokóóow-ó 'backs'
- 246) *bóóó* 'road'
bóóon-ó 'roads'
bóóon-é' 'on the road'
- 247) *hóóó* 'bed'
hóóow-ó 'beds'
- 248) *híicóóó* 'pipe'
híicóóon-ó' 'pipes'
hitíicóóon 'his pipe' (OBV)
- 249) *se'nóóó* 'plate' (NI)
se'nóóon-ó 'plates'
se'nóóon-éhe' 'saucer' ('little plate')
- 250) *3owo3nóóon-ó* 'cans' ('upright plates/food holders') (NI)

Finally, a secondary variant of the previous pattern shortens the triple sequence but otherwise retains the same pitch accent pattern as above. This is the most common pattern, and the one cited as the basic rule 13b:

- 251) *wokóóó* 'back'
wokóow-ó 'backs'
- 252) *híicóóó* 'pipe'
híicóón-ó' 'pipes'
hitíicóón 'his pipe' (OBV)

253)	<i>se'nóóó</i>	'plate'
	<i>se'nóón-ó</i>	'plates'
	<i>se'nóoon-éhe'</i>	'saucer' ('little plate')
254)	<i>3owo3nóón-ó</i>	'cans' ('upright plates')

1.3.6.2 Syllable structure

The pitch accent patterns in Arapaho are crucial for determining syllable structure, as well as vowel syncope, which will be treated in the following section.

Canonical syllable structure

Canonical syllables in Arapaho have the structure CV(C), where V can be short or long or a diphthong, and (C) may be either a single consonant or /hC/. Intervocalic glottal stops are ambisyllabic but are presented in the following discussion as syllable-initial only for clarity.

Vowel-initial syllables

There are a restricted set of circumstances where vowel-initial syllables occur: in particular, as parts of sequences of two or three vowels.

Three like vowels

When sequences of three like vowels occur, the vowels occur with one of the following pitch accent patterns: VvV, Vvv, or vVV. The syllables that correspond to these patterns have the form Vv.V, V.vv, and v.VV, respectively:

255)	<i>hóóó</i>	>	<i>hóo.ó</i>	'bed'
256)	<i>níiinon</i>	>	<i>ní.ii.non</i>	'tepee'
257)	<i>beetéee-noo</i>	>	<i>bee.té.ee.noo</i>	'I am dancing'
258)	<i>beeteéé-3i'</i>	>	<i>bee.te.éé.3i'</i>	'they are dancing'

Two unlike vowels, able to form diphthong

When sequences of two unlike vowels that can constitute a diphthong occur, these may consist of either a single syllable or two syllables, depending on the pitch accent. The possible pitch accent patterns are VV, Vv, and vV. When pitch accent falls on both vowels, a single syllable occurs; when it falls on one vowel only, this may be a falling diphthong or two syllables may occur; vV is always two syllables:

/Céí/ = Céí

/Céi/ = Cé.i or Céi

/Ceí/ = Ce.í

(and so forth for other possible pairs)

PHONOLOGY

259)	<i>néniibéinoo</i>	>	<i>né.nii.bé.i.noo</i>	'I am singing'
260)	<i>néniibeí3i'</i>	>	<i>né.nii.be.í.3i'</i>	'they are singing'
261)	<i>níhbiinéinoo</i>	>	<i>níh.bii.néi.noo</i>	's/he gave it to me'
262)	<i>nonookéihí3i'</i>	>	<i>no.noo.kéi.hí.3i'</i>	'they are white'
263)	<i>wo3onóhoé</i>	>	<i>wo.3o.nó.ho.é</i> (sometimes <i>wo3onóho'óé</i>)	'pen, pencil'

It should be noted that the distinction between one and two syllables can be difficult to hear in rapid speech, such as in narratives—even the distinction between /é.i/ and /éí/, much less /éi/ and /é.i/. For this reason, users of the anthology of Paul Moss's stories should treat pitch accent marking on /ei/ and /ou/ sequences with care—there are certainly some sequences marked as single syllables that upon re-elicitation with slow, careful pronunciation (from other speakers) turn out to be bisyllabic.

Two like vowels

When two like vowels occur, falling pitch does not produce two syllables; however, rising pitch, which is rarer, does produce bisyllabic formations:

264)	/wóoxé/	>	<i>wóo.xé</i>	'knife'
265)	/e'íyoó/	>	<i>he.'i.yo.ó</i>	'watch, clock'

Two unlike vowels, unable to form diphthong; three unlike vowels

Sequences of two vowels that cannot constitute a diphthong, or three unlike vowels, can form either one or two syllables. One-syllable forms include:

266)	<i>nii'ehío</i>	>	<i>nii.'e.hío</i>	'bird' (OBV)
267)	<i>hihéio</i>	>	<i>hi.héio</i>	'his/her aunt' (OBV)

Rules 11 and 12: Parallelism

Note that rule 11 above produces sequences of the form CV1V2'v2. Rule 12 likewise produces sequences of the form CV1V2'v2. In the first case, the addition of secondary v2 after the glottal stop produces a canonical Cv syllable in place of a CVV' syllable. In the second case, the addition of the secondary glottal stop between V2 and v2 again produces a canonical Cv syllable, this time in place of a vowel-initial syllable. Thus, one sees the following sequences (using only two-vowel, potentially diphthong-producing pairs as examples):

RULE 11

Cé.'i	>	Céí'	>	Céí.'i
Có.'u	>	Cóú'	>	Cóú.'u

RULE 12

Cé.i	>	Céi.i	>	Céi.'i
Có.u	>	Cóú.u	>	Cóú.'u
Ce.i	>	Cei.i	>	Cei.'í
Co.ú	>	Cou.ú	>	Cou.'ú

These examples illustrate the feedback between syllable structure and the prosodic phonological rules: prosody, and the secondary phonological rules that result, determine syllable structure, but canonical syllable structure seems to be one key motivation for the application of some of the secondary phonological rules. And finally, the fact that sequences like /neniibéit/ 's/he is singing' produce pronunciations such as *neniibéi'tit* reinforces the initial validity of analyzing the /éi/ sequence as bisyllabic, and not a falling-tone diphthong. Note as a corollary that secondary glottal stops are an excellent diagnostic tool for identifying underlying bisyllabic forms in Arapaho.

1.3.7 Vowel Syncope

Vowel syncope is a secondary result of pitch accent placement. It occurs with short, unaccented vowels. It occurs most commonly in the environments X-x-x and x-x-X but also sometimes in the environment x-x-x. In all cases, the (short, unaccented) vowel of the middle syllable is dropped. Like pitch accent, syncope is a word-level process, not restricted to just stems or just stems plus inflections.

Syncope of /e/ and /o/

Syncope involves all four vowels, but /e/ and /o/ are only marginally involved. In a sample of around 200 instances of short, unaccented vowels, underlying /e/ and /o/ were dropped less than 5 percent of the time. The only regular environments where this occurs are in a few plurals (involving /o/ only) and in the sequence /v'v/:

268)	/benéeton-o/	>	<i>benéét-n-o</i> 'drinks'
269)	/íine'etii-3i'/	>	<i>heníine'tii-3i'</i> 'they are living'
270)	/wó'oteeni-céi/	>	<i>wó'teencéi</i> 'tar, asphalt' (lit. 'black pitch')

Syncope of /i/ and /u/

Conversely, in the same sample, underlying /i/ and /u/ were dropped nearly two-thirds of the time. Where these two vowels occur either derivationally, with preverbs and prenouns, or epenthetically, they are automatically dropped unless they happen to receive pitch accent, except in very slow, deliberate speech. But these two vowels are also dropped from within roots and stems. Indeed, as the two-thirds figure suggests, the default usage is to drop them here as well when unaccented.

271) /eenéti3-i/	>	<i>heenéts-i</i> 'speak to me!'
272) /cébit-okóy/	>	<i>cébtokóy</i> 'square tent, house tent'
273) /bii3ihi-noo/	>	<i>benii3ih-noo</i> 'I am eating'

Syncope of this sort occurs not only internally to roots and stems but word-initially as well, where words are vowel-initial, although often the syncopated version is in free variation with the non-syncopated version.

274) /inenítee/ 'person'	>	<i>hinenítee</i> or <i>nenítee</i>
275) /inóno'ée/ 'Arapaho'	>	<i>hinóno'ée</i> or <i>nóno'ée</i>
276) /isítee/ 'fire'	>	<i>sítee</i> or <i>hisítee</i> (archaic, s.t. <i>hesítee</i>)
277) /ihoowu/ NEG	>	<i>hoowu-</i>
278) /iséét/ 'pine'	>	<i>hiséé3</i> or <i>séé3</i>
279) /iséihon/ 'weasel'	>	<i>hiséihon</i> or <i>séihon</i>

Blocking of /i/ and /u/ syncope

The conditions that block syncope of /i/ and /u/ and account for the roughly one-third of underlying instances that remain are a combination of phonological and word-level prosodic factors. These factors are:

1. Syncope does not occur word-initially when the word is consonant-initial.
2. Syncope does not occur word-finally except where the resulting surface syllable will have the form /VhC/. Moreover, the consonant must be a voiceless stop consonant:

280) /e'éeihi-t/	>	<i>hee'éeih-t</i>	's/he is wise'
281) /e'éeihi-n/	>	<i>hee'éeihi-n</i>	'you are wise' [never * <i>hee'éeih-n</i>]

3. Syncope does not occur in underlying syllables having the sequence /vh/. This sequence shows some similarities to long vowel sequences in Arapaho (see 3.1).
4. Syncope does not occur, or at least is very rare, where the sequence /C'/ would result. In fact, where this sequence occurs in underlying forms (as /h'/), speakers often insert a secondary vowel in surface pronunciation. (But see rule 11.)
5. Syncope does not occur when sequences of three consecutive consonants would result.
6. Syncope usually does not occur when sequences of two consecutive accented syllables would result. There are occasional exceptions, but in these cases, a secondary glottal stop occurs in place of the syncopated vowel:

282) <i>née'eesimihíi-noo</i>	>	<i>née'eesin(°)hií-noo</i>	'that's what I'm saying'
-------------------------------	---	----------------------------	--------------------------

Secondary interactions between syncope and pitch accent

In some cases, two accented syllables, with the first syllable long, may come together either as a direct result of vowel syncope (example 283) or as a secondary result of grammatical pitch accent shifts and syncope (example 284). In this case, the first syllable's accent changes to a falling tone, as predicted by the pitch accent rules:

- 283) *nóóku* 'rabbit'
nóokhó' 'rabbits' (< /nóókuh-ó'/)
- 284) *se'éictoot* 'apron'
se'éictóótoto 'aprons' (/se'éicitóótoto/)

These examples show that although pitch accent is primarily assigned before the prosodic changes in section 1.3.6 and 1.3.7 occur, there is some secondary feedback between prosody and syncope on the one hand and pitch accent on the other.

Consonant gemination via syncope

Note that syncope can lead to consonant gemination:

- 285) /wóótitonee-noo/ 'I am making a fire' > *wóóttoneeno*
 286) /nóótiton-é3en/ 'I am asking you a question' > *nóóttóné3en*

Some speakers further reduce this to a single consonant, but others do not.

Finally, the reader should recall that exceptions to these syncope rules can almost certainly be found, given the flux of syncope processes among current Arapaho speakers, as well as the changes that have occurred over the more than 100 years of textual documentation. This is especially the case with retentions of /i/ and /u/ not covered by the rules above, which definitely occur. In many cases, these retentions seem explainable by the fact that the particular consonant sequences that would result from syncope would be phonetically awkward for Arapaho speakers, such as combinations of velars and dentals and the like (/kut/ and /ku3/ are normally retained, for example). But although reasonable explanations are available, the variation among speakers renders rule statements at this level extremely difficult. Note that Salzmann 1983 includes many examples where short, unaccented vowels are placed in parentheses, indicating either variation in syncope from speaker to speaker or ambiguous syncope, where reduction may be only to [ə].

1.4 NOTES ON THE PHONOLOGICAL ANALYSES IN THE REMAINDER OF THE GRAMMAR

A full understanding of the way pitch accent works in the language requires that underlying pitch accent be specified accurately for all morphemes. In this grammar, we have generally not marked pitch accent on underlying morphemes. Exceptions are this first chapter, chapter 4 on noun derivation (since pitch accent on nouns is better understood than for verbs), and specific high-frequency grammatical or lexical morphemes either discussed individually or listed in tables. Where such marking occurs, it is specifically noted in the text. The primary reason for not marking additional underlying pitch accents is that for many forms, the accent remains unsure: it is often difficult to disassociate the underlying accent from the effects of word-level and grammatical pitch accent shift, as well as secondary prosodic phenomena. At this point, we could confidently assign underlying accents for probably 90 percent

or more of the morphemes cited in the grammar, but it would be very awkward to indicate accent for those forms and leave accent for the rest unmarked, so we have simply not marked underlying accents in the analyses of examples, with the exceptions just listed.

Note also that from this point on in the grammar, in the analyses of underlying phonology and morphology (the second line of the four-line presentation format), any complex form that is listed without divisions will be listed with all morphophonemic derivations already applied (i.e., rules 1–9 above). In other words, when it is appropriate, the stem /*tou3-i-too*/, /*what-EP-do*/ will be presented morpheme by morpheme. However, in discussions of syntax and pragmatics, for example, where this degree of analysis is not necessary, the stem will be presented as /*tousitoo*/, with the mutation of /*3*/ to /*s*/ prior to /*i*/ already applied. Effectively, this means that between hyphens in the analysis, all morphophonemic rules will have been already applied, as in /*e-ii-tousitoo*/, /*2-IMPERF-do(AI)*/, ‘what are you doing?’. Note, however, that rules regarding pitch accent and prosodics (i.e., rules 11ff) will not have been applied—the surface form of /*tousitoo*/ for example is *tóústoo*, with syncope of the epenthetic /*i*/, but it is always presented on line 2 of the analyses as /*tousitoo*/.

2

INFLECTION—NOUNS

Although the inflection of noun stems is less complex than that of verb stems, they still show a rich variety of processes. Noun stems can be inflected for plural, obviative, vocative, and locative (using suffixes), as well as for possession (prefixed person markers, suffixed number markers). In addition, all nouns are either animate or inanimate gender. There are no specific inflections marking gender—it is a property of the noun stems themselves. But the gender of the noun determines the exact form of many inflectional markers. For this reason, we begin by discussing gender and then proceed to discuss the inflectional morphology.

2.1 PRELIMINARY: ANIMACY AND INANIMACY

Animacy and inanimacy are fundamentally grammatical categories, but there is important semantic correspondence. For example, all humans, animals, birds, and other *semantically* animate objects are *grammatically* animate as well. In addition, all

celestial objects (sun, moon, star, names of constellations) are animate, as are nouns for spirits, ghosts, and so forth. And conversely, most semantically inanimate objects are grammatically inanimate. In addition, virtually all nouns formed using verbal participles are inanimate. But there are a significant number of semantically inanimate objects that are nevertheless grammatically animate. Examples include:

<i>tecénoo</i>	‘door’
<i>koho’owóó</i>	‘ball’
<i>ho’onóókee</i>	‘rock’

Moreover, such examples cannot be reduced to classes: some body parts (calf, kidney) are animate, whereas others are inanimate, and some berries (strawberry, gooseberry) are animate, whereas many others are inanimate. Furthermore, the word ‘berry’ itself (*bíibinoot*) is inanimate, despite the fact that some specific berries are animate. Conversely, the word ‘tree’ (*hohóót*) is animate, but some individual types of trees are inanimate.

In a few rare cases, the same noun can be both animate and inanimate, with different meanings (and sometimes also with different pitch accent):

- | | | |
|----|-------------------------|----------------------|
| 1) | <i>wo3onohóe</i> (IN) | ‘paper, book’ |
| | <i>wo3onóhoé</i> (AN) | ‘pencil, pen’ |
| 2) | <i>kokíy/kokíy</i> (IN) | ‘gun, pipe’ |
| | <i>kokíy/kokíy</i> (AN) | ‘ceremonial whistle’ |

The simplest test for animacy is to compose sentences for native speakers in which the nouns are used as objects marked on the verb. Their use of a TA vs. a TI verb stem indicates the gender class of the noun.

The example of ‘paper’ vs. ‘book’ seems to be an area where semantics may play a role in gender distinctions: pencils and pens “do” something, whereas paper and books do not. A related example is the word for ‘log’ (*bes*), which is inanimate. However, if a log rolls down a slope and hits someone, it is treated as animate, as in the Arapaho place-name for a spot near Windy Gap, Colorado, just east of Rocky Mountain National Park:

- | | | | |
|----|--------------------------------------|---------------------------------|--------------|
| 3) | <i>hisei tihnoxouso’néit bes.</i> | | |
| | <i>isei</i> | <i>tih-noxouso’on-eit</i> | <i>bes-i</i> |
| | woman | when-kill by rolling on(TA)-4/3 | log-S |
| | ‘Where a woman was killed by a log.’ | | |

Note that the inanimate form treated as animate always take the obviative role in the sentence. No modifications occur on the noun itself, which remains inanimate in form and inflection. Another example from a text involves normally inanimate arrows, which are treated as animate when shot and going into and through the body of an animal:

- 4) *hé'ih'iixóoxookuséénino núhu' hó3ii*
 e'ih-ii-xooxookusee-nino nuhu' o3-ii
 NPAST-IMPERF-REDUP.go through(AI)-4PL this arrow-PL
 '[Their] arrows went right through
- niíne'ééno núhu' híi3einóón*
 niine'ee-no nuhu' ii3einoon-[in]
 here is-PL.OBV? this buffalo
 the buffalos.' [O:Scouts, 60]

Similarly, upon hearing a report of a TV falling off a stand and killing a young child, a speaker said:

- 5) *nihnóxowoonéit núhu' ce'iskuu3óó.*
 nih-noxowoon-eit nuhu' ce'isikuu3oon-i
 PAST-crush(TA)-4/3S this television-S
 'The TV crushed her to death.'

Asked to describe the same situation, Alonzo Moss gave the following sentence with an animate subject (for the inanimate TV):

- 6) *nihtéescenisi'.*
 nih-teesi-cenisi-'
 PAST-on top-fall(AI)-3
 'It fell on [her].'

He noted that the inanimate-subject equivalent *nihtéescenise'* (PAST-on top-fall(II)-0S) sounded “strange.” Another example of a normally inanimate form being animate occurs in Salzmann 1956c:3.2.75–76 (a traditional narrative). This is a common phenomenon in Algonquian languages (Goddard 2002; Wolfart 1996:399).

Speakers are also quite willing to postulate semantic reasons for the animacy of common words (doors swing, balls and rocks are thrown, etc.). Although these are typically ad hoc folk explanations, they nevertheless often evoke a contrast between greater activity or force on the part of animate objects in comparison to inanimates, which corresponds with the tendency of speakers to treat inanimate objects that unexpectedly “do things” as grammatically animate in certain cases, such as the sentences above. Thus, speakers do seem to have a set of “ideologies” of animacy that have some correlates in their linguistic behavior, and that (as the place-name recorded in 1914 shows) predate modern bilingualism and explicit awareness of the concept of grammatical animacy. This corresponds with suggestions that there are some semantic correlates in Algonquian languages between animacy and inanimacy, with these correlates involving things like general objects as opposed to specific types, or collective vs. individual objects (see Goddard 2002:212–216). But although such distinctions appear important in individual, contrastive instances, no general, single distinction such as greater “activity” can be invoked to account globally for animacy in Arapaho, and many members of the category are simply inherited from Proto-Algonquian.

2.2 PLURALS

All Arapaho non-mass nouns can be inflected for singular/plural. For both inanimate and animate nouns, two basic plural inflection types occur: /o/ (IN) and /o'/ (AN); and /ii/uu/ (both IN and AN, alternation conditioned by vowel harmony).

7)	<i>noon</i>	'egg' (IN)	8)	<i>ho3</i>	'arrow' (IN)
	<i>nóóno</i>	'eggs'		<i>hó3ii</i>	'arrows'
9)	<i>hisei</i>	'woman' (AN)	10)	<i>wox</i>	'bear' (AN)
	<i>hiscino'</i>	'women'		<i>wóxuu</i>	'bears'

The two basic plural allomorphs are the result of diachronic changes to a single set of PA animate and inanimate plural inflections, in differing phonological environments.

Another irregularity affecting modern Arapaho nouns occurs because in many cases the final elements of the underlying noun stem have been lost diachronically in the singular but reappear in the plural (as in the final /n/ in 'woman'). The result is that synchronically, plurals are fairly irregular in the exact details of their formation, although the irregularities can easily be explained by appeal to diachronic analysis (see Goddard 1974 and Picard 1994). The inanimate plural ending /o/ occurs in several different synchronic variants, for example, including /no/, /ho/, and /ono/, and the animate plural ending likewise occurs as /no'/, /ho'/.

It is important to recognize that the underlying form of the noun stem always appears in the plural. This underlying form is used in most derivational processes, including the formation of verbal medials and denominalizations to produce verbs, as well as in the formation of plurals, obviatives, possessives, and locatives. The primary changes that have affected stems in the singular are:

- 1) loss of final, unaccented (in *underlying* stem) /Vn/, /Vh/, and /Vw/;
- 2) loss of final /n/, /h/, and /w/ following either long or short vowels, accented or unaccented, *except* in cases where these were retained (due to pitch accent) in #1;
- 3) loss of any final consonant in the final cluster /hC/.

These processes can feed each other, as in /niicííheh/ 'river' > /niicííh/ (by rule 1) > /niicíí/ (by rule 2)—cf. plural *niicííhoho* 'rivers', with final /e/ of the stem conditioned by e~o vowel harmony. Note that these rules are not absolute—there are occasional exceptions, especially in the case of single-syllable stems. But the preceding rules will allow for the derivation of singular forms from the underlying stem in almost all cases.

Note also that many nouns show shifts in the final consonant of the stem from the singular to the plural. These shifts can be most economically accounted for by positing an underlying inflectional /i/ for the singular of inanimate nouns, which is replaced in the plural by either /o/ or /ii/. This final /i/ produces the expected

consonant mutations detailed in chapter 1 and accounts for the differences in final consonant between many singular and plural inanimate nouns (along with a few animates). However, it appears nowhere in surface pronunciation (except via its secondary effects). There is also a variant of the /ii/ plural inflections that occurs only with nouns that have a stem with a final vowel. The formal inflectional patterns for NI nouns are:

NI Type 1 (Consonant-final underlying stems)

Singular	-i > -∅
Plural	-o

NI Type 2a (Consonant-final underlying stems)

Singular	-i > -∅
Plural	-ii

NI Type 2b (Vowel-final underlying stems)

Singular	-'
Plural	-ii or -i

Examples of NI forms that involve simple addition of the plural morpheme are 'egg' (type 1) and 'arrow' (type 2a) above, as well as *ho'óowú-'* / *ho'óowú-ú* 'house/houses' (type 2b). Examples where elements of the stem have been dropped in the singular are:

- | | |
|--------------------------------------|---|
| 11) <i>wó3onohóe</i> 'book' (type 1) | 12) <i>benéét</i> 'drink' (type 1) |
| <i>wó3onohóén-o</i> 'books' | <i>benééton-o</i> 'drinks' |
| 13) <i>wóoxé</i> 'knife' (type 1) | 14) <i>wótoo</i> 'pair of leggings, pants' (type 1) |
| <i>wóóxoh-o</i> 'knives' | <i>wotóoh-o</i> 'pairs of leggings, pants' |

Note that some inanimate nouns have a *stem* ending in /' /—this final glottal stop is not an inflectional ending, and remains in place when the plural is added. These nouns all take inflection type 2a. An example is *téce'* 'night', PL *téce'ii*.

Examples where mutation of final consonants produces changes in the singular are:

- | | |
|---|---------------------------------------|
| 15) <i>ce'eino3-u</i> (due to vowel harmony) | 16) <i>bei'í3-i</i> |
| <i>ce'éinóx</i> 'bag' | <i>bé'ís</i> 'one's nose' |
| <i>ce'eino3-o</i> | <i>bei'í3-o</i> |
| <i>ce'éinó3o</i> 'bags' (type 1) | <i>bei'í3o</i> 'noses' (type 1) |
| 17) <i>bex-i</i> | 18) <i>beicit-i</i> |
| <i>bes</i> 'wood, stick' | <i>béici3</i> 'one's tooth' |
| <i>bex-o</i> | <i>beicit-o</i> |
| <i>béxo</i> 'sticks, pieces of wood' (type 1) | <i>béicito</i> 'one's teeth' (type 1) |

Animate nouns share the same patterns of irregularities as inanimates. The full inflectional paradigms will be presented in conjunction with the discussion of obviatives in the following section, but we offer some examples of plurals here.

Simple addition of plural morpheme:

19)	<i>hébes</i>	‘beaver’	20)	<i>bíh’ih</i>	‘mule deer’
	<i>hébes-ii</i>	‘beavers’		<i>bíh’ih-ii</i>	‘mule deer(PL)’

Loss of elements of the stem in the singular:

21)	<i>nii’éihii</i>	‘eagle’	22)	<i>wóxhoox</i>	‘horse’
	<i>nii’ehíih-o’</i>	‘eagles’		<i>wóxhóóxeb-ii</i>	‘horses’

Changes in stem due to consonant mutation (rare and not explainable by a general, underlying singular inflectional morpheme, but showing the same phonological patterns as inanimate nouns):

23)	<i>coox</i>	‘enemy’ (archaic S)	24)	<i>hiséé3</i>	‘pine’
	<i>cóó3-o’</i>	‘enemies’		<i>hiséét-ó’</i>	‘pines’ (archaic PL)
25)	<i>neb</i>	‘fish’ (archaic S)	26)	<i>síisiic</i>	‘duck’ (archaic S)
	<i>nów-o’</i>	‘fish’ (archaic PL)		<i>síisiik-ó’</i>	‘ducks’ (archaic PL)

There are a number of nouns that have two different plural forms, varying from speaker to speaker. Many of these consist of an older form and a newer, remodeled form. The remodeled forms tend to be based on the /ii/ plural allomorph. In some cases, the plural morpheme has simply been changed from NI /o/ or NA /o’/ to /ii/; these forms may in some cases represent relatively old remodelings. In other cases, the /ii/ allomorph has been added to the older plural form, with the original plural then treated as singular. These appear to be recent innovations. Examples of the former, which can be contrasted with the plurals given above, include *síisiic-ii* ‘ducks’, *hiséé3-íí* ‘pines’, and *béi’is-íí* ‘noses’. Examples of the latter include *nówou’ú(ú)* ‘fish’ (PL), *síisiikóú’uu* ‘ducks’. Finally, there are a few cases where older singular forms have simply disappeared, so that the old plural serves both roles. Examples include ‘enemy’ (see above) and ‘goose’: archaic singular *ne’*, plural *né’ii*, the latter now used for singular and plural.

A few Arapaho nouns are always used in the plural, including *bíino* ‘choke-cherries’, *béi’ci3éi’i* ‘money’, and the obligatorily possessed form *híniihéi’i* ‘his/her parents’.

When mass nouns are inflected for the plural, the implied meaning is discrete units of the item in question, often with a more specific idiomatic meaning as well:

27)	<i>ho’óet</i>	‘clay’
	<i>ho’óetno</i>	‘(clay-based) ceremonial paints (of different colors)’
28)	<i>bes</i>	‘wood’
	<i>béxo</i>	‘sticks’

2.3 OBVIATION

In addition to plurality, animate nouns can be inflected for the obviative (see chapter 16 for a full discussion of the uses of obviation). Those whose plural is /ii/uu/ keep this same form for obviative singular and plural. Those whose plural is /o’/ mostly have the following forms, using two examples, ‘woman’ (/isei/) and ‘man’ (/inen/):

29)	PROX	OBV	30)	PROX	OBV
	S	<i>hísei</i>	<i>hísein</i>	<i>hinén</i>	<i>hinénin</i>
	PL	<i>hísein-o’</i>	<i>hísein-o</i>	<i>hinén(i)n-o’</i>	<i>hinén(i)n-o</i>

As with the formation of plurals, variations occur in the form of the stem between proximate and obviative, but the irregularities are exactly the same as described above for the plural—the underlying stem reappears with the obviative. The overall inflectional patterns are:

NA Inflectional Type 1a (Consonant-final underlying stems, where C is final consonant of the stem, and [C] indicates either mutation of the final consonant (as if from final /i/) or loss of one or more stem-final phonemes)

	<i>Proximate</i>	<i>Obviative</i>
Singular	[C]	C
Plural	C-o’	C-o

Examples: ‘woman’ and ‘man’ above. Also /otiiw/ ‘car’ and /siisiik/ ‘duck’:

31)	PROX	OBV	32)	PROX	OBV	
	S	<i>hotíí</i>	<i>hotííw</i>	S	<i>siisííc</i>	<i>siisíík</i>
	PL	<i>hotííw-o’</i>	<i>hotííw-o</i>	PL	<i>siisíík-o’</i>	<i>siisíík-o</i>

Note that for type 1a, the obviative is effectively the bare, underlying noun stem. This poses one analytic problem for the grammar: if singular proximate nouns using this inflectional pattern are presented with their true underlying form in the morphemic analyses, then they look like what are, synchronically speaking, obviative forms. For example, the underlying stem of PROX.S *hinén* is /inenin/, but *hinénin* is the obviative singular, so giving the underlying form of *hinén* as /inenin/ is functionally deceptive, if phonologically accurate. For this reason, in the grammar, singular proximate nouns of type 1a are given in the morphemic analysis with the deleted elements of the stem in brackets. Obviatives and plurals are presented with the underlying full form of the stem. The same principles are followed with TA dependent participles (chapter 18), whose person and number inflections are of type 1a.

NA Inflectional Type 1b (Consonant-final underlying noun stems, where C = /h/)

	<i>Proximate</i>	<i>Obviative</i>
Singular	[C]	[C]-o
Plural	C-o’	C-o

A small subset of nouns show a different inflectional pattern, with /o/ indicating obviative *singular*, attached not to the underlying stem but to the proximate singular form (diachronically, the final consonant of the stem—always /h/—has been lost in the obviative singular). All of these forms can be traced back to PA nouns having a final of the shape /*-Vhs/. Examples include ‘rabbit’ (/nooku/) and obligatorily possessed ‘one’s older sister’ (/bebi/):

33)	PROX	OBV	34)	PROX	OBV
	S	<i>nóóku</i>		<i>nébi</i> (my)	<i>hibio</i> (his/her)
	PL	<i>nóókuh-o'</i>		<i>nébih-ó'</i>	<i>hibih-ó</i>

This pattern occurs for many dependent nouns denoting family and relatives, as well as for forms ending in /hiih/, such as ‘bird, eagle’ (*nii'éihii*) and ‘wild animal, quadruped’ (*cese'éihii*), and all agent nouns derived from verbs with suffix /ihiih/. With these latter forms, the obviative singular shows not only loss of stem final /h/ but also shortening of the preceding vowel:

35)	PROX	OBV
	S	<i>nii'éihii</i> <i>ni'e(i)hio</i>
	PL	<i>nii'e(i)hiih-o'</i> <i>ni'e(i)hiih-o</i>

This inflectional pattern raises issues similar to those of 1a in terms of underlying vs. surface representation of the inflections, and again, nouns of this form are presented in the singular (proximate and obviative) with the deleted portion of the underlying stem in brackets.

Note that another subtype of this inflection involves nouns whose final stem vowel is /e/, such as /nisiceh/ ‘antelope, pronghorn’. In the obviative singular, the /o/ inflection causes /e/ > /o/ due to vowel harmony, and the resulting ending is /oo/ rather than /eio/, as in ‘older sister’, or /uo/, as in rabbit’. This contracts to /o/: /nisice[h]-o/ > /nisico[h]-o > /nisico-o/ > *nisico*.

36)	PROX	OBV
	S	<i>nisíce</i> <i>nisíco</i>
	PL	<i>nisícoh-ó'</i> <i>nisícoh-ó</i>

Other examples are *néih'e* ‘my son’ > *hiih'o* ‘his/her son’ (OBV) and *3óoxé* ‘glove’ > *3óoxó* ‘glove’ (OBV).

NA Inflectional Type 2a (Consonant-final underlying stems)

	<i>Proximate</i>	<i>Obviative</i>
Singular	-	-ii
Plural	-ii	-ii

Examples: see examples 19, 20, and 22 above, as well as /iwoxuuh/ ‘elk’:

37)	PROX	OBV
	S	<i>hiwóxuú</i> <i>hiwóxuuh-uu</i>
	PL	<i>hiwóxuuh-uu</i> <i>hiwóxuuh-uu</i>

NA Inflectional Type 2b (Vowel-final underlying stems)

	<i>Proximate</i>	<i>Obviative</i>
Singular	ʔ	-ii or -i
Plural	-ii or -i	-ii or -i

Examples include /ote/ ‘sheep, bighorn sheep’ and /isi/ ‘tick, woodtick’:

38)	PROX	OBV	39)	PROX	OBV	
	S	hóte-ʔ	hóte-ii	S	hisi-ʔ	hisi-i
	PL	hóte-ii	hóte-ii	PL	hisi-i	hisi-i

Note that a small number of nouns that have a stem ending in a long vowel show a variation of type 2b, in which the singular /ʔ/ marker is lacking but has been replaced by a lengthened vowel—or conversely, the underlying final long vowel is shortened when inflections are added; either analysis could be used. An example is /oo/ ‘porcupine’:

40)	PROX	OBV	
	S	hóó	ho-úú
	PL	ho-úú	ho-úú

Other nouns of this form include /xoo/ ‘skunk’, /be’enoó/ ‘turtle’, and /nih’oo3oo/ ‘spider, White Man, trickster’.

Note finally that some animate nouns have a *stem* ending in /ʔ/—this final glotal stop is *not* an inflectional ending and remains in place when the obviative and plural are added. These nouns all take inflection type 2a. An example is *hó3o* ‘star’, PL/OBV *hó3o’uu*.

There was also apparently once a “double obviative” marker used to distinguish grammatically obviative but “functionally” proximate forms from grammatically and functionally obviative forms. If the obviative is thought of as a “fourth” person, then this would have marked a “fifth person.” See section 16.1.2 for further details on this form.

2.4 NOUN/VERB AGREEMENT

In Arapaho, nouns and pronouns do not necessarily need to be mentioned explicitly in a sentence, unlike English. Thus, many sentences consist only of a verb, and the person markers on the verb can be analyzed as anaphoric clitics. When a noun is explicitly mentioned in a sentence and indexed by these anaphoric clitics, they must agree with the noun in terms of animacy/inanimacy, singular/plural, and proximate/obviative status, and the verb stem will of course agree with the grammatical category of the noun as well:

- 41) *nónoocóó' noon.* *nónoocóó'u nóno.*
 noocoo-' noon-i noocoo-'i noon-o
 IC.white(II)-0S egg(NI)-S IC.white(II)-OPL egg(NI)-PL
 'An egg is white.' 'Eggs are white.'
- 42) *nii'í3ecoot hínee hísei.* *nii'í3ecooni3i híbihó.*
 ni'í3ecoo-t inee isei[n] ni'í3ecoo-ni3i i-bih-o
 IC.happy(AI)-3S that woman(NA) IC.happy(AI)-4PL 3S-older sister(NA)-
 PL.OBV
 'That woman is happy.' 'His older sisters are happy.'

It is possible to have a verb that refers to two different nouns, one of which is proximate and the other obviative, or one animate and the other inanimate. In this case, most speakers choose to use obviative plural and inanimate plural, respectively (although there is variation from speaker to speaker):

- 43) *nési noh híbetebihów ceebíseení3i.*
 ne-si[h] noh i-betebihew-o cebisee-ni3i
 1S-uncle(PROX) and 3S-wife-OBV IC.walk(AI)-4PL
 'My uncle and his wife are walking by.'
- 44) *tóuyoo noh ho'onóokee henéinóoté'i.*
 touyoon-i noh o'onooke[n] einootee-'i
 cup(NI)-S and rock(NA) IC.lie there(II)-0PL
 'A cup and a rock are lying there.'

In general, however, speakers try to avoid such situations, and not all speakers choose the option of obviative and inanimate plurals. Some prefer to use proximate and animate plurals, respectively.

2.5 POSSESSION

2.5.1 Inanimate Objects

Both animate and inanimate nouns can be inflected for possession. Prefixes are used for person marking, whereas suffixes are used to mark both plural possessors and plural numbers of possessed objects. The prefixes are the same as those used with non-affirmative verbs:

	<i>Singular Possessor</i>	<i>Plural Possessor</i>	
1	ne-	ne-	-ínoo
12	N/A	e-	-in
2	e-	e-	-ínoo
3	i-	i-	-ínoo
4	i- in	i-	-ínoo

For further discussion of the 4S form, see example 62 and following below.

Morphophonemic details

Recall from chapter 1 that the person prefixes show e~o vowel harmony with the initial element of both nouns and verbs. In addition, when a noun begins with a vowel in its underlying form, an epenthetic /t/ is added between the person inflection and the noun: /otii/ ‘car’ > *nótotii* ‘my car’.

Singular/plural distinctions can be made for the object when the possessor is singular but not when the possessor is plural:

1S	<i>nowo3onohóe(no)</i>	‘my book(s)’
2S	<i>howo3onohóe(no)</i>	‘your(S) book(s)’
3S	<i>hiwo3onohóe(no)</i>	‘his/her book(s)’
4S	<i>hiwo3onohóenin(o)</i>	‘his/her book(s)’
1PL	<i>nowo3onohóeninoo</i>	‘our(EXCL) book/books’
12	<i>howo3onohóenin</i>	‘our(INCL) book/books’
2PL	<i>howo3onohóeninoo</i>	‘your(PL) book/books’
3PL	<i>hiwo3onohóeninoo</i>	‘their book/books’
4PL	<i>hiwo3onohóeninoo</i>	‘their book/books’

When the noun has a stem with underlying final /Vn/, the possessed form of the stem occurs as /VVn/ when plural possessor suffixes are added:

45)	<i>biixúút</i>	‘shirt’
	<i>biixúúton-o</i>	‘shirts’
	<i>nebiixúút</i>	‘my shirt’
	<i>hebiixúútoonin</i>	‘our shirt(s)’
	<i>hebiixúútooninoo</i>	‘your(PL) shirt(s)’
46)	<i>béecét</i>	‘one’s hand’
	<i>béecét(i)no</i>	‘one’s hands’
	<i>héecetínin</i>	‘our hand(s)’
	<i>héecetíninoo</i>	‘your(PL) hand(s)’

The basic morphosyntax of possession is:

PERSON MARKER + NOUN STEM + (NOUN PL) + (POSSESSOR PL)

A few nouns show aberrant possessed forms, usually involving an unexpected /n/ that replaces initial /w/ (or occasionally some other consonant):

47)	<i>niinon</i>	‘tepee’	>	<i>netiinon</i>	‘my tepee’
48)	<i>woté’</i>	‘hat’	>	<i>nonoté’</i>	‘my hat’
49)	<i>co’té’</i> [<i>< ce’-oté’</i>]	‘cap’	>	<i>nono’té’</i>	‘my cap’
50)	<i>wótoo</i>	‘pants, leggings’	>	<i>nonótoo</i>	‘my pair of pants, leggings’
51)	<i>wo’éin</i>	‘necklace’	>	<i>nóno’éin</i>	‘my necklace’

In the first case, the form *niiinon* seems to be derived from an underlying root /iii/ ‘to camp’, which explains the addition of epenthetic /t/ but the origin of the final /non/ is unclear.

2.5.2 Animate Objects

Possession for animate objects works slightly differently than for inanimate objects in two particular details. First, many animate possessed objects have a special possessive theme suffix that is added to the noun stem prior to all inflections. This possessive suffix is /-(e)w/, and it always requires what appear on the surface to be type 1a NA inflections but are actually variants of type 1b (to be explained below). Secondly, all animate objects, when possessed by a third person, must be obviative. An example follows, using a favorite of Alonzo Moss:

52) Unpossessed paradigm:				
	<i>béé3ei</i>	‘owl’	<i>béé3ein</i>	‘owl’ (OBV)
	<i>béé3ein-o’</i>	‘owls’ (PL)	<i>béé3ein-o</i>	‘owls’ (OBV.PL)
53) Possessed paradigm:				
	SINGULAR OBJECT		PLURAL OBJECT	
1	<i>nebéé3eib</i>	‘my owl’	<i>nebéé3eiw-o’</i>	‘my owls’
2	<i>hebéé3eib</i>	‘your owl’	<i>hebéé3eiw-o’</i>	‘your owls’
3	<i>hibéé3eiw</i>	‘his/her owl’ (OBV)	<i>hibéé3eiw-o</i>	‘his/her owls’ (OBV)
4	<i>hibéé3eiwun</i>	‘his/her (OBV) owl’	<i>hibéé3eiwun-o</i>	‘his/her (OBV) owls’
1PL	<i>nebéé3eib-ínoo</i>	‘our owl(s)’		
12	<i>hebéé3eib-in</i>	‘our owl(s)’		
2PL	<i>hebéé3eib-ínoo</i>	‘your owl(s)’		
3PL	<i>hibéé3eib-ínoo</i>	‘their owl(s)’ (OBV)		
4PL	<i>hibéé3eib-ínoo</i>	‘their (OBV) owl(s)’		

Note that the phonological details of the above paradigm can be best explained by positing an underlying /o/ as the inflectional final for singular as well as plural obviative possessors, as in inflectional type 1b—that is, /i-bee3eiw-o/ ‘his owl’. This /o/ maintains final /-w/ of the /-(e)w/ possession theme, whereas in its absence, /w/ mutates to /b/. The final, underlying /o/ also produces regressive vowel harmony, so that one finds alternations such as *ne-betébihéb* ‘my wife’ vs. *hi-betébihów* ‘his wife’ (lit. ‘my/his old lady’) and those in example 59. This final appears in surface pronunciation in possessed type 1b nouns that *lack* the possessive theme marker, such as obligatorily possessed forms (see ‘his/her older sister’ in example 34 above), but drops from surface pronunciation following a possessive theme. The mutation of final /w/ to /b/ then must be explained by postulating a final /i/ or by appealing to analogy with the widespread mutations that otherwise occur in Arapaho with stem-final /w/. The *underlying* possession inflections for animate nouns with possessive theme are:

Possession Inflections, NA with possessive theme (see NA Inflectional Type 1b)

	<i>Singular Possessed</i>	<i>Plural Possessed</i>
1S	ne- <i>-w-(i)</i> > <i>-b</i>	ne- <i>-w-o'</i> > <i>-wo'</i>
2S	e- <i>-w-(i)</i> > <i>-b</i>	e- <i>-w-o'</i> > <i>-wo'</i>
3S	i- <i>-w-o</i> > <i>-w</i>	i- <i>-w-o</i> > <i>-wo</i>
4S	i- <i>-w-o-in</i> > <i>-wun</i>	i- <i>-w-o-in-o</i> > <i>-wuno</i>
1PL	ne- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>	ne- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>
12	e- <i>-w-in</i> > <i>-bin</i> ~ <i>-wun</i>	e- <i>-w-in</i> > <i>-bin</i> ~ <i>-wun</i>
2PL	e- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>	e- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>
3PL, 4PL	i- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>	i- <i>-w-ínoo</i> > <i>-bínoo</i> ~ <i>-wínoo</i>

For more on the 4S forms, see example 62 and following below. The basic morphosyntax of animate possession is the same as that for inanimate possession, with the addition of the possessed theme marker:

PERSON + NOUN STEM + POSSESSED THEME + (NOUN PL) + (POS-SESSOR PL)

Note that a few inanimate nouns also show possessive themes. They all seem to refer to parts of the body or other referents that tend to be commonly possessed.

- 54) *híxon-o* 'bones' (NI) *netíxonéb* 'my bone' (NI)
 55) *híisiíni-* 'to be daytime' (II) *netíisiiníb* 'my birthday' (NI)
 56) *hísin-o* 'livers' (NI) *netísineb* 'my liver' (NI)

Note should also be taken of the form *hetibeseb* 'your firewood' in N, l. 180. This not only is another example of an inanimate form with possessive theme but is treated as if the underlying form were /ibex/ rather than /bex/. Note that the underlying pitch accent on /bex/ is /X-bex/.

Irregularities

In some cases, the possessive suffix has been lost, or perhaps never occurred, as in *nótotíí* 'my wheel, my car'. Such nouns, when possessed, are inflected according to one of the normal three NA patterns (type 1a for 'car': *hotíiw-o* 'cars', *hítotíiw* 'his/her car', *nótotíiw-o'* 'my cars').

As noted earlier in the discussion of plurals, many nouns show reduced singular stems. The possessive theme is always added to the full underlying noun stem. In a few cases, the possessive theme is added to the plurally inflected form of the noun:

	<i>Singular</i>	<i>Plural</i>	<i>Possessed (1S)</i>
57) dog	<i>he3</i>	<i>hé3eb-ii</i>	<i>neté3ebiib</i> 'my dog'
58) cow	<i>wóókec</i>	<i>wóókec-ii</i>	<i>nowóókeciib</i> 'my cow'

Obviative first- and second-person-possessed objects

One might expect that objects possessed by first and second persons could be inflected for obviation in situations where they are treated as functionally obviative

in sentences involving two animate participants. Thus, for example, in a sentence such as ‘he is driving my car’, the NP ‘my car’ would be obviative, as the third person ‘he’ would normally be proximate due to the rules of animacy hierarchy. One would thus get a form such as **nótotíiw* (as opposed to proximate *nótotíi*). Current speakers, including Alonzo Moss, reject such forms. But in a curricular book produced by Ambrose Brown (an elderly and very traditional person whom Alonzo Moss respected highly as an “expert” in the language) in the 1990s, the following sentence occurs:

- 59) *néi'eibéhe' níicebe'éíhoot nebésiiwóho' kóxuhetítí.*
 ne-ibehe' nii-cebe'eih-oot ne-besiibehe'-o koxuhetiiton-i
 1S-grandmother.PROX IMPERF-defeat(TA)-3S/4 1S-grandfather.OBV handgame-S
 ‘My grandmother beats my grandfather at handgame.’ [H:18.6]
 (cf. *nebésiibehe'* ‘my (PROX) grandfather’; *hibésiiwóho'* ‘his (OBV) grandfather’)

This is clearly an example of an obviative first-person-possessed form. Such usage was apparently limited to only certain groups of speakers, or else has become obsolete recently (or perhaps both).

Possession by inanimate objects

Inanimate possessors are not permitted within the possession paradigm. Thus, when talking about a table in Arapaho, one cannot say ‘its leg’ in a way parallel to ‘his leg’. Instead, an II verb form is used. The third-person *singular* possessed form is used to form the verb, with the II final /:noo/ (see 5.3.3):

- 60) *hi'óó3* ‘his leg’ >
híi'oo3éihinóó' or *híi'oo3íinoo'*
 i'oo3i-eihi-:noo-' i'oo3i-:noo-'
 3.leg-AI.PASS-II-0S 3.leg-II-0S
 ‘its leg’ (lit. ‘it has a leg’) ‘its leg/it has legs’ [C:129]

Possession by a possessed person or thing

In order to express possession by an already possessed object, the following construction is used:

- 61) *neisónoo nihnoohówoot néih'e hiniíteh'éího.*
 ne-isonoo[n] nih-noohow-oot ne-ih'e[h] ini-iteh'eih-o
 1S-father PAST-see(TA)-3S/4 1S-son 3S-friend-OBV
 ‘My father saw my son’s friend.’

This construction can be used sequentially with multiple series of possessors:

- 62) *neisónoo nihnoohóoto' néih'e hiniíteh'éího hinií3e'éénin.*
 ne-isonoo[n] nih-noohoot-o' ne-ih'e[h] ini-iteh'eih-o ini-i3e'een-in
 1S-father PAST-see(TI)-3S 1S-son 3S-friend-OBV 4S-hair-OBV
 ‘My father saw my son’s friend’s [funny-colored] hair.’

Obviative possessors (“fourth person” possession)

Note that in constructions such as example 62, where the possessor is himself obviative, the possessed object takes a “secondary” obviative marker of the form /in/, whether it is animate or inanimate (as indicated in the inflectional tables above). Contrast *hinií3e'ée* ‘his/her hair’ with the form for ‘his hair’ in example 62. Other examples are:

- 63) *hintín* ‘his wife’ (NA.OBV) >
neecee nonoohówoot núhu'inénin hiniínin.
 neecee[n] noohow-oot nuhu' inenin i-niin-in
 chief IC.see(TA)-3S/4 this man.OBV 4S-wife.OBV-OBV
 ‘The chief sees this man’s wife.’ [C:65]
- 64) *hi'oo3* ‘his/her leg’ (NI) >
neecee nonoohóoto' núhu' hinénin hi'óó3in.
 neecee[n] noohoot-o' nuhu' inenin i-'oot-in
 chief IC.see(TI)-3S this man.OBV 4S-leg(NI)-OBV
 ‘The chief sees the man’s leg.’
- cf. *nonoohóot-owoo núhu' hinén hi'oo3.*
 noohoot-owoo nuhu' inen[in] i-'oot-i
 IC.see(TI)-1S this man.PROX 3S-leg-S
 ‘I see the man’s leg.’

See chapter 11, example 94 for another similar example; also chapter 19, examples 33 and 34. Other examples in Salzmans’s 1956 text include 2.1.17, 3.2.14, and 3.2.94 (plural possessed object ‘his teeth’ but marked as singular).

The secondary suffix is added to both animate and inanimate nouns, as shown above, and to both obligatorily possessed nouns and non-obligatorily possessed ones, whether or not they have a possessive theme suffix. Once this suffix is added, then NI type 1 plural inflections can be added to it, as well as NA type 1a plurals. Note that the suffix is used only in singular possession; like the other inflectional suffixes (singular, plural, obviative), it disappears when plural possessor suffixes (/inoo/, 12 form /in/) are added to the noun.

Thus, possessed nouns lacking a possessive theme suffix have the following possible inflectional endings with singular possessors:

NI Type 1 inflectional suffixes, with singular possessor		
	<i>Singular Object</i>	<i>Plural Object</i>
1/2/3 possessor	-i > -∅	-o
4 possessor	-in-i > -in	-in-o > -ino

NI Type 2 inflectional suffixes, with singular possessor		
	<i>Singular Object</i>	<i>Plural Object</i>
1/2/3 possessor	-i > -∅	-ii
4 possessor	-in-i > -in	-in-o > -ino

NA Type 1 inflectional suffixes, with singular possessor, no possessive theme

	<i>Singular Object</i>	<i>Plural Object</i>
1/2 possessor	[C]	C-o'
3 possessor	C	C-o or [h]o
4 possessor	C-in	C-ino

NA Type 2 inflectional suffixes, with singular possessor, no possessive theme

	<i>Singular Object</i>	<i>Plural Object</i>
1/2 possessor	- or -'	-ii or -i
3 possessor	-ii or -i	-ii or -i
4 possessor	-in	-ino

One particularity of this suffix is that when it is added to NA nouns with a possessive theme, the /o/ obviative singular marker (which does not appear in surface pronunciation) is treated as part of the *stem*, with the /in/ suffix being added *after* it rather than replacing it, as happens in all other inflection types. This is illustrated in the inflectional paradigm for NA forms with possession theme, given above. Another example is:

- 65) *hité3ebíiw* 'his/her dog'(NA.OBV) >
néécee hitóóno nihnoohówooni3 hinénin hité3ebíiwun.
 neecee[n] i-toone[h]-o nih-noohow-ooni3 inenin
 chief 3S-daughter-OBV PAST-see(TA)-4S/4 man.OBV
 i-e3ebiiw-o-in
 4S-dog-OBV-OBV
 'The chief's daughter saw the man's dog.'

In the above sentence, one could also say *hité3ebíiwun-o* '[the man(OBV)]'s dogs.'

2.5.3 Obligatory Possession/Dependent Nouns

A number of nouns in Arapaho are obligatorily possessed and cannot occur independently. These include primarily parts of the body and members of one's family. (Other obligatorily possessed nouns are listed in the appendix.) Such forms can be either inanimate ('body') or animate ('mother'). The inflectional prefixes and suffixes are the same as those used elsewhere in the possession paradigm.

- 66) *netényóóó* 'my body' (NI; inflection type 1)
hetényóóó 'your(S) body'
hitényóóó 'his/her body'
netényóónó 'my bodies' (i.e., referring to multiple forms, such as with a mythological character)
netényóónínoo 'our(EXCL) bodies'

- 67) *néinoo* ‘my mother’ (NA; inflection type 1a)
héinoo ‘your(S) mother’
híinoon ‘his/her mother (OBV)’

Note that obligatorily possessed animate nouns do *not* take a possessive theme. All types of plural/obviative inflectional patterns occur (see *bébi* ‘older sister’, above, for NA type 1b; an example of NA type 2a is *wó’ox* ‘one’s fingernail’, PL *wó’oxuu*). Third person possessed forms are obligatorily obviative when animate, and fourth person (obviatively possessed) forms take the secondary obviative marker, whether animate or inanimate, as in examples 63 and 64 above.

When one needs to speak of these forms in the abstract, a special neutral possessive prefix /be/ (when the initial stem vowel is /e/ or /i/) or /wo/ (when the initial stem vowel is /o/) is used, meaning ‘one’s . . .’:

- 68) *betényóóó* ‘one’s body’
 69) *béinoo* ‘one’s mother’
 70) *wó’oo3* ‘one’s leg’ (*nó’oo3* ‘my leg’; *hó’oo3* ‘your leg’; *hí’oo3* ‘his/her leg’)

The ‘great relative’ construction adds the prenoun /beesi/ ‘big’ prior to the possession marker:

- 71) *beesnébésiiibéhe* ‘my great grandfather’
 72) *beesnéisíe* ‘my great grandchild’

Alternate independent and possessed forms

A few nouns have two different forms, an independent, unpossessed one and a different, obligatorily possessed one when possession is used. Examples include:

- | | | | |
|----------------|--------------|--|--------------|
| 73) <i>ho3</i> | ‘arrow’ | 74) <i>wóxhoox</i> | ‘horse’ |
| <i>néíc</i> | ‘my arrow’ | <i>nótonihi’</i> | ‘my horse’ |
| <i>héíc</i> | ‘your arrow’ | <i>hótonihi’</i> | ‘your horse’ |
| <i>hínííc</i> | ‘his arrow’ | <i>hítonih’o</i> [or <i>hítoního</i>] | ‘his horse’ |

The form for ‘my horse’ actually means ‘my pet’. The use of ‘my pet’ in this way is a widespread areal phenomenon among Native American languages of the Southwest. One can say in Arapaho:

- 75) *nótonihi’ beníxóxko’ó’* ‘my pet goat’
 76) *nótonihi’ nih’óó3ouwóx* ‘my pet pig’

Other examples of irregular alternations are ‘tepee’ (*níiinoon* ‘tepee’ vs. *néyeihé* ‘my tepee’—although one can also say *netíiinoon*), ‘car’ (*niintíhencebkoóhút* ‘car’ vs. *nototíí* ‘my car’—although *hotíí* is not obligatorily possessed), and ‘child’ (*téí’yoonehé* ‘child’ vs. *neníísoo* ‘my child’—although one can also say *netéí’yooniib*).

Irregularities among obligatorily possessed forms

Plurals and obviatives show the same kinds of irregularities as in other unpossessed nouns—loss of final elements of the stem in the singular and consonant mutations in the singular, as well as stem changes due to vowel harmony. Examples are:

- 77) *béici3* ‘one’s tooth’ (NI; type 1)
béicito ‘one’s teeth’
- 78) *nebésiibéhe’* ‘my grandfather’ (NA; type 1b)
hibésiiwóho ‘his grandfather’ (OBV)

Many forms show person markers in the series: /bei/, /nei/, /ei/, /inii/:

- 79) *beisónoo* ‘one’s father’ (NA; type 1a)
neisónoo ‘my father’
heisónoo ‘your father’
hiniisónoon ‘his father’ (OBV)

Others show /bee/, /nee/, /ee/, /ii/:

- 80) *bécét* ‘one’s hand’ (NI; type 1)
nécét ‘my hand’
hécét ‘your hand’
híicét ‘his hand’

2.6 VOCATIVE

Arapaho possesses special vocative forms for all terms of relationship. These forms are quite irregular, but many of them show the addition of final / (h)óó/. Examples are (see Salzman 1959 for a complete list):

	REFERENCE FORM (first person possessed)	VOCATIVE
mother	<i>néinoo</i>	<i>no’óó</i>
father	<i>neisónoo</i>	<i>neixóó</i>
grandmother	<i>néi’eibéhe’</i>	<i>néiwóó</i>
grandfather	<i>nebésiibéhe’</i>	<i>nebésiiwóó</i>
daughter	<i>notóóne</i>	<i>notóó</i>
son	<i>néih’e</i>	<i>néi</i>
aunt	<i>nehéi</i>	<i>nehéihóó</i>
uncle	<i>nési</i>	<i>nésihóó</i>
niece	<i>neesébi</i>	<i>neesobóó</i>
older sister	<i>nébi</i>	<i>nébihóó</i>
older brother	<i>neeséh’e</i>	<i>neesoh’óó</i>
great-grandfather	<i>beesnebésiibéhe’</i>	<i>beesnebésiiwóó</i>

Vocatives do not exist in the plural. One simply says ‘my sons’, ‘my older sisters’, and so forth as if talking about them: *notóónoho* ‘my daughters!’. (Cf. ‘I see my daughters’: *nonóóhowóú’u notóónoho*.) There are also a few vocatives of endearment:

- 81) *hiseinhí* ‘younger sister!’ (lit. ‘little girl!’)
 82) *céi’teh’éi* ‘younger brother!’ (lit. ‘round belly!’; often used in lullabies)

There is also a more regular inflectional vocative form used for addressing animals, formed by the addition of final /:ín/ to the underlying noun stem:

- 83) /eʒew/ ‘dog’ > *heʒebíín* ‘dog!’
 84) /wo’ooo/ ‘cat’ > *wó’oúún* ‘cat!’ (cf. PL *wó’oúú*)
 85) /woxhooxew/ ‘horse’ > *woxhóóxebíín* ‘horse!’

Although speakers can produce and gloss vocative inflectional forms created with titles or human common nouns (*beh’éihehi* ‘old man’ > **beh’éihehiín* ‘old man!’), they apparently are not actually used.

Lexical vocatives

This is a convenient place to note that there are a few lexical items that are inherently vocative in Arapaho. One form, used almost entirely by men, is *be*, longer form *béénií*, meaning ‘friend’ (cf. *néíteh’éi* ‘my friend’, used in referring to the person). It is very often used in greetings:

- 86) *hee be* ‘hello friend’ (used by men only with other men)
 87) *wohéi be* ‘well friend’ (used by men only)

Other examples of the form can be found in Paul Moss’s “The Arapaho Boy,” sections 16, 18, 19, 24, 26, 28, 30, and 32.

Another, insulting lexical vocative is *wótowúhuu* ‘you son of a bitch!’ ‘you rotten scoundrel!’, which can also be used with a ‘young of’ suffix: *wótowúsoo* ‘you little brat!’. Although normally used vocatively, it can be used as a regular noun as well:

- 88) ‘*ee, wótowúsoo, héétxóuubéno*.
 ‘*ee* *wotowusoo* *eti-xouuben-o*
 well little brat IC.FUT-make straight(TA)-1S/3S
 ‘Well that little brat, I’m going to straighten him out.’ [R: Crow Chief]

Another insult form is the noun *ʒíikon* ‘ghost’, which is also used as a verb:

- 89) *yeh, hehʒíikoníín*.
 yeh *eh-ʒíikonii-n*
 gee! EMPH-be ghost(AI)-2S
 ‘Well you’re done for now!’ (lit. ‘Well you’re a ghost for certain now!’) [R: Crow Chief]

2.7 LOCATIVE

The locative suffix takes the form /*(v)ʼ*/, with /*eʼ*/ added to forms whose plural is /*o*/ (IN) or /*oʼ*/ (AN) and /*iʼ*/ added to forms whose plural is /*ii*/. It is added to the underlying stem of inanimate nouns (see especially example 101, where consonant mutation does not occur with the locative, and example 90, where regressive *e~o* harmony does not occur with the locative). It is added to the underlying stem of animate nouns *with* the possessive theme /*(e)w*/ attached prior to the locative (whether the actual locative expression involves possession or not). Where the possessive theme does not occur, as in obligatorily possessed nouns, it does not occur in the locative either (see examples 97 and 101; in example 98, the final /*w*/ is part of the underlying stem). The meaning of the locative suffix is fairly abstract; prototypically, it indicates ‘at’, ‘in’, or ‘on’ the noun in question, but other meanings are possible. Examples (taken from Salzmann 1983 for the most part) are:

90) <i>niicií</i>	‘river’	91) <i>bóoo</i>	‘road’
<i>niiciíhoh-o</i>	‘rivers’	<i>bóon-o</i>	‘roads’
<i>niiciíhéh-eʼ</i>	‘at the river’	<i>bóon-eʼ</i>	‘on the road’
92) <i>he3</i>	‘dog (AN)’	93) <i>hoʼóowú-ʼ</i>	‘house’
<i>ne-te3ebíiw-oʼ</i>	‘my dogs’	<i>hoʼóowú-ú</i>	‘houses’
<i>he3ebíib-eʼ</i>	‘on the dog’	<i>hoʼóowú-úʼ</i>	‘at the house’
94) <i>níʼec</i>	‘lake’	95) <i>wóokec</i>	‘cow (AN)’
<i>níʼec-ii</i>	‘lakes’	<i>nowóokeciiw-oʼ</i>	‘my cows’
<i>níʼéc-iʼ</i>	‘at the lake’	<i>nowóokeciíb-eʼ</i>	‘on my cow’
96) <i>hóoxéb</i>	‘spring’	97) <i>hiícét</i>	‘his/her hand’
<i>hóoxébin-o</i>	‘springs’	<i>hiícétin-o</i>	‘his/her hands’
<i>hooxebin-eʼ</i>	‘in the spring’	<i>hiícétin-eʼ</i>	‘in his/her hand’
98) <i>wokóoo</i>	‘one’s back’	99) <i>neeeyíc</i>	‘timber, woods’
<i>wokóow-ó</i>	‘one’s backs’	(no plural)	
<i>wokóób-eʼ</i>	‘on one’s back’	<i>neeeyíc-iʼ</i>	‘in the timber’
100) <i>hésoʼóonotíí</i>	‘train (AN)’	101) <i>nóʼoo3</i>	‘my leg’
<i>hitésóʼóonotíiw-o</i>	‘his/her trains’	<i>nóʼóót-o</i>	‘my legs’
<i>hésóʼóonotíib-eʼ</i>	‘on the train’	<i>nóʼóót-eʼ</i>	‘on my leg’

The pitch accent shift is described in chapter 1. The noun *hoʼonóókee* ‘rock’ forms the locative irregularly as *hoʼonookéiʼi*. A number of inanimate nouns show the addition of final /*in*/ to the underlying noun stem prior to the locative suffix. Examples include:

102) <i>wo3onohóen-o</i>	‘papers’	>	<i>wo3onohóen-in-eʼ</i>	‘on the paper’
103) <i>wotóoh-o</i>	‘pants’	>	<i>wótooh-ún-eʼ</i>	‘on the pants’

See also ‘tribe’ in example 110.

Usage of the locative

The locative typically occurs in sentences such as:

- 104) *héentóonoo nóto'óowúú'* 'I am at my house'
 105) *tenéexókut nótotíibe'* 'S/he is sitting on top of my car'

As the second sentence suggests, the exact meaning of the locative is often dependent on the particular verb used, with the semantic sense of the verb stem in the clause contributing substantially to the exact meaning of the locative suffix. Thus, the locative is perhaps best analyzed as a schematic construction, with the verb stem contributing lexemic meaning and the locative contributing more abstract, non-lexemic meaning. At its broadest, the locative suffix simply indicates that the action of the verb occurs in relation to the marked noun in question:

- 106) *níhsíi'ihkúútiit ní'éci'* 'He threw it *into* the lake'
 107) *heetníyihóonoo ní'éci'* 'I will go *to* the lake'
 108) *héentóó3i' ní'éci'* 'They are *at* the lake'
 109) *nih'iitíseenoo ní'éci'* 'I have come here *from* the lake'

One interesting although uncommon use is for the meaning of 'from' or 'among' a people:

- 110) *heebéhnéén beh'iíhehi' wo'ei3 betebihehi' hitiíteenine'*.
 eebeh-neeni beh'eihehi' wo'ei3 betebihehi' i-iiteenin-e'
 POTENT-be(AL) old man or old woman 3S-tribe-LOC
 'It might be an old man or an old woman of the tribe [who would make a song].' [G]

Another usage is with time nouns, in which case the meaning is 'around' or 'about' a certain time:

- 111) *3ootéce'* 'midnight' > *3ootecé'i'* 'around midnight'

Use on verb stems

A distributive locative suffix, of the form /' /, is added to verb stems to form a place-name construction. Virtually always, the verbs are descriptive forms that identify certain people, and the meaning of the construction is 'the place where X live/stay/are located'. The place forms lack initial change and thus should be analyzed as nouns.

- 112) *woo'tééneihí-3i'* 'the Utes' ('they are black')
woo'tééneihí-' 'Utah' ('the place where the Utes live')
- 113) *heenínouhú-3i'* 'the Catholics' ('they wear long robes')
heenínouhú-' 'St. Stephens, Wyoming' ('the place where the Catholics live')
- 114) *nonookúnouhú-3i'* 'the Episcopalians' ('they wear white robes')
nookúnouhú-' 'St. Michael's Mission, Wyoming'

A similar construction, possibly derived from this verbal one, is produced by adding this same locative suffix to noun stems. Note that in this construction, the locative suffix is added to the noun *singular* form, not the *underlying base* form. The meaning produced is then ‘the people of X place’:

- 115) *wotnooxebine’ he’ih’iitoo3eentoonino.*
 wot=nooxebin-e’ e’ih-ii-too3i-entoo-nino
 DUBIT=spring-LOC N.PAST-IMPERF-close-stay(AI)-4PL
 ‘They are said to live around springs.
- hiikoot nooxebi’ he’nee’eesih’oo3i’.*
 iikoot n-ooxeb-i’ e’=nee’eesih’-oo3i’
 what’s more IMPERF-spring-LOC DUBIT=that how name(TA)-3PL/4
 And that’s what they call them: “spring people”.’ [U]

The preceding is the only example of such a contracted ‘people of . . .’ form. The formation is apparently old, and additional examples could not be elicited. This may be simply an older, contracted form of the locative, fossilized in this particular lexical item; there are forms such as *hohóóti’* ‘in the tree’ parallel to *hohootine’* (same meaning) listed in Salzmann’s dictionary (as one of the anonymous readers of this manuscript pointed out to me).

Locative particles

There are a number of particles in Arapaho which are morphologically locative. Most of these are clearly derived forms, consisting of a root and the locative inflectional suffix. Others, although morphologically locative, do not contain otherwise recognizable roots that occur elsewhere. This may be an open class. The forms are treated more fully in 15.1, but two examples are given here:

- | | |
|---|---|
| <p>116) <i>teesi’</i>
 teex-i’
 on/over/above-LOC
 ‘on top’</p> | <p>117) <i>kox3i’</i>
 koxut-i’
 other side/over hill-LOC
 ‘on the other side’ ‘over the top’</p> |
|---|---|

3

INFLECTION—VERBS

3.1 PRELIMINARY: INITIAL CHANGE

Because it is so pervasive in the examples we give below (and, in fact, has already been seen extensively in chapter 1), we discuss the phenomenon of initial change here.

Initial change is a morphophonological process that serves grammatically to indicate either present tense and ongoing aspect or present perfect tense and aspect in affirmative order verbs and conjunct iterative verbs. All inflected verbs that do not otherwise have a tense or aspect marker prior to the stem are in this tense and aspect form. Thus, initial change is added to the first element of the verb. When the verb begins with a short vowel, the vowel is lengthened:

- 1) *be'éé-* 'to be red' > *bee'éé'* 'it is red'
- 2) *cebísee-* 'to walk' > *ceebíseet* 's/he is walking'

When the stem begins with a long vowel, an infix /en/ or /on/ (depending on vowel harmony) is inserted between the initial consonant and the long vowel:

- 3) *néetéli-* ‘to be tired’ > *nenéetélihinoo* ‘I am tired’
 4) *hoowúsee-* ‘to walk downward’ > *honoowúseenoo* ‘I am walking downward’

When syllables have the form CVhC, speakers alternate between two forms of initial change. Some speakers treat the h like a vowel, whereas others treat it like a consonant:

- 5) /cihc/ ‘transparent’ >
cenihcoo’ ‘jar’ (‘It is transparent.’) [h as vowel, thus -en- added]
cíihcoo’ ‘jar’ [h as consonant, thus initial vowel lengthened]

Note that there are a few vowel-initial grammatical preverbs that, when they occur initially, simply take an /n/. These include /ih/ PAST > *nih-* and /ii/ IMPERF > *nii-* and /eh/ FROM SPEAKER > *neh-*. This is an irregular form of initial change; when these same forms occur word-initially where initial change does not occur (as in non-affirmative verbs), they occur as *hih-* and *hii-*. Although other elements showing initial change are labeled IC in the underlying analysis in the grammar, these forms will simply be written *nii-* and *nih-* when word-initial due to their unique (and pervasive) nature.

Preliminary: Arapaho Verb Stem Classes and Inflectional Orders

Arapaho verb stems can be divided into four different classes. Although the stem classes themselves are the product of derivation, and thus do not fall under the topic of this chapter, different stem classes take different inflectional markers for person, number, and obviative. Thus, in order to understand the inflectional system used with verbs, it is important to understand first the stem classes that motivate this inflectional system.

Arapaho nouns occur as either animate or inanimate. Verbs occur as either transitive or intransitive. The contrasting categories of animacy/inanimacy and transitivity/intransitivity are pervasive features of the inflectional system. As a result, the four stem classes of verbs are intransitive with inanimate subjects (II); intransitive with animate subjects (AI); transitive with inanimate objects (TI); and transitive with animate objects (TA). The shape of the verb stem indicates what class it belongs to:

- 6) *nihooyoo-* ‘to be yellow’ (II)
 nihooneihi- ‘to be yellow’ (AI)
 7) *noohoot-* ‘to see something’ (TI)
 noohow- ‘to see someone’ (TA)

The following example illustrates one of the differences in inflection between different stem classes:

- 8a) *nonoohóótowoo.*
noohoot-owoo
 IC.see(TI)-1S
 ‘I see it.’
- 8b) *neniibéínoo.*
niibei-noo
 IC.sing(AI)-1S
 ‘I am singing.’

A second key feature of Arapaho inflectional morphology is the existence of four different verbal “orders.” These are the affirmative order (used primarily in affirmative independent clauses), the non-affirmative order (used primarily in non-affirmative independent clauses), the conjunct order (used primarily in subordinate clauses), and the imperative order (used in imperative and prohibitive commands). The inflectional morphology used with any given verb stem varies according to the particular verbal order in question, or to put it another way, the inflections indicate the order in question. All the following examples use the same TA verb stem /noohow/ ‘to see someone’:

- | | |
|--------------------------------|--|
| 9) <i>noohow-<u>ín</u></i> | ‘see <u>him/her</u> !’ (imperative order, TA verb) |
| <i>nonóhohow-<u>ó’</u></i> | ‘I see <u>him/her</u> ’ (affirmative order, TA verb) |
| <i>neihoownoohów-<u>oo</u></i> | ‘I don’t see <u>him/her</u> ’ (non-affirmative order, TA verb) |
| <i>noohow-<u>oohók</u></i> | ‘If I see <u>him/her</u> . . .’ (conjunct order, TA verb) |

The following sections present the inflectional morphology for each verbal order, with internal divisions for all four stem types. All Arapaho verbs are also marked for tense and/or aspect. The basic tense and aspect system will be presented in this section as well.

Note that in the inflection tables below, the *underlying forms* of the inflections are presented. Normally, any surface changes are straightforward and follow the rules presented in chapter 1—addition of initial /h/ for vowel-initial prefixes, vowel harmony shifts between /i/ and /u/, and the like. Where changes are slightly greater, forms are presented in the format of -ei > -ei.i in the tables, meaning that underlying inflection /ei/ > -ei.i in surface pronunciation. The changes that occur are regular, and are described in chapter 1, but this format is used for the sake of convenience for the reader.

3.2 AFFIRMATIVE ORDER

3.2.1 II Verb Stem Inflections

Arapaho II verb stems are obligatorily inflected for singular or plural. The inflections are suffixed and have the following basic form:

S	-'	<i>hii3eti'</i>	'it is good'
PL	-i	<i>hii3eti-'i</i>	'they are good'

The final /i/ produces the expected morphophonemic changes, detailed in chapter 1. Additional examples are in the appendices.

3.2.2 AI Verb Stem Inflections

Arapaho AI verb stems are obligatorily marked for person and number (singular or plural). There is also an inclusive/exclusive distinction for first person singular. The inflections are suffixes and have the following forms:

	<i>singular</i>	<i>plural</i>
1	-noo	-' ~ -ni'
12	N/A	-no'
2	-n	-nee
3	-t or -'	-3i' or -'i
4	-ni3	-ni3i

No male/female distinction is made in Arapaho in the third person; /t/ indicates 'he', 'she', and 'it' (for animate, non-human objects). The "fourth person" is more properly termed the "obviative" in the Algonquian analytic tradition and is discussed more fully in chapter 16. When two third persons are referenced in a discourse, it is used to mark the less important of the two. Non-Algonquianist readers unfamiliar with the concept and uses of obviation may want to look carefully at section 16.7, as this feature is pervasive in verbal as well as nominal inflection.

The 1PL suffix /ni'/ has the peculiarity that for some speakers, it causes a final /ei/ or /ee/ in verb stems to shift to /oo/: /ni'eenee3ei/ 'to like things' > *nii'eenée3óó-ni'* 'we like things', /teesisee/ 'to get onto the top of s.t.' > *né'iice'teesxóó-ni'* 'then we would get back on [the wagon]' [V:36]. The same shift occurs in Gros Ventre with cognate 1S suffix /n'/, so this is likely the older form. Many speakers have remodeled to *nii'eenée3ei-ni'* based on analogy with the rest of the paradigm.

See chapter 1 for further details on the underlying pitch accent of the person and number suffixes above, and the appendix for examples of inflected AI verbs.

There is a small subset of verbs that have different third person markers, /'/ (singular) and /'i/ (plural), which match the singular and plural II suffixes. These verbs tend to be fairly widely used but few in number. They mostly have stems that end in /e/ and are listed in the appendix. Several of them show a further irregularity in that the stem ends in /ine/ but the final /ne/ is dropped before third person inflections. The finals produce the expected morphophonemic changes detailed in chapter 1:

- | | | |
|-----|------------------|------------------------|
| 10) | <i>bééne-noo</i> | 'I am drinking' |
| | <i>bééne-'</i> | 's/he is drinking' |
| | <i>beené-nee</i> | 'you(PL) are drinking' |
| | <i>beenéi-'i</i> | 'they are drinking' |

3.2.3 TI Verb Stem Inflections

Arapaho TI stems are obligatorily inflected for person and number (singular or plural) as is the case with AI stems. The inflections are suffixed and are as follows:

	<i>singular</i>	<i>plural</i>
1	-owoo	-owú' ~ -owúni'
12	N/A	-owúno'
2	-ow	-owúnee
3	-o'	-ó'i > -óú'u ~ -óú.u
4	-owuní3	-owuní3i

Unlike most other Algonquian languages (Frantz 1991:43–44 on Blackfoot; Lemam 1980:87–89 on Cheyenne; Goddard and Bragdon 1988:524 on Massachusetts; Valentine 2001:311 on Nishnaabemwin), Arapaho does not distinguish between singular and plural objects inflectionally with TI stems. Instead, reduplication is used for this purpose (see chapter 8). Examples of inflected verbs are in the appendix.

The /o/ of the inflections can be analyzed as a theme marker (see section 3.2.4 on TA verbs for more on theme markers). The /o/ serves to indicate action on an inanimate noun or, alternately, as a marker of the inanimate noun on the verb, and the rest of the inflection is made up of the person markers. This brings the person markers into closer correspondence with the corresponding AI forms (/noo/ vs. /woo/, /n/ vs. /w/, etc.). In addition, in forms such as the TI imperative, an allomorph of the /o/ theme marker remains present, whereas the person markers are dropped (/to'oot/ 'to hit something' > imperative *to'óót-oo* 'hit it!').

There are a few verbs that are morphologically TI forms but have no actual object. Most common is /tooyeit/ 'to scream (involuntarily)': *tonooyéit-owoo* 'I am screaming'. Other verbs may appear to lack objects based on common glosses but actually do have underlying objects; an example is /ce'esiii'oot/ *cee'esii'i'óót-owoo* 'I have changed over the years', as listed in Salzmann's dictionary (C:64, modified transcription). In reality, a more literal gloss is 'I have grown out of it' (/ce'ex/ 'different' + /iii'oo/ 'grow' + /t/ TI FINAL).

A peculiarity of the first person plural exclusive inflection is that it typically causes deletion of the final vowel(s) and consonant of the stem. (Some speakers do not make this deletion, however.)

- | | | |
|-----|-------------------------|------------------------|
| 11) | <i>nonoohóót-owoo</i> | 'I see it/them' |
| | <i>nonoohóót-owúnee</i> | 'you(PL) see it/them' |
| | <i>nonóh-owú'</i> | 'we(EXCL) see it/them' |

3.2.4 TA Verb Stem Inflections

Arapaho TA stems show much more complex inflectional patterns than the other three stem types. This is primarily due to two facts. First, TA verb stems mark two participants on the stem, and secondly, the stems have what are called by Algonquianists "theme markers," which indicate the direction of the action between

the two participants indexed by the inflection (i.e., which is agent and which is patient/undergoer).

Theme and person markers

We begin with a discussion of the theme markers. These are suffixed directly to the verb stem prior to the person and number markers. They are as follows (unless S or PL is explicitly indicated, the person marker references both S and PL):

<i>Marker</i>	<i>Action indicated</i>	<i>Algonquian classification</i>
-é3e-	action by 1S on 2	local direct
-í-	action by 2 on 1S (or 3PL on 1S)	local inverse
-ee-/ -eé-	action by 1PL on 2 or 3 or 4	exclusive direct
-éi'ee-	action by 2 or 3 or 4 on 1PL	exclusive inverse
-oo-	action by 1 or 2 on 3, or 3 on 4	direct
-éi-/ -éi-	action by 3 on 2 or 1, or 4 on 3	inverse

The person/number markers that follow these direction-of-action markers indicate with more detail the exact identity of the subject or object, and whether it is singular or plural:

-é3e- <i>n</i>	action by 1 on 2 <i>singular</i>	<i>nonóóhobé3en</i> 'I see you(S)'
-é3e- <i>nee</i>	action by 1 on 2 <i>plural</i>	<i>nonóóhobe3énee</i> 'I see you(PL)'
-éi'ee- <i>t</i>	action by 3 <i>singular</i> on 1PL	<i>beniinéi'eet</i> 's/he has given it to us(EXCL)'
-éi'ee- <i>3i'</i>	action by 3 <i>plural</i> on 1PL	<i>beniinéi'éé3i'</i> 'they have given it to us(EXCL)'

The logic of the system depends on the fact that Arapaho (like all Algonquian languages) has a person hierarchy that ranks the persons as follows (with the exact ranking particular to Arapaho):

- 2 and 12
- 3PL
- 1S
- 3S
- 4
- 1PL
- 0 (i.e., inanimate)

More generally, this system can be reduced to the order 2-1-3-4-0 for all Algonquian languages, but the Arapaho system shows a number of peculiarities. Only the hierarchically superior person is suffixed to the verb stem and theme marker, and thus directly marked on the verb. The theme markers supply the remaining information needed to identify the second person involved in the action.

The complete table, with all possibilities, is as follows. Note that in this grammar, both TA and TI theme signs will be treated as part of the inflectional system, although this is somewhat ambiguous from an analytical standpoint, and they will be glossed as person and number inflections in the underlying analyses.

TA Local Action

1S/2S	-é3en
1S/2PL	-e3énee
2S/1S	-ín
2PL/1S	-ínee
1PL/2S	-een
1PL/2PL	-éénee
2S/1PL	-éi'een
2PL/1PL	-éi'éénee

Non-Local Action, Direct

	<i>Singular undergoer</i>	<i>Plural undergoer</i>
1S/3	-o' or -ó'	-ó'i > -óú'u ~ -óú.u
2S/3	-ót	-óti(i)
3S/4	-oot	-oot
4S/4	-ooní3	-ooní3
1PL/3	-eet	-éé3i'
12/3	-óóno'	-óóno'
2PL/3	-óónee	-óónee
3PL/4	-óó3i'	-óó3i'
4PL/4	-ooní3i	-ooní3i

Non-Local Action, Inverse

	<i>Singular actor</i>	<i>Plural actor</i>
3/1S	-éínoo	-í3i'
3/2S	-éín	-éínóni(i)
4/3S	-éít	-éít
4/4S	-éini3	-éini3
3/1PL	-éi'eet	-éi'éé3i'
3/12	-éino'	-éino'
3/2PL	-éínee	-éínee
4/3PL	-éí3i'	-éí3i'
4/4PL	-éini3i	-éini3i

For 1/3 and 2/3, one would logically expect /*-oonoo/ and /*-oon/. The irregular 1S/3S and 2S/3S forms are inherited from Proto-Algonquian. However, the other irregular forms seem to be remodeled based on the Conjunct Order Iterative Mode or, in the case of 3PL/1S, on simple analogy with the 2/1S forms with /i/ direction-of-action marker indicating action on the first person.

For one particular abstract derivational final used to form TA verb stems (/oh/ 'action by tool', from Proto-Algonquian /*-ahw/), the TA inflections undergo extensive morphophonemic changes: -o/-oo forms > -e/-ee/-oe, -e forms > -i:

- 12) *ciih'oh-é'* 'I am chopping it (AN)' (TA.1S/3S) [C:66]

Similarly, TA verbs ending in /eih/ show a less extensive series of similar changes. There is also one irregular verb, /ceb/ 'to shoot s.o.', which shows these changes as well. The full paradigm for these verbs is given in the tables in the appendix.

The only ending that shows regular variation in its pitch accent is 1S/3S /o'/. The reasons for the variation are unclear.

There are a few sets of verb stems whose underlying pitch accent patterns seem to override the patterns given in the tables above, at least for some speakers. Most prominent among these are stems having the element /kuu/, indicating rapid, abrupt, or intense action:

- 13) *nih-'é3kuu3-óót* 's/he pushed him/her/them'
nih-'í3kuu3-óót 's/he grabbed him/her/them'

The overriding of the normal pattern seems to be a factor of whether or not the penultimate syllable of the stem has pitch accent or not. Where it does not (unlike the cases above), the pitch accent seems to revert to the normal place:

- 14) *nih-cíte'eikúú3-oot* 's/he roped it/them (AN)'

Notice that in general, the inflectional markers allow plurality to be indicated only for the participant(s) marked *finally* on the verb, not the other participant(s) ranked lower in the person hierarchy:

- 15a) *nonóóhow-óóno'* 'we(INCL) see him/her/them' [12 outranks 3]
 15b) *nonoohów-oot* 'he/she sees him/her/them' [3 outranks 4]
 15c) *nonoohob-éinee* 'he/she sees you(PL)' or 'they see you(PL)' [2 outranks 3]

The irregular plural forms, however, do allow such marking and apparently arose specifically for this purpose:

- 15d) *nonoohob-éín* 'he/she sees you(S)'
 15e) *nonoohob-éínóni* 'they see you(PL)'

There are a few TA verbs that, with respect to English at least, seem “backward” in the relationship they define between subject and object. An example is /ni'oow/ 'to agree with s.o., to approve of their idea or proposal':

- 16) *nii'oowín.*
ni'oow-in
 IC.agree(TA)-2S/1S
 'I agree with you(S).' (not 'You agree with me.')
- 17) *heníínoonibín.*
iínooniw-in
 IC.be mother to(TA)-2S/1S
 'I am your(S) mother.' (not 'You are my mother.')

All of the 'have as a relative' verbs work in this manner, and they can be glossed as 'you have me as a (mother, etc.)' to more closely reflect the Arapaho semantics.

3.3 NON-AFFIRMATIVE ORDER

As stated earlier, the non-affirmative order is used primarily in non-affirmative independent clauses: negative statements, questions, and related constructions. The basic negative marker /ihoow/ is prefixed to the verb stem in its derived preverbal form /ihoowu/, whereas the basic yes/no question marker *koo=* occurs as a proclitic (in which case the negative marker is /cii/). The same four classes of verb stems—II, AI, TI, and TA—occur, but the inflectional morphology used with this order is quite different. Most notably, the inflectional markers used in the affirmative order do not occur (although the theme suffixes are the same); person markers are prefixed, not suffixed; and plural number and obviation are indicated by suffixes.

3.3.1 II Verb Stem Inflections

The markers are:

S	-	<i>hoowúusétee</i>	‘it is not ripe’
PL	-no	<i>hoowúusetééno</i>	‘they are not ripe’

3.3.2 AI Verb Stem Inflections

	<i>Singular</i>	<i>Plural</i>
1	ne-	ne- -be
12	N/A	e- -n
2	e-	e -be
3	-	-no’
4	-n	-níno

The obviative suffixes occur in traditional narratives where the non-affirmative is used but are not normally used in everyday spoken language. Salzmann’s 1956 texts have two examples of 12 /e- -noo/ (3.3.24 and 3.3.53, both with the verb /tousitoo/ ‘do what’), but this seems to be a mishearing or error by the speaker, as such a form is rejected by all speakers today and appears no place else.

Examples include:

- 18) *neihoowúniibei.*
 ne-ihoowu-niibei
 1S-NEG-sing(AI)
 ‘I am not singing.’
- 19) *hoowbén.*
 ihoowu-bene
 NEG-drink(AI)
 ‘S/he is not drinking.’

- 20) *hiihoowbén.*
 ii-ihoo-wu-bene
 IMPERF-NEG-drink(AI)
 ‘S/he does not drink.’
- 21) *koohenéetéh?*
 koo=e-neeteihi
 INTERR=2S-tired(AI)
 ‘Are you(S) tired?’
- 22) *heihoowcebíseen.*
 e-ihoo-wu-cebisee-n
 2S-NEG-walk(AI)-INCL
 ‘We(INCL) are not walking.’
- 23) *koohenéeteihíbe?*
 koo=e-neeteihi-be
 INTERR=2S-tired(AI)-PL
 ‘Are you(PL) tired?’
- 24) *kooheciínokóóyei?*
 koo=e-cii-nokooyei
 INTERR=2S-NEG-thirsty(AI)
 ‘Are you(S) not thirsty?’

When no plural suffix is added to the verb stem, the final vowel or syllable of many stems is dropped, as in examples 29 and 30.

As the examples show, the basic morphosyntax of the non-affirmative order is:

(PROCLITIC) + PERSON + (NEGATION) + VERB STEM + (PLURAL/OBV MARKER)

3.3.3 TI Verb Stem Inflections

	<i>Singular</i>	<i>Plural</i>
1	ne-	ne- -éébe ~ -owúbe
12	N/A	e- -ow
2	e-	e- -éébe ~ -owúbe
3	-	-owuu
4	-owun	-owuníno

Examples are:

- 25) *hoowunoohóótowuu.*
 ihoo-wu-noohoot-owuu
 NEG-see(TI)-3PL
 ‘They don’t see it/ them.’

- 26) *koohéé'inéébe?*
 koo=e-e'in-eebe
 INTERR=2S-know(TI)-PL
 'Do you(PL) know it?'

Note that Salzmann's 1956 texts contain one example of *-ou* for 4S (3.3.9), which must be an error or mishearing. However, there are also three examples of *-owuu* for /owun/ (2.1.3, 2.1.36, 2.1.40). This is less easily explained unless there is a misprint or misreading by Salzmann of his handwriting, but the form occurs nowhere else in the text database and is rejected by all speakers today.

3.3.4 TA Verb Stem Inflections

Local Action, Direct and Inverse

1S/2S	e-	-é3e > -é3
1S/2PL	e-	-e3ébe
2S/1S	e-	-i > Ø
2PL/1S	e-	-íbe
1PL/2S	e-	-eé
1PL/2PL	e-	-eebe
2S/1PL	e-	-éi'ee
2PL/1PL	e-	-éi'éebe

Non-Local Action, Direct

	<i>Singular undergoer</i>		<i>Plural undergoer</i>	
1S/3	ne-	-oo	ne-	-óono'
2S/3	e-	-oo	e-	-óono'
3S/4		-ee		-ee
4S/4		-een		-een
1PL/3	ne-	-óóbe	ne-	-óóbe
12/3	e-	-oon	e-	-oon
2PL/3	e-	-óóbe	e-	-óóbe
3PL/4		-eenó'		-eenó'
4PL/4		-eeníno		-eeníno

Non-Local Action, Inverse

	<i>Singular actor</i>		<i>Plural actor</i>	
3/1S	ne-	-e'	ne-	-eí > -ei.i or ei'i ~ -e'
3/2S	e-	-e'	e-	-eí > etc. ~ -e'
4/3S		-e'		-eí > etc. ~ -e'
4/4S		-e'		-eí > etc. ~ -e'
3/1PL	ne-	-éíbe	ne-	-éíbe
3/12	e-	-éin	e-	-éin
3/2PL	e-	-éíbe	e-	-éíbe
4/3PL		-eí > -ei.i or ei'i		-eí > -ei.i or ei'i
4/4PL		-eí > -ei.i or ei'i		-eí > -ei.i or ei'i

Basic morphosyntax is the same as for AI and TI forms, with the addition of the direction-of-action themes:

(PRO) + PERSON + (NEG) + VERB STEM + THEME + (PLURAL/OBV)

TA Details

The obviative (4/4) forms occur in traditional narratives but not in everyday speech.

Note one interesting asymmetry between the affirmative and non-affirmative: the /ee/ and /éi'ee/ direction-of-action markers, which occur in both local and non-local (1PL/3, 3/1PL) inflections in the affirmative, occur only in local inflections in the non-affirmative. The non-affirmative is the more conservative of the two orders, whereas the /éi'ee/ and /ee/ are Arapahoan-specific innovations (Goddard 1979), so this asymmetry is not surprising, at least in terms of the relatively greater amount of innovation and remodeling in the affirmative.

3.4 IMPERATIVE ORDER

3.4.1 Direct Affirmative Commands

In the imperative order, the unchanged form of the verb stem is used, and person and number inflections are suffixed to the verb. The markers are as follows:

	<i>Singular actor</i>	<i>Plural actor</i>	<i>Example</i>	<i>Gloss</i>
AI	-	-'	<i>cebisee</i> <i>cebisee'</i>	'walk!' 'you(PL) walk!'
TI	-oo	-owu'	<i>to'óotoo</i> <i>to'óotowu'</i>	'hit it!' 'you(PL) hit it!'
TA 2/1S	-i or -í	-i' or -í'	<i>níiteheibí</i>	'help me!'
TA 2/1PL	-éi'ee	-éi'ee'	<i>níiteheibí'ee'</i>	'you(PL) help us!'
2/3	-in(ee)	-e'	<i>níiteheibín(ee)</i> <i>níitehéibe'</i>	'help him/her!' 'you(PL) help them!'

Note that the glottal stop indicates plural agents (i.e., plural addressees) throughout the paradigm. Direction-of-action themes are largely the same as those for the affirmative and non-affirmative orders, with the exception of the 2/3 forms of the TA. The alternation between /i/ and /í/ in TA 2/1S is unexplained.

3.4.2 Direct Prohibitive

The prohibitive uses the preverb *ciibéh-* or *ceebéh-*:

- 27) *ciibéhcebisee* 'don't walk!'
- 28) *ciibéhto'óotowu'* 'don't you(PL) hit it!'

Morphophonemics

Note that the complete verb stem is always pronounced in the imperative, whereas in the non-affirmative, final vowel(s) or syllables of verb stems are often dropped when no additional suffixes follow. Contrast the following:

- | | | |
|-----|------------------------|----------------------|
| 29) | <i>téi'éíhi-</i> | 'to be strong' |
| | <i>hoowtéi'éih</i> | 's/he is not strong' |
| | <i>téi'éíhi</i> | 'be strong!' |
| 30) | <i>níhi'kóóhu-</i> | 'to run' |
| | <i>neihoownihi'kóó</i> | 'I'm not running' |
| | <i>níhi'kóóhu</i> | 'run!' |

A few rare exceptions to this rule occur: 'go on ahead' can be pronounced either with full stem (*neecísee*) or with shortened stem (*neecís*), for example. Additional examples showing various morphophonemic shifts involving final /3/ (see chapter 1) include:

- | | | |
|-----|-----------------------------|-----------------------------|
| 31) | <i>bííxoo3-é3en</i> | 'I love you(S)' |
| | <i>bíxoox-ú</i> | 'love me!' |
| 32) | <i>ceeno'óó3-o'</i> | 'I am jumping at him/her' |
| | <i>ciibéhcih-céno'oox-u</i> | 'don't jump at me!' [C:122] |
| 33) | <i>henéé3kuu3-é3en</i> | 'I have pushed you(S)' |
| | <i>ciibéh-'éé3kuus-í</i> | 'don't push me!' |
| 34) | <i>hééti3-é3en</i> | 'I am calling you(S) over' |
| | <i>héts-in</i> | 'call him/her/them over!' |

The irregular verb final /si(ne)/ has special imperative ending /sii/:

- | | | |
|-----|----------------------|----------------------|
| 35) | <i>see'esíne-noo</i> | 'I am lying flat' |
| | <i>see'ísi-'</i> | 's/he is lying flat' |
| | <i>sé'isítí</i> | 'lie flat!' |
| | <i>sé'isítí-'</i> | 'you(PL) lie flat!' |

Other verbs with this /i(ne)/ stem final (see appendices) show the same imperatives.

3.4.3 Indirect Imperative

Arapaho also has an indirect imperative. This form is used to give commands to a second person, asking or telling him/her to cause a third person to do something. The second person, however, is enjoined to act "indirectly" to produce this result rather than physically or authoritatively "making" the action happen, so that the form is part wish, part command. As the form is unusual and its semantics and usage

difficult, full discussion will be delayed until section 12.3. The inflections are given here. Note that unchanged verb stems are used, as with the direct imperative. The inflections refer to the third person/thing whose actions are to occur.

			<i>Example</i>	<i>Gloss</i>
II:	0S	-hee	<i>hoosootihee</i>	'let it rain!'
	0PL	-nóóhoe ~ -nóóhee	<i>hiiséteenóóhoe</i>	'let them be ripe!'
AI:	3S	-hee	<i>bii3(i)hihee</i>	'have him/her eat!'
	3PL	-nóóhoe ~ -nóóhee	<i>bii3(i)hinóóhoe</i>	'have them eat!'
TI:	3S	-éhee	<i>noohootéhee</i>	'have him/her see it!'
	3PL	-enóóhoe ~ -enóóhee	<i>noohootenóóhoe</i>	'have them see it!'
TA Direct				
3S/4	-óóhoe		<i>noohowóóhoe</i>	'have him/her see him/her/them'
3PL/4	-oonóóhoe ~ -oonóóhee		<i>noohówoonóóhoe</i>	'have them see him/her/them'
TA Inverse				
3/2S	-éí3i		<i>noohobéí3i</i>	'have him/her/them see you(S)!'
3/2PL	-éí3i'		<i>noohobéí3i'</i>	'have him/her/them see you(PL)!'

3.5 CONJUNCT ORDER

3.5.1 Introduction

The conjunct order inflections are used primarily in subordinate clauses. There are four different modes of the conjunct order—the simple, subjunctive, iterative, and dependent participle. In affirmative statements (but not negative ones), the simple conjunct is distinguished from the affirmative order only by the use of a number of abstract preverbs that only occur in subordinate clauses, since historically, conjunct order inflections have been extended to affirmative statements in Arapaho. The subjunctive and iterative both have special suffixes marking these modes. The dependent participle, which is used primarily in certain *wh*-questions and relative clauses, is unique in the way it combines verbal tense and aspect markers with nominal person and number markers parallel to those used with possessed nouns.

Here, a few examples, based where possible on the form *nonóóhobé3en* 'I see you', are given simply to provide a sense of how the forms work:

Simple mode:

- 36) *hei'nóóhobé3en, nih'íini'í3ecóónoo.*
 eí'i-noohow-e3en nih-ii-ni'í3ecoo-noo
 when.PERF-see(TA)-1S/2S PAST-IMPERF-happy(AI)-1S
 'Once I had seen you, I was happy.'

Subjunctive mode:

- 37) *nóóhobé3eninéhk, héétniini'í3ecóónoo.*
 noohow-e3eninehk eti-ii-ni'í3ecoo-noo
 see(TA)-1S/2S.SUBJ IC.FUT-IMPERF-happy(AI)-1S
 'When I see you, then I'll be happy.'

Iterative mode:

- 38) *nonóhobé3enóni, níni'i3ecónoo.*
 noohow-e3enoni nii-ni'i3ecoo-noo
 IC.see(TA)-1S/2S.ITER IMPERF-happy(AI)-1S
 'Whenever I see you, I'm happy.'

Dependent participle:

- 39) *néene'eehék hini' heihnoohobéit.*
 neene'ee-hehk ini' e-ih-noohow-eit[on]
 there is-3S that 2S-PAST-see(TA)-3S.DEP.PART
 'There's the one who saw you.'

3.5.2 Conjoint Order, Subjunctive Mode

The primary function of the subjunctive mode is to indicate either unrealized future tense and aspect in subordinate clauses or conditional “if” statements in subordinate clauses. With the exception of third persons, the subjunctive suffix is *added* to the regular person and number suffixes used on affirmative order verbs. In addition, the verb stem is always in the unchanged form. In the following, we give the subjunctive inflections of all four verb types (II, AI, TI, and TA), showing both the regular person and number suffixes as well as the added subjunctive suffix.

The basic suffix is /héhk/, with plural form /hehkóni'/. The full form /hehk/ appears only with the plural, as *-hehkóni'*, and then only when following a vowel (it is *-ehkóni'* following a consonant). The singular appears as *-hék* following a vowel and as *-éhk* following a consonant. Secondary contractions also occur, as in /oohohkoni'/ TA.1S/3 > *-óhkhóni'*. Note that no distinct obviate (fourth person) forms exist—third person forms are used. Also, although first and second person endings are added to the person inflection, third/fourth person endings are added to the verb stem or theme sign, with the person inflections dropped. Note that the alternate form /hohk/ is used with first person (apparently due to atypical, *progressive* e~o vowel harmony), whereas third/fourth person forms show alternations between the two endings, again based on vowel harmony.

Finally, we should note that we have reheard the subjunctive forms since publishing an earlier description (Cowell and Moss 2002b). The forms are quite difficult to hear correctly, especially due to the contractions. We have changed the location of some of the pitch accents here in comparison to the earlier publication and also noted a few additional allomorphs (notably, the alternation between *-hehkóni'* and simple *-kóni'* in plurals). The information presented here should of course be taken as more authoritative.

II	
S	-'éhk ~ hék
PL	-'ehkóni' ~ hehkóni'

Note that speakers will vary between one form of the ending and another from verb to verb—see the II paradigms in the appendix, all from a single speaker (Alonzo Moss Sr.).

AI

	<i>Singular</i>	<i>Plural</i>
1	-noohók	-no'óhk (INCL and EXCL)
2	-n(in)éhk	-néehék > <i>né'eehék</i> for some speakers
3, 4	-héhk	-hehkóni' ~ -hkóni'

TI

	<i>Singular</i>	<i>Plural</i>
1	-owunooohók	-owúno'óhk (INCL and EXCL)
2	-owunéhk	-owúneehék > <i>-owúne'eehék</i> for some
3, 4	-ohk	-ohkóni'

TA Local

1S/2S	-é3enéhk
1S/2PL	-é3eneehék > <i>-é3ene'eehék</i> for some
2S/1S	-inéhk
2PL/1S	-íneehék > <i>íne'eehék</i> for some
1PL/2S	-een(in)éhk
1PL/2PL	-eenéhk
2S/1PL	-éí'een(in)éhk
2PL/1PL	-éí'eenéhk

TA Direct

	<i>Singular undergoer</i>	<i>Plural undergoer</i>
1S/3	-oohók	-oohkóni'
2S/3	-otéhk	-otehkóni'
3S/4, 4S/4	-oohók	-oohók
1PL/3	-éénohk	-éénohkóni'
12/3	-óóno'óhk	-óóno'óhk
2PL/3	-óóneehék	-óóneehék
3PL/4, 4PL/4	-óóhkóni'	-óóhkóni'

TA Inverse

	<i>Singular actor</i>	<i>Plural actor</i>
3/1S	-éínoohók	-ikóni'
3/2S	-éíninéhk	-éínehkóni'
4/3S, 4/4S	-éíhók	-éíhék ~ -éíhók
3/1PL	-éí'eehók	-éí'eehokóni' ~ -éí'eehkóni'
3/12	-éíno'óhk	-éíno'óhk
3/2PL	-éíne'eehék	-éíne'eehék
4/3PL, 4/4PL	-éíhokóni'	-éíhokóni'

Examples of the two prototypical uses follow:

Unrealized future (see 3.6.1 for more on the phonological behavior of the future preverb in examples 40 and 42):

- 40) *tóoteeni'ihoo bée3toonéhk?*
 toot=e-eti-i'ihoo bee3itoo-nehk
 where=2S-FUT-go(AI) finish(AI)-2S.SUBJ
 'Where are you going when you finish?' [H:5.5]

- 41) *héetniiteheibé3en níi3oxóeyeinéhk.*
 eti-niiteheiw-e3en níi3oxoeyei-nehk
 IC.FUT-help(TA)-1S/2S fence(AI)-2S.SUBJ
 'I'll help you when you fix the fence.' [E:30.9]

Unrealized future anterior:

- 42) *tóoteeni'ihoon hiiscebiétehkóni'?*
 toot=e-eti-i'ihoo-n iisi-cebiiheti-hehkoni'
 where=2S-FUT-go(AI)-INCL PERF-compete(AI.RECIP)-3PL.SUBJ
 'Where shall we go after the game (is over)?' [H:15.1]

This last sentence could be translated more literally as “once the game is completed, where shall we go?” Notice the contrast with example 41, where the two actions in the sentence will occur at the same time; whereas here, the game will clearly be over before the ‘going somewhere’ begins. The perfective aspect is optional, as example 40 shows.

If . . . then clauses (i.e., conditional statements):

- 43) *nee'ééstoonéhk . . . bíi3néhk noh héetniini núhu' hee3éihi'.*
 nee'ee3-i-too-nehk bíi3i-nehk noh eti-ini nuhu'
 thus-EP-do(AI)-2S.SUBJ eat(AI)-2S.SUBJ and IC.FUT-ADV this

ee3eihí'

how(AI)-1PL

'If you do that, if you eat it, then you will be the way we are.' [O:Eagles, 29–31]

- 44) *hibii'ó'ooninéhk, hetooxóú'ei'oo.*
 i-bii'ó'oo-ninehk eti-ooxou'ei'oo
 POSSESS-sweetheart(AI)-2S.SUBJ IMPER.FUT-smile(AI)
 'If you have a sweetheart, then smile.' [H:11.9]

- 45) *hínee betison cehiístiinéhk, héétnéé'ee3nóoyoti' wó'teenbeesib.*
 inee betison-i cii-eehiisitii-nehk eti-nee'ee3inooyoti'
 that elbow-S NEG-wash(AI)-2S.SUBJ IC.FUT-resemble(II)-0S

wó'oteeni-beesibin-i

black-plum-S

'If you don't wash that elbow, it will look like a prune.' [J:I.Body]

3.5.3 Conjunct Order, Iterative Mode

The prototypical use of the iterative mode is in subordinate clauses to make ‘when-ever . . .’ statements. The iterative suffix is *added to* the regular person and number suffixes used on affirmative order verbs. The verb stem is always in the changed form. In the following, we give the iterative inflections of all four verb types (II, AI, TI and TA), showing both the regular person and number suffixes as well as the added iterative suffix. The basic form of the suffix is /i/, although there are several allomorphs. There are no forms for plural in either the II or TA direct and inverse paradigms (for plural undergoer or actor, respectively); the singular forms are used.

II

0	-í'i
---	------

AI

	<i>Singular</i>	<i>Plural</i>
1	-nóóni	-néf'i (INCL and EXCL)
2	-nóni	-néf'i
3	-3i	-nóó3i
4	-ní3i	-nóó3i ~ -ní3i

TI

	<i>Singular</i>	<i>Plural</i>
1	-owunóóni	-owunéf'i (INCL and EXCL)
2	-owunóni	-owunéf'i
3	-owú3i	-owunóó3i
4	-owuní3i	-owunóó3i ~ -owuní3i

TA Local

1S/2S	-é3enóni
1S/2PL	-é3enéf'i
2S/1S	-inóni
2PL/1PL	-inéf'i
1PL/2S	-eenóni
1PL/2PL	-eenéf'i
2S/1PL	-éí'eenóni
2PL/1PL	-éí'eenéf'i

TA Direct

1S/3	-óu > -óú.u ~ -óú'u
2S/3	-óti
3S/4	-óó3i
4S/4	-ooní3i
1PL/3	-é33i
12/3	-oonéf'i
2PL/3	-oonéf'i
3PL/4	-oonóó3i
4PL/4	-oonóó3i ~ -ooní3i

TA Inverse

3/1S	-éinooni
3/2S	-éinóni
4/3S	-éí3i
4/4S	-éiní3i
3/1PL	-éi'éeé3i
3/12	-éinéí'i
3/2PL	-éinéí'i
4/3PL	-éinóó3i
4/4PL	-éinóó3i ~ -éiní3i

Examples of the prototypical use of the construction follow:

- 46) *céeciini'i niitoyo3óó' noh nübeeci'.*
 ceciini-'i nii-toyo3oo-' noh nii-beeci-'
 IC.winter(II)-0.ITER IMPERF-cold(II)-0S and IMPERF-snow(II)-0S
 'In the winter time, it gets cold and it snows.' [H:19.7]
- 47) *niiteco'onih'ebi3i' núhu' wonooni'i'óó3i'*
 nii-teco'on-ih'ebi-3i' nuhu' woon-iii'oo-3i'
 IMPERF-always-drink(AI)-3PL this IC.new-grow(AI)-3PL
- tohuunoohobéino' bééneéi''i.*
 toh-ii-noohow-eino' bene-nei'i
 because-IMPERF-see(TA)-3/12 IC.drink(AI)-12.ITER
 'These young people are always drinking because they see us drinking.' [J:III. Verb]
 [one could translate the iterative as 'They see us when(ever) we're drinking.']

3.5.4 Simple Conjunct

The inflections of the simple mode of the conjunct order are exactly the same as those of the affirmative order verbs for both affirmative and non-affirmative statements. The simple conjunct verbs are distinguished from other modes and orders by the use of grammatical preverbs that occur only in subordinate clauses. These elements and their usage are covered in detail in chapter 13.

3.5.5 Dependent Participle

The dependent participle combines inflections drawn from the noun possession paradigm, which is described in chapter 2, with nominal derivations based on AI, TI, and TA verb stems (described in chapter 4). The resulting forms are morphologically nominal but also contain verbal direction-of-action markers and can take tense and aspect marking. Due to this complexity, and also to the fact that the inflections themselves are not unique, we present the forms with their inflections in chapter 17 in conjunction with a description of semantics and usage.

3.6 TENSE AND ASPECT

All Arapaho verbs are marked for either tense or aspect. The basic tenses are present/present perfect, past, and future. These tense markings are used with affirmative and non-affirmative order verbs. Imperative order verbs do not have tense marking, although they can take aspect markers. Conjoint order verbs have a unique set of abstract preverbs that combine elements of both tense and aspect; these will be treated later, in chapter 13.

3.6.1 Tense with Affirmative Order Verbs

Present/present perfect is marked by initial change on the first syllable of the verb stem when no preceding element occurs (other than proclitics). When some other preceding element occurs, present/present perfect is unmarked—although in reality, the preceding element is often another tense/aspect marker. The exact meaning of the forms in question varies depending on the semantics of the verb stem. Verb stems referencing punctual events typically have a present perfect meaning:

- | | |
|---------------------------|------------------------------|
| 48) <i>too'obé3en</i> | 'I have hit you(S)' (TA) |
| 49) <i>téébkkuutiínoo</i> | 'I have broken it/them' (AI) |

Verb stems referencing non-punctual events typically have a present meaning, often with ongoing aspect:

- | | |
|--------------------------|---------------------------------|
| 50) <i>neniisí3einoo</i> | 'I am working [right now]' (AI) |
| 51) <i>bíixoo3é3en</i> | 'I love you' (TA) |

To indicate past tense in Arapaho, the preverb /ih/ is used, occurring as *nih*-when initial: *nih-nóóhobé3en* 'I saw you'. To indicate future tense, the preverb /eti/ is used, occurring (with initial change) as *héét*- when initial: *héét-noohobé3en* 'I will see you'. Formerly, the allomorph /oti/ (*hóót*- initially) was also used by many speakers. It can be found in stories collected in the 1950s by Salzmänn and is still used by a few speakers today. As with all preverbs, this final /-i/ is dropped unless it receives pitch accent.

Morphophonemics

When morphemes ending in /h/ are used as preverbs, the following derivational rule occurs: $h > h' / _V$ (see the discussions of preverbs and prenouns in 4.1 and 9.1). Thus, with the past tense /ih/:

- 52) -iisetee- 'to be ripe' (*heniisétée* 'it is ripe') > *nih'iisétée* 'it was ripe'

The future morpheme (except when used in the affirmative future imperative) produces the phonological derivation $eti > etin / _V$:

- 53) -oosoo- 'to rain' (*honoosóó* 'it is raining') > *héétnoosóó* 'it will rain'

3.6.4 Tense and Aspect with Non-affirmative Order Verbs

With Non-Affirmatives, the morphosyntax is:

(PRO) + PERSON + (IMPERF) + (TENSE) + (NEG) + (PERF) + VERB STEM

Examples follow; note person markers followed by aspect markers lead to contracted forms: /e/ + /ii/ > -ei-, /e/ + /iisi/ > -eisi- etc. as described in chapter 1, rules 4 and 5. Similarly, past tense /ih/ + negative /ihoowu/ leads not to *-ih'ihooow- but to -ih'oow-, although Salzmann documents the former (1967:219).

- 59) *kooheniisi3ei?*
 koo=e-niisi3ei
 INTERR=2S-work(AI)
 'Are you(S) working [right now]?'

 60) *koohéiniisi3ei?*
 koo=e-ii-niisi3ei
 INTERR=2S-IMPERF-work(AI)
 'Do you(S) work (i.e., do you have a job)?'

 61) *koohéiisniisi3ei.*
 koo=e-iisi-niisi3ei
 INTERR=2S-PERF-work(AI)
 'Have you(S) already finished working?'

 62) *hoowniisi3ei.*
 ihoowu-niisi3ei
 NEG-work(AI)
 'S/he's not working right now.'

 63) *hiihoowniisi3ei.*
 ii-ihooowu-niisi3ei
 IMPERF-NEG-work(AI)
 'S/he doesn't work, doesn't have a job.'

 64) *neihoowniisi3ei.*
 ne-ihooowu-niisi3ei
 1S-NEG-work(AI)
 'I'm not working.'

 65) *neih'oowniisi3ei.*
 ne-ih-ihooowu-niisi3ei
 1S-PAST-NEG-work(AI)
 'I didn't work.'

- 66) *neih'oowuusniisi3ei.*
 ne-ih-ihoo-wu-iisi-niisi3ei
 1S-PAST-NEG-PERF-work(AI)
 'I hadn't worked.'

Tense, negation, and questions can be combined together as well. When this occurs, the negative marker /cii/ is used in all cases:

- 67) *kooheciiniibéi?*
 koo=e-cii-niibei
 INTERR=2S-NEG-sing(AI)
 'Are you(S) not singing?'
- 68) *kooheihciiniibéi?*
 koo=e-ih-cii-niibei
 INTERR=2S-PAST-NEG-sing(AI)
 'Did you(S) not sing?'
- 69) *koohectciiniibéi?*
 koo=e-eti-cii-niibéi
 INTERR=2S-FUT-NEG-sing(AI)
 'Will you(S) not sing?'

3.6.5 Tense and Aspect with Imperatives

Imperatives do not take standard tense markers, although there is a delayed or future imperative form that will be discussed later (section 12.5). The imperfective aspectual marker /ii/ is added to imperatives to produce statements with the force of a general rule. It takes the form *hii-* in these constructions when initial:

- | | |
|---------------------|---------------------------------|
| 70) <i>niisi3ei</i> | 'work!' [right now] |
| <i>hii-niisi3ei</i> | 'work!' [in general, as a rule] |
| <i>woniisi3ei</i> | 'go work!' [right now] |

3.7 TENSE, ASPECT, AND NEGATION WITH VOWEL-INITIAL STEMS: MORPHOPHONEMIC DETAILS

Verbs whose stems are vowel-initial take /n/ as the imperfective marker, rather than /nii/:

- 71) *niinóó'einoo.*
 n-iinoo'ei-noo
 IMPERF-hunt(AI)-1S
 'I hunt [regularly, habitually].'

- 72) *neenéti3o'*
 n-eeneti3-o'
 IMPERF-speak to s.o.(TA)-1S/3S
 'I speak to him/her [habitually, regularly].'

Note that these stems also show a parallel abbreviated form of the negative marker /*cii*/ (used with imperatives, non-affirmatives, and conjuncts), which occurs as /*c*/:

- 73) *ceenéti3oohók*
 c-eeneti3-oohok
 NEG-speak to s.o.(TA)-1S/3S.SUBJ
 'If I don't speak to him/her . . .'

Verbs whose underlying stem contains an initial *short* vowel show a long vowel (i.e., changed form) not only when there is no preceding element but also with the future tense preverb and for most speakers with the past tense preverb as well:

- | | | | |
|------------------------|------------------------|---------------------------|------------------|
| 74) <i>hiiténowoo.</i> | <i>héétniiténowoo.</i> | <i>nih-'(i)itén-owoo.</i> | <i>híten-oo.</i> |
| iten-owoo | eti-iten-owoo | nih-iten-owoo | iten-oo |
| IC.get(TI)-1S | IC.FUT-get(TI)-1S | PAST-get(TI)-1S | get(TI)-IMPER.0 |
| 'I have gotten it.' | 'I will get it.' | 'I got it.' | 'Get it!' |

The underlying derivational /-u/ of the non-affirmative negative preverb /*ihoowu*/ is also either retained (with following /*i*/ or /*u*/) or produces a long vowel in the negative:

- 75) *neihoowúutén.*
 ne-ihoowu-iten
 1S-NEG-get(TI)
 'I haven't gotten it.'
- 76) *hoowéentoo.*
 ihoowu-entoo
 NEG-be present(AI)
 'S/he is not here.'

3.8 CONCLUSION

At this point, all of the Arapaho inflectional morphemes have been introduced. As a summary of this section of the grammar, we offer here a segment of a speech spoken by Richard Moss in September 2003, about the Arapaho language, to illustrate the different features that have been presented so far. Richard Moss was born in 1933 and raised by his grandparents, who were monolingual in Arapaho. He was talking to Andrew Cowell, a non-Arapaho, but also included a brief prayer toward the end of the remarks. The classes of the verb stems (AI/II/TI/TA), the animacy classes of the nouns (AN/IN), and the different inflectional orders used (affirmative, non-

affirmative, imperative, conjunct) are all labeled. As he is addressing a non-Arapaho, and then God in the final line, he mostly uses the exclusive ‘we’.

- 77) *neihoowoohnó'o3tonónúéébe netéénetítóonínoo.*
 ne-ihoo-oooh-no'o3i-tonoun-eebe ne-eenetiitooon-inoo
 1S-NEG-no longer-much-use(TI)-PL 1S-language(NI)-PL
 Non-affirmative
 ‘We no longer use our language very much.

hiiwóonhéhe' benéexo'óó3ouyéiti'.
 iiwoonhehe' beexo'-oo3ouyeiti-'
 today IC.only-speak English(AI)-1PL
 Affirmative
 Today we only speak English.

wohéi hí'in héétoxúno', noosouníni tonóúnówúno' netéénetítóonínoo.
 wohei í'in eetoxu-no' nosouniini tonoun-owuno' ne-eenetiitooon-inoo
 well that how many(AI)-12 IC.still.DET use(TI)-12 1S-language(NI)-PL
 Conjunct Affirmative
 Well all of us [older people], we still use our language.

[Note: inclusive plural (12) is used in both verbs of the preceding, but then the noun above is inflected for exclusive plural (1PL), which seems to be an error.]

néihoowoo3éihibe . . .
 ne-ihoo-wu-woo3eihibe
 1S-NEG-be many(AI)-PL
 Non-affirmative
 There are not very many of us . . .

heetihce'kóheinóó' netéénetítóonínoo.
 eetih-ce'ikoheinoo-' ne-eenetiitooon-inoo
 let it be-revived(II)-0S 1S-language(NI)-PL
 Conjunct
 Let our language be revived!

howóó núhu' hinóno'éitiit, heeyéih-noonénoo'óó'.
 owoo nuhu' inono'eitiiton-i eyeih-neenenoo'oo-'
 also this Arapaho language(NI)-S IC.almost-die off(II)-0S
 Affirmative
 The Arapaho language is almost extinct.

wohéi núhu' téi'yoónóh'o', heetih'éi'inóú'u, heetihnih'onítowóó3i',
 wohei nuhu' tei'yoonehe'-o' eetih-e'in-o'u eetih-nih'oniitowoo-3i'
 well these child(NA)-PL let it be-know(TI)-3PL let it be-persist(AI)-3PL
 Conjunct Conjunct
 Well, let the children know it! Let them keep trying at it,

heetihce'ineyéitii3i' hitéénetiitoonínoo.

eetih-ce'i-neyeitii-3i' i-eenetiitooon-inoo
 let it be-again-learn(AI)-3PL 3S-language(NI)-PL
 Conjunct
 so that they learn their language again.

kookóu'ounéihii howóuunonéi'ee, heetihnosóúseenóó' netéénetiitoonínoo.

kookou'ounehii owouunon-ei'ee eetih-nosouseenoo-' ne-eenetiitooon-inoo
 please take pity(TA)-1PL let it be-continue(II)-0S 1S-language(NI)-PL
 Imperative Conjunct
 Please take pity on us, so that our language will continue to survive.'

4

DERIVATION—NOUNS

The second-most important word category in Arapaho, after the verb, is the noun. In this chapter, we examine first the internal structure of the noun stem. The stem consists of one or more lexical roots and sometimes various derivational suffixes. In many cases, the noun stem is modified by lexical prenouns, although the analytic distinction between a prenoun and an initial root of a complex noun stem is not always clear. Next we discuss abstract grammatical initials, preverbs, and proclitics that occur with nouns. Finally, we discuss derivation of nouns from verbs.

Note that in this chapter, we have included underlying pitch accents in the analyses as much as possible: a special effort was made to verify all the underlying forms, in order to show the relationship to surface pronunciations.

4.1 THE BASE NOUN STEM

4.1.1 Introduction

The noun stem, like the verb stem, is often internally complex. In addition to single-morpheme stems, there are stems that contain both an initial and a final element and also modified stems that have one or more adjective-like “prenouns” affixed to them. Moreover, some of the initial and pounoun elements are themselves derived from independent verb or noun stems. There are also noun stems that contain lexical derivational finals—“dependent nouns”—that cannot occur independently and are not obviously related to another independent noun. Note that from a broad perspective, as argued by Ives Goddard (1990), all of the multi-morpheme nominal forms can simply be considered to be compound noun stems consisting of two elements, an initial and a final. The finals may be either independent or dependent. The initials are likewise often derived from independent forms. Nevertheless, in the following, we examine separately the different subcategories of compound nouns listed above for the sake of greater clarity.

4.1.2 Modified Stems: Prenoun + Noun *or* Initial + Final

It is sometimes not possible analytically to separate the two categories listed in the title of this section. Usually, however, this can be done. For instance, when nominal finals are secondarily derived from independent nouns, nouns beginning with /w/, /b/, and /n/ in particular drop the initial consonant. On the other hand, when pre-nouns combine with nouns, the full independent form of the noun is used, including initial /h/ for vowel-initial stems. Note also that pre-nouns—but not noun initials—can be detached from the noun stem, using the /ini/ detachment suffix (see 14.1.3). When formed from a consonant-final root other than /h/, the pounoun has a derivational /-i/ element, which produces consonant mutation in the expected environments (see chapter 1 and also 9.1 on preverbs, which show parallel derivational details; and note that this /-i/ normally drops in surface pronunciation unless it receives pitch accent). Thus, one can find contrasts such as the following pair, both of which were suggested as Arapaho forms for the English ‘little knife’.

1) <i>hécexóoxé</i>	<i>hécés(i)wóoxé</i>
ecex-ooxeh-i	ecesi-wooxeh-i
little(INITIAL)-knife(FINAL)-S	little(PRENOUN)-knife(NOUN)-S
‘little knife’ (initial + final)	‘little knife’ (prenoun + noun)

Neither of these forms is lexicalized in Arapaho, and both are perfectly acceptable grammatically. In contrast, ‘big knife’ (*héebet-óoxé*) is lexicalized as ‘sword’ and only occurs in this initial + final form. (See example 6 below for both types of constructions with ‘bear’.)

The analytical problem arises when the independent stem has some initial consonant that does not drop in derivation; in this case, there is no analytic way to distinguish an initial + derived final construction (with epenthetic /i/ between consonants, as discussed in chapter 1) from a pounoun (with derivational /i/) + indepen-

dent noun construction, other than simply to decide that modifiers plus independent nominals constitute prenoun-noun combinations (which is the approach that will be taken here, thus defaulting toward prenouns over initials). Likewise, the initial /h/ on noun stems is often dropped secondarily, so unless there is consonant mutation on the prenoun, prenoun + vowel-initial-noun constructions can look exactly like initial + final constructions. In the morphemic analysis in this grammar, prenouns are shown with their final /-i/, treated as a derivational element, whereas epenthetic /i/ between initials, medials, and finals is treated as a separate unit. A summary of the behavior of prenouns follows (see also 9.1 on preverbs):

- 1) Prenouns are added to full phonological noun stems; vowel-initial stems have initial /h/ added prior to the addition of the prenoun.
- 2) Prenoun formation: For roots ending in consonants other than /h/, a derivational /i/ is added to the end of the root. For roots ending in /h/, no derivational /i/ is added. For roots ending in vowels, sometimes a final /n/ is added to the root, followed by a derivational /i/; other times, the root is added directly to the noun stem. No conditions for this variation have been determined.
- 3) Unless the final derivational /i/ takes pitch accent, it drops from surface pronunciation, although its underlying presence is often revealed by consonant mutations.
- 4) In cases where the prenoun terminates in /h/ and the noun stem begins with /h/, the following derivational rule operates: /h/ + /h/ > /h'/.
- 5) Once derivational /i/ has dropped from surface pronunciation, the initial /h/ of noun stems also commonly drops secondarily when preceded by a consonant other than /h/, but some exceptions occur for unexplained reasons.
- 6) Prenouns can be detached from the noun stem with the /ini/ construction.

Modified noun stems always take prefixed modifiers. The initial root/prenoun is always in unchanged form. Multiple modifying elements can occur:

- | | |
|-------------------------------|-------------------------------------|
| 2) / <i>cebíteen/</i> | 'grease' |
| <i>níhoon-cebítee</i> | 'butter' ('yellow grease') |
| <i>ceyótow-níhoon-cebítee</i> | 'margarine' ('false yellow grease') |
| 3) / <i>é3ew/</i> | 'dog' (indep. <i>he3</i>) |
| <i>heebet-é3</i> | 'big dog' |
| <i>wó'teen-é3</i> | 'black dog' |
| 4) / <i>X-bex/</i> | 'wood' |
| <i>héé3nee-bes</i> | 'cottonwood' ('true wood') |
| <i>se'i-bes</i> | 'lumber, board' ('flat wood') |
| <i>se'-béxo</i> | 'boards' |
| <i>ce'i-bes</i> | 'log' ('round wood') |
| <i>ce'-béxo</i> | 'logs' |

DERIVATION—NOUNS

5)	/onóh'eh/ <i>hecéx-onóh'oe</i>	'boy' (indep. <i>honóh'oe</i>) 'little boy'
6)	/X-wox/ <i>nóók-ox</i> <i>wo'téén-ox</i> <i>hécesi-wox</i> <i>séihí-wox</i>	'bear' 'polar bear' ('white bear') 'black bear' 'little bear' 'wolverine' ('weasel bear')

Occasionally, due to diachronic phonological processes, the derived noun final shows additional phonological differences from the independent form, other than loss of the initial consonant:

7)	/enéceen/ <i>bó'-onóókee</i>	'buffalo bull' (indep. <i>henécece</i>) 'red bull'
----	---------------------------------	--

Modified Nouns with Prenoun/Initial Derived from Independent Verbs

It is not uncommon to find pre-nouns/initials derived from independent verbs. A derivationalal final /:n/ is added to the verb stem to form initials, with a further /-i/ added to this when the form is used as a pre-noun, as described above. Note in passing the suppression of the pitch accent in both the two syllables prior to the noun final in examples 8 and 9.

8)	/óte/ <i>beníxóxko'ónee-t</i> <i>biixóxko'(o)neen-óte'</i> <i>cóó'onéé-t</i> <i>có'oneen-óte'</i>	'(mountain) sheep' (indep. <i>hóte'</i>) 's/he has a hairy chin' (AI) > 'mountain goat' ('hairy chinned sheep' or 'goat sheep') 's/he is furry'(AI) > 'wool-bearing sheep'
9)	/é3ew/ <i>séé'etéé-t</i> <i>sé'(e)teen-é3</i> <i>3onóuyi'ei-t</i> <i>3óuyi'ein-é3</i>	'dog' 's/he has flat ears' (AI) > 'bloodhound' ('flat-eared dog') 's/he has a pointed face' (AI) > 'hound' ('pointy-faced dog')

Modified Nouns with Prenoun/Initial Derived from Independent Nominal

It is very common for the initial/pre-noun to be derived from an independent nominal. The first noun takes a derivationalal final /in/ to produce an initial. Note that this is added to the *proximate, singular* form of the noun, not the underlying stem (the final /' / PROX.S marker of type 2b NA inflections is dropped, as in example 13). The final derivationalal /n/ is dropped (for both nouns and verbs) when the following morpheme is consonant-initial (see *xóucén* 'wild onion' from *xoo* 'skunk', in the following section on concrete finals, as an additional example to the ones given immediately below).

When the first noun is used as a prenoun, the derivational /i/ is added to the initial, as in example 10.

- 10) *hísei* ‘woman’ + /biixúúton/ ‘garment (shirt or dress)’ >
híseinbiixúút
 iseini-biixuuton-i
 woman(PRENOUN)-shirt-S
 ‘dress’ (‘woman’s garment’) (cf. *hiséin-onóh’oe* ‘girlish, effeminate boy’)
- 11) *henéécce* ‘buffalo bull’ + /é3ew/ ‘dog’ >
henééccein-é3 ‘lion’ (cf. *henééccei-bóó* ‘buffalo path, North Park, Colorado’)
- 12) *nih’óó3oo* ‘white man’ + /ii’éhiih/ ‘bird’ >
nih’óó3oun-ii’éihii ‘chicken’ (cf. *nih’óó3oun-éc* ‘liquor, white man water’)
- 13) *hóte-* ‘sheep’ + /oséino/ ‘meat’ >
hótein-oséino’ ‘mutton’ (cf. *hótein-é3* ‘sheepdog’)

Modified independent nouns can also be used as initials/prenouns:

- 14) *wó’teen-ih’óó3oo* ‘black-white man’ + *beniinen* ‘soldier’ >
wó’teenih’óó3ou-beniinén
 ‘buffalo soldier, black soldier’ [O:Shade Trees, 13]

The rightmost element of complex nouns determines the gender, number, obviation status, and so forth of the overall noun.

Note that some vowel-final noun stems (NI type 2b, NA type 2b) show the use of /i(y)/ rather than /in/ as the derivational element: NI *béte-* ‘bow’ > *beetéyook* ‘bowstring’, NI *béi’ci3e-* ‘iron’ > *béi’ci3eiyóókuu* ‘eyeglasses’ (‘metal eyes’), NA *héeni-* ‘ant’ > *héeniyoówú’* ‘anthill’.

Three Special Semi-abstract Prenouns/Initials

Of special note are three morphemes that, although they function as noun initials or prenouns, have semi-abstract meanings. The morphemes /ééyow/ ‘each’ and /cééyow/ ‘various’ serve as distributive forms with nouns, whereas /cé’ex/ ‘different’ serves as a collective form; the latter two create nouns that are virtually always used in the plural:

- 15) *híisi’* ‘day’
hééyow-úúsi’ ‘every day’
- 16) *ciinéyoono* ‘planted things’
cééyow-ciinéyoono ‘vegetables’ (lit. ‘various planted things’)
- 17) *(hi)neníteeno’* ‘people’
cé’es-neníteenó’ ‘the collective Indian tribes’ (lit. ‘the different peoples’)

- 18) *benenihíiho'* 'club' (lit. 'persons clustered together')
- cé'es-benenihíiho'* 'the collective organizations of the tribe' (lit. 'the different groups/clubs')

4.1.3 Concrete Derivational Finals: Dependent Nouns

There are a few lexical noun finals that never occur independently in Arapaho as nouns and are not transparently derived from independent nominals, but that produce noun stems in combination with initial elements that may be either verbal-type roots in their unchanged form (/nook/ 'white', /níhoon/ 'yellow') or other independent nouns (*xóó* 'skunk', *sísiíyeyi* 'snake') or verbs. A number of these have related verbal medial forms, but none of the forms in the list below are directly derived from verb stems as deverbals. Note also that several of these forms could be treated as classificatory finals.

<i>Final</i>	<i>Meaning</i>	<i>Example of Noun Stem</i>
-biis	bush, shrub, small tree	<i>sísiíyeyibiis</i> 'greasewood' ('snake bush')
-cén	edible root, wild turnip	<i>xóucén</i> 'onion' ('skunk turnip')
-hoosé	small bush or shrub	<i>nóókhoosé</i> 'sagebrush' ('white bush')
-íbin	berry	<i>beesib</i> 'plum' ('big berry')
-íiis	days' time	<i>néesíiis</i> 'three days' time'
-nóóón	container	<i>se'nóóó</i> 'plate' ('flat container')
-nó3	bag	<i>ce'énóx</i> 'container bag'
-okóyon	dwelling place	<i>hebésokoy</i> 'beaver lodge'
-óóbe	dirt, clay, paint, earth	<i>níhoonóóbe</i> 'yellow (clay-based) paint'
-ook	rope or rope-like object	<i>beetéyook</i> 'bow string'
-óókeen	person of authority	<i>beniinóókee</i> 'general' ('army authority')
-ooton	song	<i>hóseihíinoot</i> 'Sun Dance Song'
-óowú	lodge, ceremonial lodge	<i>hóseihóowú</i> 'Sun Dance (lodge)'
-óóxew	horse	<i>nonóúhtiinóóx</i> 'racehorse'
-ówu	land, earth	<i>koh'ówu</i> 'gully' ('split land')

The form /óóxew/ is used in compounds with 'horse'. Although the full noun is *wóxhoox*, this word is actually derived from *hiwóxuuh-oox* meaning 'elk-dog', and the form /óóxew/ simply continues the original, which meant 'dog'. Speakers today do not generally recognize the original derivation of the *(hi)wóx(u)hoox* compound, nor do they regularly use /óóxew/ in new compounds involving dogs (replacing it with /é3ew/ 'dog'); so from a synchronic perspective, /óóxew/ can be considered a lexical derivational final that for contemporary speakers means 'horse'.

4.2 DERIVATIONAL SUFFIXES

4.2.1 Lexical Final: 'Young of . . .' Suffix

There is a derivational nominal suffix /(ii)sóón/ meaning 'young of . . .'. It is added to animate noun underlying stems, which function as noun initials, and it takes NA type 1a inflections. Consonant-consonant junctures (other than as described in chap-

ter 1) produce the full form, as in example 19. These forms can be possessed and take the possessive theme /*(e)w*/. (Additional examples are in Salzmann 1965:145.)

- | | | |
|-----|---------------------|--|
| 19) | <i>/wox/</i> | ‘bear’ > |
| | <i>wóx-uusóó</i> | ‘bear cub’ |
| | <i>wóx-uusóóno’</i> | ‘bear cubs’ |
| 20) | <i>/bexóókeen/</i> | ‘mountain lion’ > |
| | <i>bexóókee-sóó</i> | ‘mountain lion cub’ (See chapter 1 on loss of / <i>n</i> /.) |

4.2.2 Lexical Final: Male and Female

The suffixes /*inén*/ and /*isei*/ can be added to noun bases to make them specifically male or female. The plurals and obviatives are as for the full forms *hinén* (man) and *hísei* (woman):

- | | | |
|-----|---------------------|---------------------|
| 21) | <i>hinóno’éi</i> | ‘an Arapaho person’ |
| | <i>hinóno’éinén</i> | ‘an Arapaho man’ |
| | <i>hinóno’éisei</i> | ‘an Arapaho woman’ |

Another even shorter form is used to designate females in personal names. The suffix takes the form simply of /*s*/, an apparent reduction of /*isei*/ ‘woman’, and is added not only to nouns but also to verb stems:

- | | | |
|-----|-----------------|---|
| 22) | <i>/niibéi/</i> | ‘to sing’ (AI) > <i>niibéis</i> ‘singing woman’ |
|-----|-----------------|---|

4.2.3 Diminutive

There is a diminutive derivational suffix, which takes the form /*ehe’*/ or /*(h)ihí’*/ and which is added to underlying noun stems (which function as noun initials). The allomorph /*(h)ihí’*/ occurs primarily with stems having /*i*/ or /*u*/ in the final syllable (but see example 28), but /*ehe’*/ occurs with these as well, as in example 27:

- | | | |
|-----|-----------------------|---|
| 23) | <i>/nii’e/</i> | ‘bird’ (/nii’e/ + /ihíih/ AGENT > standard /nii’ehíih/) |
| | <i>nii’e(i)-híhi’</i> | ‘little bird’ |
| 24) | <i>/hookúúh/</i> | ‘mouse’ > |
| | <i>hookúúh-uhu’</i> | ‘little mouse’ |
| 25) | <i>/séihon/</i> | ‘weasel’ > |
| | <i>séihon-éhe’</i> | ‘little weasel’ |
| 26) | <i>/betééh/</i> | ‘one’s heart’ > |
| | <i>béteeh-éhe’</i> | ‘one’s little heart’ (Salzmann 1965:144) |
| 27) | <i>/otíiw/</i> | ‘wheel, car, wagon’ > |
| | <i>hotiib-éhe’</i> | ‘little wagon’ (Salzmann 1965:144) |

- 28) /onóh'eh/ 'young man' >
 honóh'oe*h*-í*h*' 'boy'

These suffixes take inflections of type 1 (NI) and 1b (NA), with the obviative singular /o/ dropping in pronunciation, as with the NA possessive-theme inflections. Note that the final /' / is treated as part of the stem, not as an inflectional final as in type 2b NI/NA inflections. Plural and obviative forms (conditioned by vowel harmony and syncope) are:

Diminutive Inflections

NI PL	-éhe'o > -óho	-(h)íhi'-o > -(h)ího
NA PL	-éhe'o' > -óh'o'	-(h)íhi'o' > -(h)íh'o'
NA OBV	-éhe'o > -óho'o > -óho'	-(h)íhi'o > -(h)ího'
NA OBV PL	-éhe'o > óh'o	-(h)íhi'o > -(h)íh'o

Additional examples are listed in Salzmänn 1965:144–145. Note that NA OBV. PL of /-(h)íhi' / would be expected to go to /-(h)íh'o'/. The aberrant form is perhaps based on remodeling in relation to the equivalent /éhe' / form.

These forms can be possessed (as in example 29; see Salzmänn 1965:145 for many other examples). When possession themes are added (to animate forms), the glottal stop is replaced by /hew/ and allomorphs. None of the examples cited by Salzmänn has a possession theme attached to the end of the diminutive suffix, but see example 39 below. The suffixes can also be added to nouns that already have the possessive theme suffix (as in example 30), although Alonzo Moss rejects this form and others with diminutives after the possession theme. Obligatorily possessed forms can take diminutives as well (see example 31). Examples include:

- 29) *hótotiibíh'in*
 e-otíiw-íhi'-in
 2S-wagon(NA)-DIM-INCL
 'our little wagon' (Salzmänn 1965:145)
- 30) *hénii'ehiiwóh'o'*
 e-nii'ehí[h]-w-éhe'-o'
 2S-bird(NA)-POSSESSION THEME-DIM-PL
 'your(S) little birds'
- 31) /etééh/ 'your(S) heart' >
 hétéeh-íhi' 'your little heart'
 hétéeh-íh'-in 'our(INCL) little heart(s)'
 hitéeh-íh'-inoo 'their little heart(s)'

4.3 GRAMMATICAL INITIALS, PRENOUNS, AND PROCLITICS USED WITH NOUNS

Grammatical initials, prenouns, and proclitics used with nouns largely serve to form semi-verbal expressions in Arapaho. Relatively few abstract grammatical ele-

ments specific to nouns occur. The interrogative morpheme /tohúút/ means ‘what kind of . . . ?’ and the related dubitative form /e’ít/ means ‘I’m not sure what kind of . . .’.

- | | | |
|-----|------------------------|---------------------------------------|
| 32) | <i>hoséino’</i> | ‘meat’ |
| | <i>tohúút-oséino’</i> | ‘What kind of meat is this?’ |
| 33) | <i>nii’éthii</i> | ‘bird’ |
| | <i>he’íi3-ii’éthii</i> | ‘I wonder what kind of bird that is?’ |

The negative /ihoowu/ can be added to nouns as well as verbs, both possessed and unpossessed, as a prenoun:

- | | | |
|-----|------------------------|------------------------------|
| 34) | <i>biikóusíís</i> | ‘moon’ |
| | <i>hoow-biikóusíís</i> | ‘there is no moon (tonight)’ |
| 35) | <i>ne3óoxé</i> | ‘my glove’ |
| | <i>hoow-ne3óoxé</i> | ‘that is not my glove’ |

A number of proclitics occur with nouns, both possessed and unpossessed, including *koo*= (interrogative), *toot*= (‘where?’), and *ci*= (‘also, too’). The negative marker /cii/ is used with *koo*=, as in the semi-verbal expressions:

- | | | |
|-----|---------------------------|--------------------------------|
| 36) | <i>koo=biikóusíís</i> | ‘is there a moon tonight?’ |
| | <i>toot=biikóusíís</i> | ‘where is the moon?’ |
| | <i>koo=cii-biikóusíís</i> | ‘is there not a moon tonight?’ |
| 37) | <i>koo=he3óoxé</i> | ‘is this your glove?’ |
| | <i>toot=he3óoxé</i> | ‘where is your glove?’ |
| | <i>ci’=he3óoxé</i> | ‘your glove too’ |

4.4 OVERALL MORPHOSYNTAX OF THE NOUN

The various proclitics, prenouns, and derivational suffixes discussed in this section all can combine with the inflectional suffixes discussed in chapter 2. In some cases, this can produce fairly complex nouns. The overall morphosyntax of nouns involves nine positions, which are as follows:

1. PROCLITIC + 2. PRENOUN + 3. POSSESSION INFLECTION + 4. STEM +
5. ABSTRACT LEXICAL FINALS + 6. POSSESSION THEME(?) + 7. DIMINUTIVE + 8. POSSESSION THEME + 9. INFLECTIONAL FINALS

The abstract lexical finals do not co-occur. Apparently, the possession theme can occur only once within the noun. The inflectional finals include plural/obviative, locative, and vocative, of which none can co-occur with the others. Examples of complex nouns that were elicited using the hypothetical answers to a question about where a tick is located included:

38)	<i>koo=hēt-é3ebíi-b-e'</i>	'(is it) on your dog?'	(1 + 3 + 4 + 8 + 9)
	<i>hoow-net-é3ebíi-b-e'</i>	'(it is) not on my dog'	(2 + 3 + 4 + 8 + 9)
	<i>koo=cíini hēt-é3ebíi-b-e'</i>	'(is it) not on your dog?'	(1 + 2 + 3 + 4 + 8 + 9)
39)	<i>no-wox-úheh-íb-e'</i>	'(it is) on my little bear'	(3 + 4 + 7 + 8 + 9)
	<i>no-wóx-uusóó-b-e'</i>	'(it is) on my [pet] bear cub'	(3 + 4 + 5 + 8 + 9)
	<i>koo=cíini ho-wóx-uusóó-b-e'</i>	'(is it) not on your [pet] bear cub?'	(1 + 2 + 3 + 4 + 5 + 8 + 9)

Note that the longest combinations led speakers to use the /ini/ construction, which is discussed in greater detail in 14.1.3.

4.5 DEVERBALISATION PROCESSES

In this section, we will discuss derivational processes that derive nouns from verbs. Arapaho has a rich set of constructions involving verbal participles and deverbal nouns. The participles are formed by adding additional endings to verb stems, whereas the deverbals are formed by replacing final elements of the verb stem. Although the distinction may seem minor, the participial and deverbal constructions produce quite distinctive semantic effects. The participles normally function either as gerunds or as abstract nouns, whereas the deverbals form concrete nouns. A single verb stem can have both a participle and a deverbal form. There is furthermore an agentive suffix, which derives nouns from verbs.

4.5.1 Action and State Nominalization: Participles

Participles represent the richest type of nominalization process within Arapaho grammar. In addition to having a range of semantic meanings, participles can fulfill all the roles of regular Arapaho NPs within clauses, including subject, object, and secondary object of a verb. They can also fulfill a number of other functions in a sentence, especially of an adverbial nature, and play an important role in expressing less common meanings that cannot be incorporated into verb stems.

Participles: Formation

AI participles are formed by the addition of final /:ton/. Because participles are grammatically nominal forms, they do not show initial change. The /on/ drops from pronunciation in the singular, and typically the pitch accent shifts to the final (surface) syllable of the singular. These forms are NI and take inflection type 1.

In some cases, triple vowels occur in the final syllable, for reasons not clear at the moment. Special morphophonemic rules apply for derivation from verb stems ending in /yei/ and /ee/:

Stem ending	Participle ending	Example
-e	-ééton	<i>benéét</i> ‘drinking’ (< /béne/)
-i, -ii	-ííton	<i>hiisiít</i> ‘being married’ (< /íisi/)
-u, -uu	-úúton	<i>hooxuúúú</i> ‘making rules’ (< /ooxúwu/)
-ee	-óóton	<i>cebzóót</i> ‘walking’ (< /cebísee/)
-yei	-yóóton or -yóooton	<i>hoxyóót</i> ‘sewing’ (< /oxuyéi/)

Note that these same rules apply for other types of secondary derivation with /ee/ and /yei/ verb stems—see 5.3.10 and 5.3.11.

Note also that the *-óót* and *óoot* nominalizations are in free variation with an alternate allomorph *-óóó*:

40) <i>neniisi3ei-noo</i>	‘I am working’
<i>niisi3óoot</i>	‘work(ing)’
<i>niisi3óóó</i>	‘work(ing)’

TA participles are formed by adding the reflexive/reciprocal derivational final *-eti* to the TA stem and then following the same derivational process as described above for AI participles.

41) <i>bixoo3-</i>	‘to love s.o.’ >
<i>bixóó3etiít</i>	‘act of loving; love’

TA participles are really effectively AIO participles and are always grammatically inanimate. The prototypical meaning of these participles is ‘the act of doing X’, where X is the verb stem.

II and TI participles do not seem to occur. Given the prototypical meaning, the non-occurrence of II forms is not surprising. In the case of TI forms, the TI verb stem in question is simply replaced by a secondarily derived AIO stem with indefinite patient, and this is then made into a participle:

42) <i>wo3onóh-</i>	‘to write it’ (TI) >
<i>wo3ónohéi-</i>	‘to write s.t.’ (AIO) >
<i>wo3ónohóoot</i>	‘act of writing things’

The plural of participles occurs primarily with participles that have become lexicalized as nouns: *benéét* ‘a drink’, *benééton-o* ‘drinks’. When participles are used to form impersonal verbs, the stem takes a final /oon/ in place of /on/, and furthermore, this ending undergoes vowel dissimilation to /iin/ following /eet/ and /oot/. This is explained and exemplified in section 7.7. (Note that inanimate nouns with plural possessors show the same shift to /oon/—see 2.5.1; in addition, dependent participles show both this shift and also vowel dissimilation—see 17.1.2.)

Participles: Semantics

AI-based participles are prototypically gerunds that refer to the action or state of the verb in a nominalized form (corresponding to English ‘-ing’ forms). Such participles can be formed from any AI verb and will have this default meaning.

In addition, many of these participles have more-or-less idiomatic lexicalized meanings, although this is not the case with all possible AI-based participles. Most often, these meanings relate to abstract concepts or processes rather than to concrete objects, although there are some exceptions:

- | | | |
|-----|-------------------------|--------------------------------|
| 43) | <i>beetéesibi-noo</i> | 'I am going on a vision quest' |
| | <i>betées(i)biít</i> | 'the vision quest ritual' |
| 44) | <i>heesówobéihi-noo</i> | 'I am sick' |
| | <i>hesówobeihiít</i> | 'sickness, illness' |
| 45) | <i>ceeniinéyeyi-noo</i> | 'I am planting (seeds)' |
| | <i>ciineyóót</i> | 'gardening' |
| 46) | <i>neniisi3ei-noo</i> | 'I am working' |
| | <i>niisi3óóó</i> | 'a job' |
| 47) | <i>heneenéti-noo</i> | 'I am speaking' |
| | <i>heenetiít</i> | 'a language' |

TA-based participles have the same prototypical gerundive meanings and also show the same pattern of idiomatic lexicalization in some but not all cases. Once again, the meanings tend toward the abstract or processual, but there are some obvious exceptions:

- | | | |
|-----|------------------------|------------------------|
| 48) | <i>bíixoo3-é3en</i> | 'I love you' |
| | <i>bixóó3-etiít</i> | 'love' |
| 49) | <i>heneenéti3-é3en</i> | 'I am speaking to you' |
| | <i>heeneti3-etiít</i> | 'a conversation' |
| | but: | |
| 50) | <i>heesóóhob-é3en</i> | 'I am watching you' |
| | <i>hesoohób-etiít</i> | 'a mirror' |

Nominal participles: Roles in the sentence

Although participles nominalize actions and states, the resultant participles can play a rich set of roles in sentences, including not just subjects and objects but a number of other grammatical roles.

Implied Object (not marked on verb stem):

- 51) *heetwonesooku'ooni' betooót.*
 eti-woni-esooku'oo-ni' betoooton-i
 IC.FUT-go to-watch(AI)-1PL dance(AI.PART)-S
 'We are going to go and watch the dance.' [J:II. Verb]

Implied Instrumental Participant (not marked on verb stem):

- 52) *heenoo niitoyeinousneetiini' 3io'kuut.*
 eenoo nii-toyeinousneetiin-i' 3i'okuuton-i
 obligation / rule IMPERF-rest(AI.PART)-IMPERF-0S sit(AI.PART)-S
 'You always have to get your rest by sitting.' [J:I.Verb]

Instrumental Participant (marked on verb stem with INSTR marker):

- 53) *bobooteenebetiit neihoowu'eeneti3oo neeseb.*
 bobooteenebetiiton-i ne-ihoo-wu-i'i-ee-neti3-oo ne-esew
 respect s.o.(TA.PART)-S 1S-NEG-INSTR-talk to(TA)-3S 1S-daughter-in-law
 'I don't talk to my daughter-in-law out of respect.' [J:II.Family]

Implied Locative (no locative suffix or particle used):

- 54) *neesibiho' noowohyihoo3i' cebiihetiit.*
 ne-esibih-o' nowoh-yihoo-3i' cebiihetiiton-i
 1S-niece-PL IC.like to-go(AI)-3PL compete against(TA.PART)-S
 'My nieces like to go to bingo.' [J:IV.verb]

Locative (with accompanying locative particle):

- 55) *nesi heetyihoot hii3e' woteiho'yoot.*
 ne-si[h] eti-yihoo-t ii3e' woteiho'oyooton-i
 1S-uncle IC.FUT-go(AI)-3S over there play drum(AI.PART)-S
 'My uncle is going over there to the drumming.' [J:IV.Verb]

Adverbial Modifier:

- 56) *niih'oehit nihi'koohuut.*
 nih'oehi-t nihi'koohuuton-i
 IC.good at s.t.(AI)-3S run(AI.PART)-S
 'He is very good at running.' [J:I.Verb]
- 57) *né'eibéhe' niicebe'éihoot nebesiiwóho' kóxuhetiit.*
 ne-ibehe' nii-cebe'eih-oot ne-besiiwoho' koxuhetiiton-i
 1S-grandmother.PROX IMPERF-defeat(TA)-3S/4 1S-grandfather.OBV handgame-S
 'My grandmother beats my grandfather at handgame.' [H:18.6]

Aesthetic and poetic factors in the use of nominalizations

It should be pointed out that in more aesthetically marked speech registers, such as the prayers and speeches recorded by Alfred Kroeber around 1900 (source S), there seems to be a tendency to create relatively unusual nominalizations, especially action and state nominalizations, or to use such nominalizations in place of more straightforward AI verb forms. The following examples are from a prayer addressed to a sacred pipe that is being parted with:

- 58) *'ee nenee' neteetebinouhuuniit heicino3e3eet:*
'ee nenee' ne-eetebinouhuuniiton-i e-ii-cii-noo3-e3eet[on]
 well it 1S-be pitiful(AI.PART)-S 2S-IMPERF-NEG-abandon(TA)-1S.DEP.PART
 'Well this is the state of my [worthy] pitifulness, o you whom I have not
 abandoned:

neenei3iiyoo3ihe3en.

neeneit-iiyoo3ih-e3en

REDUP:with-make clean(TA)-1S/2S

I have always remained true to you and honored you properly.' (lit. 'kept you clean')

- 59) *nuhu'uwoonhehe' cei3iihi' kou3iine'etiit, niinon, honowuune'etiit*
nuhu' iiwoonhehe' cei3iihi' kout-iine'etiiton-i niinon-i
 this now to here long-live(AI.PART)-S tepee-S

onow-iine'etiiton-i

joyful-live(AI.PART)-S

'At this time, I ask that it be granted to us long life, a [good] lodge, joyful life,

hii3eti' betee, honoot hei'ooxuwutiit heisonoonin woohonxoot;

i3eti' beteeh onoot ei'i-ooxuwutii-t eisonoonin
 IC.good(II)-0S heart until PERF-command(AI)-3S our father

woohonixooton-i

walk united(AI.PART)-S

a good heart, until the creator commands that we walk in union [with you] once
 again;

heetee nohkuhe'inowoo netei'yooniiwo', heenee3o'ouwunoo,

eetee nohku-e'in-owoo ne-tei'yooniiw-o' eenee3o'ouwunoo
 before with-know(TI)-1S 1S-child-PL however related(AI)-1S

[then it will be] as I knew it before, along with my children and all my relatives:

hoxou'eibi3hiit, hoxou'einiitokubetiit, hitesetiit.

oxou'ei-bii3ihiiton-i oxou'ei-niitokuw-etiiton-i itex-etiiton-i
 smile-eat(AI.PART)-S smile-sit with s.o.-TA.PART-S meet s.o.-TA.PART-S
 eating pleasantly, sitting pleasantly with each other, meeting each other.'

These are examples of an aesthetically valorized form in Arapaho. Native speakers who heard these participles were highly appreciative, remarking both on the beauty of the language and the fact that this was "real old-style Arapaho." Similar examples of such participles can be found scattered through Paul Moss's story "White Horse," which is about sacred and ritual topics and thus corresponds in context to the texts cited above.

4.5.2 Instrument and Product Nominalizations: Deverbals

Deverbals are nouns formed by altering the final elements of a verb stem. They can be considered to be based on either TI or secondarily derived AIO verb stems, but the fundamental point is that elements of the verb stem ending are removed and replaced by an abstract nominalizing element whose underlying form is /yoon/. Since these forms are morphologically nouns, they do not show initial change. They take NI type 1 inflections.

Formation

The formation of deverbals is based on AIO stems, which are themselves derived from TI stems. The resulting deverbals are virtually always inanimate. The formation is as follows:

<i>AIO verb ending</i>	<i>Deverbal ending</i>
-Cyei	-Cyoon (where C is a consonant other than /h/)
-ohei	-ohoen
-Cee	-Coon (see examples 70, 73–75 below)

The final /n/ always drops in surface pronunciation, as normally. These forms take NI inflection type 1. The pitch accent is variable (see chapter 1, on lexical pitch accent shifts).

- | | | |
|-----|------------|--|
| 60) | wo3ónohéi- | ‘to write things’ (AIO) > |
| | wo3onohóe | ‘s.t. written’; i.e., ‘a book’ (NI) |
| 61) | tóúyei- | ‘to hold things’ (AIO) > |
| | tóuyoo | ‘s.t. that holds things’; i.e., ‘a cup’ (NI) |

The ending /ohoen/ can occur in various other forms, such as *-ohoe*, *-oho’oe*, with variable pitch accent as well. The exact conditions governing these changes are not clear.

Usage: Instrument and product nominalizations

The most common use of this construction is for instrument and product nominalizations derived from AI stems that have derivational finals indicating action on indefinite objects. Where the verb stem involves action that does not result in physical change to the patient, the prototypical meaning of these participles is ‘the object or instrument that accomplishes action X’ and instrument nominalizations are formed. Where the verb stem does involve action that physically changes the patient, the prototypical meaning is ‘the product of action X’ and product nominalizations are formed.

All of the AI verbs in question can be classed as semi-transitives (labeled AIO), in that although they are grammatically intransitive, they are semantically transitive

and always have at least an implied object. The common derivational final of these stems is /yei/, although occasionally other endings occur.

Examples of instrument nominalizations include:

- 62) *tonóuyei-noo* 'I am holding things' (AIO)
tóuyoo 'cup' (lit. 'object used to hold things')
- 63) *3enéiyei-noo* 'I am putting things inside a place' (AIO)
3éiyóó 'cabinet' (lit. 'object used to hold things inside')

Note that in contrast to basic AI- and TA-based participles, which nominalize *actions* and typically—although not always—have *abstract* referents, AIO-based deverbals usually refer to *concrete* entities.

It should be noted that the AIO stems ending in /yei/ are themselves often secondary derivations based on other, more primary AIO stems, as well as on TI stems. Particularly common semi-transitive primary derivational finals are /citii/, /kuutii/, and /isetii/ (see chapter 5). From these are derived secondary verbs endings /ci3ei/, /kuu3ei/, and /ise3ei/, which then produce deverbal forms /ci3oon/, /kuu3oon/, and /ise3oon/:

- 64) *wóóteikúú3ei-noo* 'I am telephoning s.o.' (AI) (lit. 'making noise to them')
wóóteikúú3oo 'telephone' ('thing used to telephone, make noise')
- 65) *neniibéí'ikúú3ei-noo* 'I am playing music with an instrument or machine' (AI)
niibéí'ikúú3oo 'guitar; record player'
- 66) *cih'o'wúuci3ei-noo* 'I am harrowing a field' (AI)
cih'o'wúuci3oo 'harrow'
- 67) *tóóxu'usé3ei-noo* 'I am sharpening things' (AI)
tóóxu'use3óó 'sharpeners, whetting stone'

Note that if one uses the AI form *wóóteikúú3ei-noo* 'I am telephoning', one can derive the participle *wóóteikúú3óoot* meaning 'the act of telephoning' according to the normal rules for the derivation of AI-based participles. Note also that the meaning is gerundive and abstract in this case, in contrast to the concrete instrument nominalization 'a telephone' in example 64.

Notice that the last two examples above (66, 67) do involve physical change to the implied objects of the verb stems (the field, the thing that is sharpened), yet the nominalization is an instrument nominalization, not a product nominalization, which contradicts the prototypical meanings expected. Prototypes are of course prototypes, so some fuzziness is to be expected. At least one could say that a field and a knife or axe are still a field and a knife or axe after being harrowed and sharpened, so no fundamental change to their nature has occurred.

Contrast this situation with the product nominalizations below:

- 68) *hóócei-noo* 'I am frying meat' (AI)
hóócoo 'steak' (cf. *hocóót* 'act of frying meat')

- 69) *3oo'óhcei-noo* 'I am pounding meat' (AI)
3o'óhcoo 'pounded dried meat'
- 70) *cenínohúsee-noo* 'I am cutting up something so as to produce falling chips' (AI)
cínohúxoo 'a chip'
- 71) *ceniineyei-noo* 'I am planting things' (AI)
ciinéyoó 'a cultivated plant' (cf. *cééyow-ciinéyoo-no* 'various cultivated plants'; i.e., 'vegetables')

In some cases, both a product and an instrument nominalization occur. In this case, instruments seem to be animate and products inanimate:

- 72) *wo3ónohéi-noo* 'I am writing things' (AI)
wo3onohóe 'paper, book' (NI)
wo3onóhoé 'pen, pencil' (NA) (also as *wo3onóho(')óé*)

Notice the different pitch accent patterns on the two participles. See the discussion of these lexical pitch accent shifts in chapter 1.

Body part deverbals

The deverbal-formation process can also be used with body part medials combined with the /ee/ AI final to form inanimate, deverbal nouns for various body parts for which no independent nominal form exists:

- 73) *se'éihteenoo.*
se'-éiht-ee-noo
 IC.flat-foot-MID(AI)-1S
 'I have a flat foot.'

se'éihtoo
 'sole of the foot'
- 74) *tóneeniíbeenoo.*
tóneen-íiw-ee-noo
 IC.hole-nose-MID(AI)-1S
 'I have a hole in my nose.'

tóneeníwoo
 'nostril'

Once formed, these nouns can undergo modification exactly like other nouns:

- 75) *woxse'éihtoo*
woxu-se'éihtoon-i
 bear-sole of foot-S
 'bear paw'

4.5.3 Agent and Undergoer Nominalizations: /*(i)híih/* Suffix

A common agent and patient/undergoer nominalization construction, which produces forms that are morphologically as well as syntactically nouns, is the use of the suffix /*(i)híih/*, which is added to AI verbs—either primary or secondary stems. The preceding syllable of /*(i)híih/* must be long; if long already, the /*(i)/* causes diphthongization (if possible) and then drops, as described in chapter 1. Very often, a secondary AI stem indicating action on indefinite objects (which is derived from TA stems) is used as the base. The verb stem always appears in its unchanged form, since the resultant forms are nouns. They take NA inflection type 1b. The pitch accent patterns are discussed in chapter 1.

The suffix is most commonly used for agent nominalization. Many of these nominalizations are lexicalized in Arapaho:

- | | | |
|-----|----------------------------|---|
| 76) | <i>wo3ónohéi-noo</i> | 'I am writing s.t.' (AIO) |
| | <i>wo3ónóhei-hii</i> | 'secretary, accountant' |
| 77) | <i>neeh'éi-noo</i> | 'I am killing people' (AIO) |
| | <i>neh'éi-hii</i> | 'killer, murderer' |
| 78) | <i>tonóúku3éi-noo</i> | 'I am tying or locking people up' (AIO) |
| | <i>tóúku3éi-hii</i> | 'sheriff, policeman' |
| 79) | <i>noonsih'ebi-noo</i> | 'I am drunk' (AI) |
| | <i>nonsih'ebi-ihii</i> | 'drunkard, alcoholic' |
| | <i>noonsih'ebi-ihíiho'</i> | 'drunkards, alcoholics' |

Patient nominalizations can be formed using this same suffix. In this case, the suffix is added to *imperfective passive* stems:

- | | | |
|-----|----------------------|---|
| 80) | <i>tonóúkuhú-noo</i> | 'I am locked or tied up' (AI.PASS.IMPERF) |
| | <i>tóúkuhú-úhuu</i> | 'prisoner, inmate' |

Lexicalized patient nominalizations with /*(i)híih/* are relatively rare in Arapaho, certainly much more so than agent nominalizations with this suffix.

Additional uses of the /*(i)híih/* suffix

It should also be pointed out that the /*(i)híih/* construction can be used, primarily with names of animals, birds, insects, and so forth, to create middle-voice possessors ('the one who has X') rather than agents ('the one who does X'). Examples are:

- | | | |
|-----|---|--|
| 81) | <i>níhoonó3oyéihii</i> | |
| | <i>níhoon-ó3on-yei-(i)híih[h]</i> | |
| | yellow/orange-rump-AI-AGENT | |
| | 'red-tailed hawk' (lit. 'yellow/orange rumped one') | |

- 82) *hoowóhoohohtéihii*
 hoowóh-óóht-ee-(i)híi[h]
 many-foot-AI-AGENT
 ‘centipede’ (lit. ‘many-footed one’) [Note: lack of t-mutation is unexplained here]

The /*(i)híi*/ suffix can be used to create other types of nouns, similar to the middle-voice animal names. One fairly commonly used example is:

- 83) *ni'icéihí-* ‘to taste good’ (AI) >
ni'ceihí-ihii ‘good-tasting one’

This form represents neither agent nor patient nor middle-voice possessor subject. It is instead a nominalization of a causer of an experience or sensation. Similar forms can be created for ‘bad-smelling one’ and the like. See *histéébouhúúho* ‘ones that smell like fire’ in B:2.5.79.

4.5.4 The Locative Suffix /*ʔ*/

A nominalization process used with place-names involves the locative suffix /*ʔ*/, which is added to AI verb stems. This produces inanimate nouns, so the verb stems lack initial change:

- 84) *wo'téeneihí'*
wó'oteeneéihí'
 be black/Ute(AI)-LOC
 ‘Utah’ (lit. ‘place of the Utes’) (See section 2.7.)

Secondly, and very productively, the nominal /*o'óowú*/ meaning ‘house’ is added to AI verb stems in Arapaho to express ‘the house/building/lodge/place where X is done’. These are also inanimate nouns that lack initial change. As described above (4.1.2), a derivational /*:n*/ is added to the verb stems.

- 85) *béteenítoo-noo* ‘I am at church, doing sacred things’ (AI)
beteentóón-o'óowú' ‘church’ (lit. ‘sacred doings house’)
- 86) *céébiihínee-noo* ‘I am gambling’ (AI)
cebiihinéén-o'óowú' ‘casino’ (lit. ‘gambling house’)

Although the above examples are of specific buildings, the construction is now also used in an extended, metaphorical way to name entire cities or regions, with the ending having the meaning of ‘the place where X [characteristic] building is’. In other cases, it has come to mean simply ‘place of X’:

- 87) *tóukohúúno'óowú'*
toukuhuun-o'oowu'
 be in jail(AI.INITIAL)-place-S
 ‘Rawlins, Wyoming’ (lit. ‘The place where the jail [territorial prison] is’, extended from the original meaning of simply ‘jail’)

4.6 VERBAL NOUNS

A number of ‘nouns’ in Arapaho are morphologically verbs (which can be analyzed as headless relative clauses), although they function syntactically as nouns. Examples include *heenísono* ‘giraffe’ (literally ‘it has a long neck’ or ‘the one that has a long neck’) and *niinihencebkkóohút* ‘car’ (literally ‘it runs by itself’). These forms behave syntactically exactly like other nouns. They occur with verbs that govern them, they can be marked on the verbs, and they show pluralization and obviation (when animate). Morphologically, the plural and obviative forms are simply verbal plural and obviative inflections. These verbal nouns occur immediately following demonstratives and can even be possessed, showing the standard morphophonemic rule of /t/ epenthesis but also retaining changed stems even with the prefix. They can also be modified by preverbs, which semantically act as pre-nouns:

Modified:

- 88) *cee'éé'* ‘potato’
bee'i-ce'éé' ‘apple’ (‘red potato’)
niíhooní-ce'éé' ‘orange’ (‘orange/yellow potato’)
nonookú-ce'éé' ‘turnip’ (‘white potato’)

Possessed:

- 89) *net-eeenísono*
‘my giraffe’

Plural and Obviative:

- 90) *niinihencebkkóohú3i*
nii-niiheni-cebikoohu-3i
IMPERF-by self/on own-go/run(AI)-3PL
‘cars’ (lit. ‘they run by themselves’)
- 91) *niinihencebkkóohuni3*
nii-niiheni-cebikoohu-ni3
IMPERF-by self/on own-go/run(AI)-4S
‘car’ (OBV)

In larger noun phrase:

- 92) *nonóhowó' hinee niinihencebkkóohút.*
noohow-o' inee niiniihenicebikoohut
IC.see (TA)-1S/3S that car
‘I see that car.’

The forms do not seem to take locative or vocative inflections, nor the special nominal pre-nouns noted in section 4.3, nor the special abstract derivational suffixes noted in section 4.2.

Verbal nouns are best analyzed as headless relative clauses (see chapter 17). They serve to syntactically nominalize various semantic roles. AI verbs with the /ee/ and

/yei/ ‘action on object’ finals become nominalized agents, for example. The use of the demonstrative *hínee* is not required in the following examples but is included to illustrate the nominal quality:

- | | | | |
|-----|---|---|--|
| 93) | <i>niiwóowo3ónohéit.</i>
nii-woo-wo3onohei-t
IMPERF-REDUP-draw(AI)-3S
‘S/he draws habitually.’ | > | <i>hínee niiwóowo3ónohéit.</i>
‘That artist, that one who draws.’ |
|-----|---|---|--|

As examples 94 and 95 illustrate, when passivized or middle-voice verb stems occur in this construction, the role of patient or undergoer is nominalized:

- | | | | |
|-----|--|---|---|
| 94) | <i>neeh’éét.</i>
neh’-ee-t
IC.kill(TA)-AI.MID-3S
‘S/he has been/ was killed.’ | > | <i>hínee neeh’éét.</i>
‘That victim, that one who was killed.’ |
| 95) | <i>nonóhobéíht.</i>
noohob-eihi-t
IC.see(TA)-AI.PASS-3S
‘S/he is/ has been seen.’ | > | <i>hínee nonóhobéíht.</i>
‘That one who is being seen.’ |

In addition to agent and patient/undergoer nominalizations, many of these verbal nouns are simply descriptive (like ‘giraffe’ and ‘car’). Although such nominalizations are very common in Arapaho, not all of them are lexicalized by any means. There are no clear-cut phonological or morphological criteria to distinguish lexicalized from non-lexicalized forms in the way that ‘red bird’ can be distinguished from ‘redbird’ by stress patterns in English. Regularity and uniformity of usage are the criteria that must be applied. As example 93 illustrates, the use of the imperfective/habitual marker is—not unexpectedly—common in lexicalized forms.

5

DERIVATION—VERB FINALS

5.1 INTRODUCTION

Arapaho verb stems always consist of at least an initial root and a final element, the latter of which is usually abstract (in a few cases, certain verbs have a null abstract final). It is common for medial elements, and also concrete (lexical) finals, to occur as well, but discussion of these will be delayed until chapter 6. The combination of initial and final elements produces the verb stem. The initial roots contribute much of the lexical meaning to verb stems. Prototypically, they refer to either actions or states (/tew/ 'to separate from a whole', /be/ 'red'). The finals serve to indicate the stem class of the verb (AI, II, TA, TI). There are several different finals used to form each stem class, however, and the contrasting finals contribute important elements to the meaning of the stem itself, as well as licensing particular semantic categories of NPs that may serve as objects of the verb. The stems are thus best thought of as constructions whose meaning is the product of both lexical and non-lexical elements.

As an example, using the initial root /be'/ meaning 'red', one can produce the following verb stems:

- | | | |
|-----|----------------|--|
| 1a) | /be'-ee/ | 'to be red' (II) |
| 1b) | /be'-eihi/ | 'to be red' (AI) |
| 1c) | /be'-i-se/ | 'to have turned red, to be rusty' (II) |
| 1d) | /be'-i-noo'oo/ | 'to be turning red' (AI) |

Clearly, finals such as /ee/ as opposed to /eihi/ serve to form contrasting stem classes. But finals such as /ee/ as opposed to /se/ serve to affect the "Aktionsart" of the verb stem. The finals /ee/ and /eihi/ are used to form stative and descriptive verbs. Thus, roots having to do with color, size, shape, texture, and the like commonly occur with these finals, whereas action-verb roots such as 'hit', 'catch', 'see', and the like do not occur with these finals, or at least not without some intervening medial or other final that modifies the stem in such a way as to allow such occurrence. (The final /eihi/ can in fact occur with the root meaning 'see', but only secondarily in combination with another primary final; the combination produces the overall meaning of the passive verb 'to be seen', as illustrated in the following paragraph.)

In this discussion, "primary finals" are those that are added to initials and medials in order to form basic primary verb stems. "Secondary finals" are abstract finals that are added to existing verb stems to derive new secondary stems, almost all of which show changes in either stem class or valency. Thus, the primary TA stem /noohow/ 'to see s.o.' is made up of an initial /nooh/ and an abstract TA final /ow/. The secondary AI stem /noohobeihi/ 'to be seen' is made up of the primary stem /noohow/ and the abstract AI final /eihi/, which we have already encountered above. As this example makes clear, abstract finals can occur both as primary and secondary finals. This is true of most abstract finals, although in some cases (which will be noted below), there are finals that occur only primarily or secondarily, and in many cases the exact semantic and syntactic effects of the finals are different depending on whether they are used primarily or secondarily.

It should also be noted that "primary stems" could be defined in two different ways. One could define them as the minimal forms able to take inflectional affixes. In this case, all the elements of the primary stem would have to be elements that could not on their own constitute a primary stem. "Secondary stems" could then be defined as those derived from primary stems. On the other hand, one could allow the various initial, medial, and final elements of primary stems themselves to be internally complex and/or derived forms. In this case, secondary stems would be defined more narrowly as those stems that take additional *abstract* derivational finals only and that show shifts in stem class, valency, or other abstract grammatical categories. This is an especially important question when concrete lexical finals are involved in a verb stem. Although these will be treated in a subsequent chapter, we will briefly introduce them here to illustrate the analytical issue at stake.

The four stems below are primary stems:

- | | |
|--|--|
| 2) <i>hiinóó'ei-</i>
<i>iinoo'ei-</i>
'to hunt' (AI) | 3) <i>nókohu-</i>
<i>nokohu-</i>
'to sleep' (AI) |
| 4) <i>nó'xoh-</i>
<i>no'-i-xoh-</i>
to a point-EP-convey s.o. (TA)
'to bring s.o. [to a given reference point]' | 5) <i>hoowkóóhu-</i>
<i>oow-i-koohu-</i>
down-EP-run (AI)
'to run downward, downhill' |

But how then should the following be analyzed?

- | | |
|--|---|
| 6) <i>hiinóó'eixoh-</i>
<i>iinoo'ei-xoh-</i>
hunt(AI)-convey s.o. (TA)
'to take s.o. hunting' | 7) <i>nókohukóóhu-</i>
<i>nokohu-koohu-</i>
sleep(AI)-run (AI)
'to take a nap' |
|--|---|

One could argue that since the initial elements of each stem are independent stems already, the elements /xoh/ and /koohu/ must be defined as secondary finals. Although this has a certain appeal, it tends to greatly increase the number of secondary derivational finals that one must list and tends to combine lexical processes with grammatical processes. If instead /iinoo'ei/ and /nokohu/ are treated as initials, then /xoh/ and /koohu/ can be treated as primary concrete finals, and the internally complex verb stems in examples 6 and 7 can be treated as primary stems. Secondary derivation is then limited to abstract grammatical processes that primarily affect things like valency rather than semantics. An example of a true secondary derivation would then be:

- 8) *hóówukooohúúton-*
oowukoohu:-ton-
 run down(AI)-TA.APPLICATIVE-
 'to run downward/downhill to s.o.'

We will follow this second mode of analysis, inspired especially by the arguments of Goddard (1990). Thus, initial (and medial) elements can be secondarily derived and internally complex and are open categories, whereas finals for the most part remain abstract and have a limited number of members in the set.

5.2 PRELIMINARY REMARKS: GRAMMATICAL VS. SEMANTIC TRANSITIVITY

In the following analysis, we will discuss finals that form grammatically intransitive (AI) stems that are nevertheless used in constructions involving action on objects. By “grammatically” intransitive, we mean stems that take standard AI inflectional morphology, as presented in chapter 2. Despite this inflectional morphology, the stems index patients and other object-like constituents—sometimes only semantically and in some cases via special theme markers occurring as part of the AI stem.

Clearly (in English as well as Arapaho), if one is sewing, frying, beading, and so forth, one must be sewing something, beading something, frying something; the semantics of the verb (or initial root in Arapaho) requires an object on which the action is performed. In English the choice of whether to name the object in question—and thus render the verb transitive rather than intransitive—is often a matter of the saliency of the object. In Arapaho, such roots take specific AI finals that explicitly indicate action on an object. The AI stems de-emphasize the importance of the object, however; contrasting finals, which also explicitly indicate action on an object but produce grammatically transitive (TA or TI) stems, are used when the objects are highly salient, much like the contrast between English ‘I’m sewing’ and ‘I’m sewing this dress’. Note however that in Arapaho the NP in question *can be* explicitly named—or not—with all types of stems, including grammatically intransitive (AI) stems:

- 9) *hénetíínoo nebé’ci3éi’i.*
 enetii-noo ne-be’ici3e’-ii
 IC.lose s.t.(AI)-1S 1S-money-PL
 ‘I have lost my money.’

Since ‘lose s.t.’ is an AI verb stem, the entire construction is *grammatically* intransitive. However, the verb ‘lose’ clearly requires some underlying object, and it can be thought of as *semantically* transitive. Semantic transitivity is reflected in Arapaho in the particular derivational final that is used with the verb (in this case, /tii/): verbs whose semantics are transitive take derivational finals indicating action on an object. When nouns like ‘money’ are explicitly mentioned in a sentence, we will label them as “implied objects” of the verb. Such objects will be discussed in much more detail later (see chapter 16).

As an aside, we should recognize that some Algonquian specialists analyze verbs such as those in example 9 differently than we do here. As seen in chapter 3, TI verbs have a theme sign /o/, which precedes the person suffixes. One could analyze the verb in example 9 as having a theme sign /ii/, followed by person suffixes, as there are many cases where /ii/ finals alternate with TA finals (see 5.3.12). Based on the theme sign (whose PA form is */koo/) and the alternation with TA forms, one could argue that these verbs should be considered TI forms, with the /o/ TI verbs being TI-1 and the /ii/ verbs being TI-2. This would bring grammatical transitivity in line with semantic transitivity for these stems.

There are three major disadvantages that lead us not to pursue this potential alternative analysis here for Arapaho. First, it would lead to one of the sets of inflectional suffixes (the AI set, as we present it) being used with both AI and (some) TI stems, and conversely, TI stems—alone among all four stem types—would take two different sets of inflectional suffixes. Secondly, there are other AI stems that although they lack theme signs, show the same semantic and syntactic characteristics as /ii/ stems: they are semantically transitive, and they can take explicit secondary objects within the sentence (see chapter 16 for more details). Thirdly, there are verbs based on the same root that have an AI /ii/ stem *and* a TI /o/ equivalent (see chapter 16).

The AI /ii/ stems are simply one example among a large set of “hybrid” Arapaho stems whose semantic and grammatical transitivity do not match, and which we will label “semi-transitive.” As shown in chapter 16, grammatical transitivity plays an important functional role in the language as a marker of pragmatic saliency, and the distinction between AI /ii/ stems and TI /o/ stems enters into this distinction in some cases. Thus, we feel it is best to maintain a strict AI/TI opposition based on the form of the person suffixes used on the verb stems.

5.3 DERIVATIONAL FINALS

It is not necessary to discuss all finals separately. As already seen in the examples with the root ‘red’, the finals tend to occur in pairs (or larger clusters) that can be classified as individual constructions that produce stems with various prototypical semantic characteristics. In this section, an analysis is presented of the Aktionsart and governing behavior of the verb stems that result from the use of the various derivational finals. Afterward, certain important cross-linguistic topics that are especially interesting and complex in Arapaho—valence-shifting, passives, causality, rapid action, and combinations of multiple finals—will be treated as a whole in order to provide a clearer summary of the data in this section, since all of those topics involve multiple derivational finals.

GRAMMATICALLY AND SEMANTICALLY INTRANSITIVE FINALS

5.3.1 Stative/Descriptive Verbal Stems: AI /eihi/, II /yoo/ and /ee/

These finals are used in primary derivation to form verb stems based on roots that are semantically descriptive, defining states and conditions.

10)	be'-ee-	>	<i>bee'ée'</i>	II.OS	'it is red'
	be'-eihi-	>	<i>bee'éh(i)t</i>	AI.3S	's/he is red'
11)	iiyoot-yoo-	>	<i>heníyoo3óó'</i>	II.OS	'it is clean'
	iiyoot-eihi-	>	<i>heníyootéh(i)t</i>	AI.3S	's/he is clean'
12)	nihoon-yoo-	>	<i>níthooyóó'</i>	II.OS	'it is yellow'
	nihoon-eihi-	>	<i>níthoonéh(i)t</i>	AI.3S	's/he is yellow'

The final /eihi/ is also used in secondary derivation to form passives. This usage is discussed more fully in section 5.5.3.

Many speakers use /eeni/ or /eeti/ and /yooni/ or /yooti/ is place of /ee/ and /yoo/. Note that a single speaker will often alternate between /yoo/ endings in the affirmative and /yooni/ or /yooti/ endings in the non-affirmative and conjunct orders. (See the paradigms of II verbs in the appendix, all from a single speaker, Alonzo Moss Sr. Note especially 'to rain'.)

The reasons for the alternation between /yoo/ and /ee/ are not clear. Often the /ee/ final follows roots with /e/ (as in example 10), but there are many instances

of these roots being followed by /yoo/, as in /eyoo/ ‘to be long’ and /wo’oteeyoo/ ‘to be black’, so vowel harmony does not seem to be involved (and e~o harmony is normally regressive in any event, as seen in chapter 1).

Similarly, /eih/ is replaced by /ouhu/ on some occasions, as in:

- | | | | |
|-----|-------------|--|---|
| 13) | ciinowouhu- | | ‘to be touchy, delicate of temperament’ |
| 14) | 3oonouhu- | | ‘to be lazy’ |
| 15) | owoonouhu- | | ‘to be lucky’ |

This variation is also unexplained. The variant only occurs following roots with the vowel /o/, but many roots with this vowel (such as example 15) take /eih/. Note that /ouhu/ also functions as a self-benefactive final (see 5.3.13), as well as a fossilized reflexive final (see 5.3.15), which may explain some of these occurrences. Note also that there are several concrete AI finals that can cause confusion with /ouhu/, including /i)nouhu/ ‘concerning clothing, wear X type of clothes’, /i)bouhu/ ‘concerning smell, have X smell’, and /ouhu/ ‘concerning price, value, having X value’.

Several descriptive roots form II stems using the final /:noo/ rather than /yoo/. These are described in section 5.3.3 below.

5.3.2 Resultative Stems: II /eti/ and /oti/ and /se/

The finals /eti/ and /oti/ form general resultative stems, which focus on the subsequent state of the referent, and have an imperfective aspect. The final /se/ is used to form recent resultative stems, which focus on the transition in state, and have a present perfect aspect.

- | | | | | | |
|-----|-------------|---|------------|-------|----------------------------------|
| 16) | tew-oti- | > | tóówoti’ | II.OS | ‘it is broken’ |
| 17) | koho’-oti- | > | kóóh’oti’ | II.OS | ‘it is cracked’ |
| 18) | toxu’-i-se- | > | tóóxu’úse’ | II.OS | ‘it has been sharpened’ |
| 19) | 3o’-i-se- | > | 3oo’úse’ | II.OS | ‘it has just broken [shattered]’ |

The variation between /eti/ and /oti/ is unexplained. As with /ee/ and /yoo/ (5.3.1), one might suspect vowel harmony to be an issue, given the existence of e~o harmony in Arapaho, but no such patterns are clearly apparent; /oti/ occurs following /e/ as well as /o/ (example 16), although /eti/ does not seem to follow /o/.

5.3.3 Descriptive and Involuntary Action Stems: II /:noo/

Primary descriptive stems

Some roots with a stative/descriptive semantic component take the II final /:noo/ in the formation of the primary stem:

- | | | | | | |
|-----|-------------|---|----------------|-------|-------------------|
| 20) | ouunee-:noo | > | honóuuneeenóó’ | II.OS | ‘it is difficult’ |
| 21) | ko’ei-:noo | > | kóó’einóó’ | II.OS | ‘it is round’ |

5.3.4a Intransitive action: AI /hi/

This final creates AI verbs from roots whose semantics involve either intransitive action or state. The pitch accent is normally /hí/. Some of these forms may simply be imperfective passives (which take final /i/, usually following /h/ causative; see 5.5.2).

- 30) *wox-oonce-hi- > wooxóóneehínoo* AI.1S 'I am skinny'
 (/wox/ 'bad', /oonce/ 'legs; body')
- 31) *ceitee-hi- > cenéiteehít* AI.3S 'S/he has pierced ears' [C:83]
 cf. *céítoo* 'earring', deverbal from /ceitee/

Note that there are also quite a number of other AI verbs whose final syllable is /hi/ (usually without pitch accent). The /hi/ is never replaced by any other final, however, and the remainder of the stem never occurs without the /hi/, so this ending cannot be analyzed as a final in these cases. Examples include:

- 32) *sesiihi- > seesíihinoo* AI.1S 'I am eager [to do s.t.]'
- 33) *-kooohu- 'to run' > ceebkóóohunoo* AI.1S 'I am running past'
- 34) *ouuhu- > honóuuuhunoo* AI.1S 'I am climbing'

On the other hand, it seems quite possible that in the case of these stems, the /hi/ was originally a final, since there are many other cases where this final does occur in opposition to other finals, either primarily or secondarily:

- 35) *bii3i-* 'to eat s.t. specific' (AI) > *bii3ihi-* 'to eat' (AI)
- 36) *-outii-* 'to set a price or value' (AI)
-ouhu- 'to have a price or value' (AI)
- 37) *-bou'oo-* 'to smell a certain way' (II)
-bouhu- 'to smell a certain way' (AI)

5.3.4b Intransitive action: AI /ni/

This final creates AI verbs from roots whose semantics involve either intransitive action or state, similar to /hí/. The pitch accent is normally /ní/.

- 38) *oxoo-ni- > hooxóónínoo* AI.1S 'I am laughing'
 cf. *oxoo-h-* 'to make someone laugh' (TA)
- 39) *koon-i'ei-ni- > koonoóní'ei'noo* AI.1S 'I am uncovering my face' (/koon/
 'open', /i'ei/ 'face') [C:91]
- 40) *ni-ni- > níínít* AI.3S '[The dog] is howling'

5.3.4c Intransitive action: AI /ii/

The rare final /íi/ occurs in a few stems indicating intransitive action, including:

- 41) *nokoon-ii- > nóókoóníínoo* AI.1S 'I am yawning'
- 42) *nisih-ii- > níishíínoo* AI.1S 'I am whistling'

5.3.5 Vowel-final AI and II verbs

AI verbs

There are a number of AI verbs whose stem ends in a final short vowel (all are listed in the appendix). In some cases, the final has the form /ine/, with the /-ne/ dropping prior to third person inflections. The vowels are part of the stem, so these verbs lack a derivational final. They all have the peculiarity that the inflection for third person involves a glottal stop rather than the normal /t/, as noted in chapter 3. When such stems occur as initials in more complex verbs, the final vowel is simply dropped:

- 43) otoobe- 'to consume' >
hóotoowkuutiínoo.
 otoow-i-kuutii-noo
 consume-EP-rapid action(AI)-1S
 'I have swallowed it.' (AI)

II verbs

There are many II verbs whose stem has a single final vowel. These vowels are part of the lexical item, so the stems have no abstract final:

- 44) *beneeci'* 'it is snowing'
 45) *téébi'* 'it is deep [water]'
 46) *heníínoonó'eti'* 'it is cloudy'
 47) *konóóte'* 'it is bubbling, boiling'

5.3.6 Inchoative: AI/II / (n)oo'oo/

Widely used is the inchoative final II/AI / (n)oo'oo/, which occurs both primarily and secondarily. It prototypically indicates transition in state but has a more general semantic component of ongoingness in some verb stems. Note that the pitch accent is / (n)oo'óó/, with a few unexplained exceptions. This final forces pitch accent onto the preceding syllable of the stem as well.

Transition/becoming

This final commonly expresses the idea of transition and 'becoming' with a present ongoing or present perfect aspect. Examples are:

- 48) *cceneetéén-oo'óó'* 'it is turning green/blue' (II)
 cf. *ccenéétee-yóó'* 'it is green/blue'
 49) *cceneetéén-oo'óó-noo* 'I am turning green/blue' (AI)
 cf. *ccenééteen-éíhi-noo* 'I am green/blue'

- 50) *héésnon-i-noo'oo-t* 's/he is getting angry' (AI)
 cf. *héésnon-éé-t* 's/he is angry'

Used secondarily:

- 51) *nookohú-noo'óó-t* 's/he is falling/has fallen asleep' (AI)
 cf. *nóókohu-t* 's/he is sleeping'

In some cases, a further distinction is made between transition and rapid transition, using the shorter and longer forms of the suffix, respectively. This seems to be especially the case with color terms:

- 52a) *ceeneetéén-oo'óó-'* 'it is turning green/blue' (II)
 52b) *ceenééteen-i-noo'óó-'* 'it is turning green/blue rapidly' (II)

Constructions involving extension and/or intensity

A second type of construction involves actions that have a spatial or temporal extensiveness or intensity. One fixed construction involves the initial /sesiín/ 'aching', used with body part medials:

- 53a) *sesiín-et-óó'oo-noo* 'I have an earache' (AI)
 53b) *sesiín-ookút-oo'óó-noo* 'I have a toothache' (AI)
 53c) *sesiín-oo'óó-'* 'it is aching' (AI)

Another example of this type of meaning is:

- 54) *teeb-i-noo'óó-noo* 'I'm broke, without money' (AI) (a joking loan translation based on English) (< /tew/ 'break, separate')

AI/II recent resultative/transition

AI recent resultative stems are formed with the inchoative. The difference between ongoing aspect and present perfect aspect depends entirely on context.

- 55) *teeb-i-noo'oo-t* 'it has just broken [a pencil]' (AI) [C:58]
 56) *héésnon-i-noo'oo-t* 's/he has gotten angry' (AI) (see also example 51)

When II stems occur with this final, they express recent *transition* rather than result, and the stems refer to states that typically occur without external causation (as opposed to the resultatives described in 5.3.2, which normally involve some kind of causation):

- 57) *hooóotón-oo'óó-'* '[the fire] has burned out, gone out' (II)
 58) *tooyóún-oo'óó-'* 'autumn has arrived' (II)

Lexicalization with meaning of 'flowing water'

The inchoative has become lexicalized in connection with a number of initial stems to mean 'moving water':

- 59a) *ceeb-í-noo'óó-* 'it [water] is flowing' < /cew/ 'past, by'
 59b) *honoow-ú-noo'óó-* 'it [water] is flowing downstream' < /oow/ 'down'
 59c) *noo'-ú-noo'óó-* 'it [water] is flooding' < /no'/ 'arrive, reach a goal'

Lexicalization with meaning of 'going'

With a number of roots, the inchoative final has been lexicalized to indicate general motion, 'going', and the like. Note that the first syllable of the final seems to always occur in short form in these constructions, so the identification with the inchoative suffix is not absolutely certain (see also the comment regarding TA final /o'on/ in 6.5):

- 60) *neniitów-o'oo-t* 's/he is the first' (AI) < /niitow/ 'first'
 61) *3onóók-o'óó-t* 's/he is following behind' (AI) < /3ook/ 'follow'

Stems with inchoative final only

In many cases, inchoative stems occur in opposition to stems without this suffix. In other cases, however, only stems with the inchoative suffix occur. This is typically the case with verbal roots whose inherent meaning involves transition or ongoing movement. In such cases, even completed past tense forms maintain the inchoative final; in addition, the final itself tends to show more phonological irregularity than in cases where it occurs in opposition to other finals:

- 62) *niisóno'óó-* 'it swells/is swelling' (II)
nih-nisóno'óó- 'it swelled up' (II)
 63) *nonónonoó'oo-t* 'it (AN) is flying/soaring in circles' (AI)
 64) *hoowóto'óó-noo* 'I am awake' (AI)

5.3.7 Rapid Action: AI /ihcehi/

The AI final /ihcehi/ is used to indicate rapid action. It is used both primarily and secondarily. Examples of primary stems are:

- 65) *héét-nouúhcehi-noo* 'I will leap/run outside' (AI)
 cf. *héét-nouúsee-noo* 'I will go/walk outside' (AI)
 66) *ceebíhcehi-noo* 'I am hurrying (past), scurrying' (AI)
 cf. *ceebkóóhu-noo* 'I am running (past)' (AI)
 cf. *ceebisee-noo* 'I am walking (past)' (AI)

Examples of secondary derivations are:

- 67) *konóókoonookú-noo* 'I am opening my eyes' (AI) >
konóókoonookúhcehi-noo 'I am opening my eyes rapidly' (AI)
 68) *koohéi'i-noo* 'I am getting up (from a sitting position)' (AI) >
koohéisihcehi-noo 'I am getting up quickly from a sitting position, leaping up' (AI) [Note: -s- unexplained]

This final is broadly lexicalized in many cases to the meanings of either ‘run’ or ‘jump’. It is perhaps derived from the root /ihc/ ‘upward, into the air’. But as example 67 shows, it can be used quite widely.

This final, when combined with the concrete final /si(ne)/, which indicates either transitional process or position as the result of such a process, produces the complex AI final /ihcehisi/, meaning ‘bounce’. A parallel II complex final /ihcehise/ is also used.

- 69) *nooh'úhcehisi'*
noho'-ihcehi-si'
 IC.up-RAPID-transition/position(AI)-3S
 ‘[The ball] bounced.’

5.3.8 Diminutive Finals

AI/II / (V)hihi/

There is a diminutive verb final / (V)hihi/ ‘to be little/small and . . .’, which is not especially widely used:

- 70) *hóokeciihiht.* *hóokeciihihi3i'.*
okecii-hihi-t *okecii-hihi-3i'*
 IC.small-DIM(AI)-3S IC.small-DIM(AI)-3PL
 ‘S/he is very small.’ ‘They are very small.’
- 71) *níibe'ehíht*
nii-be'-ehihi-t
 IMPERF-red-DIM(AI)-3S
 ‘penny’ (lit. ‘it is small and red’) [C:157]

AI/II /youhu(hu)/

Somewhat more widely used is a final whose singular form is /youhu/, with plural /youhuhu/, which is probably a complex form derived from /yoo/ (II) + /ihi(hi)/ DIM.

- 72) *cééteyóúhu'* *cééteyóúhuhú'u*
cete-youhu-' *cete-youhuhu-'i*
 IC.spherical-DIM(II)-0S IC.spherical-DIM(II)-0PL
 ‘pill’ (lit. ‘it is small and spherical’) [C:159] ‘pills’
 (cf. *cééteyóó'* ‘it is spherical’)
- 73) *kookóúniisóúhu'* *kookóúniisouhú'u*
kokouniis-youhu-' *kokouniis-youhu-'i*
 IC.thin-DIM(II)-0S IC.thin-DIM-0PL
 ‘dime’ (lit. ‘it is small and thin’) [C:78] ‘dimes’
 (cf. *kookóúniisóó'* ‘it is thin’)

- 74) *téébe céebii'óúhut*
 teebe cebii'-youhu-t
 just now IC.created-DIM(AI)-3S
 'newborn' (lit. 'just now came into being') [C:146]
 (cf. *ceebii'óotii-noo* 'I am creating it') (AI)

GRAMMATICALLY INTRANSITIVE BUT SEMANTICALLY TRANSITIVE FINALS

5.3.9 Detransitivizer: AI/II /i/

The AI final /i/ occurs as a general detransitivizer. It is used secondarily with TA verb stems and has two very different functions.

Action on non-specific objects

On some occasions when /i/ is added to verbs having TA finals, it produces AI verbs that express action on unspecified objects, thus decreasing the importance of the semantic objects of the verb (cf. the final /yei/ with the same function—see 5.3.10):

- 75) *o3i'eew-* 'to ask s.o. to do s.t.' (TA) > *hoo3i'eebi-noo*.
 'I am asking for s.t. to be done.' (AI)
- 76) *nii-bee3i'eebi-3i*.
 'They gossip.' (AI)
- 77) *noxox-oohow-* 'to see something in an envious/desirous manner' (TA) >
noxoxóóhowú-noo.
 'I've got an appetite for things; I'm desirous, acquisitive.' (AI)
- 78) *siis-oohow-* 'to not see s.o. due to the sun' (TA) > *senísóóhowú-noo*.
 'I am blinded by the sun/can't see things due to the sun.' (AI) [C:55]

Imperfective passive/descriptive verbs

When the final /i/ is added to verbs having the TA causative final /h/ or TA and TI /n/ and /en/ finals—which also often have a causative function—it produces II/AI verbs that describe imperfective passive states (see 5.5.3 for details):

- 79) *ceceeco'oh-* 'to bless s.o. ceremonially' (TA) >
ceceécó'ohú-noo.
 'I have been ceremonially blessed; I am in a blessed state or condition.' (AI)
ceceécó'ohú-.
 'It has been/is ceremonially blessed.' (II)

5.3.10 Action on Objects: AI /-(v)yei/

Primary action-on-object stems

The final /yei/ is used to form grammatically intransitive verbs that nevertheless semantically express action on some object. It often pairs with the derived TA and TI finals /yoo-3/ and /yoo-t/:

80)	ok-yei-	>	<i>hóóceinoo</i>	AI.1S	'I am frying [something]'
	ok-yoo-3-	>	<i>hóócoa3ó'</i>	TA.1S/3S	'I am frying it (AN)'
	ok-yoo-t-	>	<i>hoocóótowoo</i>	TI.1S	'I am frying it'

This final is often used when nominal elements are incorporated into verb stems:

- 81) *wóóteihó'yeinoo*.
wotei-ho'-i-yei-noo
IC.noise-drum-EP-AI-1S
'I am playing the drum.'
- 82) *béénohóóxebéinoo*.
ben-oh-ooxew-yei-noo
IC.drink-CAUS-horse-AI-1S
'I am watering the horses.'

It should be noted that this final occurs on some verbs whose underlying semantic object is less clear or even lacking, such as *nookóóyei-noo* 'I am hungry, fasting' and *henííyei-noo* 'I am alive, living'.

Quite often, /yei/ AI stems alternate with /t-ii/ AI stems (see 5.3.12). In this case, there seems to be always an underlying derivational /t/ included in the stem, so that an underlying /t-yei/ produces a surface alternation between -3ei- and -t-ii-. (Note that from a diachronic perspective, these cases could be analyzed as full stems ending in /-t/, with both the /ii/ and the /yei/ forms being secondary derivations. However, synchronically, none of the forms below ever occurs with a primary /-t/ stem, so we treat these as primary forms.)

- | | | | | | |
|-----|-----------------|---|----------------------|-------|---|
| 83) | niisi-t-yei- | > | <i>neniisi3einoo</i> | AI.1S | 'I am working' |
| | cf. niisi-t-ii- | | | | 'to make s.t.' (AI); cf. also niisi-h- 'to make s.t. (AN)' (TA) |
| 84) | biici-t-yei- | > | <i>beniici3einoo</i> | AI.1S | 'I am beading' |
| | cf. biici-t-ii- | | | | 'to bead s.t.' (AI) |
| 85) | neyei-t-yei- | > | <i>necyéi3éinoo</i> | AI.1S | 'I am reading, studying' |
| | cf. neyei-t-ii- | | | | 'to read s.t.' (AI) |

Another common alternation is that between TI stems with /(e)n/ 'by hand' final and AI stems with /-(v)yei/ final:

- | | | | | | |
|-----|----------------|---|--------------------------|-------|----------------------------|
| 86) | iisiit-eyei- | > | <i>heniisítéyeínoo</i> | AI.1S | 'I am catching things' |
| | cf. iisiit-en- | | 'to catch s.t.' (TI) | | |
| 87) | it-eyei- | > | <i>hiitéyeínoo</i> | AI.1S | 'I have taken some things' |
| | cf. it-en- | | 'to take, get s.t.' (TI) | | |

Secondary action-on-indefinite-object stems

This final is also widely used secondarily, attached to TI and TA stems, to form verb stems with the meaning of 'action on indefinite objects' (either animate or inanimate):

- | | | |
|-----|----------------------|--|
| 88) | <i>wo3onoh-</i> | 'to write s.t.' (TI) > |
| | <i>woo3ónohéínoo</i> | 'I am writing [things]' (AI) |
| 89) | <i>neh'-</i> | 'to kill s.o.' (TA) > |
| | <i>neeh'éínoo</i> | 'I am killing things [people or animals]' (AI) |

Note that /yei/ verbs often have a default understood referent, based on their most common usage. The stem /ciineyei/ 'to put things down' has acquired the specific meaning 'to plant, sow seeds' as the default meaning, and /ko'uyei/ 'to remove things' has acquired the specific meaning 'to gather, pick berries' as its default meaning. Likewise, the TI verb /towoh/ 'to cut s.t. by tool' produces the AI form /towohei/ 'to cut things by tool', whose default meaning is 'to cut tepee or lodge poles, for the Sun Dance lodge or for the brush arbors used by those camping nearby'. The AI verb /bebiyei/ 'to drink things' can only mean 'to drink coffee' in actual usage.

The complex pragmatic factors determining the usage of /yei/ stems, and the alternations between these grammatically intransitive stems and TA/TI stems, are discussed more fully in chapter 16.

5.3.11 Action on objects: AI /ee/

The final /ee/ functions very similarly to /yei/. It occurs only primarily (but cf. the middle voice /ee/—section 5.3.16). It often occurs with the secondarily derived pair TA /oo-3/, TI /oo-t/:

- | | | | | | |
|-----|--------------|---|------------------------|----------|------------------------------|
| 90) | otoon-ee- | > | <i>hootóónéé-noo</i> | AI.1S | 'I am buying [something]' |
| | otoon-oo-3- | > | <i>hootóónoo3-ó'</i> | TA.1S/3S | 'I am buying it (AN)' |
| | otoon-oo-t- | > | <i>hootóónóót-owoo</i> | TI.1S | 'I am buying it' |
| 91) | niitow-ee- | > | <i>nenitóbée-noo</i> | AI.1S | 'I hear something' |
| | niitow-oo-3- | > | <i>nenitóowoo3-ó'</i> | TA.1S/3S | 'I have heard about him/her' |
| | niitow-oo-t- | > | <i>nenitowóót-owoo</i> | TI.1S | 'I hear it' |

In other cases, the secondarily derived pair is TA /oo-n/, TI /oo-t/:

92)	ceit-ee-	>	<i>cenéitee-noo</i>	AI.1S	'I am visiting [people]'
	ceit-oo-n-	>	<i>cenéitoon-é3en</i>	TA.1S/2S	'I am visiting you'
	ceit-oo-t-	>	<i>cenéitóót-owoo</i>	TI.1S	'I am visiting it'
93)	neeceew-ee-	>	<i>nenéceebéé-noo</i>	AI.1S	'I am acting as a chief/boss'
	neeceew-oo-n-	>	<i>nenéceewóon-é3en</i>	TA.1S/2S	'I am in charge of you'
	neeceew-oo-t-	>	<i>nenéceewóót-ow</i>	TI.2S	'You are in charge of it'

/ee/ with /(i)w/ causative

The /ee/ suffix occurs on a number of stems with the abstract element /(i)w/, which is a causative normally used with social actions done to or for someone else. This produces the complex AI final /(i)bee/, which occurs secondarily:

94)	neyei3ei-w-ee-	>	<i>neeyéi3eibéé-noo</i>	AI.1S	'I am teaching'
	cf.		<i>neeyéi3éi-noo</i>	AI.1S	'I am learning'
95)	bii3i-w-ee-	>	<i>beníi3béé-noo</i>	AI.1S	'I am cooking ceremonially for people'
	cf.		<i>beníi3i-noo</i>	AI.1S	'I am eating it'

The /(i)bee/ final occurs with the secondarily derived TI/TA pair /(i)woo-t/ and /(i)woo-3/:

96)	bii3ibee-	>	<i>beníi3béé-noo</i>	AI.1S	'I am cooking [for people]'
	bii3iwoo-t-	>	<i>beníi3wóót-owoo</i>	TI.1S	'I am cooking it'
	bii3iwoo-3	>	<i>beníi3wóo3-ó'</i>	TA.1S/3S	'I am cooking it (AN)'
also:	bii3iwoo-n	>	<i>beníi3woon-é3en</i>	TA.1S/2S	'I am cooking for you'

/ee/ with /in/: Specific social actions

The complex final /inee/ is used in secondary derivation. It is added to TA stems in order to derive AI verbs that have a more specific semantic component, typically referring to common or salient social activities:

97)	cebiih-	'to compete with s.o.' (TA) >	<i>céébiihinee-noo.</i>		
					'I am gambling.' (AI)
98)	toun-	'to hold s.o.' (TA) >	<i>tonóuninee-noo.</i>		
					'I am capturing an enemy.' (AI)

Note that /inee/ verbs can take additional secondary derivations, such as the expected /inoo-3/ TA final: *tonóunínoo3-ó'* 'I am capturing him'. (TA.1S/3S)

5.3.12 AI /tii/ Action-on-object Stems

Primary /t-ii/ stems

A very large number of AI stems have the final /t-ii/. These stems prototypically indicate action on an inanimate object referent, with the /ii/ virtually functioning as a theme sign, similarly to the /o/ theme that occurs with TI verbs prior to the inflectional suffixes (see 3.2.3). Note that all of these stems can be set up with underlying final derivational /-t/; very rarely, both /-t/ and /-t-ii/ stems do occur (see example 252). However, /ii/ never occurs without this /t/, so in the grammar (other than in specific discussions of the /t-ii/ final), this form is presented as /tii/.

Due to the complexity of the semantic, aspectual, syntactic, and pragmatic issues surrounding usage of /t-ii/ stems, a fuller discussion of these stems and their alternation with other AI, TI, and TA stems has been left to chapter 16. Here, we simply present the forms.

A common set of pairs is AI /t-ii/ for inanimates, TA /(i)h/ for animates (see also example 83):

99)	<i>bii'ii-t-ii-</i>	>	<i>benii'ítii-noo</i>	AI.1S	'I have found it'
	<i>bii'ii-(i)h-</i>	>	<i>benii'iih-ó'</i>	TA.1S/3S	'I have found him/her'
100)	<i>en-et-ii-</i>	>	<i>héénetii-noo</i>	AI.3S	'I have lost it'
	<i>en-(i)h-</i>	>	<i>héénih-ó'</i>	TA.1S/3S	'I have lost him/her'

Complex AI finals involving /t-ii/

The /t-ii/ suffix occurs in very close conjunction with two other abstract elements: /kuu/, indicating rapid or violent action, and /ci/, indicating action by tool or manipulation. The complex finals /kuutii/ and /cítii/ are extremely widespread. They alternate with TA /kuu3/ and /ci3/:

101)	<i>téébkúutii-noo</i>	'I have broken it (IN) off' (AI)
	<i>téébkúu3-ó'</i>	'I have broken it (AN) off' (TA)
102)	<i>henihcikuutii-noo</i>	'I am throwing it (IN) upward' (AI)
	<i>henihcikuu3-ó'</i>	'I am throwing it (AN) upward' (AI)
103)	<i>tooncítii-noo</i>	'I am drilling a hole in it (IN)' (AI)
	<i>toonci3-o'</i>	'I am drilling a hole in it (AN)' (TA)
104)	<i>konóu'cítii-noo</i>	'I am scratching it (IN)' (AI)
	<i>konóu'ci3-o'</i>	'I am scratching him/her' (TA)

Another complex final involving /t-ii/ is formed from the transition/position concrete final /se/ (II). The complex AI final /setii/ is used as a causative:

- 105) toxu'-i-se-
sharp-EP-trans(II)
'to have been sharpened' (II) >
tóóxu'usetíi-noo.
'I have sharpened it.' (AI)
- 106) noho'-ihcehi-se-
up-RAPID-trans(II)-
'to bounce' (II) >
nonóónoh'úhchisetíi-noo.
'I am bouncing it.' (AI.REDUP)

A further final /se3ei/ can also be formed (cf. 5.3.10, examples 83–85): toxu'use3ei- 'to sharpen things' (AI). A rare further derivational form of this final is II /se3oo(ni)/:

- 107a) 3ei-se- 'to be inside s.t.' (II) >
3ei-se-tii- 'to put s.t. inside s.t.' (AI) >
3ei-se-3ei- 'to put things inside s.t.' (AI)
3ei-se-3ooni- 'to have been put, placed inside s.t.' (II)
- 107b) *hoow3éise3oon híni' níisbéi'ci3eiwóóne'*.
ihoo-wu-3eise3ooni ini' níisbei'ci3eiwoon-e'
NEG-be inside(II) that purse-LOC
'There's nothing in that purse.' [H:13.8]

There are a few verbs that have /tii/ final but lack any semantic object. These include /iine'etii/ 'to live', /bixone'etii/ 'to whine, sob, cry', /iinikotii/ 'to play', /isiine'itii/ 'to be gentle, tame', /e'inootii/ 'to have one's wits about one, know what's going on', /ootii/ 'to camp', and /iinootii/ 'to graze'. Several other forms do have underlying semantic objects but almost never occur with an explicit noun phrase. Examples include /neyei3itii/ 'to try [to do s.t. specific]' and /ceh'e3itii/ 'to listen [to s.t.]'.

5.3.13 AI self-benefactive: /ouhu/

The AI self-benefactive suffix /ouhu/ is used for primary derivation and indicates that something is done 'for oneself'. This suffix is ultimately derived from a PA reflexive suffix, but in Arapaho, it has lost the generalized reflexive meaning except in a few fossilized forms (see section 6.3.1; and also 5.3.15 on the general reflexive).

- 108) otoon-ouhu- > *hootoonóúhu-noo* AI.1S 'I am buying something for myself'
cf. *hootóonéé-noo* AI.1S 'I am buying something'
- 109) e'nee-t-ouhu- > *hee'neetóúhu-noo* AI.1S 'I am saving it up for myself'
cf. *hee'néétii-noo* AI.1S 'I am saving it up'

- 110) wotiton-ouhu- > wóótonóúhu-noo AI.1S 'I am making a fire for myself'
 cf. wóótonéé-noo AI.1S 'I am making a fire'

5.3.14 AI Self-Benefactive: /owoo/

There is a second AI self-benefactive suffix, /owoo/. In contrast to /ouhu/, this suffix occurs secondarily as well as primarily. It is added secondarily to TI primary stems. When added to primary stems, it occurs in the form /-t-owoo/, as in example 114.

- 111) hoonoyoohoot- 'watch out for s.t.' (TI) >
 honoonoyoohootowóó-3i'.
 'They are watching out for themselves.' (AI)

This final often has a secondary semantic effect, indicating greater permanence in terms of possession. Contrastive examples are:

- 112) *neni3ínowoo.* vs. *neni3nowóónoo.*
 nii3in-owoo nii3in-owoo-noo
 IC.possess(TI)-1S IC.possess(TI)-SELFB(AI)-1S
 'I have it.' 'I own it; it's mine for keeps.'
- 113a) *heníixoohóótowoo.* .
 iix-oohoot-owoo
 IC.PERF-see(TI)-1S
 'I have seen it.'
- 113b) *núhu' híseino' heenéixoohóótowóó3i' behíihi'.*
 nuhu' isein-o' eeneix-oohoot-owoo-3i' beh-iihi'
 this woman-PL REDUP.PERF-see(TI)-SELFB(AI)-3PL all-ADV
 'These women learned everything [from her] by watching carefully.' [O:Woman
 Captive, 23]
- 114) *cenééstóónoo.* vs. *cenééstowóónoo.*
 ceesi-too-noo ceesi-t-owoo-noo
 IC.earn-do(AI)-1S IC.earn-SELFB(AI)-1S
 'I am making [money].' 'I have earned s.t. for myself; I really deserve what I got.'

Given that it occurs only following TI stems, this suffix may be a reanalysis and extension of the first person TI inflection -owoo.

5.3.15 Reflexives and Reciprocals: AI /eti/ and /ouhu/

Arapaho has a single productive reciprocal/reflexive suffix /eti/, which is added secondarily to TA verb stems. The suffix creates AI stems, thus changing the valency of the verbs. When the person inflection is singular, the meaning must be reflexive.

When the person inflection is plural, either meaning can be possible and only context makes clear which is intended:

- 115) *henééneti3etínoo*.
 eenetí3-eti-noo
 IC.speak(TA)-REFL(AI)-1S
 ‘I am speaking to myself.’ (AI)
- 116) *henééneti3etíno’*.
 eenetí3-eti-no’
 IC.speak(TA)-RECIP(AI)-12
 ‘We are speaking to each other.’ or ‘We are speaking to ourselves.’ (AI)

Arapaho has also preserved an older PA reflexive suffix, /ouhu/, which now has a more restricted usage as a self-benefactive suffix only for the most part (see section 5.3.13). In a few restricted constructions, it still preserves its reflexive property (ehiis-etin-ouhu-, wash-mouth-REFL, ‘to gargle’; see the ‘wash X body part’ construction in section 6.3.1). Otherwise, it appears in fossilized form in several verb stems. Note that unlike /eti/, /ouhu/ occurs as a primary suffix.

- 117) *neet-on-ouhu-*
 tired-by action-REFL
 ‘to be busy’ (AI) (lit. ‘to tire oneself’)
- 118) *nohoh-ouhu-*
 hurry-REFL
 ‘to hurry, rush’ (AI) (lit. ‘to hurry oneself’)

5.3.16 Middle Voice: AI /ee/

Primary middle voice stems

This final is used in middle voice constructions, typically with both an initial and a medial element. It is especially common in verb stems expressing the condition of parts of the body, often expressing the abstract ‘to have . . .’:

- 119) *tew-oon-ee-* > *toowóóneeno* AI.1S ‘I have a broken leg’
 /tew/ ‘break’; /oon/ ‘leg’
- 120) *koho’-ookut-ee-* > *kooh’ookúteeno* AI.1S ‘I have a missing tooth’
 /koho’/ ‘split’; /ookut/ ‘tooth’

An uncommon variant of the /ee/ ending is /ii/:

- 121) *koo-ko’-oo3on-ii-*
 REDUP-separation-tongue-AI
 ‘to stick out the tongue, be ready to strike [as a snake]’ (AI)

SEMANTICALLY AND GRAMMATICALLY TRANSITIVE FORMS

5.3.17 Transitive Action: TA /3/, TI /t/

The TA final /3/ occurs either primarily (example 128) or secondarily (examples 129, 130) and often pairs with TI /t/, which likewise occurs either primarily or secondarily. The pair indicates transitive action (see additional secondary examples in 5.3.10 and 5.3.11):

128)	oxoo-	'laugh'	>	<i>hooxoo3-éinoo</i>	TA.3S/1S	's/he is laughing at me'
			cf.	<i>hooxóoni-noo</i>	AI.1S	'I am laughing'
129)	nihii-	'say'	>	<i>niihii3-éinoo</i>	TA.3S/1S	's/he is saying s.t. to me'
				<i>niihít-owoo</i>	TI.1S	'I am saying it'
			cf.	<i>niihít-noo</i>	AI.1S	'I am saying s.t.'
130)	iinoo'ei-	'hunt'	>	<i>heníinoo'étí3-oot</i>	TA.3S/4	's/he is hunting it (AN)'
			cf.	<i>heniinóó'ei-noo</i>	AI.1S	'I am hunting'

5.3.18 Transitive Action: TA /ew/ and /ow/, TI /eet/ and /oot/

The pairs TA /ew/ TI /eet/ and TA /ow/ TI /oot/ often co-occur. They occur only as primary suffixes and indicate transitive action:

131)	nooh-ow-	>	<i>nonóóhobé3en</i>	TA.1S/2S	'I see you'
	nooh-oot-	>	<i>nonoohóótowoo</i>	TI.1S	'I see it'
132)	nei'-ooh-ow-	>	<i>nenéí'oohowó'</i>	TA.1S/3S	'I am looking at him/her'
	nei'-ooh-oot-	>	<i>nenéí'oohóótow</i>	TI.2S	'you are looking at it'
			/nei'/'closely, tightly'		
133)	ni'een-ew-	>	<i>nii'eenébé3en</i>	TA.1S/2S	'I like you'
	ni'een-eet-	>	<i>nii'eenéétowoo</i>	TI.1S	'I like it'
134)	esein-ew-	>	<i>hééseinów-oot</i>	TA.3S/4	's/he hates him/her'
	esein-eet-	>	<i>hééseinéét-o'</i>	TI.3S	's/he hates it'

TA /w/

The irregular AI verb /si[ne]/, indicating transition or position, takes a transitive final /siw/, which has a more specifically causative meaning:

- 135) to'osi[ne]- 'to fall and hit the ground' (AI) >
tóó'osiw-oot.
 'S/he knocked him/her to the ground.' (TA) [< /to'/'hit, strike']
- 136) *3óó'osiw-oot.*
 'S/he dropped it on the ground and shattered it.' (TA) [< /3o'/'shatter, go to pieces']

This final occurs on a few other verbs secondarily, such as TA /tokohuw/ ‘to flee from s.o.’ (derived from /tokohu/ ‘to flee’ [AI]). All these verbs seem to involve location or motion in relation to an argument (see also chapter 4, example 58, ‘sit with s.o.’).

5.3.19 Transitive Action: TA /x/, TI /t/

This pair of suffixes is fairly rare. They occur only primarily and indicate transitive action:

137)	ii-x-	>	<i>heniís-éínoo</i>	TA.3S/1S	‘s/he is afraid of me’
		>	<i>heniíx-ó’</i>	TA.1S/3S	‘I am afraid of him/her’
	ii-t-	>	<i>heniít-owoo</i>	TI.1S	‘I am afraid of it’
138)	ite-x-	>	<i>hiítóx-ó’</i>	TA.1S/3S	‘I have come upon him/her’
	ite-t-	>	<i>hiítét-owoo</i>	TI.1S	‘I have reached [a place]’

(Note that -itex- is in free variation with -ites- in contemporary Arapaho.)

5.3.20 Transitive Action: TA /n/

The TA final /n/ is used to form TA verb stems. When used in primary derivation, the final often indicates action that is not volitional on the part of the subject but rather tends to express action that could be considered “relational” between the subject and object. Used secondarily, it also tends to be used for relational action but can be used for volitional action—although in this case, the action prototypically does not directly change or affect the object. It occurs either as a primary (example 139) or secondary (examples 140–143) final:

139)	ete3ei-	>	<i>hééte3ein-ó’</i>	TA.1S/3S	‘I have [physically] run into him/her’
		cf.	<i>hóóne3eih-ó’</i>	TA.1S/3S	‘I have knocked him/her over [on purpose]’
140)	niit-oku-n-	>	<i>neniítokun-ó’</i>	TA.1S/3S	‘I am sitting with him/her’
141)	oy-oku-n	>	<i>hooyókun-ó’</i>	TA.1S/3S	‘I am sitting next to him/her’
142)	oy-yookuu-n	>	<i>hooyóókuun-ó’</i>	TA.1S/3S	‘I am standing next to him/her’
143)	bii3ibee-n-	>	<i>benii3woon-é3en`</i>	TA.1S/2S	‘I am cooking for you’ (cf. example 96)

5.3.21 Transitive Action: TA /(t)on/

The TA final /(t)on/ occurs commonly as a primary final, often on stems that do not involve direct action on the object of the verb stem:

144)	owouun-on-	>	<i>hoowóuunon-é3en</i>	TA.1S/2S	‘I am taking pity on you’
145)	niit-on-	>	<i>neniítton-é3en</i>	TA.1S/2S	‘I hear/understand you’
		cf.	<i>neniíttoabee-noo</i>	AI.1S	‘I have heard something’

- 146) woteikuu-ton- > *wóóteikuuton-é3en* TA.1S/2S 'I am telephoning you'
 147) niisi-ton- > *neniisítón-ó'* TA.1S/3S 'I am doing/making it for
 him/her'
 cf. *neniístii-noo* AI.1S 'I am making it'

This final is especially important because of its common occurrence as part of the complex finals /kuu-ton/ 'rapid/intense action', /ci-ton/ 'action with tool', and /xo-ton/ 'conveyance', where it has an applicative function:

- 148) no'-i-xo-ton- > *nou'uxóton-é3en* TA.1S/2S 'I am bringing it to you'
 149) noox-i-ci-ton- > *nonóoxcítón-ó'* TA.1S/3S 'I am digging a hole for
 him/her'
 150) se'-i-kuu-ton- > *héét-sei'ikúúton-é3en* TA.1S/2S 'I will send it to you'

This final often occurs with a prior element /o'/, producing the complex final /o'-on/, which refers in general to motion, pathways, or orientation:

- 151) towo'on- 'to interrupt s.o., to interfere with s.o.'s path' (TA) < /tew/ 'break,
 separate'
 152) niwoho'on- 'to carry s.o.' (TA) < /niiw/ 'carry'
 153) neeneiito'on- 'to face s.o.' (TA)
 154) cowo'on- 'to overtake s.o.' (TA) < /cew/ 'past, by'
 155) eeto'on- 'to push or prod s.o.' (TA) < /eet/ 'push'

This final also occurs as part of secondary derivations involving /ee/ and /yei/ verbs:

- 156) esinon-ee- 'to be angry' (AI) >
 esinon-ooton- 'to be angry at s.o.' (TA)
héésnonóotónoot.
 'S/he is angry at him/her.' (TA.3S/4)
 157) bes-eyei- 'to touch things; to vote' (AI) >
 bes-eyoo-3iton- 'to endorse s.o.' (TA)
beeséyoo3ítóno'.
 'I am endorsing him/her for office.' (TA.1S/3S) [C:86] (/3i/ unexplained—see
 5.3.28)

5.3.22 Transitive action, by hand: TA/TI / (e)n/

The widely occurring TA/TI ending /en/ carries the general meaning 'by hand'. It occurs only primarily. Note that pitch accent falls on the /en/ final for all TI inflections except 3PL—the underlying pitch accent is /én/. Conversely, pitch accent falls on the /en/ final in TA inflections only for 3/4, 1PL/2, and other inflections that force pitch accent onto the preceding syllable—the underlying pitch accent is /en/.

158)	<i>cíin-en-</i>	>	<i>ceníinén-ó'</i>	TA.1S/3S	'I have put it (AN) down'
	<i>ciin-én-</i>	>	<i>ceníinén-o'</i>	TI.3S	's/he is putting it down'
		>	<i>ceníinén-owoo</i>	TI.1S	'I am putting it down'
159)	<i>sé'-en-</i>	>	<i>séé'-en-ó'</i>	TA.1S/3S	'I am flattening it (AN)'
	<i>se'-én-</i>	>	<i>see'-én-owoo</i>	TI.1S	'I am flattening it'

Many TI and a few TA verbs show a modified form of this final, occurring as /V(V)n/. The vowel components of the ending in this case normally are a component of the verb root, so the actual ending must be analyzed as /(e)n/, with the /e/ occurring after consonant-final morphemes. In some cases, however, the alternate vowel(s) cannot be readily explained in this way. The pitch accent remains on the final syllable of the TI verb stem in these forms, as described above (and conversely for TA stems). Below is a sample of these verb stems, to show their diversity.

160)	<i>bii'ín-</i>	'to find s.t.' (cf. /bii'iitii/ (AI), /bii'iih/ [TA])
161)	<i>cesín-</i>	'to drop s.t.' (/ce3/ 'away from')
162)	<i>césin-</i>	'to drop s.o.' (TA)
163)	<i>ko'ún-</i>	'to pluck, gather, remove s.t.' (/ko'/ 'separation, loss')
164)	<i>nii3óotéén-</i>	'to braid s.t.' (cf. /nii3ootee'ee/ 'a braid')
165)	<i>seyóún-</i>	'to crush s.t.'
166)	<i>séyouun-</i>	'to crush s.t. (AN)' (TA)
167)	<i>nii3oén-</i>	'to construct s.t. from willows' (cf. /oo'oe/ (II) 'willows, brush'] (underlying stem seems to vary between /nii3o.én/ and /nii3oe.ín/)
168)	<i>3eín-</i>	'to put s.t. inside a place or thing' (underlying stem seems to vary between /3e.ín/ and /3ei.ín/)
169)	<i>niisiitóón-</i>	'to fold s.t.'
170)	<i>oo'éín-</i>	'to gather s.t.'
171)	<i>oo'éín-</i>	'to gather s.t. (AN)' (TA)

5.3.23 Transitive Action, by Tool: TA/TI /oh/

The widely occurring TA/TI ending /oh/ carries the general meaning 'by tool'. The pitch accent patterns for this final are the same as for the /(e)n/ final: TI is /óh/ whereas TA is /oh/. The TA final is virtually unique among Arapaho finals in causing extensive morphophonemic changes in the TA direction-of-action markers (see the appendices for the full paradigm of an /oh/ stem TA verb):

172)	<i>sebéy-oh-</i>	>	<i>séébeyóh-oet</i>	TA.3S/4	's/he is aiming at it' [C:43]
	<i>sébey-óh-</i>	>	<i>séébeyóh-owoo</i>	TI.1S	'I am aiming at it'
173)	<i>cíhi'-oh-</i>	>	<i>cíih'oh-é'</i>	TA.1S/3S	'I am chopping it' [C:66]
	<i>cíhi'-óh-</i>	>	<i>ciih'óh-owoo</i>	TI.1S	'I am chopping it' [C:66]

Note that body parts other than hands and feet are treated as 'tools':

- | | | | | | |
|------|--------------|---|-----------------|----------|--|
| 174) | neniiw-óh- | > | neniiwóh-owoo | TI.1S | 'I am holding it in my mouth'
[C:142] |
| 175) | 3éí'eiik-oh- | > | 3enéí'eiikóh-o' | TA.1S/3S | 'I am carrying him/her on
my back' [C:63] |

As with the /*(e)n*/ final, the /*oh*/ final shows variants of the form /*V(V)h*/, although much less commonly. As with /*en*/, often these variants seem explicable with reference to the root, but this is not always the case. An example is TI /*kóóh*/ 'to boil s.t. [in a pot]' (cf. /*koote*/ 'to be boiling, bubbling').

5.3.24 Transitive Action, by Speech: TA /*(i)w*/

The TA ending /*(i)w*/ > carries the general meaning of 'by verbal action, by speech act'. It can occur as either a primary (example 177) or secondary (example 176) final:

- | | | | | | |
|------|------------|-----|---------------|----------|--|
| 176) | ni'oo-w- | > | nii'oob-in | TA.2S/1S | 'I approve of/agree with you' |
| | | cf. | nii'óó-' | II.0S | 'it is good' |
| 177) | nehton-iw- | > | nééhtoníw-oot | TA.3S/4 | 's/he is deceiving him/her by
speech' |
| | | cf. | nééhtonih-oot | TA.3S/4 | 's/he is deceiving him/her' |

5.3.25 Transitive/Causative Action: TA /*(i)h*/

The TA final /*(i)h*/ occurs widely both primarily and secondarily and has a general causative meaning. As a primary final, the /*(i)h*/ final often contrasts with AI stems having the /*ni*/ final:

- | | | | | | |
|------|-------------|----------|------------------|----------|---|
| 178) | oxoo-h- | > | hóóxooh-é3en | TA.1S/2S | 'I am making you laugh' |
| | | cf. | hoóxóoní-noo | AI.1 | 'I am laughing' |
| | | also cf. | hóóxoo3-éínoo | TA.3S/1S | 's/he is laughing at me' |
| 179) | neetoxuu-h- | > | nenéetoxúuh-é3en | TA.1S/2S | 'I am tiring you out' [often
sexual connotation] |
| | | cf. | nenéetoxúuní-noo | AI.1S | 'I am tired out from working' |

Another common contrast is between TA /*(i)h*/ and AI /*tii*/ for action on inanimate objects, as seen in section 5.3.12. Another example of such a pair is:

- | | | |
|------|-----------------|---|
| 180) | ceeh'é3-tii-noo | 'I am listening (to something)' (AI.1S) |
| | ceeh'é3-ih-é3en | 'I am listening to you' (TA.1S/2S) |

Of note in regard to the preceding example is that the /*(i)h*/ suffix really has a more general function as an transitivizer, rather than a causative, in this example. This is often true more generally when the suffix occurs in primary derivation and is especially obvious in pairs where /*(i)h*/ stems alternate with /*tii*/ stems for verbs such as 'lose' and 'find' (5.3.12).

In contrast, when used secondarily, the /*(i)h*/ final is much more likely to have a prototypical causative meaning:

- | | | |
|------|----------------------------|---|
| 181) | <i>héésiinií-noo</i> | 'I am hurt, injured' (AI.1S) |
| | <i>héésiinii-h-é3en</i> | 'I hurt, injure you' (TA.1S/2S) |
| 182) | <i>heníxoohóót-owoo</i> | 'I have learned it, have seen it' (TI.1S) |
| | <i>heníxoohóót-ih-é3en</i> | 'I am showing, teaching you' (TA.1S/2S) |

Nevertheless, even in cases of secondary usage, verb stems occur that are not prototypically causative:

- | | | |
|------|----------------------------|--|
| 183) | <i>heniiníkotii-noo</i> | 'I am playing' (AI) |
| | <i>heniiníkotii-h-é3en</i> | 'I am "playing with" you, teasing you, toying with you' (TA.1S/2S) |

/(**enih*/ final (?))

A rare secondary derivational causative added to AI or TA stems is /*enih*/:

- | | | |
|------|----------------------------------|--|
| 184) | <i>ceiinéyeyi-noo</i> | 'I am planting (seeds)' (AI.1S) |
| | <i>héét-ciinéyeyi-'énih-é3en</i> | 'I will cause/make you plant seeds' (TA.1S/2S) |
| 185) | <i>cecee'ih-é3en</i> | 'I am granting you a special gift' (TA.1S/2S) |
| | <i>héét-cee'ih-énih-é3en</i> | 'I will cause/make you grant a special gift (to someone)' (TA.1S/2S) |

This form occurs twice in the stories of Paul Moss (O:White Horse, 89) but is rejected by some speakers.

Transitive causative action: TA /*ih*'/

In some cases, the /*(i)h*/ causative occurs as /*(i)h'*/:

- | | | |
|------|-----------------------|--|
| 186) | <i>neeh'-é3en</i> | 'I am killing you' (TA.1S/2S) |
| 187) | <i>ceensih'-o'</i> | 'She has given birth to him/her' (TA.3S/4) |
| 188) | <i>neniisih'-é3en</i> | 'I am naming you' (TA.1S/2S) |

5.3.26 Benefactive/Dative/Applicative: TA /*owuun*/

The TA final /*owuun*/ is used to create both primary and secondary stems, and produces verbs that license the marking of various types of peripheral participants on the verb stem. It most commonly produces verb stems with a benefactive meaning, but dative meanings are also common—thus, it has more general applicative functions. When used secondarily, it is added to TI stems and closely parallels the AI self-benefactive final /*owoo*/ in this role. Note that /*owuun*/ increases the semantic valency of verb stems from two to three.

Primary derivation:

- 189) e'i-t-owuun-
héi'towuun-é3en.
 'I am saying/telling s.t. to you.' (TA.1S/2S)
 (cf. *héi'tobéé-noo* 'I am saying s.t.' [AI.1S])

Secondary derivation:

- 190) iten- 'to take/get s.t.' (TI) >
hiiténowuun-é3en.
 'I have taken/gotten it for you.' (TA.1S/2S)
- 191) toun- 'to hold s.t.' (TI) >
tonóúnowuun-éinoo.
 'S/he is holding/reserving it for me.' (TA.3S/1S)
- 192) wo3onoh- 'to write s.t.' (TI) >
wo3onóhowuun-é3en.
 'I am writing [s.t.] to you.' (TA.1S/2S)

5.3.27 Benefactive/Applicative: TA /3ex/

This TA final is rare and has been found on only a single stem. It is added as a secondary derivation to an /ee/ AI stem, producing the final /oo-3ex/:

- 193) otoonée- 'to buy s.t.' (AI) >
hootóonó3es-é3en.
 'I am buying it for you.' (TA.1S/2S)

5.3.28 Joint Transitive Action: TA /:w/

Basic secondary derivation

The TA final /:w/ is used secondarily. It is added to AI verbs whose semantics involves action that explicitly includes engagement with others (e.g., 'to wrestle', 'to argue').

- 194a) *ceehyóootí3i'.*
cehyoooti-3i'
 IC.quarrel(AI)-3PL
 'They are quarreling.' (AI)
- 194b) *ceehyóootiibé3en.*
cehyoooti-w-e3en
 IC.quarrel(TA.joint action)-1S/2S
 'I am quarreling with you.' (TA)

/niit/ + /:w/ construction

The final /:w/ can be used with AI verbs that do not necessarily involve joint action. The morpheme /niit/ ‘with’ must be added to these stems in order for the suffix to be applied, either as an initial (example 195) or a preverb (example 196):

- 195) -koohu- ‘to run’ (AI) >
héétnii3kóóhuuwó’.
 eti-niit-i-koohu-:w-o’
 IC.FUT-with-EP-run-TA-1S/3S
 ‘I will run with him/her.’ (TA)

contrast: *nihníhi’kóóhuuhó’.*
 nih-nihi’koohu-(i)h-o’
 PAST-run(quickly)-CAUS(TA)-1S/3S
 ‘I made him/her run.’

- 196) *bií3ihi-* ‘to eat’ (AI) >
nenii3bií3hiibé3en.
 nii3i-bií3ihi-:w-e3en
 IC.with-eat-TA-1S/3S
 ‘I am eating with you/I am participating in a peyote lodge with you.’ (TA)/

Reciprocal with /:w/

The reciprocal secondary final, by its very nature, converts AI verbs to joint-action verbs. For this reason, the TA joint-action final /:w/ can be added directly to reciprocal stems, whether or not the basic semantics of the original primary stem involved joint action:

- 197a) *heneeneti3etino’.*
 eeneti3-eti-no’
 IC.speak to(TA)-RECIP(AI)-12
 ‘We are speaking to each other.’ (AI.RECIP)
- 197b) *heneeneti3etiíwo’ neisónoo.*
 eeneti3-eti-:w-o’ ne-isonoo[n]
 IC.speak to(TA)-RECIP:TA joint action-1S/3S 1S-father
 ‘I am conversing with my father.’ (TA)

Note also that the exact same set of constructions, with a cognate derivational final /b/m/, occurs in Blackfoot (Frantz 1991:106–107) and Nishnaabemwin (Valentine 2001:462–463).

5.3.29 Applicatives: TI /:t/, TA /:ton/

These two forms are used only secondarily, and their main function is to derive verb stems that allow various peripheral participants to be marked on the verb stem.

Often, locations, directions, and spatial goals are marked on the verb via stems derived from these finals:

- 198) *noo'oenih'ohu-* 'to fly around' (AI) >
nonoo'óeníh'ohúút-owoo. *nonoo'óeníh'ohúútón-oot.*
 'I am flying around it.' (TI.1S) 'It (AN) is flying around him.' (TA.1S/3S)
- 199) *nihí'koohu-* 'to run' (AI) >
níihí'koohúút-o'. *níihí'koohúútón-oot.*
 'S/he is running to it.' (TI.3S) 'S/he is running to him/her.' (TA.3S/4)
- 200) *3i'ookuu-* 'to stand' (AI) >
tenees-3i'ookúút-o'.
 'S/he is standing on top of it.' (TI.3S) (Note: /teex-ookuut/ is also possible.)

As with /(t)on/ (see 5.3.21), /:t/ and /:ton/ occasionally occur with an intervening unexplained element /3i/:

- 201) *nonih'i-* 'to forget' (AI) >
nóónih'íi3ít-owoo. *noonih'íi3ítón-ó'.*
 'I have forgotten it.' (TI.1S) 'I have forgotten him/her.' (TA.1S/3S)

5.3.30 Additional finals

As with any language, Arapaho has a number of aberrant verbs that either lack an identifiable final or have finals that seem to occur only once or twice, at least among the data available, and are not necessarily even clearly identifiable as finals. Examples include:

- TI /ei'/ (possibly concrete, related to path)
- 202) *honoónóh-ei'-ówoo* 'I am avoiding it' [C:48; original accent marks retained]
 203) *noox-ei'-owoo* 'I leave prints on it' [V:150] (cf. /noox-ei-hi/ 'to leave tracks' [AI])
- TI /(v)x/ (possibly concrete, related to location)
- 204) *henii'-óx-owoo* 'I am near it'
 205) *cee'e3éi-x-owoo* 'I am colliding with it' (cf. cen-e3ei-h- 'knock over' [TA])

5.4 SECONDARY DERIVATION AND VALENCE SHIFTING

In this section, we provide a summary listing of all Arapaho secondary derivational finals, in terms of their role in valence shifting. The section functions essentially as an index to the preceding discussion of the individual finals.

5.4.1 Grammatical Valence Reducing (2 > 1)

1. TA + /eti/ > reflexive, reciprocal (AI)
2. TA + /eihí/ > perfective passive (AI)

- 2a. TA + /eih/ + /:noo/ > perfective passive (II)
3. TA + /ee/ > middle voice (AI)
4. TA + /i/ > imperfective/stative passive (II, AI)
5. TI + /owoo/ > self-benefactive/reflexive (AI)
6. TA + /i/ > action on unspecified objects (AI)
7. TA + /inee/ > specific social practice (AI)
8. TA > action/state nominalization > impersonal verb (II) (see 7.7)
9. TA + /yei/ > action on unspecified objects (AI)

5.4.2 Grammatical Valence Increasing (1 > 2)

10. AI (inherently joint action verb) + /:w/ > joint action (TA)
AI.RECIP + /:w/ > joint action (TA)
/niit/ 'with' + AI + /:w/ > joint action (TA)
11. AI + /:t/ > applicative action (TI)
- 11a. AI + /:ton/ > applicative action (TA)
12. AI + /('i)h/, /(')enih/ > causative (TA)
13. AI + /w/ > transitive action (TA)
14. AI + /('i)w/ > transitive action by speech (TA)
15. AI + /t/3/ > transitivizer/more specific focus on object/goal (TI/TA)
16. AI + /n/ > transitivizer/more specific focus on object/goal (TA)

5.4.3 Semantic Valence Increasing (2 > 3)

17. TI + /owuun/ > benefactive/dative/applicative (TA ditransitive)
18. AI + /3ex/ > benefactive (TA ditransitive)
19. AI + /:t/ and /:ton/ > applicative action (TI and TA)

5.5 PASSIVES

5.5.1 Introduction

Passive verb stems are all secondarily derived in Arapaho. Two passive constructions exist (as well as a middle voice construction closely akin to passives). All of these constructions serve to shift focus from an agent to a patient while decreasing grammatical valency. The two different passive constructions convey important aspectual and/or semantic distinctions—especially perfective vs. imperfective—which serve to further nuance the saliency of the patient in relation to the agent.

The two passives can be described as an imperfective or predicative passive and a perfective passive. The equivalent forms in English would be 'berries are gathered in the fall' (imperfective/predicative) and 'the berries have been gathered today' (present perfective). The first form describes a general, habitual situation and focuses on the action in question, whereas the second form places greater emphasis on the

noh nih'iiseyouwuhu'u
 noh nih-ii-seyouwuh-i-'i
 and PAST-IMPERF-crush(TA)-IMPERF.PASS(II)-0PL
 And they were pounded

noh nih'ii3oxosnoui'i.
 noh nih-ii-3oxosnoun-i-'i
 and PAST-IMPERF-mold(TA)-IMPERF.PASS(II)-0PL
 and shaped into patties.

hinee niixoo'ou'u, noh cecinihi' nih'ibiini'i.
 inee niixoo'oo-'i noh cecinihi'
 those dry.HABIT(II)-0PL and wintertime
 nih-ii-biin-i-'i
 PAST-IMPERF-eat(TA)-IM.PASS(II)-0PL
 those dried ones, well they were eaten in the wintertime.' [P:7]

5.5.3 Perfective Passive

The perfective passive is also formed using the TA stem, and then the suffix /eih/ (AI) and /eihinoo/ (II) is added. A contrast between the imperfective and perfective passive commonly occurs:

- 211) *ceecéécó'oh-ú-'* 'it is ceremonially blessed, in a blessed state'
ceecéécó'oh-éhiinóó-' 'it has been ceremonially blessed'
- 212) *ceecéécó'oh-ú-noo* 'I am ceremonially blessed'
ceecéécó'oh-éhi-noo 'I have been ceremonially blessed'

The first form emphasizes a state or condition; the second form indicates the result of a single action. It should be noted that the distinction between imperfective and perfective is not always as clear-cut as the preceding suggests. In the same autobiographical narrative about traditional life cited above, one can find the following passage, in which all the underlined verbs except the last one are perfective passives rather than imperfective passives:

- 213) *bih'ihii- noh nisicehiinoseino' nihni3ooyeisou'u:*
 bih'ihii- noh nisicehiin-oseino-' nih-ni3ooyeisoo-'i
 deer- and antelope-meat-S PAST-plentiful/common(II)-0PL
 'Deer and antelope meat were plentiful;

ci'ne'nih'iisbeistonouncihinou'u,
 ci'=ne'=nih-iisi-bisi-tonoun-eihinoo-'i
 also=that=PAST-how-all-use(TA)-II.PERF.PASS-PL
 they were likewise all used,

nohkuuhu' hinotoyeiciino.
 nohk-iihi' i-notoyeciin-o
 with-ADV 3S-hide-PL
 along with their hides.

hiwoxuuhuu noh hoseino' nihi'cenebeihinou'u.
 iwoxuuh-uu noh oseino-' nih-i'i-ee-new-eihiinoo-'i
 elk-PL [skins] and meat-S PAST-INSTR-depend on-II.PERF.PASS-PL
 Elk skins and meat were very dependable [too].

hiwoxuuhookutee nih'iwo'o3ih-eihiinou'u.
 iwoxuuh-ookuteen nih-ii-wo'o3ih-eihiinoo-'i
 elk-tooth PAST-IMPERF-gather(TA)-II.PERF.PASS-PL
 Elk teeth were gathered and saved,

noh hiseino' hibiixuutooninoo
 noh isein-o' i-biixuutoon-inoo
 and woman-PL 3S-dress-PL

nih'iibeheibto'ohu-u.
 nih-ii-beh-eibito'oh-i-'i
 PAST-IMPERF-all-attach(TA)-II.IMPERF.PASS-PL
 and they were all attached to the women's dresses' [P:8]

Here, the opposition between imperfective and perfective passive seems to be less one of aspect than of pragmatic status. The deer, antelope, and elk hides and meat, as well as the elk teeth, are the focus of the sentences. In the passage cited earlier (example 213), the focus was really on the various actions of the Arapahos, and the sentences could easily have been glossed as 'we gathered them', 'we crushed and shaped them', and so forth. In contrast, note here the fronting of the NPs that occurs with perfective passives, indicating the higher saliency of the NPs. Note also that several of the perfective passives do not occur with imperfective aspect preverbs (although 'gathered and saved' does); and note finally that when the new NP 'the women's dresses' is used in a fronted position, then the speaker switches back to imperfective passive to talk about the (demoted) elk teeth that the women in question used.

Of course it is hard to completely separate aspect from pragmatics. Once again, this pattern mirrors that seen between TI and AI semi-transitive stems where aspectual and pragmatic features overlap.

5.5.4 Expression of Agent

Both the perfective passive and middle voice constructions allow the expression of the agent. Normally, in such constructions, when the agent is expressed, this is the only explicit NP in the sentence.

- 214) *néstoobéénoo núhu' nii'ehíiho'.*
 nestoow-ee-noo nuhu' nii'eihiih-o'
 warn(TA)-MID-1S this eagle-PL
 'I have been warned [about something] by the eagles.' [O:Eagles, 51]
- 215) *yeh, ceníhto3íheeno he'íiteihí3i.*
 yeh cih-to3ih-ee-noo e'íiteihí3i
 hey IC.to here-follow behind(TA)-MID-1S someone
 'Hey! I'm being followed by someone.' [R:Fooling the Ghost]
- 216) *bí'tóotóu3é'eiñéhi3i' nii'ehíiho'.*
 bí'i-too-tou3e'ein-eihi-3i' nii'eihiih-o'
 just-REDUP-give(TA)-PASS-3PL eagle-PL
 'They were just given gifts by the eagles.' [O:Buffalo Wheel, 30]
- 217) *kóó'oenótonéhi3i' hínee hihcébe' nii'ehíiho'.*
 koo'oe-notiton-eihi-3i' inee ihcebe' nii'eihiih-o'
 slow/careful-ask(TA)-PASS-3PL that above.LOC eagle-PL
 'They were asked [what they wanted] very meticulously by the eagles up above.'
 [O:Buffalo Wheel, 38]
- 218) *wohéi cenih'ini wóteiniini nó'uxóótonéiht nenítee.*
 wohei cih-ini woteini-ini nó'uxooton-eihi-t inenitee[n]
 well IC.to here-DET noise-DET arrive in presence(TA)-PASS-3S person
 'And then he was approached by a person walking noisily toward him.' [O:Bad Dreamers, 30]

No sentences have been found in texts with two explicit NPs, one for the agent and one for the patient. In controlled elicitation settings, the agent is often expressed as an obviative form (thus, *he'íiteihini3i* rather than *he'íiteihí3i* in example 215), despite the fact that there are not actually two arguments marked on the verb. However, in actual texts, proximate forms seem more common, although obviative agents also occur. It is unclear whether the elicited obviatives are a form of hypercorrection, or conversely, whether the proximates in texts are due to loss of an earlier distinction that is still expressed in careful, elicited speech. An example with obviative agent is:

- 219) *né'íini híixóxonéhi3i' níine'éeñino núhu' beniínénno.*
 ne'i-ini híixoxon-eihi-3i' níine'ee-nino nuhu'
 then-DET surround(TA)-PASS-3PL here are-PL.OBV this
 beniinenin-o
 soldier-PL.OBV
 'Then they were surrounded by these soldiers.' [O:Shade Trees, 2]

When there are two third person (underlying) arguments in a sentence and no obviative is used, the respective roles can be ambiguous. Take for example the following sentence:

- 220) *nihnéstoobéét beh'éihehi'.*
 nih-nestoow-ee-t beh'eihehi'
 PAST-warn(TA)-MID-3S old man

The sentence can mean either 's/he was warned by the old man', or 'the old man was warned'. With the use of the obviative for the agent, this ambiguity disappears, as the obviative clearly indicates the agent.

One can also say:

- 221) *nihnéstoobéihit hi'íihi' beh'éihehi'.*
 nih-nestoow-eihi-t i'íihi' beh'eihehi'
 PAST-warn(TA)-AI.PASS-3S INSTR.ADV old man
 'S/he has been warned *about* the old man.'

This sentence does *not* mean that he was warned *by* the old man.

Finally, explicit mention of the agent with imperfective passives seems rare or else does not occur.

5.6 CAUSATION

5.6.1 Abstract Finals and Causation

As the list of finals in 5.3 shows, there are a number of different constructions in Arapaho that express causation. The finals include:

1. / (i)h/ Used on both primary and secondary TA stems.
- 1a. / (')enih/ Used secondarily only, very rarely, to make TA stems.

Both of these finals can be used to create stems indicating that an animate volitional object has been caused to do something or be in some state, including actions or states that recognize a continuing element of at least partial volition on the part of the object of the verb:

- 222) ni'í3ecoo-h- 'to make s.o. happy' (TA)
 223) esin-ih- 'to make s.o. angry' (TA)
 224) nihi'koohuu-h- 'to make s.o. run' (TA)
 225) ceenoku-h- 'to make s.o. sit down' (TA)

2. /setii/ Used for AI primary stems, with inanimate referents only, to express transition in state.
3. /w/ Used with AI /si(ne)/, in the TA form /siw/, often to express transition in position/state; also used with a few other verbs.

These finals seem to only allow causation in which the affected objects either lack volition (in the case of inanimates) or have no effective volition (in the case of animates):

- 226) noho'uhcehisi-w- 'to throw s.t. [a ball (AN), or a person] upward' (TA)
 227) to'osi-w- 'to knock s.o. down' (TA)
 228) toxu'-i-setii- 'to sharpen s.t.' (TI)
 4. /i)bee/ Used to create AI stems expressing social/ceremonial action on others.

This final seems to be used for situations in which the causation involves clear social cooperation among subject and object, including willingness on the part of the object, such as neyei3eibee- 'to teach' ('to cause to learn') or bii3ibee- 'to cook for someone ceremonially' ('to cause to eat').

In addition to these abstract finals that express prototypical causativity, there are several other finals that have important causative elements. The TA/TI finals /e)n/ 'by hand' and /o)h/ 'by tool' often work in conjunction with descriptive initial roots to express that the object of the verb has been caused to be in the state expressed by the initial root—normally with no indication of volition on the part of the undergoing object:

- 229) se'en- 'to flatten' (TI, TA) (< /se'/ 'flat')
 230) ciinen- 'to lower' (TT, TA) (< /ciin/ 'down')
 231) towoh- 'to cut off, remove' (TI, TA) (< /tew/ 'broken, separate')
 232) tonoxoh- 'to make a hole in the ground' (TI) (/ton/ 'hole' + /ox/ 'dirt')

5.6.2 Complex Finals, Concrete Finals, and Causation

The complex finals /kuu-tii/ (AI) and /kuu-3/ (TA) work semantically in ways very similar to /en/ and /oh/, but with an added component of rapid or violent action that secondarily serves to diminish the agency or volition of the object of the verb:

- 233) ihcikuutii- 'to toss upward' (AI) (< /ihc/ 'straight upward, into the air')
 ihcikuu3- 'to toss upward' (TA)
 234) tebikuutii- 'to break' (AI) (< /tew/ 'broken, separate')
 tebikuu3- 'to break' (TA)

The complex finals /ci-tii/ and /ci-3/ work in the same way:

- 235) tonicitii- 'to make a hole in s.t. by tool' (AI) (< /ton/ 'hole')
 tonici3- 'to make a hole in s.t. (AN) by tool' (TA)

The concrete element /xo/ 'convey', in combination with abstract finals, produces the complex finals /xo-h/ (TA) and /xo-tii/ (AI). The idea of conveyance often includes a causative component, as in the following:

- 236) iinoo'ei- 'to go hunting' (AI)
 iinoo'eixoh- 'to take s.o. hunting' (TA)

- 237) tousebi- ‘to bathe’ (AI)
 tousebiixoh- ‘to take s.o. to bathe’ (TA)

Note that these verb stems preserve a component of volition for the object of the verb.

Finally, the reader should consult 6.4; the concrete finals expressing instruments and modes of action often participate in verb stems with strong causative components.

5.6.3 Lexical Causative

As an aside, we should note that when causation that involves transitive action by the causee on a third party, a special construction is used with the TA verb /nihi’neeton/, ‘to insist’ or ‘to force’:

- 238) *níhi’néétonó’ heetihniitehéíwoot.*
 nihi’neeton-o’ eetih-niiteheiw-oot
 IC.insist(TA)-1S/3S so that-help(TA)-3S/4
 ‘I am insisting that s/he help him/her, I making him/her help him/her.’

The construction can also be used with AI and TI as well as TA verbs in the secondary adverbial purpose/result clause:

- 239) *níhi’néétonó’ heetihcé3ei’oot.*
 nihi’neeton-o’ eetih-ce3ei’oo-t
 IC.insist(TA)-1S/3S so that-set off(AI)-3S
 ‘I insist that/am making him/her depart.’

This verb, whether used with TA, TI, or AI secondary verbs, preserves a large amount of volition for the causee; unlike /(i)h/ stems, for example, there is no implied physical action by the causative agent on the causee.

5.6.4 Causation and Imperatives

The reader should also consult chapter 12, on imperatives, and especially section 12.3 on the indirect imperative. This form often includes directives involving causation and involves complex judgments on relative volition and agency on the part of causative agent and causee.

5.7 RAPID ACTION

It is worth pointing out that the distinction between normal and rapid or violent action has been quite highly grammaticalized in Arapaho. The AI final /ihcehi/ primarily works to create stems that express this contrast, as seen in section 5.3.7. Likewise, the complex TA/TI finals /kuu-3/ and /kuu-tii/ express this same contrast, as seen in section 5.6.2. In many cases, the distinction expressed by these finals involves simple rapidity:

- 240) kookoonooku- ‘to open one’s eyes’ (AI)
 kookoonookuhcehi- ‘to open one’s eyes rapidly, to pop one’s eyes open’ (AI)
- 241) otoobe- ‘to consume, eat up’ (AI)
 otoowukuutii- ‘to consume fully or rapidly, to swallow, to gulp’ (AI)
- 242) noohow- ‘to see s.o.’ (TA)
 noohowukuu3- ‘to see s.o. briefly and rapidly, catch a glimpse of s.o.’ (TA)

In other cases, important lexical distinctions occur due to the presence of these elements:

- 243) tebe’ein- ‘to give s.o. a gift’ (TA)
 tebe’eikuu3- ‘to give s.o. an unexpected, surprising gift’ (TA)
- 244) iten- ‘to take s.t. (AN) or s.o.’ (TA)
 i3ikuu3- ‘to seize s.o., to rape s.o.’ (TA)
- 245) eeten- ‘to push s.o. along, prod them along’ (TA)
 ee3ikuu3- ‘to push s.o. violently, out of anger’ (TA)

Arapaho thus demonstrates a very abstract, grammaticalized expression of rapid action in its verb system; yet, at the same time, it reveals numerous instances of the use of the abstract finals in question for a variety of lexical purposes.

5.8 MULTIPLE SECONDARY DERIVATIONAL FINALS

There are probably additional derivational constructions. Most of those seen above in this chapter seem to be productive today, but more work needs to be done on the constructions. As noted earlier, they seem most often to be used for pragmatic reasons, reflecting the definiteness or indefiniteness of agent and patient arguments, the activation status of these arguments in a discourse, their saliency or topicality, and similar features. In fact, analyzed from the perspective of construction grammar, these pragmatic features are probably central to the prototypical meanings of the constructions and to the prototypical meaning of transitivity and intransitivity more generally in Arapaho.

The derivational suffixes can be combined in strings that can sometimes reach daunting complexity. For example, the form *céé’ini3ecóóhuutonéihinióó-* is the result of one initial verb stem to which six different secondary derivational finals have been added. Any of the intermediate stems formed by the various suffixes can be used as a complete stem, and in fact, this is always the case in secondary derivational processes, although not every stem may actually be used in reality. The “evolution” of this stem can be represented as follows:

- | | | |
|--------------------|------------|---------------------------------------|
| 246) cee’ini3ecóó- | AI | ‘to think in a confused way’ |
| cee’ini3ecooh- | TA | ‘to cause s.o. to think thusly’ |
| cee’ini3ecoohú- | AI/II.PASS | ‘to have been caused to think thusly’ |

cee'ini3ecoohúút-	TI	'to cause <i>s.t. specific</i> to be thought of thusly'
		'to confuse an idea or concept in people's minds'
cee'ini3ecóóhuuton-	TA	'to confuse an idea or concept <i>for s.o.</i>
cee'ini3ecóóhuutonéíhi-	AI.PASS	'to <i>have been confused</i> about an idea or concept'
cee'ini3ecóóhuutonéíhiinóó-	II	'to have been confused for people (an inanimate thing such as an idea)'

In other words, various people have caused an idea or concept to be misunderstood or confused in other people's minds due to obfuscatory or mistaken actions or words by the first group of people. In its actual usage, in Paul Moss's account of the Buffalo Wheel, the verb occurs reduplicated and with a reduplicated preverb as well:

- 247) 'The Arapahos made arrowheads, arrows, forked sticks; they would play games with them [the wheel game in particular]. That's how this thing [the game implement] was/ came to be called a Buffalo Wheel;

heenéiscéecéé'ini3ecóóhuutonéíhiinóó' heeyóúhuu.

eeneisi-ceecee'ini3ecoohuutoneihiinoo-' eeyouhuuh-i

REDUP.how-REDUP.to have been confused for people(II)-0S something-S

'That was how this thing came to be all confused in people's minds [with the real Buffalo Wheel in the Bighorn Mountains].' [O:Buffalo Wheel, 46]

It seems reasonable to suppose that such forms are not actually processed by native speakers as individual combinations of each separate derivational final, with the meaning being the sum of the finals, although that is in a sense how we presented the form above. Rather, various groups of finals (such as /eíhiinoo/ 'inananimate passive' or /uuton/ 'make s.t. X for s.o.') often occur together and function as recognizable, commonly used constructions. Certainly much more work could be done on this aspect of Arapaho word formation.

A less complicated example, with three secondary derivational finals, is:

- | | | |
|----------------|---------|---------------------------------|
| 248) né'oohow- | TA | 'to look at s.o.' |
| né'oohowú- | AI.PASS | 'to be looked at' |
| nei'óóhowuh- | TA | 'to make s.o. look at s.o.' |
| nei'óóhowú3ei- | AI | 'to make people look at things' |

- 249) *héetnei'óóhowú3ein.*

eti-nei'oohowu3ei-n

IC.FUT-make people look at things(AI)-2S

'You're going to make a spectacle of yourself [if you wear that]'

cf. *iixoohöó3ih-* (TA) ‘to teach s.o. s.t.’ >

héétwon-iixoohöó3í3ei-noo.

‘I’m going to go teach people some things.’ or ‘I’m going to teach them a thing or two.’

Another example, with four secondary derivational finals, is:

250)	<i>eenéti-</i>	AI	‘to speak’
	<i>eenéti3-</i>	TA	‘to speak to s.o.’
	<i>eeneti3eti-</i>	AI.RECIP	‘to speak to each other’
	<i>eeneti3etiwi-</i>	TA	‘to converse with s.o.’
	<i>eeneti3eti3etibeti-</i>	AI.RECIP	‘to converse with each other’

The second example makes clear that the same final can be used twice in the same stem. There are restrictions on the stem-derivation process, however. First, transitive and intransitive derivationals must alternate with each other, except in a few cases where TI finals are followed by TA finals or AI finals by II finals. Secondly, certain derivationals seem only to occur stem finally. These include /*eihinoo*/ (II), /*ee*/ (AI), and /*owoo*/ (AI). Thirdly, only certain series of derivationals can combine with each other. For example, /*eti*/ (AI) can only be followed by /*(i)iw*/ (TA); /*eih*/ (AI) can only be followed by /*inoo*/ (II); and /*i*/ (AI/II) can only be followed by /*:t*/ and /*:ton*/ (TI, then TA).

In the table below, we make an effort to summarize the most common sequences of secondary derivational finals (as well as a few primary lexical derivational finals that are often added to existing complete AI stems, as in rows 5 and 7) used on either primary verb stems or those with only a single secondary TA derivation:

		AI/II		TI/TA	AI	II			
1.	TA	+	-i-	+	:-t-on-	+	-eih-	+	:-noo-
2.	TA	+	-eti-	+	-iw-	+	-eih-	+	:-noo-
3.	TA	+	-eti-	+	-iw-	+	-eti-		
4.	AI			+	:-t-on-	+	-eih-	+	:-noo-
5.	AI			+	-xoton-	+	-eih-	+	:-noo-
	AI			+	-xoh-	+	-eih-	+	:-noo-
				+	-xoh-	+	-i-		
6.	TA/TI			+	-owuun-	+	-eih-	+	:-noo-
7.	AI			+	-kuuton-	+	-eih-	+	:-noo-
	AI			+	-kuu3-	+	-eih-	+	:-noo-
				+	-kuuh-	+	-i-		
8.	TA					+	-eih-	+	:-noo-
9.	AI							+	:-noo-
10.	TA					+	-ee-		
11.	TI	+	-owoo-						
12.	TA	+	-inee-						
13.	TA/TI	+	-yei-						

This table demonstrates that in adding derivational suffixes, one must start at the left side of each row. One can then add whichever suffixes follow, with the choice

to stop whenever one wants, but the order of additions must be followed. For example, once an AI verb stem has been selected, it is possible to simply add /:noo/, at which point no further derivations are possible (row 9: /cebisee/ ‘to walk’ [AI] > /cebiseenoo/ ‘to go along’ [II]).

Once a TA verb stem is selected (or formed by adding a derivational final such as /(i)w/, /3/, or /(i)h/), it is possible to then add only /eihi/ and then stop, or go on to add /:noo/ as well, at which point no further derivations are possible (row 8: /to’ow/ ‘to hit’ [TA] > /to’obeihi/ ‘to have been hit’ [AI] > /to’obeihiinoo/ ‘to have been hit’ [II]).

Or with an AI stem, one can add /:t/ and stop, or go to /on/ and stop, or go to /eihi/ and then up to /:noo/, at which point no further derivation is possible (row 4: /noo’oenih’ohu/ ‘to fly around’ [AI] > /noo’oenih’ohuut/ ‘to fly around s.t.’ [TI] > /noo’oenih’ohuuton/ ‘to fly around s.o.’ [TA] > /noo’oenih’ohuutoneihi/ ‘to be flown around by s.o.’ [AI.PASS] > /noo’oenih’ohuutoneihiinoo/ ‘to be flown around by s.o.’ [II.PASS]).

As the table is meant to show, one can conceive of the derivational suffixes as occurring within a specific abstract slot on a line of derivations—a fact that is obscured if one simply looks at various random derived verb stems. For example, there seems to be a general sequence:

RECIP/REFL + APPLICATIVE + PASSIVE/MIDDLE + AI > II

Not every single stem can follow all the derivational pathways above, or follow them to the end, due to various types of limitations (especially semantic), but all stems at least seem to be constrained by the possible pathways. The table is almost certainly incomplete; in particular, further work needs to be done to determine if rows 1–2 and 4–8 have alternate imperfective passive and middle voice derivational forms in a sequence that would complement the perfective passive forms given (as suggested by the placement of -ee- in row 10 and in parallel with the imperfective passive forms in rows 5 and 7).

Whatever the gaps in the table above, the very fact that such a table can be set up reinforces the idea that there is an underlying patterned sequence of derivational finals that speakers use to help process the resulting verb stems they hear or want to produce, rather than simply processing added finals one-by-one in an ad hoc manner.

5.9 DERIVATION FROM VERB TO NOUN AND NOUN TO VERB

It is quite common for derivational processes in Arapaho to involve changes in parts of speech as derivation proceeds. We illustrate this with the example below. Readers will need to refer to chapter 4 for the details of the process of deriving nouns from verbs and chapter 7 for the details of creating verbs from base noun forms.

- | | | |
|------|---------|---|
| 251) | 3i’én- | ‘to set s.t. upright’ (TI) > |
| | 3i’eyóo | ‘stone altar or monument’ (NA.DEVERBAL) |
| | | (lit. ‘a thing that is set upright’) |

<i>3í'eyóón-o'</i>	'stone altars or monuments' (NA.DEVERBAL.PL) >
<i>3í'eyóónóót-</i>	'set up a stone altar or monument at a specific place' (TI)
<i>3í'eyóónóotii-</i>	'set up a specific stone altar or monument' (AIO)
<i>3í'eyóónéee-</i>	'make/set up stone altars or monuments' (AI) >
<i>3í'eyóónóoot</i>	'act of setting up stone altars or monuments' (NI.PART)

5.10 SAMPLES OF VARIOUS VERB STEMS BASED ON THE SAME ROOT

Following are lists of some of the stems that can be derived from two basic roots. The first root is /iix/ PERF + /e'enou/ 'clothing', which in the form of /iise'enou/, means 'prepared, ready' and has a stative/descriptive meaning. The second root is /nooh/ 'see', which has an active, inherently transitive meaning:

252)	<i>iise'enou'ú-</i>	AI 'to be ready'
	<i>iise'enou'uh-</i>	TA 'to make s.o. ready'
	<i>iise'enou'úhetí-</i>	AI 'to make oneself ready' or 'to make each other ready'
	<i>iise'enou'úhéíhi-</i>	AI.PASS 'to have been prepared'
	<i>iise'enou'úhéíhiinóó-</i>	II.PASS 'to have been prepared'
	<i>iise'enou'út</i>	TI 'get ready for s.t.'
	<i>iise'enou'útii-</i>	AI 'to make s.t. ready'
	<i>iise'enou'ú3ei-</i>	AI 'to make things ready'
	<i>iise'enou'úton-</i>	TA 'to be ready for s.o., for his/her arrival'
	<i>iise'enou'útonetí-</i>	AI 'to prepare oneself for s.o., for his/her arrival' or 'to prepare each other for s.o., for his/her arrival'
	<i>iise'enou'útonéíhi-</i>	AI.PASS 'to have been prepared for s.o., for his/her arrival'
	<i>iise'enou'útonéíhiinóó-</i>	II.PASS 'to have been prepared for s.o., for his/her arrival'
253)	<i>nóóhow-</i>	TA 'to see s.o.'
	<i>noohóbeti-</i>	AI 'to see oneself' or 'to see each other'
	<i>nóóhowuh-</i>	TA 'to make s.o. see s.o.'
	<i>nóóhowú3ei-</i>	AI 'to make people see others' (note: as if /noohowut/)
	<i>nóóhobéíhi-</i>	AI.PASS 'to have been seen'
	<i>nóóhobéíhiinóó-</i>	II.PASS 'to have been seen'
	<i>noohóót-</i>	TI 'to see s.t.'
	<i>noohóótowoo-</i>	AI 'to see s.t. for oneself'
	<i>noohóótowuun-</i>	TA 'to see s.t. for s.o.' (as for a blind person)
	<i>noohóó3ei-</i>	AI 'to see things'
	<i>noohóó3ih-</i>	TA 'to make s.o. see s.t.'
	<i>noohóó3í3ei-</i>	AI 'to make people see things' (note: as if /noohoo3it/)

The above examples illustrate an important point concerning the semantic and grammatical licensing behavior of abstract finals in secondary derivation: this behavior is not independent of preceding elements of either the stem or other secondary finals. For example, consider the AI /yei/ suffix when used in secondary derivation:

although this suffix indicates indefinite objects of either animate or inanimate gender (as with /noohoo3ei/), preceding secondary stems can in fact produce situations where only one of the two genders is permitted with secondary /yei/ stems. Thus, /noohoot/ TI > /noohoo3ih-/ > /noohoo3i3ei/ ‘to make s.o. see things (IN)’, whereas /noohow/ TA > /noohowuh/ > /noohowu3ei/ ‘to make s.o. see people (AN)’. Conversely, the rules of sequential secondary derivation can produce stems that actually license objects other than those licensed by a “predecessor” stem. For example, /iise’enout/ TI ‘prepare for s.t.’ vs. /iise’enouton/ TA ‘prepare for s.o.’: in order to derive an AI passive, the former *must* have the /on/ final added, because AI passives can *only* be derived from AI stems, not TI stems. Thus, /iise’enou’utoneihi/ can actually mean ‘to have been prepared for s.o.’ or ‘to have been prepared for s.t.’, whereas /iise’enou’uton/ can only mean ‘to prepare for s.o.’. Clearly, much more work should be done on the interactions of stems and finals in the derivational system.

6

DERIVATION—VERB MEDIALS AND CONCRETE FINALS

6.1 INTRODUCTION

In this chapter, we discuss both medials and concrete finals. There are close parallels between these two morpheme classes. Many Arapaho concrete finals contain a lexical element and an abstract element that corresponds to the derivational suffixes described in chapter 5. The TA concrete final /xoh/ contains the element /xo/ ‘to convey s.o.’ and the causative /h/. The element /xo/ appears in other concrete finals such as AI /xotii/ ‘to convey s.t.’. Similarly, medials are lexical forms, which are often followed by abstract finals. Thus, complex Arapaho verb stems prototypically show an overall structure of LEXICAL INITIAL + LEXICAL “MIDDLE” + ABSTRACT FINAL.

Note, however, that the lexical element involved in a concrete final normally occurs in strict relationship with a single abstract final element—it does not freely combine with other verb finals. Thus, /xoh/ is effectively a single, fixed unit—a TA

concrete final—and /xotii/ is similarly an AI concrete final (both are examples of what Valentine 2001:326 calls “binary” concrete finals). In contrast, medials freely combine with a wide range of other abstract finals, as well as with concrete finals, as for example the medial /et/ ‘ear’:

- 1) *seesiinetó’oot.*
 sesiin-et-oo’oo-t
 IC.ache-ear-INCHOAT(AI)-3S
 ‘His/her ear is aching.’
- 2) *néésetéét.*
 nes-et-ee-t
 IC.good sensory ability-ear-AI-3S
 ‘S/he has good ears, s/he hears well.’

It should be noted that there is sometimes ambiguity about whether to consider elements as a concrete final or a medial plus a final. Further complicating the situation is the fact that a number of Arapaho verb stems end with largely unanalyzable elements that could be classified either as medials, which take a null derivational final; as lexical, concrete finals; or as medial/derivational final portmanteau forms. The same problem of analysis occurs in other Algonquian languages, and Valentine 2001: 324–325 provides a useful discussion of the issue for Nishnaabemwin.

As noted earlier, verbal medials and concrete finals are used to incorporate a wide variety of meanings into the verb stem. In Arapaho, different sets of medials and concrete finals can be grouped together and considered to be part of the same general construction. Such grouping is justified based on the following criteria: (1) sets of medials and concrete finals often show related semantic reference—related to sensory experience, or related to human body parts, or related to common patient arguments, for example; (2) these different sets often combine with different specific types of initial roots—for example, common patient argument medials and concrete finals combine with initial roots that denote semantically transitive action (steal + horse), for example, whereas body part medials typically combine with initial roots that denote states, conditions, and descriptions (long + nose, broken + leg); (3) different sets defined based on semantic and combinatory similarities also tend to occur in verb stems that correlate in terms of their abstract final element—for example, most verb stems that have body part medials have an AI middle voice derivational final /ee/, whereas most verb stems that have patient argument concrete finals show concrete finals with a final /yei/ element corresponding to action on objects.

This three-way link among certain sets of medials or concrete finals, based on their similarity in terms of semantics, combinatory tendencies with initial roots, and occurrence with the same abstract final elements, justifies the establishment of a set of Arapaho verbal constructions, each of which has a prototypical general meaning. As we will see when we examine these constructions in more detail, additional common features occur among the verb stems in the constructions. For example, some

constructions occur primarily as AI verb stems, whereas others occur primarily as TA and TI verb stems, with the AI forms secondarily derived from the TA and/or TI stems. The secondary derivational suffixes tend to be the same within a construction as well.

Broadly speaking, three kinds of elements tend to be incorporated normally into verb stems—with the crucial proviso that whenever the elements in question are highly salient in the discourse, virtually all of them can occur as independent nominal or adverbial forms. The three elements are listed here: (1) common semantic *patients and undergoers* of verbal action (these are often grammatical direct objects in English); (2) common *topics* (or *themes*) that lack volitionality, such as the weather, natural objects, or body parts, or common *sensations* produced by non-volitional objects (these are often grammatical subjects in English); (3) common *instruments or means* of accomplishing actions.

The following are the different constructions:

- 1) SEMANTIC PATIENT/UNDERGOER MEDIAL/CONCRETE FINAL CONSTRUCTION
 - 1.1) *patient/undergoer medial/concrete final construction*: medials or concrete finals represent common nominal arguments; initial root describes the action done to the patient/undergoer.
- 2) NON-VOLITIONAL TOPIC MEDIAL/CONCRETE FINAL CONSTRUCTION
 - 2.1) *body part medial construction*: medials represent body parts whose condition or characteristics are described by the initial root.
 - 2.2) *topic concrete final construction*: concrete finals represent primarily natural objects and phenomena (weather, foliage, wood, etc.) whose condition or characteristics are described by the initial root.
 - 2.3) *sensation concrete final construction*: concrete finals represent sensory qualities produced by objects (taste, smell, etc.) and experienced by undergoers, with the quality of the experience (nice, sweet, cold) being expressed by the initial root.
 - 2.4) *self-sensation concrete final construction*: concrete finals represent modes of experiencing one's own involuntary physical and mental sensations (physical "feeling," mental "feeling"), with the quality of the experience (good, bad, jealous, preoccupied) being expressed by the initial root.
- 3) INSTRUMENTS/MEANS CONCRETE FINAL CONSTRUCTION
 - 3.1) *instrumental concrete final construction*: finals represent tools (ropes, poking instruments) or specific methods (speaking, blowing) by which a semantically *transitive* action expressed in the initial verbal root (tying s.t., moving s.t.) is accomplished.
 - 3.2) *mode of action concrete final construction*: finals represent common modes of action (walking, running, flying) by which a semantically *intransitive* action expressed in the initial verbal root (arriving, departing) is accomplished.
 - 3.3) *natural forces construction*: the finals represent common natural forces (wind, water, fire) that act transitively but without volition on objects/

undergoers, with the initial root indicating the specific result produced by the natural force.

It is important to emphasize that the classes of initials and medials are open ones into which a wide variety of elements can be creatively incorporated (see Goddard 1990). The point of the analyses that follow is to illustrate the most *common* types of complex verb stem constructions in Arapaho, using the most common medials and concrete finals in order to provide an understanding of the various *prototypical* constructions that underlie speakers' creative use of the language to produce a potentially infinite variety of different verb stems. At the end of the chapter, we give examples of more unusual and creative stems, and discuss the processes whereby additional medials and concrete finals can be derived from independent noun and verb stems.

6.2 OBJECT/UNDERGOER CONSTRUCTION

Although Arapaho does not have a fully productive general nominal incorporation construction, a number of especially common objects are incorporated into verbs as either medials or as part of concrete finals. These objects are typically patients, and they follow initials that refer to semantically transitive actions. For concrete finals, the abstract final that is used is primarily the AI action-on-objects final /yei/, with the similar final /ee/ also used, forming AI verb stems.

<i>Object</i>	<i>Lexical Element</i>	<i>AI Final Stem</i>	<i>Examples</i>
bag	-no3- (bear, carry)	-no3ee	cebino3ee- 'carry a load' biino3ee- 'be loaded'
	-oono3-(load, pack on)	-oono3ei	etoono3ei- 'unpack bags' no'oono3ei- 'gather bags'
berry	-bin-/-wun-	-binee/-wunee	biibinee- 'eat berries' 3o'owu'uwunee- 'crush berries'
children, offspring	-es-	-esei	no'o3esei- 'have many children' owohesei- 'have many children'
clothing	-ib-	-ibii	ci3ibii- 'put on clothes' nee3ibii- 'take off clothes'
	-eh3-	-eh3ei	ciitehei3ei- 'put on clothes' neetehei3ei- 'take off clothes'
	-e'enou-	-e'enou'u	iise'enou'u- 'be prepared, dressed to go' neciinookoono'enou'u- 'get clothes wet'
dirt/earth	-oobe'-	-oobe'ei/oobe'iyei	bebiisoobe'iyei- 'decor. grave' co'oobe'ei- 'pile up dirt'
door	-iitee-	-iitee(yei)-	o'wuuteeyei- 'close door' kooniitee- 'open a door'

<i>Object</i>	<i>Lexical Element</i>	<i>AI Final Stem</i>	<i>Examples</i>
drum	-ho'-	-ho'yei	woteiho'yei- 'play a drum' noxuneyeinooho'yei- 'play drum rapidly'
ground	-o'owuuh-	-o'owuuee	tono'wuuee- 'dig hole' cih'o'wuuee- 'chop ground'
horse	-ooxow-/ooxew-	-ooxobei	ebiitooxobei- 'steal horses' benohooxobei- 'water horses'
	-uusew-	-uusebei	nookuusebei- 'have white horse' owohuusebei- 'have many horses'
meat, flesh	-yoon-	-yooneyei/-yoonee	se'esoonee- 'cut meat flat' ouuteyoonee- 'hang meat to dry'
wood	-oox-	-ooxu	no'ooxu- 'haul wood here' cowooxu- 'haul wood along'

6.3 BODY PART MEDIALS

Body parts are incorporated into stative/descriptive verb stems, as well as into action verb stems (in which case the construction is essentially like that of the preceding section). In some cases, the medial is quite different from the independent nominal form, whereas in other cases, the independent form is incorporated directly (with the standard loss of first consonant). The initials refer to states, conditions, or resultant states, and the medial specifies the body part in question. The AI derivational final used to form these stems is the middle voice /ee/ final (occasionally /yei/). The construction can normally be glossed in English as 'X has a (initial) (medial)'.

More complex constructions can also be formed by adding alternate or additional derivational finals (see 'abdomen', 'ankle', 'eye', 'finger', 'hand', 'heel', 'mouth', 'nail', 'tail', and 'tongue' below for examples). As the more complex examples show, body parts can be incorporated into virtually any type of verb stem within the limits of semantics.

<i>Body Pt.</i>	<i>Indep. Nom.</i> <i>(Underlying)</i>	<i>Medial</i>	<i>Examples</i>
abdomen	wo-noton	-oton-	sesiinotonoo'oo- 'have stomachache'
ankle	wo-no'in	-o'on-	i3oko'oneenoo'oo- 'sprain one's ankle'
anus	be-3itin	-tin-	woxutinee- 'have a dirty behind'
arm	be-nex	-nex-	tebinesee- 'have a broken arm'
belly	wo-noton	-teh'-	beesiteh'ei- 'have a big belly'
belly button	N/A	-toni3in-	beesitoni3inee- 'have a big belly button'
bone	ixon	-oxon-	sesiinixonou'oo- 'have aching bones'
cheek	be-ce'i'oon	-ce'i'oon-	be'ice'i'oonee- 'have red cheeks'
chest	be-scooon	-sic-	biisicei- 'have a hairy chest'
chin	wot-oxko'on	-oxko'on-	biioxko'onee- 'have a hairy chin'

DERIVATION—VERB MEDIALS AND CONCRETE FINALS

ear	wo-notono	-et-	neesetee- 'have good ears, hear well'
eye	be-siise	-ooku-	kookoonooku- 'open one's eyes'
face	bet-ooxebi'o	-i'-/-e'-	woweye'ei- 'have wrinkled face'
finger	i3ee3oon	-oh-	inowohoe- 'put finger in out of sight'
		-3ee3oon-	beesi3ee3oonee- 'have fat fingers'
foot	wo-'oot	-eiht-	beebeesihtee- 'have big feet'
forehead	co'ou'oon	-co'ou'-	beesico'ou'ei- 'have a big forehead'
fur	N/A	-on-	co'onee- 'have thick fur'
hair	be-i3e'een	-e'-/-i'-	eni'ei- 'have long hair'
hand	be-ecetin	-oh-	3o'ohoen- 'crush s.o.'s hand'
head	ookuhu'een	-e'eix-	sesiine'eixoo- 'have a headache'
heel	be-tiiton	-tiiteen-	ihcitiiteeneesee- 'walk tiptoe/heel in air'
leg	wo-'oot	-oon-	towoonee- 'have a broken leg'
		-yoon-	biisoonee- 'have a hairy leg' < /biix/
lip	be-ses	-es-	beesese- 'have a big lip'
louse	be-teiw	-teiw-	no'o3iteabee- 'have many lice'
mouth	be-tiin	-et(in)-	ehetineeneti- 'wipe one's mouth'
			ecesetee- 'have a small mouth'
nail	wo-'ox	-kox-	ko'ukoseiseti- 'cut one's nails'
navel cord	be-3in	-i3in-	koxu3inee- 'to lose one's navel cord'
neck	be-sonon	-isono-	enisono- 'have a long neck'
nose	be-'i3	-ii3-	to'uu3ee- 'have a short nose'
penis	be-i3oon	-iy-	bisiyei- 'have one's penis exposed'
skin	wo-noxon	-oxon-	nookoxonee- 'have white skin'
tail	be-tihiin	-oonin-	nih'oowooninikoohu- 'run with tail wagging'
testicle	be-3ees	-eesin-	beebee3eesinee- 'have big testicles'
tongue	be-i3on	-oo3on-	konooko'oo3onii- 'stick tongue in and out'
tooth	be-icit	-ookut-	koh'ookutee- 'have a missing, pulled tooth'
vagina	be-heecin	-ih-	beesihee- 'have a big vagina'
waist	i-co'okun	-to'o'-	ecesito'o'ei- 'have a small waist'
wing	i-3e'en	-3e'en-	nooku3e'enee- 'have a white wing'

Note the alternation between /ee/ and /yei/ finals in the basic 'have a . . .' construction. There are also allomorphs /oe/ and /ii/ of /ee/, with 'hand' and 'tongue', respectively. The form for 'neck' is a medial that lacks a final, or else the final is the single short vowel /o/.

6.3.1 More Specific Constructions

There are several more specific constructions in which a particular initial element and a particular final combine with body medials to create a specific meaning. One example is the 'aching' construction, which requires use of the inchoative final (see 5.3.6).

Another example is the ‘washing’ construction. The initial /ehiis/ ‘wash’ is used, along with body part medials. The self-benefactive (fossilized reflexive) AI derivational final /ouhu/ is used to form the verb stems.

- | | | |
|-----|------------------------|------------------------------------|
| 3a) | <i>hehiis-i'óúhu</i> | ‘Wash your face!’ |
| 3b) | <i>hehiis-3ee3óúhu</i> | ‘Wash your hands!’ |
| 3c) | <i>hehiis-oonóúhu</i> | ‘Wash your feet!’ [All from C:218] |

Note that alternate medials for ‘hand’ and ‘foot’, which do not correspond to those in the table above, are used here. ‘Hand’ corresponds to more general ‘finger’, and ‘feet’ corresponds to more general ‘leg’. Similar stems can be created with the initial /iixoo’/ ‘dry’.

6.3.2 Clothing Medials

Closely parallel to body part medials are clothing medials. These occur in several common constructions. The initials /ciit/ ‘get into’, /neet/ ‘get out of’, and /okoot/ ‘change’ are used with specific items of clothing, and the clothing item is then incorporated directly into the verb stem with the derivational loss of initial consonants as described for noun finals (chapter 4). In addition to clothing, other things that are worn (*wóókuu* ‘plume worn in hair’) can be used in this construction. A derivational final, which is variable, is then added to form AI verbs; it normally is /ee/ or an allomorph of this.

- | | | |
|----|--|------------------------|
| 4) | <i>wótoo</i> ‘pants’, PL <i>wotóóh-o</i> | |
| | <i>ciit-otooh-óé</i> | ‘Put on your pants!’ |
| | <i>néét-otooh-óé</i> | ‘Take off your pants!’ |
| | <i>hokóót-otooh-óé</i> | ‘Change your pants!’ |
| 5) | <i>wo’óh</i> ‘shoe’, PL <i>wo’óhn-o</i> | |
| | <i>ciit-o’óhn-ii</i> | ‘Put on your shoes!’ |
| | <i>neet-o’óhn-ii</i> | ‘Take off your shoes!’ |
| | <i>hokóót-o’óhn-ii</i> | ‘Change your shoes!’ |

There is also a ‘wear X type of clothing’ construction that closely parallels the body part medial construction. An adjectival-type initial (‘loose’, ‘tight’, etc.) is used, followed by the clothing medial and then the AI /ee/ middle voice derivational final:

- | | | |
|----|--|--|
| 6) | <i>koono’ótoohóe(e)t.</i> | |
| | <i>kono’-otooh-ee-t</i> | |
| | IC.loose-pants-AI-3S | |
| | ‘S/he is wearing loose pants.’ [C:132] | |
| 7) | <i>niih’ótoohéénoo.</i> | |
| | <i>niih’-otooh-ee-noo</i> | |
| | IC.tight-pants-AI-1S | |
| | ‘I am wearing tight pants.’ [C:204] | |

6.3.3 ‘Carrying a . . .’ Construction

The ‘carrying’ construction makes use of the initial /niiw/ ‘to carry’. Virtually any independent nominal can be incorporated into the verb stem with this construction as a medial—the full underlying stem is used, with appropriate derivational changes in final consonants as always. The derivational final is variable, with /ee/, /yei/, and /i/ all occurring below. Both animate and inanimate objects can be incorporated within the limits of the inherent semantics of the construction:

- | | | |
|-----|------------------------------|--|
| 8) | <i>híicóon-o’</i> | ‘pipes’ (NA) |
| | <i>neniib-híicóon-ee-noo</i> | ‘I am carrying a pipe’ |
| 9) | <i>hóuw-o</i> | ‘blankets’ (NI) |
| | <i>neniiw-óuw-u-noo</i> | ‘I am carrying a blanket’ |
| 10) | <i>tó’oo’</i> | ‘pistol’ (NI) [< to’-oo’ short-weapon] |
| | <i>neníiw-o(o)’-éi-noo</i> | ‘I am carrying a weapon’ |
| 11) | <i>wo3onohóe</i> | ‘paper’ (NI) |
| | <i>neniiw-ó3onoh-éi-noo</i> | ‘I have paper with me’ |

6.4 INSTRUMENTAL CONSTRUCTION

Instrumental concrete finals are used in verb stems that express strong transitive action, often but certainly not always involving physical transformation of a patient. The instrumentals express the manner through which the action is accomplished, and the construction can be glossed ‘actor does (initial) by (instrument) to an under-goer’. As would be expected from the strongly transitive nature of this construction, the TA and TI stems are primary, and AI stems are secondarily derived from these. The most common abstract final elements are the TA causative /*(i)h*/, the TA verbal action final /*(i)w*/, and the TA/TI finals /*3*/*t*/ and /*ow*/*oot*. In some cases, there is no TI form, and an AIO form with /*tii*/ final occurs instead. The TA/TI final /*oh*/ (‘by tool’) also commonly occurs. Note that in many cases, the “instrument” is actually a particular manner of accomplishing the action on the patient rather than a physical instrument per se, although such medials often imply use of some specific instrument (‘attaching’ implies ‘by needle and thread’, ‘tightening’ implies ‘by screwdriver, pliers, etc’).

Instrument	Finals	
	TA	TI/AIO
attaching	-o’oh	-o’oh
tootoukuto’oh-	‘to quilt’ (TI) / <i>toukut</i> / ‘tie’	
iwoxuuhookuto’oh-	‘to make elk-tooth dress’ (TI) / <i>iwoxuuh-ookut</i> /	
	‘elk-tooth’	
noto’oh-	‘to attach’ (TI) / <i>not</i> / ???	

blade, cutting	-es	-ex
tebes-/tebex-	'to cut off' (TA/TI) /tew/ 'separation, removal'	
nii3es-/nii3ex-	'to carve' (TA/TI) /nii3/ 'to shape'	
breath (voluntary); mouth	-oow	-oot
ciitoow-/ciitoot-	'to blow at ceremonially' (TA/TI) /ciit/ 'into'	
i3ikoow-/i3ikoot-	'to inhale s.t.' (TA/TI) /it/ 'get'; /ik/ ???	
bringing, conveying	-xoh	-xotii
no'uxoh-/no'uxotii-	'to bring to a place' (TA/AIO) /no' / 'to goal'	
ceixoh-/ceixotii-	'to bring here' (TA/AIO) /cei/ 'to here'	
collision	-e3eih	-e3ei'oh
cene3eih-/cene3ei'oh-	'to knock down' (TA/TI) /cen/ 'down, from up'	
one3eih-/one3ei'oh-	'to knock over' (TA/TI) /on/ 'down, from upright'	
closure	-ootoo'oh	-ootoo'oh
nih'ootoo'oh-	'to screw in' (TI) /nii' / 'tight'	
co'ootoo'unoo'oo-	'to close back up' (AI) /ce' / 'back'; INCHOAT)	
dropping	-siw	-setii
to'osiw-/to'osetii-	'to knock to the ground' (TA/TI) /to' / 'hit'	
3o'osiw-/3o'osetii-	'to drop and shatter' (TA/TI) /3o' / 'to pieces'	
fire, heat	-xoh'	-xoh'
be'exoh'-	'to make red hot' (TA/TI) /be' / 'red'	
beetoxoh'-	'to burn up' (TA/TI) /beet/ 'finish'	
esixoh'-	'to heat up' (TI) /es/ 'heat, intensity'	
foot	-oxon	-ox
to'oxon-/to'ox-	'to kick' (TA/TI) /to' / 'hit'	
foot	-'on	-'
seyou'on-/seyou'-	'to crush by foot' (TA/TI) /seyou/ 'mash, crush'	
ceibe3ei'on-/ceibe3ei'-	'to push aside by foot' (TA/TI) /ceiw/ 'aside' + /e3ei/ 'contact, collision'	
hand	-en	-en (see 5.3.22)
manual action, grasp, hold	-iitoonen	-iitoon
niisiitoon-	'to fold' (TI) /niis/ 'fold'	
eciitoonen-	'to strangle' (TA) /ek/ 'block'	
mental action	-eenew	-eenect
ni'eenew-/ni'eenect-	'to like' (TA/TI) /ni' / 'good, well'	
bobooteenew-/bobooteenect-	'to respect' (TA/TI) /boboot/ 'respect'	
merit, ritual suffering	-ehi3iton	-ehi3it
niihenehi3iton-/niihenehi3it-	'to own by fasting, suffering' (TA/TI) /niihen/ 'own'	
itetehehi3iton-/itetehehi3it-	'to get by fasting, suffering' (TA/TI) /itet/ 'get'	
mouth	-oh	-oh
niiwoh-	'to hold in the mouth' (TA/TI) /niiw/ 'hold'	
poking	-oo'oh	-oo'oh
notoo'oh	'to look for by poking' (TI) /not/ 'look for'	
3o'oo'oh	'to break apart by poking' (TI) /3o' / 'to pieces'	
eetoo'oh	'to push, prod by poking' (TI) /eet/ 'push'	

rope, tying	-ooku3	-ookutii
benooku3-/benookutii-	'to tie in bundle' (TA/AIO) /ben/ 'group, cluster'	
toku3-/tokuutii-	'to tie up' (TA/AIO) /tou/ 'hold'	
social action through language	-ouw	-ouutii
ciino'ouw-	'to reject s.o.' (TA) /ciin/ 'down?'	
nih'ouw-	'to scold s.o.' (TA) /nihi/ 'tight, pressure?'	
kokoh'ouutii-	'to discuss s.t.' (AIO) /kokoh/ 'consider'	
	-ouh'	
niitoh'-	'to include s.o. in an activity' (TA) /niit/ 'with'	
nohkouh'-	'to allow s.o. to join an activity' (TA) /nohk/ 'with'	
with sticky substance	-oxesnouyei (AIO)	
ni3oxesnouyei-	'to make dough' (AIO) /nii3/ 'to shape'	
okoxesnouyei-	'to plaster, plaster over' (AIO) /ek/ 'block'	
tightening	-oo'oh	-oo'oh (see 'by closure')
nih'oo'oh-	'to tighten' (TI) /nihi/ 'tight'	
ohku3oo'oh-	'lace up tepee door' (TA) < /ooku3/ 'tie?'	
tool	-oh	-oh (see 5.3.23)
tool, manipulation	-ci3	-citi
tonci3-/tonciti-	'to drill a hole through s.t.' (TA/AIO) /ton/ 'hole'	
nooxci3-/nooxciti-	'to dig a hole into s.t.' (TA/AIO) /noox/ 'hole in'	
violent or rapid action	-kuu3	-kuutii
ee3ikuu3-/ee3ikuutii-	'to push violently' (TA/AIO) /eet/ 'push'	
i3ikuu3-/i3ikuutii-	'to grab, seize' (TA/AIO) /it/ 'get'	
vision	-oohow	-oohoot
esoohow-/esoohoot-	'to stare at' (TA/TI) /es/ 'intensity'	
nei'oohow-/nei'oohoot-	'to look at' (TA/TI) /nei/ 'closely, tightly'	
water	-ookoono(o)3	-ookoonetii
seyookoono3-/seyookoonetii-	'to water s.t.' (TA/AIO) /sey/ 'soften?'	
neetookoono3-	'to drown s.o.' (TA) /neet/ 'dead'	

Note that the 'by mouth' forms look and behave exactly like the 'by tool' TI/TA abstract derivational finals.

6.5 MODE OF ACTION CONSTRUCTION

Action concrete finals occur in verbs that express various kinds of actions that do not usually involve physical transformation of objects. When transitive stems occur, the object of the verb is normally a topic, benefactee, goal, recipient, or less-than-prototypical patient. The finals serve to specify more fully how the action indicated by the initial root occurred. This construction clearly shares many formal similarities with the instrument construction, especially where that construction specifies mode of action rather than instrument narrowly defined. Prototypical examples of the action construction can be glossed as 'I descended by walking' ('I walked down'), 'I descended by flying' ('I flew down'), 'I descended by running' ('I ran down'). The English gloss is thus 'actor does (initial) by (action final)'. As the list shows, many

extremely common basic locomotions (walk, run, swim, fly, chase, etc.) occur as action finals.

The AI stems are most common, whereas TA and TI stems are mostly secondarily derived and included here for reference. The most common AI derivational finals used in these stems are the /ee/, /yei/, and /hi/ action finals. With /ee/ finals, the TI/TA pairs /oo-t/ and /oo-3/ are most common. With /hi/ finals, the TI/TA pairs /:t/ and /:ton/ are most common. All examples below are AI verbs unless otherwise indicated.

Action (by . . .)	Finals		
	AI	TA (Sec)	TI (Sec)
acting like X noun no'o3ikobee- neeceekobee-	-kobee 'to act tough' / no'ot/ 'a lot' 'to act bossy' / neecen/ 'chief'	-kowoo3	-kowoot
braiding, twisting nii3ooteeyei- wohunooteen- eyooteen-	-(y)ooteeyei (AIO) /nii3/ 'to shape' 'to braid' (AIO) /nii3/ 'to shape' 'to weave s.t.' (TI) /wohun/ 'netting, grid' 'to braid long' (TI) /en/ 'long'	-(y)ooteen	
breath action (invol.) i3ibi- cesiceinibi-	-ibi 'to sneeze' /it/ ? 'to cough' cf. /cesic/ 'itch'	-ibiiton	-ibiit
camping niii- bee3iii-	-iii 'to camp' 'to break camp' /beet/ 'finish'		
camping and moving iinihi- wo'owuuhu-	-iihi 'to camp all about, move nomadically' /iin/ 'wander' 'to move camp further along' /wo'ow/ 'farther, more'		
chasing cebeso'on- ciineso'on-	-esei'i/-eso'ei 'to chase along' (TA) /cew/ 'along, past' 'to chase downward' (TA) /ciin/ 'down from a point'	-eso'on	
climbing iixouuhu- noho'ouuhu-	-ouuhu 'to climb to the summit' /iix/ PERF 'to climb up' /noho/ 'upward'	-ouuhuuton	-ouuhuut
clothing (wearing) biisinouhu- nookunouhu-	-nouhu 'to wear fur' /biis/ 'hairy, furry' 'to wear white' /nook/ 'white'		-nouhuut
cooking, processing ocei- 3eeyocei- 3o'ohcei- (related?)	-ocei 'to fry s.t.' 'to roast s.t.' /3e(y)/ ? 'to pound meat' /3o/ 'to pieces'	-occoo3	-occoot
cooking, esp. boiling sii'ihwo'oyei-	-wo'oyei 'to cook s.t. by boiling' (AIO) /sii'ih/ 'into water'	-wo'oyoo3	-wo'oyoot
drinking nonisih'ebi- nisisih'ehi-	-ih'ebi 'to get drunk' /noni3/ 'chaos, confusion' 'to drink soda pop' /nisik/ 'sweet'	-ih'ebiiton	-ih'ebiit

DERIVATION—VERB MEDIALS AND CONCRETE FINALS

eating	-otee	-otoo3	-otoot
no'ototee-	'to eat a lot' / no'ot/ 'a lot'		
cowotee-	'to overeat, eat too much' /cew/ 'along, past'		
facial expression	-ei'oo	-ei'ooton-	-ei'oot
oxou'ei'oo-	'to smile' cf. /oxoo/ 'laugh'		
teenei'oo-	'to frown' /teen/ 'sad'		
flying	-ih'ohu	-ih'ohuuton	-ih'ohuut
no'uh'ohu-	'to arrive by flying' /no' / 'to goal'		
koyih'ohu-	'to escape by flying' /koy/ 'away, escaping'		
growing, raising	-iii'oo	-iii'ih' /-iii'oh'	
bisiii'oo-	'to appear, as early growth' /bix/ 'appear'		
iisiii'oo-	'to be grown' /iix/ PERF		
group movement, band action	-koni(II)		
ceikoni-	'to move here as a band or group' /cei(t)/ 'to here'		
wo'owukoni-	'to move farther along as a band' /wo'ow/ 'farther, more'		
hand motion, hand as instrument	-ohoe	-ohoen	
co'ohoe-	'to make a fist' /ce' / 'spherical, lump'		
ko'esohoe-	'to clap one's hands' /ko'e' / 'pop, sudden sound'		
language use, speaking, hearing	-tobee	-towo03	-towoot
nitobee-	'to hear s.t.' /nii(t)/ 'sound, hearing'		
e'itobee-	'to say s.t.' /e'i/ 'know'		
thinking	-3ecoo	-3ecooton	-3ecoot
kokoh'u3ecoo-	'to think about s.t.' /kokoh' / 'consider'		
teeni3ecoo-	'to feel sad' /teen/ 'sad'		
noise, making noise	-einee- (AI; medial element)		
woxeineesi-	'to be involved in a scandal' /wox/ 'bad' /si/ 'resultative state'		
noteineeb-	'to call for s.o.' (TA) /not/ 'look for'		
	-einooni- (II)		
no'oteinooni-	'to be very noisy' /no'ot/ 'a lot'		
siieinooni-	'to be too noisy' /sii/ 'intensity'		
rapid motion	-ihcehi	-ihcehiiton	-ihcehiit (see 5.3.7)
rhythmic motion?	-kotii	-kotiiton	-kotiit
neetikotii-	'to be tired from walking' /neet/ 'dead, tired'		
noho'ukotii-	'to gallop' (a horse) /noho' / 'upward'		
riding	-iikohei		
no'uukohei-	'to arrive on horseback' /no' / 'to goal'		
cei3iikohei-	'to ride to here' /ceit/ 'to here'		
	-koohuuhei		
ce3ikoohuuhei-	'to ride away' /ce3i/ 'away'		
neyeisikoohuuhei-	'to ride apart from each other' /neyeix/ 'apart from'		
running	-koohu	-koohuuton	-koohuut
no'ukoohu-	'to arrive by running' /no' / 'to goal'		
oowukooku-	'to descend by running' /oow/ 'down, with surface contact'		
sign language	-soh'oe	-soh'owuun	
too'usoh'owuun-	'to signal s.o. to stop doing s.t.' (TA) /too' / 'stop'		
beebeetisoh'oe-	'just use sign language' /beebeet/ 'just, only'		

talking	-yeiti	-yeiti3	
inono'eiti-	'to speak Arapaho' /inono'ei/ 'Arapaho'		
nih'oo3ouyeiti-	'to speak English' /nih'oo3oo/ 'white person'		
vehicle, conveyance	-oo' (medial element only)		
cowoo'usee-	'to go by wagon' /cew/ 'past'; /see/ 'go'		
cebitoo'ooku3oo	'travois' (NI) /cebit/ 'crossways' /ookut/ 'by rope, tying'		
walking	-see	-xooton	-xoot
no'usee-	'to arrive on foot' /no' / 'to goal'		
oowusee-	'to descend on foot' /oow/ 'down, with surface contact'		
water, in water	-ebi		
tousebi-	'to bathe' /tous/ ?		
neetebi-	'to drown while swimming' /neet/ 'dead'		
water travel	-ouwu (swim)	-ouh (paddle)	
no'ouwu-	'to arrive by swimming' /no' / 'to goal'		
cowouwu-	'to swim past' /cew/ 'by, past'		
cowouhei-	'to row a boat' (AIO) /cew/ 'by, past'		
	-ou'oo (float)		
no'ou'oo-	'to arrive by floating' /no' / 'to goal'		
cowou'ou-	'to float past' /cew/ 'by, past'		

The form /eso'on/ (TA) 'by chasing' is probably related to a more general TA final /o'on/, which involves action related to path or progression: /tow-o'on/ 'to interrupt s.o.' (/tew/ 'break'), /eet-o'on/ 'to prod s.o. along' (/eet/ 'push'), /ec-o'on/ 'to quarantine' (/ek/ 'block, obstruct', consonant mutation unexplained). See section 5.3.6.

6.6 TOPIC CONSTRUCTION

Topic medials and concrete finals are used in verb stems that have prototypically stative or descriptive meanings. The topic medial/final specifies the element whose state is expressed by the initial root. The topic finals refer to non-volitional entities (grass, foliage, earth, weather). Valentine (2001:332) refers to these forms as "environmental medials." The medials/finals typically correspond to what would be non-volitional subjects in English sentences, and the II Arapaho topic final construction can normally be translated into English as '(final) is (in state specified by initial root)'. Thus, 'the weather is good', 'the grass is thick', 'the leaves are falling'. The related AI topic finals normally translate into English with a possessive gloss: 'its (final) is (in state specified by initial root)'. Thus, 'its leaves are round', 'his body is muscular', 'its wood is strong'.

The abstract final elements used in these verb stems are most commonly the stative II final /yoo/ and the stative AI final /eih/. The construction normally involves II and AI stems, and transitive stems are rare, although some secondary transitive derivations do occur.

It should be noted that in the Algonquian tradition, certain topic medials/finals are typically treated as "classifiers," since several of them have fairly abstract meanings

(see Wolfart 1996:427 on Plains Cree; and Valentine 2001:330–332 on Nishnaabemwin, for example). The medial /ook/ can mean not just ‘rope’ but various ‘rope-like’ objects. It is used to describe stems of plants, for example *bo’-óócei-biis* = ‘red-stem-bush’ (i.e., red-osier dogwood, *Cornus sericea*). Other verbs with more specific finals, such as weather verbs, are typically labeled “impersonal verbs.” Valentine 2001:365–374 has extensive examples of these for Nishnaabemwin, which can be used as a point of comparison for Arapaho.

Topic (<i>indep. form</i>)	Topic/Classifier	Finals	
		II	AI
action with quality of . . .	-oot-	-oo3oo	-ooteihi
bark of a tree (<i>hinóoox</i>)	-xo-	-xoo	-xoehi
branch, prong (<i>hitéi</i>)	-youn-	-youni-	-youneihi-
body shape, size (<i>beteneyóóó</i>)	-ei-	-ei’oo	-ei3e
body condition (<i>beteneyóóó</i>)	-eino-	-einoehi	
brush, shrubs		-oo’oe	
cloth (<i>nih’óó3eeyóu</i>)	-oot	-ooti	
clouds (<i>hiínoonó’et</i>)	-o’et	-o’eti	
dirt, dirtiness (<i>ho’</i>)	-ox-		-oxeihi
foliage, leaves (<i>biicíís</i>)	-ko-	-koo	-koehi
grass, plants (<i>wóxu’</i>)	-es-/-ox-	-esoo/-oxeti	
ground, earth, land (<i>biító’ówu’</i>)	-o’ob-	-o’obee	
fire, heat (<i>hesítee</i>)	-et-/-e3-	-etee/-e3ee	
	-it-/-i3-		
landform		-ouute	
liquid, water (<i>nec</i>)	-eeci’-	-eeci’oo	-eeci’oo
mountain (<i>hóhe’</i>)	-(y)oto-	-(y)otoyoo	
mud, sticky objects (<i>hóxes</i>)	-oxesn-	-oxesnoo	
placement, arrangement	-oot-	-ootee	-oo3ei
rain	-oos-	-oosoo	
rocks (<i>ho’onóókee</i>)	-ooo-	-oooyoo	
rope-like objects (<i>séénook</i>)	-oocei-	-ooceihi	
	-ookee-		-ookeehi
			-ookeeyi
snow (<i>híii</i>)		-eeci	
time passage	-xooyei-	-xooyei’oo	-xooyeihi
			-xooyei’oo
value, price	-ou-	-ouh’u	-ouhu
voice	-iis-		-iiseihi
water (<i>nec</i>)		-oowu	
weather	-iiso-	-iisooo	
wind (<i>heséís</i>)		-eese	
winters, years (<i>cec</i>)	-ceciniw-		-cecinibee
wood, timber (<i>bes</i>)	-ex-/-ix-/-ic-	-ixoo/-icoo	-oxoehi

Examples:

- 12) *kooxó'-oo3óó-* 'it acts slowly, its actions are slow' /koxo'/ 'slow'
 13) *kooxó'-ootéíhi-noo* 'I am slow, my actions are slow'
 14) *béé'-exóóti-* 'the bark is red/it has red bark' /be'/ 'red'
 15) *benees-éi'oo-* 'it has a big body' /beex/ 'big'
 16) *ciinóó'on-éi'oo-* 'it is pretty big' /ciinoo'on/ 'fairly'
 17) *benees-éi3e-* 's/he has a big body'
 18) *heniis-éi3e-* '[the moon] is full, has completed its cycle' /iix/ PERF
 19) *benees-einóéhi-t* 's/he has a muscular body'
 20) *heeníxon-óéhi-t* 's/he is tall' /en/ 'tall'
 21) *cóó'-oo'óé-* 'the brush is thick' /ce'/ 'thick'
 22) *konóúw-oo'óé-* 'the brush [leaves you] sweaty' /kouw/ 'sweat'
 23) *wóó'teen-ó'eti-* 'the clouds are dark, black' /wo'oteen/ 'black'
 24) *není'ehiin-ó'eti-* 'there are thunder[bird] clouds' /nii'eihin/ 'eagle'
 25) *nonó'ot-oxéíhi-noo* 'there is a lot of dirt on me/I am filthy' (AI) /no'ot/ 'a lot'
 26) *neníico'-oxéíhi-noo* 'I am gray from dust' /niice'/ 'gray'
 27) *níihoon-kóóti-* 'the leaves are yellow' /nihoon/ 'yellow'
 28) *kóó'ein-kóéhi-t* 'poplar tree' (lit. 'the leaves are round') /ko'ein/ 'round'
 29) *heníiyoot-ésoo-* 'it is a nice, clear meadow' /iiyoot/ 'clean'
 30) *ceenééteen-ésoo-* 'it is a nice meadow' /ceneeteen/ 'green'
 31) *conóoco'-óxeti-'i* 'the vegetation is in clumps/it's brushy' /ce'/ 'spherical, clump'
 32) *níico'-óxet* 'cabbage' (NI) (lit. 'it grows in a round clump')
 33) *bee3óó-'obéé-* 'the ground is hard' /be3e'/ 'hard'
 34) *hií3o-'obéé-* 'it is flat, good ground' /i3e/ 'good'
 35) *coo'ouut-é3ee-* 'the flames are high' /co'ouut/ 'high'
 36) *kool'-oúúte-* 'the land/rock is split' (place-name for Splitrock, Wyoming) /koh'/ 'split'
 37) *bíis-ecéi'óó-* 'liquid is oozing out' /bix/ 'appear'
 38) *nonó'ot-ecéi'óó-noo* 'I am sweating a lot'
 39) *hee-yótoyóó-* 'Pikes Peak' (lit. 'it is a long mountain') /en/ 'long'
 40) *neniis-ótoyóú-'u* 'Long's Peak and Mt. Meeker' /niis/ 'two'
 41) *neniis-óotéi-'i* 'they are laying as a pair'
 42) *ceníix-óotéé-* 'it is located far away, lies far away' /ciix/ 'far'
 43) *teneex-óo3éi-t* 's/he has [s.t.] on him' /teex/ 'on'
 44) *boo'-óooyóó-* 'there are red rocks/the rocks are red' /be'/ 'red'
 45) *nooho'-óooyóó-* 'there are rocks rising up' /noho'/ 'upward'
 46) *tenéi'-oocéih-t* 'the rope is strong' /tei'/ 'strong'
 47) *3óó'-oocéih-t* 'the rope is soft' /3o'/ 'to pieces?'

48)	<i>cóó'-ookééhi-t</i>	'the rope is thick' /ce'/ 'thick'
49)	<i>nonó'ot-eeci-'</i>	'it is snowing hard'
50)	<i>centín-eeci-'</i>	'it is stopping snowing' /ciin/ 'cease'
51)	<i>hoowóh'-óúh'u-'</i>	'it is expensive' /owoh/ 'many'
52)	<i>hoowóh'-óúhu-t</i>	'it (AN) is expensive'
53)	<i>3oonon-óúh'u-'</i>	'it is cheap' /3oon/ 'low'
54)	<i>nii'-iiséh-t</i>	'his/her voice is nice' /ni'/ 'good'
55)	<i>conoon-iiséh-t</i>	's/he is hoarse' /coon/ 'unable'
56)	<i>neniis-cécnibee-t</i>	's/he is two years old'
57)	<i>boo'-óowú-'</i>	'the water is flowing red' (place-name for Hudson, Wyoming)
58)	<i>niihoon-óowú-'</i>	'the water is flowing yellow'
59)	<i>nii'-iisóoti-'</i>	'the weather is nice'
60)	<i>heenéis-iisóoti-'</i>	'how the weather is' /ee3/ 'how'
61)	<i>tóoyo3-éése-'</i>	'the wind is cold' /toyo3/ 'cold'
62)	<i>nonó'ot-éése-'</i>	'there is a lot of wind'
63)	<i>tenéi'-icóó-'</i>	'the wood is tough, hard'
64)	<i>bee3é'-ixóó-'</i>	'the wood is hard'
65)	<i>tenéi'-oxóéhi-t</i>	'it has tough wood'

Note that there are also a few other concrete finals that could be included under the concept of topics or classifiers. This includes /óowu/, which is related to fatness (*coo'óowu-noo* 'I am obese', *heniisóowu-noo* 'I am fat', *kooho'óowu-noo*, 'I am fat').

6.7 SENSATION CONSTRUCTION

The sensation construction involves sensations that are produced by non-volitional sources and are experienced prototypically by humans. These sensations are produced by external objects and experienced passively through the physical senses. The initial root specifies the quality of the experience (good, bad, bitter, sweet, etc.) and the sensation final specifies the sensory mode through which the experience occurs (touch, taste, etc.). The abstract endings used in these finals are the II stative /yoo/ or II resultative /oti/, and the AI stative /eihi/.

This construction can normally be glossed in English as 'it (final, mode of sensation) (initial, quality of sensation)'. Thus, 'it tastes sweet', 'it smells bad'. The grammatical subject of the verb is the source of the sensation.

- 66) *nii'cód' núhu' bee'íce'ée'.*
 'This apple tastes good.'
- 67) *nii'céihi3i' núhu' céeno'.*
 'These grouse taste good.'

Sensation	Finals	
	II	AI
smell	-bou'oo -boutee	-bouhu
sound	-etoyot	-etouuhu
taste	-coo	-ceihi
visual appearance	-nooyot	

Additional Examples:

- 68) *woox-ubóu'óó'* 'it smells bad' (II)
 69) *niisc-íbouhu-t* 'canelope' (lit. 'it smells sweet') (AI)
 70) *nii'-etóyoti'* 'it sounds good' (II)
 71) *nii3-etóuuhu-t* 'how it sounds' (AI)
 72) *nii'-nóéyoti'* 'it appears/looks good' (II)
 73) *biis-nóóyoti'* 'it is appearing, emerging' (II)

6.8 SELF-SENSATION CONSTRUCTION

This construction involves physical and mental sensations experienced involuntarily by an individual as the product of his or her own mind and body. The initial root specifies the quality of the experience, and the final specifies the mode of the experience (mental feeling, physical feeling, or as a form of illness). The construction can be glossed as 'subject/experiencer (final, mode) (initial, quality)'. Thus, 'I feel physically well', 'he feels mentally jealous'. The abstract endings used to form these finals are the AI stative /eih/ or the AI active /hi/ in one case.

Note that unlike the case of the sensation construction, the grammatical subject in the self-sensation construction is the experiencer, not the source of the experience. However, semi-transitive or transitive stems exist that are used to mark a specific source of the sensation on the verb as an object, as in example 75:

- 74) *heihoownii3eyoohúútoné3.*
 e-ihoo-wu-nii3i-eyoohuuton-e3e
 2S-NEG-with-emotional feeling(TA)-1S
 'I am not preoccupied with/concerned by you.' [C:117]
- 75) *wooxóuuwútiinoo nonót.*
 wox-ouuwutii-noo ne-noton-i
 IC.bad-feeling of body(AIO)-1S 1S-abdomen-S
 'My abdomen is hurting/is causing me to hurt.'

Example 75 can be contrasted with the more general:

- 76) *wooxóubéihinoo*.
 wox-ouubeihi-noo
 IC.bad-physical feeling(AI)-1S
 ‘I feel bad.’

As these last two examples make clear, the experiencer is always marked on the verb in this construction and is always treated as the grammatical subject. When the source of the experience is not highly salient, an AI stem is used. When the source is highly salient and/or occurs as an explicit noun phrase, an AIO or TA stem is used, and the source is the grammatical or implied object.

<i>Sensation type</i>	<i>Finals</i>	
	<i>AI</i>	<i>AIO or TA</i>
emotional state (invol.)	-eyoohu	-eyoohuuton -eyoo3
illness	-owobeihi	-owowutii
physical feeling of body (temporary)	-ouubeihi	-ouuwutii
mental feeling	-3ecoo	-3ecooton

Additional Examples:

- 77) *nii'í3ecóó-noo* ‘I am feeling happy’ (AI)
 78) *heniih'éyoo3-ó'* ‘I am jealous of him/her’ (TA) [C:121]
 79) *xonook-ówobéihi-noo* ‘I have pneumonia’ (AI)
 80) *néce'éénoo nees-ówowútii-noo* ‘my shoulder is hurting’ (AIO) [J:III.Body]

6.9 NATURAL FORCES CONSTRUCTION

Another construction is the ‘by natural force’ construction. The concrete final indicates the non-volitional source or cause, and the initial root indicates the resulting state.

<i>Force</i>	<i>Final</i>	<i>Example</i>
fire/heat action (not human)	-etee (II)	<i>benéetétee</i> ‘it has burned up’
	-oxuh'u (AI)	<i>benéetoxúh'ut</i> ‘s/he has burned up’
freezing action	-ote (II)	<i>nii'óte</i> ‘it is frozen’
	-o3i (AI)	<i>nenéeto3i</i> ‘s/he has frozen to death’
water action (flowing)	-ookoonee (II)	<i>nooxookóónee</i> ‘it [hole] has been dug out by water’ [O:Scouts, 29]
	-ookoonee (AI)	<i>nenéetookóóneet</i> ‘s/he has drowned’
wind action	-eese (II)	<i>3óówuyéése</i> ‘it has been blown apart’
	-eeesi (AI)	<i>hoonéeesi</i> ‘s/he has been blown over’

This construction can be contrasted with a sentence in which a less prototypical non-volitional cause is given. In this case, a verb without a concrete final is used, and

the cause is indicated by an explicit NP, referenced on the verb by the instrumental preverb:

- 81) *nuh'uuno heeyo'oono'ohno heni'no'xoyou'u no'ooto.*
 nuhu'-uuno eeyo'oono'ohn-o i'i-no'oxoyoo-'i ne-'oot-o
 this-EMPH boot-PL IC.INSTR-sore(II)-0PL 1-foot-PL
 'My feet are sore from these boots.' [J:II.Clothing]

6.10 CONTRASTING INDEPENDENT AND DEPENDENT (FINAL) VERBS

When *common* (and semantically non-specific) verbal actions such as 'dance', 'sing', 'walk', or 'eat' are the focus of the verb, they occur as independent verbs. However, when these same verbal actions are modified, such that the modifier then becomes the focus of the verb ('dance fancy', 'sing well', 'walk downhill', 'eat too much'), then the verb occurs as a "dependent" final, with the modifier as the initial. Thus, most common actions have complementary independent and dependent forms that are used to express them. In some cases, the independent and dependent forms are not obviously related. We give the forms below with their underlying pitch accent, as they are all common and well-documented.

	<i>Indep (AI)</i>	<i>Dependent (AI)</i>
camp	óótii-	-íii-
dance	betéee-	-óhowoo-
drink	béne-	-ih'ebí-
eat	bíízi-	-ótee-, -óbee-
sing	niibéi-	-óótinee-
speak	eenéti-	-yéíti-
sleep	nókohu-	-óóbe-
study/learn	neyéi3éi-	-óu3éi-
work	niisí3ei-	-oxúuní-

Other common verbs have no true independent form. They do, however, have a "place holder" default initial that is used to create the most basic meaning. This initial is semantically empty and is removed when other more specific initials are added. The initial is often /cew/ (past, along) with motion verbs. These verbs include:

	<i>Indep (AI)</i>	<i>Dependent (AI)</i>	<i>Initial (if not /cew/)</i>
be (at, there)	einóku-	-óku-	/ein/ 'there'
be (at, there)	einóotéé- (II)	-óotéé- (II)	
do	niisitoo-	-too-	/niiz/ 'how/what'
drip, leak	cení'oo-	-í'oo-	/cen/ 'down'
float	cowóú'oo-	-óú'oo-	
fly	cebíh'ohú-	-ih'ohú-	
lie	se'isine-	-sine-	/se/ 'flat'
move camp	wo'owúúhu-	-ííhi	/wo'ow/ 'farther'
ride	cebííkohéi-	-ííkohéi-	
run	nihí'kóóhu-	-kóóhu-	/nihi/ 'quickly'
sit	3i'óku-	-óku-	/3i/ 'upright'

stand	3i'óókuu-	-yóókuu- / -éékuu-	
swim	cowóúwu-	-óúwu- / -éíbi-	
think	kokoh'ú3ecóó-	-X-3ecóó-	/kokoh' / 'consider'
travel as band	cebikóni-	-kóni- (II)	
walk	cebísee-	-X-see-	

Note that /eekuu/ 'stand' occurs after all consonants (i.e., k, w, x) that cannot take following /y/. Thus, /xouuw-eekuu/ 'to stand straight'. But note the variation between speakers with /niiteiyookuu/ and /niiteiyeeuu/ 'to stand in line'. On the other hand, /eibi/ 'swim' (or more generally, 'go by water') occurs only after /k/ and /x/: /ok-eibi/ 'to wade across'. See chapter 1, rule 7a (blocking).

In summary, in addition to thinking about complex Arapaho verb stems (i.e., those with multiple lexical morphemes) in terms of the incorporation of preverbal modifying elements (chapter 9), or the incorporation of common topics, patients, instruments, and means (this chapter), one can alternately think of them in terms of incorporation of common verbal actions that can be deincorporated as independent verbal elements when that particular element is the most salient part of a phrase.

Note that the final /koohu/ is also used in a more abstract sense to modify the semantics of a number of verbs to indicate brief or quick action:

- 82) bii3ibee- 'to cook s.t.' > bii3ibeekoohu- 'to cook s.t. up quickly' [V:36]
 83) bise'ei- 'to peep over s.t.' > bise'eikoohu- 'to take a quick peep over s.t.' [O: Enemy Trail, 47]
 84) nokohu- 'to sleep' > nokohukoohu- 'to take a nap'

6.11 DEPENDENT VERB FINALS WITH NOMINAL-LIKE INITIAL ELEMENTS

Although many Arapaho dependent concrete finals occur with initials of an adjectival or adverbial nature (/3i'oku/ 'upright-sit', /ceenoku/ 'downward-sit', /teitoo-noku/ 'calmly-sit', and so forth), some of the finals that have more transitive underlying semantics commonly have more nominal-like initial elements. They thus function to incorporate the nominal elements into the verb stem as verb *initials*. Among the most important are 'sing', 'dance', 'eat', 'drink', and 'speak', which combine with initials to produce verb stems meaning 'to sing X type of song' or 'to dance X type of dance' and so forth. These types of stems alternate with the independent verb stems:

- niibe- 'to sing' > -ootinee- 'sing X type of song':
 85) *cee'éétiinootíneeno.*
 ce'eetiin-ootinee-noo
 IC.victory ceremony-sing(AI)-IS
 'I am singing a Victory Song.'

- 86) *honooxéthiinéniinootineeno.*
 ooxeihiineniin-ootinee-noo
 IC.wolf man-sing(AI)-1S
 'I am singing a Wolf Dance song.'
- beteee- 'to dance' > -ohowoo- 'to dance X type of dance':
- 87) *kóó'einóhwoonoo.*
 ko'ein-ohowoo-noo
 IC.circle-dance(AI)-1S
 'I am dancing the Ghost Dance.'
- 88) *nonóókunóhwoonoo.*
 nookun-ohowoo-noo
 IC.rabbit-dance(AI)-1S
 'I am dancing the Rabbit Dance.'
- bene- 'to drink' > -ih'ebi- 'to drink X type of drink':
- 89) *niiscíh'ebínoo.*
 nisik-ih'ebi-noo
 IC.sweet-drink(AI)-1S
 'I am drinking a sweet drink.' 'I am drinking soda pop.'
- 90) *hookokúh'ebínoo.*
 okok-ih'ebi-noo
 IC.stew-drink(AI)-1S
 'I am eating (drinking) stew.'
- eeneti- 'to speak' > -yeiti- 'to speak X type of language':
- 91) *hiinóno'éitinoo.*
 inono'ein-yeiti-noo
 IC.Arapaho-speak(AI)-1S
 'I am speaking Arapaho.' [note contraction of /eiyei/ to /ei/]
- 92) *niih'óó3ouyéitinoo.*
 nih'oo3oun-yeiti-noo
 IC.white man-speak(AI)-1S
 'I am speaking English.'
- niisitoo- 'to act, behave, do' > -kobee- 'to act like X type of person/thing':
- 93) *beesó'oníkobeeno.*
 beso'on-i-kobee-noo
 IC.anus-EP-act like(AI)-1S
 'I am acting like an asshole.' [loan translation from English]

- 94) *neneecéékobéénoo.*
 neeecen-kobee-noo
 IC.chief-act like(AI)-1S
 ‘I am acting bossy.’
 bii3ihi- ‘to eat’ > obee- ‘to eat X type of thing’:
- 95) *sééyowcécínobéénoo.*
 seyowucein-obee-noo
 IC.chewing gum-eat(AI)-1S
 ‘I am chewing gum.’
- 96) *beesóónobéénoo.*
 besoon-obee-noo
 IC.raw meat-eat(AI)-1S
 ‘I am eating raw meat.’

6.12 ADDITIONAL NOMINAL INCORPORATIONS

Beyond the different specific incorporation constructions given above involving medials or concrete verb finals, there are many additional verb stems that incorporate objects, topics, instruments, and means into the verb stem but cannot be easily classified into obvious prototypical sets. Some use common medials, but in uncommon overall constructions, whereas others use nominal elements not often incorporated. Complex incorporations are also a highly valorized aesthetic component of Arapaho storytelling. Examples (taken from texts) include:

- 97) *tóxu’óóxuhee-*
 toxu’-ooxoh-ee cf. *wóóxoh-o* ‘knives’
 sharp-knife-MID(AI)
 ‘to sharpen one’s knife, get’s one knife ready, get a sharp knife’ [O:Forks, 5]
 [cf. the ‘carrying a . . .’ construction above for a parallel structure]
- 98) *níinebeh’éeét*
 nii-neb-ch’eee-t
 IMPERF-fish-kill a thing(AI)-3S
 ‘kingfisher’ (lit. ‘kills fish’)
- 99) *neesco’óowúsee-*
 nees-i-co’oowu-see- cf. *co’óowu-* ‘pool’
 remain behind-EP-pool-EP-walk(AI)
 ‘to leave behind pools [of blood] as one walks’ [R:Blood Clot Boy]
 [cf. other verb stems above with /see/ for a parallel structures]
- 100) *woteinóxonóúise-*
 wotein-ixono-ise- cf. *hixón-o* ‘bones’
 noise-bone-go/fall(II)
 ‘bones clatter to the ground’ [R:Strong Bear and the Ghost]

- 101) *hiisítóoxookúúnee-*
iisít-oox-ookuun-ee- cf. *wóókuun-o'* 'plumes worn in the hair'
 get-?-plume-MID(AI)
 'to earn a feather through a brave deed' [O:Scouts, 52]
 [cf. the 'wear a . . .' construction above for a parallel structure]
- 102) *wo'ohnóon-*
wo'ohn-ooo-n-
shoe-make-BENEF(TA)
 'to supply someone with moccasins or shoes' [O:Apache Captive, 3]
 [a secondary derivation from /wo'ohnee/ 'to make shoes']
- 103) *xóókbixóhoekoohúút-*
xooku-bix-ohoe-koohuut-
 through-appear-hand-run/go quickly(TI)
 'to make one's hand go through s.t. and appear again on the other side' [O:Bad Dreamers, 63]
- 104) *néhyonbise'eikóóhu-*
nehyon-bix-e'ei-koohu-
 inspect-appear-head-go quickly(AI)
 'to rapidly stick one's head up to check on s.t.' [O:Enemy Trail, 46]
- 105) *hóoxóúbee-*
oox-ouw-ee-
 cover-blanket-MID(AI)
 'to cover oneself with a blanket' [O:Buffalo Wheel, 3]
 [cf. the 'wear a . . .' construction above for a parallel structure]
- 106) *héete3éinobee-*
eet-e3ein-obe- cf. concrete final *-ówu-* 'ground, earth'
 run into-collision-ground(AI)
 'to hit a bump in the road while driving' [R:George Quiver]
- 107) *céce'esé3oo'óó-*
cee-ce'ex-e3-oo'oo-
 REDUP-different-flame-INCHOAT(II)
 'to be sparkling or flashing with various colors' [R: Crow Chief]
 [see the topic construction above for a parallel structure]
- 108) *no'o3nohkukoseineinookoohu-*
no'o3i-nohku-kosein-einoo-koohu-
 much-with/accompany-hoof-noise-run(AI)
 'to run such that the hooves make a lot of noise' (horses) (AI) [Q:7]

As these examples illustrate, a variety of medials are or can be derived from independent nominal forms, above and beyond those listed earlier in the chapter.

When this is done, the derived form normally loses the initial consonant when it is /b/, /w/, or /n/.

It is unclear to what extent the examples above represent fixed lexical items and to what extent they are the result of productive word formation. Certainly, they are suggestive of the fact that Arapaho verb stem constructions are quite rich and productive among fully fluent speakers and easily surpass the bounds of the more common constructions that have been illustrated in this and previous chapters. Further research on the potential and limits of such constructions would be a particularly fascinating subject.

6.13 DERIVATION OF ADDITIONAL MEDIALS AND CONCRETE FINALS FROM VERBS

In addition to the common concrete finals illustrated in this chapter, additional such elements are or can be derived from independent verb stems. When this is done, the derived final form typically shows phonological changes in relation to the independent stem—most of which match those that occur when nominal medials or concrete finals are derived from independent nominals.

Most importantly, initial consonants are often dropped, especially /b/, /w/, and /n/:

- 109) noohow- TA 'to see s.o.' > nei'-oohow- TA 'to look at s.o.'
(< /nei' / 'close, tight')
- 110) wo3onohei- AI 'to write s.t.' > ceheek-o3onohei- AI 'to write email'
(< /ceheek/ 'electrical, concerning electricity'; originally 'lightning')
- 111) beeci- II 'to snow' > no'ot-eeci- II 'to snow a lot'
(< /no'ot/ 'a lot, much')

Occasionally more extensive changes occur:

- 112) nih'oo3ouyeiti- AI 'to speak English' > beexo'-oo3ouyeiti- AI 'to speak only English'
(< /beexo' / 'only')

Likewise, other consonants besides the three listed above are sometimes dropped:

- 113) *seesíhi-noo* 'I am anxious, eager' [C:45]
nonó'ot-esíhi-noo 'I am very eager' [C:45]

The derivational changes illustrated in the first three examples are predictable, at least for new formations at the present time. Changes such as in examples 112 and 113 are idiosyncratic.

7

DERIVATION— DENOMINALIZATIONS

7.1 POSSESSIVE CONSTRUCTION

A common construction is the possessing construction, formed with an initial prefix /i/ (the same as the third person possessive prefix), added to the nominal element (along with an epenthetic /t/ if the noun begins with a vowel), and a final /i/. The underlying possessed form of the noun is used, which in the case of animate nouns, includes the /(e)w/ possessive theme suffix. Examples are:

- | | | |
|----|-------------------------|----------------|
| 1) | <i>he3</i> | ‘dog’ |
| | <i>neté3ebííb</i> | ‘my dog’ |
| | <i>hiité3ebííbinoo</i> | ‘I have a dog’ |
| 2) | <i>wóókec</i> | ‘cow’ |
| | <i>nowóókecííb</i> | ‘my cow’ |
| | <i>hiiwóókecííbinoo</i> | ‘I have a cow’ |

This construction does not imply that the object is actually in the possession of the individual referred to at the moment in question.

When the possessor is inanimate, the II final /:noo/ is added to the AI /i/ final:

- 3) *wó'oo3* 'leg'
híí'oo3íinoo' núhu' bii3hiitóó.
 i-'oot-i:-noo-' nuhu' bii3ihiitooon-i
 IC.3-leg-AI-II-0S this table-S
 'This table has legs.'

Note that when a modifying initial root is used, a middle-voice construction (see chapter 5) occurs in place of the possession construction:

- 4) *betéí* 'louse'
hitéíw 'his/her louse'
hiitéibít. 'He has lice.' [H:6.9]
 but: *nonó'o3teibéet.*
 no'ot-i-teiw-ee-t
 IC.many-EP-lice-MID(AI)-3S
 'He has lots of lice.' [H:6.10]

The latter construction uses medials rather than the full noun form of the basic possession construction. This fact is disguised when the medial is the same as the full noun, as in example 4. But note the clear contrast below:

- 5) *wó'oo3* 'one's leg'
híí'oo3ít 's/he has legs'
 but: *henéényóóneet.*
 een-en-yoon-ee-t
 IC.REDUP-long-leg-MID(AI)-3S
 'S/he has long legs.'
- 6) *hitonih'o* 'his horse' (OBV)
hiitonih'it 's/he has a horse'
 but: *hoowóhúúsebéit.*
 owoh-iiseb-ei-t
 IC.many-horse-AI-3S
 'S/he has many horses.'

Note in passing that where no medial exists, the equivalent of sentences such as 'he has a mean dog' is expressed as 'it is mean his dog':

- 7) *seseéíht hité3ebiiw.*
 seseíhi-t i-e3ebiiw-o
 IC.mean(AI)-3S 3S-dog-OBV
 ‘His/her dog is mean’, ‘S/he has a mean dog.’

Note that the ‘have a . . .’ construction is also used to express ‘get a (new/additional) . . .’:

- 8) *nooxéíhi’ nih’eenéibiixúútoonín.*
 nooxeíhi’ nih-eeneibiixuutooni-n
 maybe PAST-REDUP.have a dress(AI)-2S
 ‘You probably bought yourself clothes.’ [E:24.10]
- 9) *héétwoonotiíbeenoo.*
 eti-woon-otiiw-ee-noo
 IC.FUT-new-car-MID(AI)-1S
 ‘I’m going to buy a new car.’ [D]

Note finally that when the possessed object is highly salient, an alternate construction involving the TI verb /nii3in/ and AI verbs /niiheneihi/ or /nii3inowoo/ ‘to have, to possess’ is used. In addition to saliency, these constructions normally indicate actual physical possession, as opposed to general possession, or full ownership, as opposed to simply having an object in one’s presence: the semantic and pragmatic components of the constructions’ usage can be hard to separate at times:

- 10) *nenii3inowoo núhu’ wóoxé.*
 nii3in-owoo nuhu’ wooxeh-i
 IC.have(TI)-1S this knife-S
 ‘I have the knife with me, I am holding the knife.’ (vs. examples 1, 2)
- 11) *neníthenéihinoo hínee wóókec.*
 niiheneihi-noo inee wookec
 IC.own(AI)-1S that cow
 ‘I own that cow.’ (vs. examples 1, 2)

7.2 ‘HAVE AS A . . .’ CONSTRUCTION (RELATIONSHIPS)

There is a related, more restricted ‘have a . . .’ construction, the ‘have as a . . .’ construction. It is used primarily with relatives. The third person possessed form of the relative’s name is used, and the TA derivational final /iw/ is added. The standard English gloss of such sentences is ‘X is Y’s (relative type)’, but the Arapaho construction more closely resembles the ‘have a . . .’ construction.

- 12) *hiiniisonóónibé3en.*
 iniisonoon-iw-e3en
 IC.3.father-TA-1S/2S
 ‘You are my father.’ (lit. ‘I have you as a father.’)

- 13) *heniinoonibin.*
 iinoon-iw-in
 IC.3.mother-TA-2S/1S
 ‘I am your mother.’ (lit. ‘You have me as a mother.’)

7.3 GATHERING/PRODUCING CONSTRUCTION

Another construction is the ‘gathering/producing’ construction, which adds the derivational AI suffix /ééé/ (sometimes shortened to /éé/) to noun underlying roots, with the noun showing initial change. (See also the ‘carrying a . . .’ construction in 6.3.3.) Examples are:

- 14) *bóon-o* ‘roads’
bonóonééé-noo ‘I am doing road work’ (AI)
- 15) *híicóon-o’* ‘pipes’ (AN)
heníicóonééé-noo ‘I am making pipes’ (AI)
 (cf. the Arapaho name for the Big Thompson River in Colorado: *híicóonóoot* ‘pipe-making [place]’)
- 16) *có’ocóón-o* ‘loaves of bread’
cóó’coonééé-noo ‘I am baking bread’ (AI)
- 17) *béx-o* ‘pieces of wood’
beesééé-noo ‘I am gathering wood’ (AI)

Note that when the noun in question is highly salient, it is normally not included in the verb stem. Rather the verb /niisitii/ (AIO) or /niisih/ (TA) ‘to make’ or some other lexically appropriate transitive verb is used:

- 18) *beebíistíi3i’ hínee bóóó.*
 bebiisitii-3i’ inee boon-i
 IC.fix(AI)-3PL that road-S
 They are fixing that road.’ (vs. example 14)

7.4 PREDICATIVE CONSTRUCTION, ‘TO BE A . . .’

The ‘to be a . . .’ construction is formed by the addition of the AI derivational final /ini/ to the end of any noun, with the noun showing initial change. The initial /i/ causes the expected changes detailed in chapter 1. Note that the ending is added to the *singular* form of the noun:

- 19) *nih’óó3oo* ‘white man’ > *niih’óó3oوني-noo* ‘I am a white man’ (AI)
 20) *hinóno’éi* ‘Arapaho’ > *hiinóno’éini-noo* ‘I am Arapaho’ (AI)
 21) *neyéi3eibéhii* ‘teacher’ > *neeyéi3eibehíini-noo* ‘I am a teacher’ (AI)

Note that this construction contrasts with the copulative. The semantic and pragmatic factors involved in the contrast are discussed in more detail in 18.14.

- 22) *heeyóu hínee?*
 what that
 ‘What is that?’

hínee nenéénit nih’óó3oo.
 that it is he white man
 ‘That is a white man.’

7.5 SIMILATIVE CONSTRUCTION, ‘TO BE LIKE A . . .’

The similitive ‘like a . . .’ construction is formed by the addition of /iini/ to the end of any noun naming a category of person. This forms AI verb stems, with the expected initial change. Note that the ending is added to the *singular* noun stem, not the underlying full stem:

- 23) *hinén* ‘man’
hiineníini-t ‘he is manly’ (AI)
- 24) *hohéis* ‘crazy woman’
hohéisiiini-t ‘she is crazy, acting like a crazy woman’ (AI)

Note that in contrast, when a person is compared to some other definite object, a TI or TA verb construction is used, which deincorporates the noun:

- 25) *nenehii3ónoot hínee hinénin.*
 neehii3on-oot inee inenin
 IC.resemble(TA)-3S/4 that man.OBV
 ‘He is like that [other] man.’

7.6 EXISTENTIAL CONSTRUCTION, ‘THERE IS . . . HERE’

Another construction is the existential ‘there is X here, a lot of X’. It is formed by the addition of II /iini/ to concrete nouns, with the expected initial change. As in 7.5, the ending is added to the singular form of the noun:

- 26) *nec* ‘water’
neecíini-’ ‘it is wet (here)’ / ‘there is water here’
- 27) *hoxes* ‘mud’
hooxesíini-’ ‘it is muddy (here)’ / ‘there is mud here’

Note that when the object is modified, it occurs either in a topic construction (example 28) or is deincorporated (example 29). Likewise, definite nominals are deincorporated:

- 28) *ceeyóxesnóó’*.
cey-oxesi-noo-’
 IC.deep-mud-II-0S
 ‘There is deep mud here.’ (‘The mud is deep.’) [C:143]
- 29) *henéé3neekóúhuyóó’ núhu’ hóxes*.
ee3inee-kouhuyoo-’ nuhu’ oxes-i
 IC.very-sticky(II)-0S this mud-S
 ‘This mud is really sticky.’

7.7 IMPERSONAL VERB

Arapaho has a construction that could be called an “unspecified subject” construction or an “impersonal” verb. It is formed by adding the II final /i/ to the action/state nominalization particle (see section 4.5). These participles have final form /on/, but the alternate form /oon/ is used to form impersonal verbs (as with the formation of possessed nouns with plural possessors—see 2.5.1). This form of the participle ending undergoes vowel dissimilation (like dependent participles as well—see chapter 17): /oon/ remains with participles ending in /iit/ and /uut/, but /iin/ is used for participles ending in /oot/ (by some speakers) and /eet/ (always). The participle undergoes initial change, since it is part of a verb stem. This form can be used with transitive or intransitive stems:

- | | |
|------------------------------|---|
| 30) <i>niiteheiw-</i> | TA ‘to help someone’ > |
| <i>niiteheibetiiton</i> | NI ‘helping, aiding (each other)’ > |
| <i>neniiteheibetiitooni’</i> | II ‘people are helping each other’ |
| 31) <i>esowobeihi-</i> | AI ‘to be sick’ > |
| <i>esowobeihiiton</i> | NI ‘being sick, illness’ > |
| <i>heesówobeihíitooni’</i> | II ‘people are sick, there is sickness’ |

The impersonal verb is required with the concepts of ‘no one’, ‘anyone’, and ‘everyone’, or rather it could be said that the construction produces these meanings when combined with the appropriate proclitics or preverbs:

- 32) *hoowéentóótiin*.
ihoowu-entootiin-i
 NEG-be present(AI.PART)-II.IMPERS
 ‘No one is home.’
- 33) *koohéntóótiin?*
koo=entootiin-i
 INTERR=be present(AI.PART)-II.IMPERS
 ‘Is anyone home?’

- 34) *biiséntóótiini*.
bisi-entootiin-i-'
IC.all-be present(AI.PART)-II.IMPERS-0S
'Everyone is home.'

Finally, see 5.9 for an example of a series of derivations from verb stem to noun stem, and then back to verb stem from the resulting nouns. This kind of cyclical derivational process is not uncommon in Arapaho.

8

DERIVATION—REDUPLICATION

Reduplication is extremely common in Arapaho. It occurs as both an obligatory process and an optional one, depending on the circumstances, and produces a number of related semantic effects on the verb. Although primarily occurring on verb stems and preverbs, it also occurs with adverbial particles (which are largely derived from preverbs) and occasionally with pronouns (which are morphologically verbs).

8.1 FORMATION

Reduplication is produced by adding the derivational final /:n/ to the consonant (if present) and first vowel of the initial syllable of a preverb or verb stem, and then adding this element to the base preverb or verb stem. Abstractly, this takes the form:

$$(C)V1(V2) > (C)V1:n-(C)V1(V2)$$

Reduplication is applied prior to addition of /h/ in surface pronunciation for vowel-initial forms—in other words, the reduplicated form functions as a verb initial, not a preverb. The /n/ drops before following consonants, as always with this derivational final (see examples 6b, 9, 12, 24, 26, etc., below for examples with vowel-initial bases). Examples include:

- 1) *cebísee-* ‘to walk past’ > *cécecebísee-* ‘to walk back and forth past’
- 2) *ciísee-* ‘to walk far’ (AI) > *cíciísee-* ‘to walk a very long way’
- 3) *to’óót-* ‘to hit’ (TI) > *tóoto’óót-* ‘to hit over and over’
- 4) *tóúsitoo-* ‘to do what?’ (AI) > *tóotóúsitoo-* > ‘to do what things?’

Notice that the reduplicating derivational suffix /:n/ is the same suffix used to form verb initials. The reduplicated element is part of the verb stem (or part of a single preverb, if a preverb is reduplicated); it cannot be separated from the base verb stem or base preverb using the /ini/ detachment suffix, unlike preverbs (see 9.15 for more details on this suffix). When /i(i)/ is the initial vowel, the reduplication is /een-ei/: /iten/ ‘to get’ > /een-eiten/. Often a falling pitch occurs on the initial reduplicating element, but this is variable, with the variation unexplained at the moment. Reduplicated forms take initial change, producing *CeneeCe(e)*, *CeniiCi(i)*, and *ConooCo(o)* (there are no stems with initial *Cu[u]*). However, when the reduplication involves relative roots, which only occur as conjunct order forms (see chapter 17), initial change does not occur (as in examples 23 and 24).

All preverbs and verb stems can be reduplicated, as can adverbial particles formed from these. Person, number, tense, aspect, instrumental, negation, abstract directional, and auxiliary markers cannot be reduplicated—effectively meaning that abstract grammatical markers are not reduplicated, only lexical forms are. Although some Arapaho names of animals, birds, and the like show reduplication, this does not appear to be a productive process today—it does not occur in names of animals that have become known to the Arapaho since Euro-American contact, for example. Thus, reduplication can largely be said to operate productively only on the lexical components of the verb system.

When verbs occur with unchanged reduplication and without any preceding element, this indicates an implied past tense, but for some speakers, it also seems to function as an imperfective habitual aspect, although more fluent speakers reject this usage, using the more standard imperfective marker to indicate this contrast:

- 5a) *koonokó’eikóóhut.*
koon-ko’ei-koohu-t
 IC.REDUP-circle-run(AI)-3S
 ‘S/he is running around partying (right now).’
- 5b) *kookó’eikóóhut.*
 ‘S/he ran around partying.’ or ‘S/he runs around partying.’
- 5c) *nii-kóokó’eikóóhut.*
 ‘S/he runs around partying.’

8.2 SEMANTICS OF REDUPLICATION

8.2.1 Multiple Objects and Subjects

Since there is no way in Arapaho to inflect verbs for plural implied objects (of AIO verbs), secondary objects (of TA verbs), or inanimate objects (of TI verbs), reduplication is used to accomplish this purpose, although this reduplication is optional and largely depends on the relative saliency of the singular/plural distinction:

- 6a) *héétnoo3ítooné3en.*
eti-oo3ítoon-e3en
IC.FUT-tell story to s.o.(TA)-1S/2S
'I will tell you a story.'
- 6b) *héétnoonoo3ítooné3en.*
eti-oon-oo3ítoon-e3en
IC.FUT-REDUP-tell story to s.o.(TA)-1S/2S
'I will tell you some stories.'
- 7a) *kóóhtowútoonoo.*
kohtow-i-too-noo
IC.funny/unusual/inappropriate-EP-do(AI)-1S
'I'm doing something funny (or inappropriate).'
- 7b) *kóóxwoow heetkóókohtowúnihíí.*
koox=woow e-eti-koon-kohtowu-nihii
again=now 2S-FUT-REDUP-funny/inappropriate-say(AI)
'I suppose you're going to say funny things now.' [Curricular materials]

For verbs that contain medials referring to body parts, if the body part is plural, the verb stem *must* be reduplicated if one wants to distinguish between singular and plural body parts.

- 8a) *konoonookúnoo.*
koon-ooku-noo
IC.open-eye(AI)-1S
'I am opening my eye.'
- 8b) *konóókoonookúnoo.*
koon-koon-ooku-noo
IC.REDUP-open-eye(AI)-1S
'I am opening my eyes.'
- 9) *henééneyóónceno.*
een-en-yoon-ee-noo
IC.REDUP-long-leg-AI-1S
'I have long legs.'

On occasion, where the singular/plural distinction is not important, speakers will use the singular form. This occurs, for example, with ‘open your eyes’, where typically both eyes are assumed, but the singular command is often used.

Note that basic possession verbs (the ‘have a . . .’ construction—7.1) can be reduplicated to indicate multiple objects (see example 8 in chapter 7). But when the more specific sense of ‘many, a lot’ and so forth is intended—with all verb stems, in fact—preverbs with this meaning, along with /*ee/* or /*yei/* finals, are used.

- 10a) *híitonih'inoo.*
 itonih'i-noo
 IC.possess horse(AI)-1S
 ‘I have a horse.’
- 10b) *hoowohúúsebéinoo.*
 owoh-iiseb-ei-noo
 IC.many-horse-AI-1S
 ‘I have many horses.’
- 11a) *hiiteibit.*
 iteibi-t
 IC.possess lice(AI)-3S
 ‘He has lice.’
- 11b) *nonó'o3téibeet.*
 no'ot-i-teiw-ee-t
 IC.many-EP-lice-AI-3S
 ‘He has lots of lice.’

Because plural subjects can be indicated inflectionally on the verb, reduplication is much less commonly used for this purpose. However, it is used on the verbal personal pronouns and at least one nominal pronoun, in which case it has the specific meaning ‘all of . . .’.

- 12) *hoo3óó'o'* ‘others, the others’
hoonóo3óó'o' ‘all the others’
- 13) *nenéé3i'* ‘they, them’
nenéénéé3i' ‘all of them’

No other reduplications of pronominal forms have been found.

8.2.2. Repetitive/Serial/Iterative Action

Reduplication may also be used to indicate repetitive or serial action at a single period of time:

- 14a) *too'óótowoo.*
to'oot-owoo
IC.hit(TI)-1S
'I have hit it, I am hitting it.'
- 14b) *tonooto'óótowoo.*
toon-to'oot-owoo
IC.REDUP-hit(TI)-1S
'I am hitting it (over and over).'

8.2.3 Spatial/Temporal Extension of Action

Related to the previous are occasions where the verb is given an additional sense of multi-directionality or spatial or temporal extension. This type of reduplication alters the basic character of the action being referred to in a way that does not occur in the examples in 8.2.2, where the action is simply pluralized, and some of these reduplications have idiomatic meanings. See Conathan 2005:103–104, where she calls similar examples “complex events.”

- 15a) *ccebihchehit.*
cew-ihcehi-t
IC.past/along-run(AI)-3S
'S/he is running by.'
- 15b) *síhiincécebihchehítóoni'.*
sii=iini-ceen-cew-ihcehiiton-i'
INTENSE=aimless-REDUP-past-run.AI.PART-IMPERS(II)-0S
'People are always just running back and forth all over the place.' [O:Eagles, 83]
- 16) *konoookó'eikóohú3i'.*
koon-ko'ei-koohu-3i'
IC.REDUP-circle-run(AI)-3PL
'They are running all around in circles.' [i.e., 'They are partying.' or 'They are having a rodeo.']
- 17a) *heitóústoo?*
e-ii-tou3-i-too
2S-IMPERF-what-EP-do(AI)
'What are you doing [right now, in front of me]?'
- 17b) *heitóotóústoo?*
e-ii-toon-tou3-i-too
2S-IMPERF-REDUP-what-EP-do
'What are you up to [more generally, not just right now in my presence]?'

8.2.4 Habitual Action/Multiple Occasions of Action

A third important use of reduplication is for indicating plural actions by an agent extending across multiple occasions. The sense of the reduplication in this case is essentially that of the habitual aspect:

- 18a) *héétnóyeinoo*.
eti-noyei-noo
IC.FUT-fish(AI)-1S
'I am going fishing.'
- 18b) *niinóonóyeinoo*.
nii-noon-noyei-noo
IMPERF-REDUP-fish(AI)-1S
'I fish as a hobby.' [O:95]
- 19) *niikóoko3éinoo3itooonéinoo*.
nii-koon-ko3ein-oo3itooon-einoo
IMPERF-REDUP-old-tell story to s.o.(TA)-3S/1S
'He tells me old stories [on a regular, habitual basis].' [J:I.Family]

8.2.5 Other Minor Functions

As an intensifier:

- 20) oon-oxoni-koxcei- 'to be really fat' (AI)
21) cii-ciisisee- 'to walk really far' (AI)

See also examples in Conathan 2005:101–103.

'To completion' or 'all of . . .':

- 22a) oo'ein- 'to gather things' (TA)
22b) oon-oo'ein- 'to gather everything' (TA)

These examples should be compared to examples 12 and 13 as well.

Indefiniteness

Reduplication can be used in conjunction with iterative verb endings to reinforce the idea of spatial or temporal extension and add a greater degree of indefiniteness to an expression (cf. the use of iteratives with the dubitative and the future indefinite in sections 13.3.6 and 13.3.1, respectively). Examples are:

- 23a) *heecxóoyei'óó'*.
eecixoooyei'oo-'
how far along the time is(II)-0S
'The time (of the year).'

- 23b) *heenéecxóoyei'óú'u.*
 een-eeecixooyei'oo-'i
 REDUP-how far along the time is(II)-0.ITER
 'Whatever the time of the year.' 'the seasons' [O:Woman Captive 18, 22]
- 24a) *hééstoot.*
 ee3-i-too-t
 what-EP-do(AI)-3S
 'What s/he is doing.'
- 24b) *heenéestoónóó3i.*
 een-ee3-i-too-noo3i
 REDUP-what-EP-do(A)-3PL.ITER
 'Whatever they were doing.' [O:Enemy Trail, 69]
- 24c) *heenéestoónéi'i.*
 een-ee3-i-too-nei'i
 REDUP-what-do(AI)-2PL.ITER
 'Whatever you (PL) do.' [O:Arapaho Boy, 48]

8.3 MULTIPLE REDUPLICATIONS OF DIFFERENT MORPHEMES IN ONE WORD

Although it is fairly rare, double reduplication—reduplication of two different morphemes—can occur within a verb. The following verb involves a pair of actions occurring serially (and affecting multiple patients), and each action is reduplicated:

- 25) *né'céeceníikoo3i3iikone'éísoot.*
 ne'i-ceen-ceniikoo3i-3iin-3iikone'eis-oot
 then-REDUP-pull down-REDUP-scalp(TA)-3S/4
 '[He] kept pulling them off [their horses] and scalping them.' [O:Scouts, 38]

The example below involves two reduplications, both of which are used to show intensity:

- 26) *niixoo heetnei'towuuno' netesei*
 niixoo eti-e'itowuun-o' ne-esei[w]
 also FUT-tell s.o. s.t.(TA)-1S/3S 1S-sister
 '[If you do that] then I'm going to tell my sister
- heetih'oonoxonoonoo'eihcheise'3eihin.*
 eeti-h-oon-oxoni-noon-noo'oe-ihchei-se'-e3eih-ein
 so that-REDUP-intense-REDUP-around-quick motion-flat-cause
 collision(TA)-3S/2S
 to slap you with all her might.' [Curricular materials]

9

DERIVATION— PREVERBS AND VERB INITIALS

9.1 INTRODUCTION

Many Arapaho verbs consist of only an initial element and a final. However, it is common for “preverbal” lexical elements to be prefixed to the verb stem. The term “preverb” is preferred because these elements are added to the full verb stem. There are two different classes of preverbs. The first class involves a very limited set of grammatical preverbs, which always precede all lexical preverbs and never participate in the formation of verb stems. These grammatical preverbs are listed here with underlying pitch accent.

<i>Preverb</i>	<i>Function</i>
cih-	Deictic ‘to here’ [changed form <i>cenih-</i>]
eetih-	Conjunct ‘in order that’
eti- ~ éti-	Future tense [changed form <i>heet-</i>]

eti-	Conjunct and imperative future/obligation
íi-	Instrumental [changed form <i>heni'</i> -]
eh-	Deictic 'from here' [changed form <i>neh-</i>]
ih-	Past tense [changed form <i>nih-</i>]
ii-	Imperfective aspect [changed form <i>nii-</i>]
tih-	Conjunct past
toh-	Conjunct past/present

The second class of preverbs is the lexical preverbs/initials. As the name indicates, these have concrete meanings. In addition, these forms can occur either as preverbs or as the initial element in verb stems. When they occur with medial/final verb roots that do not occur as independent verb stems, such as /-see/ 'walk' or /-koohu/ 'run', they function as verb initials. An example is:

1) Independent Stem:	Preverb /oowu/ added:	/oow/ as initial:
<i>cééno'óónoo.</i>	<i>honoowucéno'óónoo.</i>	<i>honoowúseenoo.</i>
ceno'oo-noo	oowu-ceno'oo-noo	oow-i-see-noo
IC.jump(AI)-1S	IC.down-jump(AI)-1S	IC.down-EP-walk(AI)-1S
'I am jumping.'	'I am jumping down.'	'I am walking downhill.'
		(* <i>husee-</i> or * <i>hisee-</i> does not occur independently)

In this section, we examine this second class of morphemes—the lexical preverbs/verb initials—according to their semantics. Many correspond to English adverbs, expressing things such as the direction, location, time, or manner of the action expressed in the verb stem. Another group is made of up qualifiers, quantifiers, and intensifiers. A third important group is roughly equivalent to English auxiliary verbs ('able to', 'like to', 'want to', and so forth). A fourth group expresses aspectual concepts such as finishing, starting, and continuing actions. Some of these groups have a fairly limited number of members, whereas others, such as the directionals and locations, are quite large. In general, the lexical preverbs/initials can be divided into two subsets. The first (aspectual, auxiliary, qualifiers, quantifiers, and intensifiers) is relatively smaller, tends to function most often as preverbs, and tends to be placed immediately after the grammatical preverbs in verb constructions. The second subset (time, location, direction, and manner forms) is relatively larger (an open-ended class, in fact) and tends to be placed after the preceding set and immediately before the verb stem. These forms are especially likely to be used as initials, although the first set can be used this way as well.

Preverbs vs. Verb Initials: Derivational Details and Distinctions

Preverbs are added to phonological words in Arapaho—in other words, the full surface form of the verb stem is derived phonologically and then preverbs are added to this word. Because of this, all preverbs occur prior to consonant-initial words (since /h/ is added to underlying vowel-initial forms, as described in chapter 1). As a result,

all roots that function as preverbs and are consonant-final (with the exception of final /h/; recall from chapter 1 that /hC/ is the only underlying consonant cluster that is allowed in Arapaho) have a derived preverb form with final /-i/, as in example 3:

- 2) *eneihi-* ‘to be tall’ >
cebe’éihenéíht.
cebe’ei-eneihi-t
 IC.beyond, more(PREVERB)-be tall(AI)-3S
 ‘S/he is taller [than s.o. else].’
- 3) *e’in-* ‘to know s.t.’ >
bíishéi’nowúnee.
bisi-e’in-owunee
 IC.all(PREVERB)-know(TI)-2PL
 ‘You all know it.’

Historically, the phonological source of this /-i/ is the same as the epenthetic /i/, which occurs at consonant/consonant junctures within complex stems in Arapaho. But since the form of the preverbs is effectively invariable due to its single (preconsonantal) environment of occurrence, this /-i/ is treated as a derivational element, and preverbs are presented in the morphemic analysis in this grammar with this element included in the preverb. This parallels the way pre-nouns are presented in the grammar and distinguished from noun initials (see chapter 4). Recall the exception of roots ending in final /h/ mentioned above. Note also the following *derivational* rule: /h/ + /h/ > /h’/, when the verb stem has initial /h/. This rule does *not* operate stem-internally (i.e., internally to phonological words), since initial /h/ is always secondary, on vowel-initial forms. See /nih/ PAST + *hesíte-* ‘to be hot’ > *nih’esíte-* ‘it was hot’; /eetih/ ‘so that, let it be that’ + *hóyei-* ‘to win’ > *heetih’óyei-n* ‘let it be that you win’. Contrast *behíihi* ‘all’, *bóhooku’óótiimi* ‘everyone is watching’ [O:Eagles, 78], both with /beh/ ‘all’ plus adverbial or verb finals, forming a single stem or particle.

Note that preverbs, but not verb initials, can be separated from the verb stem using the detachment suffix /ini/ (see 9.15).

Note also that the /-i/ normally does not appear in surface pronunciation unless it has a pitch accent, although it will combine with a following short-vowel-initial stem to produce a long vowel. However, its presence causes the expected consonant mutations, and—especially in the allophone /-u/—blocks many morphophonemic changes that would otherwise occur, as with the negative /ihoow/, whose preverbal form is /ihoowu/. Contrast the following, where /ihoow/ occurs as a preverb in the first case and as an initial (without derivational /-i/) in the second:

- 4) *neihoowésnee.*
ne-ihoowu-esinee
 1S-NEG-hungry(AI)
 ‘I am not hungry.’

- 5) *hoobeihíitono*
 ihoow-eihiiton-o
 NEG-AI.PART-PL
 ‘things that are lacking’

In the second case, /w + e/ shows the expected mutation to /be/, whereas in the first, this mutation is blocked. Example 4 illustrates another morphophonemic detail specific to preverb/verb (and prenoun/noun) combinations: stem-initial /h/ is normally dropped secondarily following short /i/, along with the /i/ of the preverb, producing *neihoow-ésnee* rather than *neihoowu-hésnee*. In very slow, careful speech, this does not occur, and older texts recorded earlier in the twentieth century, especially in Oklahoma, often show forms such as *nohku-he'inowoo* (chapter 4, example 59). In some cases, the presence or absence of the /h/ is ambiguous, and there is speaker variation as well, so we make no attempt to provide rules for /h/ retention in this environment (as in example 3) or dropping. Note that the /h/ is replaced by a glottal stop occasionally by some speakers.

Yet another derivational detail concerns preverbs with final /-ni/. When used as preverbs, these forms often secondarily drop their final /-n/ as well as the final /-i/ before following consonants. Thus, one finds forms such as *noosóú-3i'óokuu-noo* ‘I am still standing (AI.1S)’ and *noosóú-beet-bii3ihi-t* ‘he still wants to eat (AI.3S)’ (vs. *noosóúni-inóno'éiti3i* ‘they still speak Arapaho (AI.3PL)’). One also finds contrasts such as *kóó'ei-ciibéi-'i* ‘they are sweating ceremonially in a circle (AI.3PL)’ and *kóó'ein-3i'ookúúton-óó3i* ‘they are standing around him in a circle (TA.3PL/4)’, as well as variation among speakers, as in *3oo(n)téce* ‘midnight’ (prenoun plus noun, in this case). Note that final /-n/ in morphemes is somewhat irregular generally in Arapaho. As noted elsewhere, when this /-n/ is derivational, it drops secondarily prior to following consonants in stem formation (see 4.1.2, 8.1, 9.10), rather than producing i-epenthesis, as would be expected by rule 1 of chapter 1. This same result sometimes occurs intermorphemically within noun and verb stems even when the /n/ is not the result of secondary derivation.

Finally, note that person markers combine with preverbs *prior* to the application of the phonological rule that adds /h/ to vowel-initial forms. Thus, /koo=/ INTERR + /e/ 2S + /eti/ FUT > *koohéét-*, not **koohehet-*.

In this chapter, to avoid listing forms twice, once in their initial shape and once in their preverb shape, we simply give roots in the many lists that follow, without any derivational elements. Thus, any form listed as consonant-final will have a preverb with final /i/ or /u/. When the final is /i/, this of course causes the expected consonant mutations detailed in chapter 1. As a result, forms such as /beet/ ‘finish’ will have a preverbal form /bee3i/ (which most often appears simply as *bee3-*). On the other hand, as a verb initial, the form can occur as either *beet-* or *bee3-*, depending on the initial vowel of the verb medial or final with which the form combines. Likewise, /iix/ ‘already, PERF’ always appears as *hiis(i)-* when used as a preverb/aspectual marker but can occur as *hiix-* or *hiis-* as a verb initial. Note that a few roots are listed with final /i/, as in /noti/ ‘look for’. The root can-

not be /not/, as this would become /no3i/ in preverb form, whereas the attested preverb is *not-*.

Finally, note the converse situation to consonant-final roots used as preverbs: when vowel-final roots are used as verb *initials*, a derivational /:n/ is added to the end of the root to form the initial (see 9.10, and also the fuller discussion of the same derivational process as used for the formation of noun initials in chapter 4). The /n/ is dropped prior to following consonants. Thus, /ko'ei/ 'round' > /ko'ein/ 'round. INITIAL' > *kóó'ein-oxóéyei-noo* 'I am making a corral' (AI.1S) vs. *kóó'ei-kóóhu-noo* 'I am running in a circle' (AI.1S).

9.2 ASPECT

This set is fairly limited in extent, and we have tried to list all the normal preverbs/initial stems. Here, we provide underlying pitch accents as well. These forms normally precede direction, location, and time elements.

béet-	'finishing doing s.t.'
cési3-/cé3-	'start doing s.t.'
ce'-	'do s.t. again, recommence doing s.t.'
ciin-	'stop doing s.t.'
nec-	'recommence doing s.t., start doing s.t. after stopping'
nosóún-	'still doing s.t.'
nóuutow-	'continue doing s.t.' (actions)
tecó'on-	'always do s.t.' [usually occurs as <i>nii-teco'on-</i>]
X-3o'-	'never do s.t.' [always occurs with preceding NEG or prohibitive: <i>hoowu-3o'-</i> etc.]
wonóót-	'continue' (states, such as 'living', 'knowing', etc.)
-ooh-	'no longer do s.t.' [always occurs with preceding NEG or prohibitive: <i>hoow-ooh-</i> etc.]

Note in passing that some aspectual functions are expressed by particles or proclitics, which enter into larger aspectual constructions in conjunction with verbs. These are discussed in chapters 10 and 15.

9.3 AUXILIARY/MODAL FORMS

This set is also fairly limited, and we have tried to list all the common preverbs/initial stems, with underlying pitch accent. These forms normally precede direction, location, and time elements:

béétoh-	'want to do s.t.' [usually occurs as <i>nii-béét(oh)-</i>]
bééxucoon-	'barely able to do s.t.' [< <i>bééxu-</i> 'a little' + <i>coon-</i>]
cii-	'not do s.t.' (habitual aspect)
coon-	'not able to do s.t.'
nénes-	'pretend to do s.t.'

néyei(h)-	‘try to do s.t.’
X-ni’-	‘able to do s.t.’ [usually occurs as <i>ní-ni’-</i>]
noti-	‘to try and . . .’, ‘to seek to . . .’ [root literally means ‘search’]
no’-	‘come to do s.t.’
won-	‘go to do s.t.’
xóúwoot-	‘allow s.o. to do s.t.’
ééyei(h)-	‘it is good that s.t is/was/will be done’
ó3on-	‘fail to do s.t.’
óówoh-	‘like to do s.t.’ [usually occurs as <i>nóówoh-</i>]

The form /xouwoot/ enters into a specific construction requiring the use of TA verbs:

- 6) *bii3ihi-* ‘to eat’ >
xonóúwoo3bí3hiinoot.
 xouwoot-i-bii3ihiin-oot
 IC.allow-DERIV-have eat(TA)-3S/4
 ‘He is letting him eat.’ [O:129]
- 7) *ceebéhxóúwoo3tó’oo3ihín.*
 ceebeh-xouwoo3i-to’oo3ih-in
 PROHIB-allow-shoot(basketball)(TA)-3.IMPER
 ‘Don’t let him get a shot off!’ [Curricular materials]

The allative construction (‘go to do something’) sometimes gives a serial sense to clauses. It is used with present and past tenses as well as future. Examples are:

- 8) *hite3ebiiw niiwonoonotoowuunoot*
 i-e3ebiiw-o nii-woni-oon-otoowuun-oot
 3S-dog-OBV IMPERF-ALLAT-REDUP-consume(TA.APPLIC)-3S/4
nuhu’ hecexooxebii hibii3hiininoo.
 nuhu’ ecex-ooxew-ii i-bii3ihiin-inoo
 this little-dog-PL 3S-food-PL
 ‘His dog comes [better: ‘goes’] over and eats up these puppies’ food.’ [E:27.4]
- 9) *nihwonineyéi3éínoo.*
 nih-woni-neyei3ei-noo
 PAST-ALLAT-learn(AI)-1S
 ‘I have been to school.’ [H:5.10]

The similar ventative construction (‘come to do something’) uses the form /no’/, which otherwise indicates arrival (*noo’-úsee-noo* ‘I have arrived by walking’):

- 10) *hihéio nihno’céiteeni3.*
 i-hei[h]-o nih-no’u-ceitee-ni3
 3S-aunt-OBV PAST-arrive-visit(AI)-3S.OBV
 ‘His aunt came to visit.’ [H:17.8]

- 11) *nóó'eenéti3é3en.*
 no'u-eeeti3-e3en
 IC.arrive-talk to (TA)-1S/2S
 'I have come to talk to you.'

Note that /beetoh/ very often occurs simply as *beet-*. However, the underlying /oh/ blocks consonant mutation:

- 12) *niibéétinóno'éitinoo.*
 nii-beetoh-inono'eiti-noo
 IMPERF-want to-speak Arapaho(AI)-1S
 'I want to speak Arapaho.'

Note in passing that a few forms that function as modal auxiliaries exist as particles or independent verbs (/nih'oehi/ 'to be good at s.t.') in Arapaho. The particle is discussed in chapter 15.

9.4 QUALIFIERS, QUANTIFIERS, INTENSIFIERS, AND DELIMITERS

This set is also fairly limited in extent, and we have tried to list all forms, with underlying pitch accent. These forms normally precede direction, location, and time elements:

bee3-/beex-	'a lot, many'
bééxu-	'a little bit'
bééxo'-	'only'
beh-	'all' (usually patients/undergoers)
bis-	'all' (usually agents)
bi'-	'only'
cebe'éi-	'more, farther, beyond, superior'
ciinóó'on-	'fairly, 'pretty (big, fast, etc.)'
kónoh-	'all; entirely, completely'
níiso'-	'both'
nóxow-	'extremely, violently; very close to'
nó'ot-	'a lot'
tes-	'very'
wó'ow-	'more; farther'
éé3inee-	'very'
ii3ítón-	'more, additional'
(ii)yoh-	'perfectly, exemplary; nice and (round, long, etc.)'
í3oow-	'truly, really'
owóh-	'a lot'
oowúh-	'excessively; too (fast, strong, etc.)'

The exact semantic distinctions between these forms, especially the ones for ‘very’ and ‘a lot’, remain elusive. Several indicate finer-grained semantic distinctions than the English glosses above suggest. To take just one example, Arapaho has several different ways of expressing the concept of ‘all’. A distinction is made between ‘all those of a certain category’ and ‘all those present’. The Arapaho translation of ‘all the people who speak Arapaho’ uses a relative root (see section 17.2.1):

- 13) *hétoxú3i’ niinóno’éiti3i’.*
 eetoxu-3i’ niinono’eiti-3i’
 REL.number(AI)-3PL IMPERF.speak Arapaho(AI)-3PL
 ‘All those who speak Arapaho; however many there are who speak Arapaho.’

When ‘all’ means not ‘all of the ones in a category’ but rather ‘each and every’, then the related preverbs /beh/ and /bis/ are used—/bis/ for subjects, /beh/ for objects—at least as a first-order approximation, although there are certainly exceptions to this that remain unclear at the moment.

- 14) *hé’ihbistoo’úhcehiníno.*
 e’ih-bisi-too’uhcehi-nino
 NPAST-all-stop running(AI)-4PL
 ‘They all stopped running.’ [R:Strong Bear and the Ghost]
- 15) *’oh néhe’nih’úístóó3i’ nootíko[ni]nóó3i.*
 ’oh nehe’=nih-ii3-i-too-3i’ notikoni-noo3i
 and that=PAST-what-EP-do(AI)-3PL IC.scout(AI)-3PL.ITER
 ‘So that’s what they did when they were scouting.’
- beh’éi’inóú’u.*
 beh-e’in-o’u
 all-know(TI)-3PL
 ‘They knew all that.’ [O:Scouts, 51]

Both of these roots can form adverbials: *b(e)isííhi’* and *behííhi’*. These function either adjectivally or pronominally.

When /bis/ (sometimes *béis-*) is used, an impersonal verb (see 7.7) is often employed as well, obligatorily so when the meaning of ‘everyone’ is intended:

- 16) *bíiseenetiitoomi’.*
 bisi-eenetitoom-i’
 IC.all-talk(AI.PART)-IMPERS(II)-0S
 ‘Everyone is talking.’
- 17) *tootbisiyihóótiin?*
 toot=bisi-yihootiin-i
 where=all-go(AI.PART)-IMPERS(II)
 ‘Where did everybody go?’ [I:49]

The forms /xouwoot/ ('to permit') and /bis/ (in the construction meaning 'everyone') are good examples of the tendency of Arapaho preverbs in certain constructions to interact closely with both the verb stem (/xouwoot/ requiring a derivational TA stem, /bis/ requiring an AI participle) and the inflectional morphology used on the stem (/bis/ with participles requiring use of the II impersonal suffix, which indicates there is no definite subject of the verb).

There is also a rarer form, /konoh/, which has a more specific, emphatic meaning of 'completeness; to perfection; the entirety'. It is used in the neologism for computer, *koonóh'e'inóó* 'it knows everything'. Other examples are:

- 18) *no'óeyóóno kónohsí'iní3i'*
 no'oeyoon-o konoh-siiin-i3i'
 entrail-PL all-steal/plunder(TA)-3PL/1S
 'They stole every last one of the edible entrails from me.' [R:Nih'oo3oo and Entrails]
- 19) *héétkónoh'úútenóú'u hebé'ici3é'i.*
 eti-konoh-iten-o'u e-be'ici3e-ii
 IC.FUT-all-take(TI)-3PL 2S-money-PL
 'They will take every cent of your money.' [K:The Second Thought]

An even longer discussion of the use of the intensifiers meaning 'a lot' and 'very' should be done, but further research is needed.

Note in passing that a few qualifiers, quantifiers, and the like occur as particles in Arapaho. These are discussed in chapter 15.

9.5 DIRECTION AND LOCATION

This set is quite large and open. Apparently, virtually any semantically appropriate root specifying a direction or location can *potentially* be used as a preverb/initial stem in this category. Among the abstract concepts that are generally encoded through lexical differences in the system are such criteria as whether surface contact is involved or not (*hoow-úsee* 'to walk downhill' vs. *cen-ísi* 'to fall down from an elevated location, through the air'), whether a determinate reference point is encoded into the reference scene (*no'-úsee* 'to arrive at a location, complete a trajectory' vs. *ceit-ísee* 'to come toward here'), and if the latter is the case, whether the direction is toward or away from the reference point (*ceen-én* 'to get something down from up above' vs. *ciin-én* 'to put something down, directionally away'). In addition to the many directional roots, there are also a fairly large number of roots that refer to specific locations, such as /sii'ih/ 'into water', /inow/ 'out of sight underwater or underground', /no'oetei/ 'to a river'.

There are also many morphemes that indicate concepts much more precisely than those indicated by the roughly corresponding English prepositions. Contrasts include /xook/ 'through, by piercing an object or surface' vs. /kohk/ 'through, by a passage, hole, tunnel, etc.' vs. /ii3ih/ 'through, by passing among or between multiple

objects' vs. /3ook/ 'through, as in transparent objects'; /noo'oee/ 'around, as in rotating around a center' vs. /iini3/ 'around, by avoiding, altering a path'; /woti/ 'away, removal, disposal' vs. /koy/ 'away, escaping, fleeing' vs. /oseit/ 'away, backward' vs. /ce3/ 'away, off, gone'. Many more such examples could be given, as the next list shows.

There are at least two morphemes that occur only in conjunction with other preverbs/initials. These are /ii3/, which converts locational forms to directional forms (*toot* 'where?', *toot-iis-iíhi* 'toward where?'; *3eb-iíhi* 'over there', *3eb-iis-iíhi* 'toward there') and /e'ei/ 'in the direction of X', which functions similarly (*noow-úúhu* 'in the south', *nóób-e'ein-iíhi* 'to the south'; *noxúutéi* 'in the west', *noxúút-e'ein-iíhi* 'up the river, to the west'). Note that all the preceding illustrations are with adverbial particles for the sake of simplifying the examples. Adverbials are discussed more fully in chapter 15. Similar examples with full verbs could be provided. Note that for this and the following two lists, we do *not* provide underlying pitch accents, as some remain uncertain in these large sets.

bix-	'appearing, coming into view'
cew-	'past, by'
cebit-	'sideways'
cebii(s)-	'on the right side'
ceen-	'downward, non-surface contact, toward agent/subject'
cei(t)-	'horizontal movement, toward speaker'
ceiw-	'aside, deviating, crooked, curved'
cen-	'downward, non-surface contact; east'
ce3-	'away from s.o. or s.t., by loosening, dropping, releasing'
ce'-	'back, returning'
ce'-iinee-	'back around, reversing course'
ciin-	'downward, non-surface contact, from agent/subject'
ciit-	'entering, to the inside'
ciix-	'far, a long way off in time or space'
kohk-	'through, as a hole, tunnel, or other passageway'
kokoon-	'alongside, beside'
konow-	'along the way'
kotoy-	'under cover, to shelter'
koxut-	'over the top, on the other side of hills, mountains, etc.'
koxuu-	'elsewhere, somewhere else'
koy-	'away from an area, as in escaping'
ko'ei-	'in a circular motion'
neeheyei-	'approaching'
neehii3ei'-	'in the middle'
nee3-	'behind, remaining (while others depart)'
neeyein-	'in a cluster, packed circle'
nee'ee-	'in back (with respect to a forward direction)'

nee'eh-	'behind, remaining'
neneu-	'north'
neyeix-	'separating, going apart'
ne'-	'downward, as sunset'
nih'ei-	'scattering, in all directions'
niiciw-	'in back, in the rear (with respect to a center)'
niico'-	'close by'
niih-	'along; along a stream'
niit-	'next to, with, beside'
niitow-	'in front, ahead'
niiw-	'astray, off course'
noho'-	'upward, usually with surface contact'
nokow-	'down at bottom, reference point at bottom'
nonii-	'misplaced; lost'
noniik-	'away from, avoiding'
nonoo'-	'in circles, as soaring'
nookoox-	'crossing each other'
nooko3ee-	'on one side'
noow-	'downward; south'
noo'oen-	'around a center, revolving around or encircling a center'
nouu-	'to outside'
nowoot-	'on the left side'
noxuutei-	'upriver; to the west'
no'-	'reach endpoint, destination, arrive, to a place'
no'oetei-	'to a river'
no'oo'-	'far from camp, in a remote place'
sebei'-	'opposite each other'
seh-	'from here to there, speaker/reference point remaining here'
sesi3-/sesik-	'at the edge'
sii'ih-	'into water'
teex-	'on top of, on, surface contact'
tokoo3-	'above, upward'
tokooxuu-	'across, non-surface contact'
toot-	'near, next to, close to'
toukoy-	'in shade, shelter'
tous-	'in water'
3ew-	'there, over there'
3eiin-	'contained within an enclosure, inside s.t.'
3ook-	'behind, following'
3oon-	'middle, as the apex of a curve; below'
3oow-	'middle'
3oun-	'between'

woohon-	‘uniting, coming together’
wotee-	‘in the camp circle; in town; into the group’
woti’-	‘away, removed (permanently)’
wo’ow-	‘farther along’
xook-	‘through, by penetration’
xouuw-	‘straight ahead’
yih-	‘there, far from reference point’
(ii)yohou-	‘disappearing from sight’
eek-	‘to home’
ee3ew-	‘to there, over there’
ee3-e’ei-	‘in front of’
ei’-	‘up to a given point or place’
-e’ei-	‘in the direction of . . .’
ihk-	‘upward, non-surface contact; above, non-surface contact’
iin-	‘aimless, around and about’
iinoy-	‘in ambush, in hiding’
iini3-	‘around and continuing, circumventing’
iiton-	‘on both sides, both ends’
ii3ih-	‘through, passing through or among’
-ii3-	‘toward’
iix-	‘top, summit, apex’
iixoxo’-	‘surrounding something’
ii’-	‘nearby’
inow-	‘out of view below a surface (ground or water)’
itox-	‘behind’
i3oow-	‘under, below’
onohuw-	‘on the opposite side’
osei(t)-	‘backward, away in time or space’
oo3i3in-	‘upside down’
oow-	‘downward, surface contact’
ooxonoo-	‘on the other side of water’
ooxu3-	‘right next to’
ooxuu-	‘across, over, surface contact’
ooxoen-	‘back and forth, in exchange’
ouut-	‘on top of, surface contact’
oxow-	‘via shortcut’
oy-	‘next to, with contact’

Note that /yih/ and /seh/ are probably abstract, deictic directionals, or at least were in the past, as their unique shape (final /h/) suggests. Like /cih/ and /eh/, they cannot form adverbials. Conversely, /3ew/ approaches abstract, deictic directional status, although it seems obviously to be originally a preverb (see the further discussion of /cih/ and /eh/ in 9.12).

In addition to combining with the non-initial directionals /ii3/ and /e'ein/ as seen above, the directionals and locationals can be combined with each other: In some cases, the combinations have idiomatic meanings and could be considered as single complex forms:

ce'ino'-	back + arrive at endpoint, 'arriving back, returning'
no'eek-	arrive at endpoint + to home, 'arriving at home'
ce'ino'eek-	back + arrive at endpoint + home, 'arriving back at home, returning home'
ihciniih-	up + along, 'upstream'
oowuniih-	down + along, 'downstream'
3ebooseit-	there + back, away, 'back there in former times', 'far away back there' [<i>< 3ebi-oseit-; /oo/ unexplained</i>]
3ebiix-	there + at the top, 'up there on top', 'up there at the summit'

Finally, the directionals can be combined with abstract deictic directionals to encode reference to speaker location:

cih'oow-	downward with surface contact, toward the speaker
3eboow-	downward with surface contact, away from the speaker [<i><3ebi-oow-</i>]
cihnouu-	coming outside, toward the speaker
3ebinouu-	going outside, away from the speaker

Non-preverbal Location and Direction Roots

There are a number of direction and location roots that do not occur as preverbs or verb initials, but only as particles. These are listed in chapter 15.

9.6 TIME

We list here some of the more common time preverbs/initial stems. Apparently, virtually any root referring to a time period can potentially be used as a preverb or initial stem:

benii'ow-	'during the spring, time of the thaw'
bih'in-	'until dark; all day'
biicen-	'during the summer'
cecin-	'during winter, over the course of winter'
ce'-	'again'
cix-	'for some length of time, an indeterminate amount'
konow-	'at the same time, as s.t. else was/is going on'
kout-	'late'; 'for a long time'
neec-	'for a short time, a little while'
niihon-	'for a long time (actions)'
niitow-	'first (in a series)'

nohohoon-	'soon'
nono3-	'earlier than desired or expected'
nookon-	'all night, until morning; at dawn'
noxohoe-	'soon'
toyoun-	'during the fall'
3ebooseit-	'far back in time, in the past'
woon-	'last (time); recently'
wootoo-	'early, earlier than usual'
xonoot-	'early'
xonou-	'immediately, right away'
eecix-	'while, during'
eescii-	'before'
itoox-	'last (in a series)'
oo3-	'next (time)'
osei(t)-	'backward in time, in the past'

A more unusual example of a time word used as a verb initial is:

- 20) *nohkúseic* 'morning' >
hetcihnohkúseicó'oo.
 eti-cih-nohkuseic-o'oo
 IMPER.FUT-to here-morning-INCHOAT(AI)
 'Come early in the morning!' [C:83]

An example of a complex modified time preverb is:

- 21) *tih'iinóókontóyoowbée3iitooni'*.
 tih-ii-nookoni-toyoowu-beet-iitoon-i'
 when.PAST.IMPERF-HABIT-dawn-cold-finish-camp(AI.PART)-IMPERF-0S
 'When camp would be broken on cold mornings.' [P:14]

The time preverb here is *nóókon-tóyoow-* 'on cold mornings.' There is no reason why one could not also say 'on hot mornings' or even potentially 'on cold, windy mornings' (*nóókon-tóyoob-éés-*). These are good illustrations of the openness of this category.

Non-preverbal Time Expression

There are several time concepts that are expressed by particles, proclitics, or lexicalized independent verbs. The former are listed in chapter 15.

9.7 MANNER

This is a very open-ended category. Virtually any semantically appropriate morpheme can potentially also be used as a manner preverb. Here we have tried simply to list some of the most common forms:

bebi3-	‘straight/correctly/properly’
bii'on-	‘propitiously, by good fortune’
cee3i-	‘by accident’
cew-	‘to excess’
koo'oe-	‘slowly and carefully’
koxo'-	‘slowly’
koxuuten-	‘suddenly’
nei'-	‘tightly, closely’
nes-	‘well, clearly’ (sensory quality)
new-	‘make as if to . . .’
ni'-	‘good, well’
nihí'(nee)-	‘quickly’
niihen-	‘on one's/its own, by one-/itself’
non-	‘wrongly’
teiitoo-	‘calmly, quietly’
toon-	‘almost (but did not reach goal)’
wox-	‘bad, poorly’
xouu-	‘straightly, correctly’
es(iin)-	‘quickly’
eyei-	‘almost (but have not yet reached goal)’
iiw-/iibinee-	‘secretly’
iiyoot-	‘cleanly, properly, morally correct’

9.8 GENERAL REMARKS ON THE SEMANTICS OF ARAPAHO PREVERBS/INITIALS

The specific locational forms in the list of directional and locational preverbs/initials (/no'oetei/ 'to a river', /sii'ih/ 'into water', /inow/ 'out of sight underground or water') illustrate an important feature of Arapaho grammar. As noted earlier, *common* nominal elements or locations typically are incorporated into the verb through medials or preverbs/verb initials. The medial and initial elements often are phonologically unrelated to the independent nominal forms (contrast the forms just cited with *niicíi* 'river', *nec* 'water', *hi3óóbe* 'underneath/below s.t.'). Moreover, there are often multiple medial and initial elements that refer in different ways to the same basic topic. Water provides an interesting example of this. Compare the following different forms:

nec	‘water’
sii'ih-	‘into water’ (preverb/initial)
-oowu-	‘water’ (medial, for water as a topic)
-ookoon-	‘by water’ (medial, for water as a tool or means)

- 22) *nonoohóotowoo hínee nec* ‘I see that water’
 23) *héetsi’ihkúútiinoo* ‘I will put it into the water’
 24) *boo’óowú’* ‘The water is flowing red’
 25) *nihnooxookóónee’* ‘The hole was excavated by (flowing) water’

In contrast, *less common* nominal elements or locations are typically not incorporated into the verb-phrase word. For example, the Arapaho translation of ‘I will put it into my car’ is:

- 26) *héet3ei’ínowoo nótotíibe’.*
 eti-3eiin-owoo ne-otiiw-e’
 IC.FUT-put s.t. inside s.t.(TI)-1S 1S-car-LOC

The element ‘car’ is not incorporated into the verb but expressed as an independent NP, with its connection to the verb indicated by the locative marker. This is a good specific example of the general rule common = incorporated; less common = not incorporated.

The above lists of preverbs/initials illustrate the lexical reality of this general rule. In particular, although any suitable semantic root potentially *can* be used as a preverb or verb initial, in reality less common directions, locations, and times lack specific preverbs/initials and are normally *not* used in this way. The lists are intended to give examples of true preverbs/initials—that is, non-independently occurring forms—and also to reflect the most common Arapaho usages. Nevertheless, especially creative Arapaho speakers constantly do things that surprise a linguist still grappling to understand the language, and one of those things is to incorporate elements that one expected would not or could not be incorporated—as medials, as initials, or as preverbs. Thus, the potential openness of the categories should always be kept in mind.

9.9 UNUSUAL VERB INITIAL ROOTS

Due to their semantics, many morphemes rarely occur as verb initials. But as soon as one attempts to make clear categorizations of this sort based on semantic criteria, interesting counterexamples are discovered. Examples of semantically preverbal-type forms occurring as verb initials include:

- 27) *héecisíset, ’oh hé’ih3ooxúún.*
eecis-i-see-t ’oh e’ih-3ooxuun
 while-EP-walk(AI)-3S but NPAST-notice(TI)
 ‘While he was walking, he noticed that . . .’ [R:Fooling the Ghost]
- 28) *heetihnosóúseenóó’ neténetiítoonínoo.*
 eetih-nosoun-seenoo-’ ne-eenetiitoon-inoo
 let it be-still-going(II)-0S 1S-language-PL
 ‘Let our language continue to exist.’ [R:A Speech]

Examples of semantically preverbal-type forms occurring as the main semantic element in a verb root are:

- 29) 'oh núhu' woxhóóxebii hé'ih'íicoontheeno'.
 'oh núhu' woxhooxew-ii e'ih-ii-coon-ih-ee-no'
 but this horse-PL NPAST-IMPERF-unable-TA-4-3PL
 'But the horses were unable to manage [the wagon].' [R:Strong Bear and Wagon]
- 30) né'koxúúteníhoot.
 ne'í-koxuuten-ih-oot
 then-suddenly-TA-3S/4
 'Then he caught him by surprise.' [R:Strong Bear and the Ghost]
- 31) tóónhoobeihíitono.
 toon=ihoow-eihíiton-o
 INDEF=NEG-AI.PART-PL
 'Whatever is lacking.' [O:Woman Captive, 13]

9.10 DERIVATION OF ADDITIONAL PREVERBS AND VERB INITIALS

Since preverbs and initials are open classes, new ones can be derived as needed. Many commonly used initials consist simply of roots, such as /ceneeteen/ 'blue, green' or /wo'oteen/ 'black' (cf. /ceneeteeneihi/ AI 'to be blue, green', /wo'oteeneihi/ AI 'to be black'). However, independent verb stems can be used as either preverbs or initials as well. When this is done, the derivational element /:n/ is attached to the end of vowel-final verb stems, with the /n/ dropped prior to consonants within stems. Examples are:

- 32) iiyei- (AI) 'to be alive' >
 nih'íiyeinóótowkúú3oot.
 nih-iiyein-otoowukuu3-oot
 PAST-alive-swallow(TA)-3S/4
 '[The snake] swallowed [a mouse] alive.' [C:44]
- 33) tousebi- (AI) 'to bathe' >
 hé'ih'íiwontousebíxohé'hino'.
 e'ih-ii-woni-tousebiin-xoh-eihi-no'
 NPAST-IMPERF-ALLAT-bathe-convey(TA)-AI.PASS-3PL
 'They would be taken to go bathe [in the river].' [O: Scouts, 68]

The same procedure can be used with independent nouns—see 4.1.2 for the details of this process, which are the same as those used to derive noun initials.

Semantically Compound and Serial Verbs

When independent verb stems are used as initials, they sometimes create complex verb stems that semantically indicate two closely concatenated, often sequential

actions. In some cases, the same effect occurs with preverb/initial-type morphemes. Structurally, these stems are no different from other examples of verbs in which initial elements are derived from independent stems (e.g., *hiinoo'ei-* 'to hunt' > *hiinoo'eixoh-* 'to take s.o. hunting'). They are nevertheless semantically interesting examples of very complex derived stems:

- 34) *iiyooteyei-* 'to clean things' (AI) >
neenéiyootéyeikóóhut.
 n-eeneiyooteyein-koohu-t
 IMPERF-REDUP.clean things-run(AI)-3S
 'She runs around all over cleaning up.' [E:31.8]
- 35) *ceniikoo3-* 'to pull s.o. down off s.t.' (TA) >
né'céeceniikoo3ii3iikone'éisoot.
 ne'i-ceeceniikoo3i-3ii3iikone'eis-oot
 then-REDUP,pull down-REDUP.scalp(TA)-3S/4
 'He kept pulling them off their horses and scalping them.' [O:Scouts, 38]
- 36) *nehyon-* 'checking up on s.t.' (TA) >
hé'ihnéhyonbise'eikóóhu.
 e'ih-nehyoni-bise'eikoohu
 NPAST-check up on/inspect-stick one's head up into view rapidly (AI)
 'One of them stuck his head up to check things out.' [O:Enemy Trail, 46]
- 37) *won-* 'to go and do s.t.' >
niiwonónotoowúúnoot.
 nii-woni-oonotoowuun-oot
 HABIT-ALLAT-REDUP.consume(TA.APPLIC)-3S/4
 'It goes over and eats up their [food].' [E:27.4]

9.11 A DERIVATIONAL SAMPLE

Here, we offer a sample of a single verb root with various derivational initial elements—or the root used as a derivational initial element itself—to show the variety and richness of these types of derivational processes in Arapaho. The list is based purely on occurrences in the stories of Paul and Richard Moss—many more forms could be elicited. The base root is /nooh/ 'to see'.

- | | |
|-----------------|---|
| 38) noohow- | TA 'to see s.o.' |
| nei'-oohow- | TA 'to look at s.o.' |
| sehs-ei'-oohow- | TA 'to look at s.o. over there, from here' [seh _h < /seh/ + /es/?] |
| es-oohow- | TA 'to watch s.o. closely' |
| noti-noohow- | TA 'to look for s.o.' |
| noxoot-oohow- | TA 'to gape at s.o., stare at s.o.' |
| oonoy-oohow- | TA 'to guard or watch over s.o.' |

nei'-oonoy-oohow-	TA 'to guard or watch over s.o. very closely'
iix-oohow-	TA 'to watch s.o. in order to learn s.t.'
nehyon-oohow-	TA 'to check up on s.o. (visually)'
nee-noohow-	TA 'to watch s.o. continuously, keep them in sight'
noohoot-	TI 'to see s.t.'
iix-oohoot-	TI 'to know s.t., to have learned s.t.'
noti-noohoot-	TI 'to look for s.t.'
niihen-oohoot-	TI 'to see s.t. by oneself, for oneself'
too3i-noohoot-	TI 'to see s.t. up close, magnified'
noohowu-kuu3-	TA 'to catch a glimpse of s.o.'

9.12 THE ABSTRACT DEICTIC DIRECTIONALS

A special set of directional preverbs are the two abstract deictic directionals /cih/ (to speaker) and /eh/ or /3ew/ (from speaker). These two morphemes can be classified separately from other similar preverbs/initials on the basis of their semantics and morphosyntax: they are specifically deictic; they are involved in a quite wide range of meanings, including temporal as well as spatial deixis, and furthermore, especially in the imperative, they take on emphatic functions; and they never occur as adverbial particles or verb initials, with the exception of the semi-deictic /3ew/.

It appears that historically, /cih/ and /eh/ were complementary in distribution. Similar to these two are the lexical preverbs/initials /cei(t)/ 'to here' and /3ew/ 'to there'. However, /eh/ is gradually taking on a role as an emphatic form in commands, with the result that /3ew/ has now begun taking on the deictic role of /eh/ in many circumstances. Nevertheless, we will present this section as if /cih/ and /eh/ could still be treated roughly as complementary. Note also that /eh/ shows initial change as *neh-*. Some speakers have reanalyzed the form as underlying /neh/ and use an initial changed form *neneh-*.

A prototypical example is:

- 39) ciitei- 'to enter a place' (AI)
 cihciitei- 'to come into a place' (where the speaker already is)
 nehciitei- 'to go into a place' (while the speaker remains outside)
 3ebiciitei- 'to go into a place' (while the speaker remains outside) [more common than the preceding]

Additional examples show the directional specificity added to verbs:

- 40) *hóótnéhce'is'éénee, hóótkotóúsinénee*
 oti-eh-ce'isee-nee oti-kotousine-nee
 IC.FUT-from here-return(AI)-2PL IC.FUT-stay under cover(AI)-2PL
 'You'll return back there and hide until this man'

hónóót néhé'inén cé3éi'oo'hók.
 onoot nehe' inen[in] ce3ei'oo-hok
 until this man depart(AI)-3S.SUBJ
 goes away.' [B:2.2.44; original pitch accents retained]

- 41) *héétnééninoo héétnehnóuúhcehínoo.*
 eti-neeni-noo eti-eh-nouuhcehi-noo
 IC.FUT-be(AI)-1S IC.FUT-from here-run outside(AI)-1S
 'I will be the one to go out there.' [O:Scouts, 33]
- 42) *héé3ebehnó'kóóhúh.*
 ee3ew-eh-no'ukoohu-t
 there-from here-run to(AI)-3S
 'He ran over to there.' [R:Jumping the Canyon]

/eh/ can also be used temporally to mean 'henceforth, from this time onward':

- 43) *"héétnookoo3é3en," hee3éihók.*
 eti-ookoo3-e3en ee3-eihok
 IC.FUT-take home(TA)-1S/2S say(TA)-4/3S
 "I will take you home," he said to him.

"heetnehco'onii3neniibe3en."
 eti-eh-[te]co'on-nii3ineniiv-e3en
 IC.FUT-from here-always-stay with(TA)-1S/2S
 "I will always be with you from this time on." [K:Apache Captive]
- 44) *tóonhei'iíhi' heenéh'oonóó3itéénee.*
 toon=eí'-iíhi' eti-eh-oonoo3itee-nee
 INDEF=when.PERF-ADV IC.FUT-from here-REDUP.tell story(AI)-2PL
 'Sometime [later in the future] you will tell stories.' [O:Apache Captive, 51]

/cih/ is used for directional/locational specificity: toward the speaker:

- 45) *wohéi né'íini cih'óowúh'ohuni3i.*
 wohei ne'i-ini cih-oowuh'ohu-ni3i
 well then-DET to here-fly down(AI)-3PL.OBV
 'Well then they flew down [to him].' [O:Eagles, 18]
- 46) *wohéi néhe'nih'íi3íini cihcé3ei'óó3i'.*
 wohei nehe'=nih-ii3i-ini cih-ce3ei'oo-3i'
 well that=PAST-here-DET to here-set off(AI)-3PL
 'Well that is where they set off from [in this direction].' [O:Scouts, 3]

- 47) *hé'ih'iicih'óoxoeníni níniitóuuhu[níno]*.
 e'ih-ii-cih-ooxoeni-ini níniitouuhu-nino
 NPAST-IMPERF-to here-in return-DET REDUP.call out(AI)-4PL
 'They would keep howling back [to us] in response.' [O:Apache Captive, 46]
- 48) *wohéi né'cihtókohú3i' núhu' sósoni'ii cihtéesi'*.
 wohei ne'i-cih-tokohu-3i' nuhu' sostoni'-ii cih-teesi'
 well then-to here-flee(AI)-3PL this Shoshone-PL to here-on top
 'Well the Shoshones fled up this way.' [O:Shade Trees, 13]

Note in example 48 that /cih/ is used with a locative particle, as well as with a verb.

/cih/ is also used to indicate time up to or toward the present:

- 49) *yoo3onei'i cenih'iisinoo*. [sic: s/b yonoo3onei'i]
 yoo3onee-'i cih-iisi-noo
 be five(II)-0PL IC.to here-be married(AI)-1S
 'I have been married five times in my life (up to the present).' [P:16]
- 50) *wonoo3ei'i níiinono neihcihniisi3oono*.
 woo3ee-'i níiinon-o ne-ih-cih-niisi3oon-o
 IC.be many(II)-0PL tepee-PL 1S-PAST-to here-make(TI.DEP.PART)-PL
 'I have made many tepees in my life (up to the present).' [P:16]

Note that less commonly, the directional preverb /cei/ can be used in the same way:

- 51) *héihii céi3íihi' núhu' koo'óhwuu*,
 eihii ceit-iihi' nuhu' koo'ohw-uu
 soon to here-ADV this coyote-PL
 'Soon, from then on [up to now], these coyotes
- hé'né'niihenii3iine'etii3i' níiyóu nóno'éino'*.
 e'ne'i-niiheni-nii3iine'etii-3i' níiyóu inono'ein-o'
 then-on own-live with(AI)-3PL here it is Arapaho-PL
 made up their minds to live with the Arapahos around their camps.' [O:Apache Captive, 45]

Morphophonemics and Morphosyntax

/Cih/ and /eh/ seemingly always follow tense, instrumental, non-affirmative, and aspectual markers and normally—but not always—wh- content question roots, relative roots, auxiliary-type lexical preverbs, aspectual-type lexical preverbs, and intensifiers. They normally precede other types of lexical preverbs and of course verb stems. Examples of some complex combinations include:

- 52) *niinéyeicihbisnoéhit.*
 nii-neyeih-cih-bisi-noehi-t
 IMPERF-try-to here-appear-go outside(AI)-3S
 'He is trying to come out of there.' [O:Enemy Trail, 57]
- 53) *hoowúni'cihnóho'úhcehíno'.*
 ihoowu-ni'i-cih-noho'uhcehi-no'
 NEG-able-to here-jump up(AI)-3PL
 'They couldn't run/jump up here.' [O:Scout's Escape, 9]
- 54) *tecó'oncih'éntóu'.*
 tecó'oni-cih-entou-'
 always-to here-be located(II)-0S
 'A thing [learned] will always stay with you.' [O:White Horse, 44]

Examples of unusual placement include:

- 55) *konóó'oenehbíice'.*
 koo'o'en-eh-bíice-'
 IC.slowly/gradually-from here-summer(II)-0S
 'It is slowly turning to summer.' [O:Woman Captive, 15]
 (/koo'o'en/ seems to be used aspectually here, which perhaps explains the placement.)
- 56) *nih'útohwooníini cihbée3íitooni'.*
 nih-iitoh-wooni-ini cih-beet-iiitooon-i-'
 PAST-where-recently-DET to here-finish-camp(AI.PART)-IMPERS(II)-0S
 'The last place where they had just finished camping [before moving here].' [O:
 Bad Dreamers, 24]

(The preverb in example 56 could also have been placed prior to /woon/, according to Alonzo Moss.)

- 57) *cih-nee'-ee3-*
 to here-that-how-
 [O:White Horse, 10]—prior to relative root
- 58) *cih-iisi-ini*
 to here-PERF-DET
 [O:Enemy Trail, 48]—prior to abstract aspectual marker
- 59) *eti-eh-nee'-ee3-*
 FUT-from here-that-how
 [O:Enemy Trail, 77]—prior to relative root

Alonzo Moss notes in relation to example 59 that /eti-nee'ee3-eh/ would also have been acceptable. Thus, the exact placement of the deictic markers is somewhat flexible.

9.13 /ETI/ PREVERB: UNREALIZED ACTIONS IN MAIN CLAUSES

One preverb that does not really fit into any of the above categories, and that has more of a grammatical than a lexical function, is the preverb /eti/. It indicates a combination of future tense and obligation, along with the indication of unrealized action, and occurs in the affirmative plain conjunct and future imperative (see section 12.5). In the former two orders, it always occurs immediately following the tense marker. In fact, it seems to constitute a single grammaticalized preverb: /nih'eti/, /tih'eti/, or /toh'eti/. This complex preverb can actually be used for present time as well as past, which further illustrates the grammaticalized nature of the combination. When it is used in the past, it usually carries a further specific semantic sense of *unrealized* actions and states:

Past tense: 'was going to . . . , was supposed to (but didn't)':

- 60) *núhu' nūsiisiiyéiniúxonéé3i' nih'étbisiitonéino'*
 nuhu' nii-siisiyeiniixonee-3i' nih-eti-bisiiton-eino'
 this IMPERF-snake skinned ones(AI)-3PL PAST-FUT-attack(TA)-3/12
 'Those Shoshones were going to attack us [but didn't].' [F]
- 61) *nih'é3iikóne'eisóó3i', 'oh nih'e'inoné3i'*
 nih-eti-3iikone'eis-oo3i' 'oh nih-e'inon-ei3i'
 PAST-FUT-scalp(TA)-3PL/4 but PAST-know(TA)-4/3PL
 'They were going to scalp him, but he recognized them [and ran away].'
 [O:Shade Trees, 15]
- 62) *nih'é3bi'neecéentóóno'*
 nih-eti-bi'i-neeci-entoo-no'
 PAST-FUT-only-a little while-remain(AI)-12
 'We were supposed to just stay for a little while [but ended up living there long term].' [F]
- 63) *toh'etsii'eihisee3i'*
 toh-eti-sii'ihisee-3i'
 when-FUT-go onto [frozen] water(AI)-3PL
 'When they were supposed to cross the frozen river [but got distracted instead].'
 [L:Splitting of the Tribes]>

Past tense: 'was supposed to . . . (and perhaps did)':

- 64) *wohéi né'nih'ii'éi'tobéé3i' . . . tóónniibéetní3nowóó3i'*
 wohei ne'=nih-ii'i-e'itobee-3i' toon=nii-beetoh-nii3inowoo-3i'
 well that=PAST-when-say(AI)-3PL INDEF=IMPERF-want-possess(AI)-3PL
 'Well, that's when they would say . . . whatever they wanted for themselves:

híine'etíit. nih'étebebiisi'íine'etíit,
iine'etiiton-i nih-eti-bebii3-i'i-iine'etii-t
 life-S PAST-FUT-properly-INSTR-live(AI)-3S
 life [for example]. He should/was supposed to live properly with [the things he received],

héetniiñítehéitóú'u híine'etíit, bebiisihi'.
eti-nii-niiteheit-o'u iine'etiiton-i bebii3-ihi'
 IC.FUT-REDUP-help(TI)-3PL life-S proper-ADV
 so that they help [collective] life along properly.' [O:Eagles, 93]

In the present: 'is supposed to . . .' (but might not):

65) *koowoow heiise'enou'u? hi3oowo'o nih'etnii3oonin.*
koo=woow e-iise'enouu i3oowo'o nih-eti-nii3oon-in
 INTERR=now 2S-ready(AI) remember PAST-FUT-accompany(TA)-2S/1S
 'Are you ready now? Remember, you're supposed to go with me.' [E:25.6]

66) *nohtou toh'etwo'tenowoo? hoowneen nebiixuut.*
nohtou toh-eti-wo'oten-owoo ihoowu-neeni ne-biixuuton-i
 why because-FUT-pick up(TI)-1S NEG-it(II) 1S-shirt/jacket-S
 'Why am I supposed to pick it up? It's not my jacket.' [E:31.4]

In contrary-to-fact, if/then statements: 'would . . . (but can't)':

67) *hihbíó'nóó'oonoohók, nih'ethotóónoo3ó' wónoonéiht niñhencebkóohút.*
ih=bi'onoo'oo-noohok nih-eti-otoonoo3-o' wooneihit
 CONTR=rich(AI)-1S.SUBJ PAST-FUT-buy(TA)-1S/3S IC.new
niihenicebikoohut
 car
 'If I was rich, I'd buy a new car.'

The negation marker with /eti/ is /ihoow/, as with the standard future marker; however, the verb continues to use affirmative order inflections:

68) *nih'etnéihoowbii3ihinoo*
nih-eti-ihoowu-bii3ihi-noo
 PAST-FUT-NEG-eat(AI)-1S
 'I was not supposed to eat.'

9.14 COMPARATIVES AND SUPERLATIVES

9.14.1 Comparative

'Greater than'

The Arapaho 'more, better, greater than' comparative is expressed by the use of the preverb/initial roots /cebe'ei/ ('more, beyond') or /wo'ow/ ('farther, more'). With AI and II verbs, it occurs as a preverb:

- 69) *cebe'éini'óó'.*
cebe'ei-ni'oo'
 IC.beyond-good(II)-0S
 'It is better.'
- 70) *cebe'eitái'éiht.*
cebe'ei-tei'eihi-t
 IC.beyond-strong(AI)-3S
 'S/he is stronger.'
- 71) *woo'wúu3éiht.*
wo'owu-i3eihi-t
 IC.more-be good(AI)-3S
 'S/he is a/the better person.'
- 72) *woo'wúni'énowoo.*
wo'owu-ni'en-owoo
 IC.more-able to do s.t.(TI)-1S
 'I have improved, gotten better at something.'
- 73) *wóó'weenéiht.*
wo'owu-eneihi-t
 IC.more-be tall(AI)-3S
 'S/he is taller.'

A TA verb can be used with the general meaning of 'better'. In particular contexts, it can refer to a specific condition or ability, which is specified using an adverbial:

- 74) *céébe'eihé3en.*
cebe'eih-e3en
 IC.exceed(TA)-1S/2S
 'I've got you beat.'
- 75) *neeséh'e niicébe'eihó' nihi'kóóhuuníhi'.*
ne-eseh'e[h] nii-cebe'eih-o'nihi'koohuun-iihi'
 1S-older brother IMPERF-exceed(TA)-1S/3S run(AI)-ADV
 'I can run faster than my older brother, I am faster than he is.'

In a few cases, /cebe'ei/ is used as an initial stem to form especially common verbs of comparison. In this case, TA secondary finals are used to mark the comparand on the verb:

- 76) *céébe'eixóótoné3en.*
cebe'ei-xooton-e3en
 IC.beyond-go(TA.APPLIC)-1S/2S
 'I am taller than you.'

'Less than'

The concept of 'less than' is rarely used. When needed, it is expressed periphrastically using a negative verb and the particle *wootíí* 'like':

- 77) *hoow(u)téi'éih wootíí nenééninoo.*
 ihoowu-tei'eihi wootii neeni-noo
 NEG-strong(AI) like IC.to be(AI)-1S
 'S/he is not as strong as me.' (lit. 'S/he is not strong like me.')

'Equal to'

Equality is expressed by the preverb/initial /*neehii3/* ('like, similar to'):

- 78) *nenehiistéi'eihí'.*
neehiisi-tei'eihí'
 IC.equal-strong(AI)-1PL
 'S/he is as strong as me.' (lit. 'We are equally strong.')
- 79) *hé'né'nonóúhétí3í'. [he'ih]neehéiso'óono'.*
e'ne'i-nonouhétí-3í' e'ih-neehii3-o'oo-no'
 then-race(AI)-3PL NPAST-equal-INCHOAT(AI)-3PL
 'Then they raced. The one was as fast as the other/They were equally fast.'
 [O:Apache Captive, 34]

Note also the following more elaborate construction:

- 80) *nih'ii3éi'neenéeso'oot néhe' koo'óh,*
nih-ii3éi'neeni-eso'oo-t nehe' koo'ohw
 PAST-to what degree-fast(AI)-3S this coyote
 'As fast as this coyote was,
- 'oh néhe'nih'ii3éi'neenéeso'oot néhe', néhe'inén.*
'oh néhe'=nih-ii3éi'neeni-eso'oo-t nehe' nehe' inen[in]
 but that=PAST-to what degree-fast(AI)-3S this this man
 this one, this man was just as fast.' [O:Apache Captive, 38]

9.14.2 Superlative

The comparative preverb/initial /*cebe'ei/* is used to express the superlative as well in many cases. In fact, the same expression can be either comparative/greater than or superlative depending on the context. It does seem, however, that the preverb/initial /*wo'ow/* is not used in this same way to express the superlative:

- 81) *cebe'einéeso'óót nihi'kóóhuuníhi'.*
cebe'ein-eso'oo-t nihi'koohuun-iihi'
 IC.more-fast(AI)-3S run(AI)-ADV
 'He is the fastest [runner].'

The preverb/initial of underlying form /óuuneen/ or /óuunih/ (cf. *hon-óuuneenóó* ‘it is difficult’) seems to be the closest thing to a true superlative morpheme in Arapaho, although it is not widely used:

- 82) *néhe’ honóuuneenií3éíht nótoníhi’.*
 nehe’ ouuneeni-i3éihi-t ne-onihi’
 this IC.SUPERL-good(AI)-3S 1S-horse
 ‘This is my best horse.’ [C:53]
- 83) *wohei toonhónouunihkoxcéit.*
 wohei toon=ouunih-koxcei-t
 well INDEF=IC.SUPERL-fat(AI)-3S
 ‘Well, the fattest one.’ [B:2.1.47 (transcription slightly modified)]

9.15 SEMI-INDEPENDENT DETACHMENT CONSTRUCTION

Preverbs of all types can be detached from the verb stem (or from modified stems, with some preverbs still attached) using the suffix /ini/ (underlying /ini/). The normal morphosyntax of the verb is maintained when this is done, so the elements that are detached should not be considered independent particles—rather, the verb is simply “interrupted” at a certain point by the detachment of one or more elements. When detachment occurs, the following parts of the verb do not show initial change—this remains on the detached elements—but they do show addition of /h/ when the following parts are vowel-initial. Note that abstract preverbs as well as lexical ones can be detached—even by themselves, as in example 85.

- 84) *heetihnoo’oeníini híixóxo’óú’u.*
 eetih-noo’oeeeni-ini híixoxo’-o’u
 so that-around-DET be near s.t.(TI)-3PL
 ‘Have them come all around near [the tepee].’ [O:Eagles, 69]
- 85) *hé’ih’ini bixóne’etíin.*
 e’ih-ini bixone’etii-n
 NPAST-DET go around crying(AI)-4S
 ‘[His wife] was going around sobbing.’ [O:Eagles, 79]

When /ini/ occurs following final /h/ of a preceding preverb, note that the derivational rule /h/ + /V/ > /h’V/ is applied.

The detachment procedure may sometimes be used simply as a hesitation device, and it is common to find a detached preverb followed by a verb with the same preverb attached. Example 84 could conceivably be an example of this. However, in many cases, the use of the detachment construction seems to be for pragmatic reasons, highlighting the saliency of the preverb, as in example 85. Such detachments seem especially common with more unusual preverbs and are used fairly often with sequences of two different preverbs that may often be quite different in the way they

modify the main verb semantically (see chapter 14, example 16 for a similar example with two pre-nouns). Only the first member of such a sequence takes initial change:

- 86) *wootí yonoo3íini híiyoo3íini notíkoni3i'.*
 wootii yoo3i-ini iiyoo3i-ini notikoni-3i'
 like IC.hidden-DET clean-DET scout(AI)-3PL
 'They would scout while staying hidden, in the proper, clean way.' [O:Scouts, 50]

When the underlying verb is 'to be', preverbs can occur without any following verb. In this case, they function as existential pseudo-verbal forms:

- 87) *wohéí néhe'nih'iisíini. wohéí.*
 wohei nehe'=nih-iisi-ini wohei
 well that=PAST-how-DET well
 'Well that's how it was. Well [that's it].' [O:Scouts, 66]
- 88) *kooníini'íini? hee, níini'íini.*
 koo=nii-ni'i-ini ee nii-ni'i-ini
 INTERR=REDUP-good-DET yes REDUP-good-DET
 'Are things good? Yes, they're good.' [common greeting exchange]

These forms with underlying 'to be' can also serve as verbal nouns (see chapter 14, example 51), just like full verb forms.

10

PROCLITICS

10.1 INTRODUCTION

Proclitics have been introduced in passing earlier. Note that the Arapaho person markers can be analyzed as anaphoric clitics. However, they can also be analyzed as part of the morphological word in Arapaho due to their unique behavior in taking *e/o* vowel harmony and their requirement of epenthetic /*t*/ prior to vowel-initial stems (similar to other grammatical preverbs that require epenthesis, such as /*eti*/ FUT). On the other hand, the proclitics covered here show neither of these features; they also can be attached to particles (including adverbials) as well as nouns and verbs; they always occur prior to the person markers when both are present; and they do not inhibit initial change when occurring with verbs (nor do they take initial change themselves). They thus are analyzed as not part of the morphological word but rather as proclitics. Here, we cover the most important of these proclitics, including their syntax, morphosyntax, and phonology.

The following list gives the most important proclitics (whose presence is indicated by use of '=' rather than the hyphen in this grammar). When a proclitic interacts with verb stems to require a certain verbal order or mode, this is given in brackets. Many additional examples of these proclitics are given in the relevant sections on the various inflectional orders.

<i>ci'</i> =	'also, too, in addition' [also occurs finally, as a particle]
<i>heecet</i> =	'before', 'while not yet'
<i>heetee</i> =	'before, prior'
<i>hei</i> =	POTENTIAL [note: takes initial change]
<i>he'</i> =	DUBITATIVE [requires non-affirmative or iterative]
<i>hi3</i> =	'later' [requires future tense]
<i>hookuus</i> =	OBLIGATION [requires imperative]
<i>hoo3</i> =	'next time' [requires subjunctive]
<i>konoo'</i> =	'anyway'
<i>koo</i> =	INTERROGATIVE [requires non-affirmative]
<i>kookoos</i> =	DESIDERATIVE, 'I hope that . . . ' [requires non-affirmative]
<i>koox</i> =	'again, yet again' (often expressing emphasis, surprise, suddenness)
<i>ne'</i> =	BACK REFERENCE, 'that'
<i>no3</i> =	'indeed; it is known; I assure you'
<i>sii</i> =	INTENSIFIER
<i>toon</i> =	INDEFINITE [often with iterative]
<i>toot</i> =	'where?' [requires non-affirmative]
<i>totoos</i> =	'even, even if, even though, not even' [often with subjunctive]
<i>wot</i> =	DUBITATIVE, 'I guess . . . apparently . . . ' [often with subjunctive]
<i>(hii)yoo</i> =	INTENSIFIER, exemplary quality, 'nice and . . . '

As is evident from the preceding list, proclitics represent a grab bag of different functions and meanings, including temporal, aspectual, modal, adverbial, interrogative, and evidential uses, among others, with no common feature readily apparent. One can say, however, that a good deal of the modal and evidential marking in Arapaho tends to be concentrated among the proclitics.

10.2 PHONOLOGY

The proclitics always occur as the first element of a noun, verb, or adverbial phrase. Phonologically, they do not interfere with initial change on verb stems (unlike preverbs), and they also do not block the use of initial /h/ or cause consonant assimilation in the case of adjoining, like consonants. Progressive i/u vowel harmony sometimes operates following proclitics, but not always. Regressive e/o vowel harmony does not operate with proclitics. Examples of these phonological behaviors are listed below.

Proclitic with following initial change and adjoining like consonants:

- 1) *toonnonookéíht.*
 toon=nookeihi-t
 INDEF=IC.be white(AI)-3S
 'A white one.' / 'Any white one.'

Proclitic with following initial *h*-:

- 2) *tóónhei'ííhi'.*
 toon=eí' -ííhi'
 INDEF=when.PERF-ADV
 'Whenever.'

Note that this feature is variable; /h/ always appears after vowel-final proclitics, but some speakers drop it at least some of the time, especially in rapid speech after consonant-final proclitics.

Proclitic without progressive vowel harmony:

- 3) *kooííwóónhéhe' ?* (but, for some speakers, *kooóówóónhéhe'*)
 koo=ííwoonhehe'
 INTERR=now
 'Right now?' [H:16.6]

10.3 MORPHOSYNTAX

Morphosyntactically, some proclitics are more closely bound to the following elements than others. They all occur immediately prior to tense markers (in independent affirmative clauses), to person markers (in independent non-affirmative clauses), to nouns or possessive markers when these are present on nouns, and as the first element of adverbials and other particles, demonstratives, and imperatives. Examples of the last two categories, which have not been illustrated in this book yet, are listed here.

Proclitic with (future) imperative:

- 4) *hi3hetcihce'woteikuuton!*
 i3=eti-cih-ce'i-woteikuuton-i
 later=FUT.IMPER-to here-back / again-telephone(TA)-1S
 'You must call me back again later!' [I:24]

Proclitic with demonstrative:

- 5) *koonéhe'?*
 koo=nehe'
 INTERR=this
 'This one?'

Proclitics can also be used with particles:

- 6) *kóoxwoow héetkóokóhtowúnihií.*
 koox=woow e-eti-koo-kohtowunihii
 again=now 2S-FUT-REDUP-speak in funny/improper way (AI)
 'I suppose you're going to say funny things now.' [H:6.6]

Proclitics are not yet documented with conjunct forms. A few can be used completely independently on some occasions and thus approach the status of particles. These include *ci'*, *héétee*, *kon*, *koox*, and *toon*:

- 7) *heeyóu heibéetnii3iyóó?*
 eeyou e-ii-beetoh-nii3iyoon-i
 what 2S-IMPERF-want-have(TI.DEP.PART)-S
 'Which one do you want?'

toon.
 'Whichever one.'/'Any one.'

10.4 SYNTAX AND SEMANTICS

Semantically, several of the proclitics overlap closely with preverbs or AI verb initials, and the exact distinctions involved are not yet clear, although the proclitics seem to be more emphatic and carry extra pragmatic valences. Examples include *koox*= vs. /*ce'*/, both meaning 'again', and *sii*= vs. /*no'ot*/, /*ee3inee*/, and /*tes*/, all functioning as intensifiers. In some cases, these specific proclitics and preverbs co-occur. Two different proclitics can also co-occur. Examples of proclitic usage follow.

- 8) *bébenéh yéneini'owóó' hí'téce'.*
 bebeneh yeini'owoo-' i-tece'
 approx. IC.fourth(II)-0S 3-night
 'Around his fourth night [fasting and waiting],

héetnee'éet- héetne'úiteséin, wo'éi3 heecétheebéh'úitése'.
 eti-nee'eet- eti-ne'=ites-ein wo'éi3
 IC.FUT-that's where IC.FUT-that=meet(TA)-3/2S or

 eecet=e-eebeh-ites-e'
 before=2S-POTENT-meet(TA)-3
 that's where . . . that's when he'll show up, or he might show up before that.'
 [O:Bad Dreamers, 22]
- 9) *siinéihoowóé'in.*
 sii=ne-ihoowu-e'in
 INTENSE=1S-NEG-know(TI)
 'Boy, I really don't know.'

Proclitic plus lexically similar preverb with adjacent verbs:

- 10) *noh hé'né'ce'noúúhchehít.*
 noh e'ne'i-ce'i-nouuhchehi-t
 and then-again-go outside(AI)-3S
 'And then he went outside again.
kooxhé'ihnó'oteinóón cé'e3í'.
koox=e'ih-no'oteinooni ceee3í'
 again=NPAST-be noisy(II) outside
 And once again it was very noisy outside [as he attacked the enemy].' [O:Scouts, 38]

Proclitic plus lexically similar preverb, attached to same verb:

- 11) *wohéí 3íwoo, wohéí kooxhéétce'woníini niinikotiihóú'u héíteh'éihihin.*
 wohei 3iwoo wohei koox=eti-ce'i-woniini niinikotiih-o'u
 well let's see well again=IC.FUT-again-ALLAT play with(TA)-1S/3PL
 eiteh'eihihin
 our friends
 'Well, let's see now, well once again I'm going to go play with [attack] our
 "friends" out there [the enemies].' [O:Scouts, 39]

Two proclitics together:

- 12) *wohéí neniisi'owóó'. né'ce'iíni hóówukóóhut.*
 wohei niisi'owoo-' ne'i-ce'i-ini oowukoohu-t
 well IC.be the second(II)-0S then-again-DET run down(AI)-3S
 'Well now the second time, he ran down the hill again [to attack the enemy].
kóoxci'hoowohnon3éineecihi'.
 koox=ci'=owoh-noni3eineecihi-'
 again=also=IC.large amount-noise is made(II)-0S
 'And yet again there was the same great amount of noise produced [as he
 attacked].'
 [O:Shade Trees, 10]

Two proclitics together:

- 13) *kookónoo'neetcé3ei'oo?*
 koo=konoo'=ne-eti-ce3ei'oo
 INTERR=anyway=1S-FUT-set off(AI)
 'Should I go away anyway?' [C:45]

The proclitic *hei*= has an especially varied set of meanings. Past potential (unrealized):

- 14) *henéihcée3tóó3i' hihbisiitonéino'óhk,*
 ei=ih-cee3itoo-3i' ih=bisiiton-eino'óhk
 IC.POTENT=PAST-act in error(AI)-3PL CONTR=attack(TA)-4/12.SUBJ
 'They would have made a big mistake if they had attacked us,

PROCLITICS

henéihnoo'ooohóono'.
 ei=ih-noo'oooh-ooono'
 IC.POTENT=PAST-massacre(TA)-12/3
 we would have slaughtered them.' [F]

Present potential:

- 15) *henéini'biiné3en, 'oh béébeet henéiciinóó'oniístoon.*
 ei=ni'i-biin-e3en 'oh beebeet
 IC.POTENT=able-give(TA)-1S/2S but only/just

 ei=ciinoo'oni-niisitoo-n
 IC.POTENT=somewhat-do(TA)-2S
 'I could give it to you, but only if you would use it sparingly.'
 [B:2.1.31; original pitch accents retained but spelling slightly modified]

Potential indicating approximateness or vagueness in the past:

- 16) *henéihyóó3oncécniibéénoo.*
 ei=ih-yoo3onicecinibee-noo
 IC.POTENT=PAST-be five years old(AI)-1S
 'I would have been around five years old then.' [Q]

Repeated use of a proclitic within a sentence:

- 17) *wohei ci'neeyou 'oh bee3einohowoot ci'nih'eentou'.*
 wohei ci'=neeyou 'oh bee3ein-ohowooton-i ci'=nih-entou-'
 well also=here it is and owl-dance-S also=PAST-be present(II)-0S
 'And also the owl dance was [practiced] here.' [V:Lloyd Dewey, Life on Reservation]

10.5 PROCLITIC/PARTICLE INTERACTION

As already mentioned, particles can be modified by proclitics. The most common modifier seems to be *sii=*, although *koox=* is documented as well (see example 6), and also *toon=* and *koo=* (see example 3). Additional examples are:

- 18) “*'oh to'owo'ohk noh siibeebeet nee'ei'ooxeiht,*”
 'oh to'ow-o'ohk noh sii=beebeet
 but hit(TA)-1S/3S.SUBJ and INTENSE=just/only

 nee'ei'-ooxeihi-t
 that's how far-make tracks(AI)-3S
 “‘But if I hit [that boxing champion], then his trail will just come to an end right there,”

heehchk tei'ox.

ee-hehk tei'ox
 said(AI)-3S.SUBJ Strong Bear
 said Strong Bear.' [U]

- 19) *héésneenoo, nookóóyeinoo;*
 esinee-noo nokooyei-noo
 IC.be hungry(AI)-1S IC.thirsty(AI)-1S
 'I'm hungry, I'm thirsty.

siinooxéihí' béébeet né'eet- ne'eí'íseenoo.

sii=nooxeihi' beebeet nee'eet- nee'ei'i-see-noo
 INTENSE=maybe just/only that is where . . . that is how far-walk(AI)-1S
 This may just be as far as I go [before I die].' [K:Apache Captive]

11

USAGE— NON-AFFIRMATIVE ORDER

As seen in the chapter on verbal inflections (chapter 3), the non-affirmative order is used in negative statements and in questions. But the non-affirmative-order inflections are used in numerous other constructions besides the negative and yes/no interrogative. In this section, we look in detail at the various other uses. In most cases, a specific particle, proclitic, or preverb requires the use of the non-affirmative.

11.1. WH-/SUBSTANTIVE QUESTIONS

The most common use of the non-affirmative in addition to yes/no interrogation and negation is in wh- question constructions. Wh- questions are constructed using roots meaning ‘why?’, ‘how?’, ‘when?’, and so forth, in conjunction with the non-affirmative order. The question roots can occur as preverbs, in which case they occupy the same position as the negative preverb within the verb and take derivational /-i/ as with other preverbs; they can also occur as verb initials (as in examples

6 and 9). Note that the yes/no interrogative marker *koo=* is not used with these forms.

- 1a) *heih'oowno'kóó.*
 e-ih-ihoowu-no'ukoohu
 2S-PAST-NEG-arrive(AI)
 'You didn't arrive.'
- 1b) *heihou'no'kóó?*
 e-ih-ouu-no'ukoohu
 2S-PAST-when-arrive(AI)
 'When did you arrive?'

The question morphemes are:

tohuu-cix-	'how far?', 'how long?'
tohuu-cix-xooyei-	'at what time?'
tohuu-tox-	'how many?'
tohuu-t-	'what kind of?'
toot=	'where?'
tou3-	'what?' (demanding verb-type responses, as in 'what are you doing?'); 'how?'
tou3ee-	'why?'
tou3ei'(nee)-	'how much?', 'to what degree?'
tou3ou'-	'what number?', 'where in a series?'
tou'-	'when?' (also used in 'what time is it?', 'what day is it?', etc.)

Note that *toot=*, unlike all the other forms, is a proclitic and therefore occurs prior to rather than after the person markers. The form /tohuu-t/ is used only with noun stems (or to form an adverbial meaning 'which?'), and the final element is cognate with the /t/ which occurs in the iterative verbs signifying undetermined identity (see 13.3.3). These question morphemes can be used with negatives as well, in which case the preverb /cii/ follows the wh- question form. Examples of these forms are:

- 2) *heihooúneyéi3éi.*
 e-ihooowu-neyei3ei
 2S-NEG-go to school(AI)
 'You are not going to school.'
- 3) *heitousíneyéi3éi?*
 e-ii-tousi-neyei3ei
 2S-IMPERF-what-go to school(AI)
 'What are you learning/ doing at school?'

- 4) *heitou3ééneyéi3éi?*
 e-ii-tou3ee-neyei3ei
 2S-IMPERF-why-go to school(AI)
 ‘Why are you going to school?’
- 5) *héétou’úneyéi3éi?*
 e-eti-tou’u-neyei3ei
 2S-FUT-when-go to school(AI)
 ‘When will you go to school?’
- 6) *tohúú3ii’éhii?*
 tohuut-ii’eihii[h]
 what kind-bird
 ‘What kind of bird is that?’
- 7) *héétou3eeciíneyéi3éi?*
 e-eti-tou3ee-cii-neyei3ei
 2S-FUT-why-NEG-go to school(AI)
 ‘Why will you not go to school?’
- 8) *tou’úúsiin?*
 tou’u-iisiini
 when-day(II)
 ‘What day is it?’
- 9) *tóú’oxóó?*
 tou’-i-xoo
 when-EP-time(II)
 ‘What time is it?’ (/o/ epenthetic vowel unexplained)
- 10) *hiitohúúcxooyéibii3hiitooon?*
 ii-tohuucixoooyei-bii3ihiitooon-i
 IMPERF-at what time-eat(AI.PART)-IMPERS
 ‘Around what time do we eat?’ [Curricular materials]

Toot= Question Proclitic

Questions with ‘where’ are the only ones that involve a proclitic rather than a preverb:

- 11) *tootéíneyéi3éi?*
 toot=e-ii-neyei3ei
 where=2S-IMPERF-go to school(AI)
 ‘Where do you go to school?’

- 12) *tooteeníneyei3éi?*
 toot=e-eti-neyei3ei
 where=2S-FUT-go to school(AI)
 ‘Where will you go to school?’

(Note that the verb is treated as underlying /ineyei3ei/, apparently as a by-product of the requirement that it take pitch accent on the syllable preceding the stem; see examples 2–5, 7.)

- 13) *tooteihciinénoo?*
 toot=e-ih-ciinen-oo
 where=2S-PAST-put down(TA)-3S
 ‘Where did you put it down?’

The questions ‘where to’ and ‘where from’ combine *toot=* with the morphemes /ii3/ ‘to what direction?’ and /iit/ ‘from where?’. The person marker is inserted between the proclitic and the initial root. See the following, taken from Salzmann 1983:103, with allomorphs of /ii3/:

- 14a) *toot=éi-’ix-(u)koo* ‘Where are you going by car/locomotion?’
 14b) *toot=éi-’is-iikóhe* ‘Where are you going by horse?’
 14c) *toot=éi-’is-ih’o* ‘Where are you going by plane/flight?’
 14d) *toot=éi-’i3-óu’oo* ‘Where are you going by boat/water?’

The /ii3/ morpheme also occurs in the adverbial *tóotiisiíhi* ‘where to?’. Conversely:

- 15) *tóoteihíitisee?*
 toot=e-ii-híit-i-see
 where=2S-IMPERF-to here-EP-go(AI)
 ‘Where have you come from?’ [D]

Additional Derivations with wh- Question Morphemes

All of the wh- question morphemes can be used as verb initials, with abstract derivational finals, to form wh- existential verbs, which always occur as non-affirmative forms:

- 16a) *tousóo* ‘how/what kind is it?’ (II)
 16b) *tootóu* ‘where is it?’ (II)
 16c) *tohúutóxuno* ‘how many are there?’ (II)
 16d) *tohúutóxuno’* ‘how many are there?’ (AI)

The forms can also be used in adverbials (15.5):

- 17a) *tou’úúhu’* ‘when?’
 17b) *tohúúcisííhi* ‘how far?’

They can also be used as verb initials in combination with lexical verb finals to form verb stems, which always occur as non-affirmative forms:

- 18) *tóú'oxód?*
 tou'-i-xoo
 when-EP-time(II)
 'What time is it?'
- 19) *heihtou3éetoo?*
 e-ih-tou3ee-too
 2S-PAST-why-do(AI)
 'Why did you do that?'

Clausal Question Constructions

Certain *wh*- questions are not formed using preverbs but rather with complex clauses. These include 'what' questions that ask for nominal responses (i.e., 'what is that?', 'what are you holding?'), existential 'where' questions with animates, 'who' questions, and 'which' questions.

'What' identity questions (in which the underlying verb is 'to be') are formed using the interrogative noun *heeyóu* (PL *heeyóuno*, now becoming obsolete).

- 20) *heeyóu hinee?*
 'What is that?'
- hinee, nenéé' wo3onohóe.*
 'That is a book.' (lit. 'That, it is a book.')

Other 'what' questions (with verbs other than 'to be') demanding nominal responses also require the use of *heeyóu*, with the verb being a dependent participle:

- 21) *heeyóu hebii3húit?*
 eeyou e-bii3ihiiton-i
 what 2S-eat(AI.DEP.PART)-S
 'What are you eating?' (lit. 'What is it that you are eating?')
- 22) *heeyóu hotóuyoo?*
 eeyou e-touyoon-i
 what 2S-hold(TI.DEP.PART)-S
 'What are you holding?' (lit. 'What is it that you are holding?')
- 23) *heeyóu héétni'woteekoohúút?*
 eeyou e-eti-i'woteekoohuuton-i
 what 2S-FUT-INSTR-drive to town(AI.DEP.PART)-S
 'What are you going into town for?' [E:1.5]

Existential ‘where’ questions involving animates are formed using the pseudo-verbal noun /teetee/, which is inflected like the other pseudo-verbal presentational nouns (14.3):

- 24) *téteehék heisónoo?*
 teetee-hehk e-isonoo[n]
 where-3S 2S-father
 ‘Where is your father?’
- 25) *téteeen hiniisónoon?*
 teetee-n ini-isonoon
 where-3S.OBV 3S-father.OBV
 ‘Where is his father (obv.)?’
- 26) *téteeno’ heniihéi’i?*
 teetee-no’ e-niihe-ii
 where-3PL 2S-parent-PL
 ‘Where are your parents?’

(Cf. the II existential verb *tootóú* ‘where is it?’; there is no AI equivalent.)

‘Who’ questions are formed using the pseudo-verbal noun /eene’ee/, which is inflected like /teetee/. The underlying form of the question is a relative clause, and when the verb in the phrase is transitive, it must be a dependent participle:

- 27) *hénee’eehék nihno’úseet?*
 enee’ee-hehk nih-no’usee-t
 who-3S PAST-arrive(AI)-3S
 ‘Who arrived?’
- 28) *hénee’eehék héihbiihéiit?*
 enee’ee-hehk e-ih-biih-eit[on]
 who-3S 2S-PAST-make cry(TA)-3.DEP.PART
 ‘Who made you cry? (lit. ‘Who is the one who made you cry?’)
- 29) *hénee’éeno’ héihbiinóono’?*
 enee’ee-no’ e-ih-biin-oon-o’
 who-3PL 2S-PAST-give(TA)-3S.DEP.PART-PL
 ‘Who(PL) did you give it to?’

When an inanimate object is posited as the reason for some event so that one wants to ask about inanimate causes, the inanimate question form *heeyóu* is used in many cases, along with an AI dependent participle (as in example 30); alternately, a completely different construction is used involving *heeyóu*, conjunct order verbs, and the instrumental marker (as in example 31). The former is more common than the latter.

- 30) *heeyóu héihbiiwoohúút?*
 eeyou e-ih-biiwoohuuton-i
 what 2S-PAST-cry(AI.DEP.PART)-S
 ‘What made you cry?’ (lit. ‘What [is the cause of] your crying?’)
- 31) *heeyóu tohú’biiwóóhun?*
 eeyou toh-i’i-biiwoohu-n
 what because-INSTR-cry(AI)-2S
 ‘What is the cause of your crying?’ [R:Nih’oo3oo and the Fox]

Occasionally, the pseudo-verbal form is shortened to *hénée’=* and used as a proclitic. This seems to be especially common for ‘whose’ questions but occurs for ‘who’ questions as well:

- 32) *hénée’hitooxóubiixúút?*
 enee’=i-ooxoubiixuuton-i
 who=3S-jacket-S
 ‘Whose jacket is this?’
- 33) *hénée’heih’iténowuunóó hitookóubiixúút?*
 enee’=e-ih-itenowuun-oo[n] i-ookoubiixuuton-i
 who=2S-PAST-take s.t. from s.o.(TA)-3.DEP.PART 3S-jacket-S
 ‘Whose jacket did you take?’
- 34) *“wohéi hénée’heniihóho’néiht,” hechéhk núhu’ céése’?*
 wohei enee’=iihoho’oneihi-t ee-hehk nuhu’ ceese’
 well who=IC.be brave(AI)-3S say(AI)-3S.SUBJ this one
 ‘“Well who is brave?” said this one man.’ [O:Scouts, 32]

Conversely, ‘whose’ questions can be formed with the full form as well:

- 35) *hénée’eehék núhu’ hi3éé3oo?*
 enee’ee-hek nuhu’ i-3ee3oon-i
 who-3S this 3S-finger-S
 ‘Whose finger is this?’ [Curricular materials]

‘Which’ questions are formed using iterative verbs with a dubitative proclitic, closely resembling the forms for ‘someone’, ‘something’, and ‘somewhere’ (see 13.3.3). The morpheme indicating ‘which’ is /t-ee/:

- 36) *hé’iitééeenóú’u?*
 e’ii-tee.eenoo-’i
 DUBIT.IMPERF-which(II)-0.ITER
 ‘Which one?’ (IN)

- 37) *hé'iiteeéihí3i?*
e'ii-tee.eihi-3i
 DUBIT.IMPERF-which(AI)-3S.ITER
 'Which one?' (AN)

There is also a form of 'which?' based on the root /enee'ee/ 'who?': *hénee'ééti* 'which one (IN) is it?'. Finally, the most common contemporary way of asking 'which?' is by using interrogative adverbials:

- | | |
|--------------------------|--------------------------|
| 38) <i>he'íteentíhi?</i> | <i>tohúu3íhi?</i> |
| <i>e'ii-teen-iíhi'</i> | <i>tohuut-iíhi'</i> |
| DUBIT.IMPERF-which-ADV | what kind-ADV |
| 'Which one?' | 'Which one? Which type?' |

Question Particles

The form *heeyóu* is used independently as a pragmatic question particle. When someone does not hear someone else, or is distracted, or is hailed from afar, and in similar situations, the common thing to say is *heeyóu* = 'what?/what's up?/what do you want?'. Also used in the same way, although less often at the present, is the particle *tóu*.

There is a particle *nohtóu*, which means 'why?'. It can be used independently or in clauses, in which case the verb is in the affirmative:

- 39) *nohtóu toh'étwo'ténowoo?*
nohtou toh-eti-wo'oten-owoo
 why because-OBLIG-pick up s.t.(TI)-1S
 'Why am I to pick it up?' [E:31.4]
- 40) A. *niinó'otóoneenoó téexokúút.*
nii-no'u-otoonee-noo teexokuut[on]
 IMPERF-arrive-borrow(AI)-1S saddle horse
 'I am here to borrow a saddle horse.'
- B. *nohtóu*
 'Why?' [E:28.4-5]

In some older texts from Oklahoma, non-affirmative inflections are used on the verb following *nohtóu*.

11.2 OTHER DETAILS OF QUESTION CONSTRUCTIONS

11.2.1 *koo*= Contractions

The interrogative proclitic *koo*=, unlike all other Arapaho proclitics, can contract with following person markers. This occurs only when the person marker is followed by a tense or aspect marker. The contractions are as follows.

Second person:

koo=hei- > *kei-* (IMPERF)
koo=heis- > *keis-* (PERF)
koo=heih- > *keih-* (PAST)
koo=heet- > *keet-* (FUT)

Third person (with vowel harmony prior to contraction):

koo=hii- > *koo=huu-* > *kuu-* (IMPERF)
koo=hiis- > *koo=huus-* > *kuus-* (PERF)
koo=hih- > *koo=huh-* > *kuh-* (PAST)
koo=het- > *ket-* (FUT)

Note that these are secondary contractions that occur after complete phonological derivation and do not engage the phonological rules described in chapter 1; thus, the contracted sequence /ke/ does not produce /ce/.

11.2.2 Non-verbal Proclitic Attachment

In yes/no question constructions, *koo=* normally attaches to the verb, but it can attach to other elements of a clause as well. Where a sentence is verbless, this is of course necessarily the case. But even when sentences contain verbs, attachment to other elements occurs. The verb remains in the non-affirmative mode whether or not *koo=* is directly attached to it:

- 41) A. *kooheinihei'i heeneinono'eiti3ei'i?*
koo=e-niihe-ii *eeneinono'eiti3-ei*
 INTERR=2S-parent-PL REDUP.speak Arapaho(TA)-3PL
 'Do your parents talk Arapaho to you?'
 B. *beebeet nei'eibehe'.*
beebeet *ne-ibehe'*
 only 1S-grandmother
 'Just my grandma.' [E:23.2–3]

The same placement occurs occasionally with other proclitics. Note, for example:

- 42) *toothéinoo híine'étii?*
toot=e-inoo[n] *iine'etii*
 where=2S-mother live(AI)
 'Where does your mother live?' [C:220]
- 43) *toothebésiibehe' híine'étii?*
toot=e-besiibehe' *iine'etii*
 where=2S-grandfather live(AI)
 'Where does your grandfather live?' [D]

- 53) *koonéi3oobéi?*
 koo=ne-i3oobei
 INTERR=1S-be correct, speak truthfully(AI)
 ‘Am I right?’

The common response is *hee, hii3oobéin* ‘yes, you are right’.

Another common pragmatic question, used both as a tag question and otherwise, is:

- 54) *keihci3é3?*
 keih-c-ii3-e3e
 INTERR.2S.PAST-NEG-say s.t. to s.o.(TA)-1S
 ‘Didn’t I tell you so!’

A greeting form used between men, *nohowóh*, is a lexicalized question and means ‘how are things?’. Other common question greetings are:

- 55a) *kooníini’íini* ‘Are things good?’
 55b) *koonéeni’íini* ‘Are things good?’
 55c) *tóotousíini* ‘What’s going on?’

Note that the reduplicated forms here are normally used in greetings. Non-reduplicated forms are seen as inquiring about some specific situation and are not normally interpreted as general greetings. Thus, *tousíini* means ‘what (specific) thing is wrong?’, whereas *kooni’íini* is interpreted as asking permission to do something specific, that is, ‘is it okay (if I do this)?’ or, as one speaker joked upon hearing the form used as a greeting, ‘it sounds like you’re asking her if it’s okay to have sex with her’.

11.3 ADMONITIVE CONSTRUCTION WITH /IBEXU/

The preverb /ibeexu/ means ‘should (do s.t.)’. It requires use of the non-affirmative order:

- 56) *heibeexúneyéi3éi.* *heibeexúneyéi3éibe.*
 e-ibeexu-neyei3ei he-ibeexu-neyei3ei-be
 2S-should-study(AI) 2S-should-study(AI)-PL
 ‘You should study.’ ‘You(PL) should study.’
- 57) *ceeseý he’ihneniisibeeno’*: “*heibeexuboo3oo*
 ceeseý e’ih-neniisiw-eeno’ e-ibeexu-boo3-oo
 one time NPAST-encourage(TA)-3PL/4 2S-should-fight(TA)-3S
 ‘One time they encouraged him: “you should fight
hini’ ceebe’eino’oteiht boo’einihi, nih’ii3oohkoni’.”
 ini’ ceebe’ei-no’oteihi-t boo’ein-ihi’ nih-ii3-oohkoni’
 that most-powerful(AI)-3S fight(AI)-ADV PAST-say to (TA)-3PL/4.SUBJ
 that boxing champion,” they said to him.’ [U]

The expression can be used in the past, meaning ‘should have’, or ‘I wish that [s.t. had occurred]’ in conjunction with the contrary-to-fact proclitic *hih=*:

- 58) *hihheibeexúniibé'i.*
 ih=e-ibeexu-niibe
 CONTR=2S-should-sing(AI)
 ‘You should have sung.’ / ‘I wish you had sung.’

11.4 DESIDERATIVE CONSTRUCTION WITH *KOOKÓÓS=*

The proclitic *kookóós=* means ‘I hope that (s.t. occurs)’ or ‘I wish that (s.t. were so)’. It requires use of the non-affirmative order:

- 59) *kookóóshiinosouné'e'esóó hiiwóonhéhe'.*
 kookoos=ii-nosoun-nee'e'esoo iiwoonhehe'
 I wish=IMPERF-still-be thus(II) now
 ‘I wish it were still that way today.’ [O:Scouts, 69]
- 60) *wohéi bényii, kookóósnéih'e'in.*
 wohei beenii kookoos=ne-ih-e'in
 well friend I wish=1S-PAST-know s.t.(TI)
 ‘Well friend, I wish I knew it.’ [O:Arapaho Boy, 21]

11.5 POTENTIAL CONSTRUCTION WITH /*EEBÉH/*

The preverb /*eebéh/* indicates potential occurrences and is used to mean either ‘if (s.t. happens)’ in subordinate clauses or ‘(s.t.) might (happen)’ in independent clauses. It requires use of the non-affirmative order:

- 61) *heebéhnúiteheiwóóbe.*
 e-eebeh-núitehiw-oo-be
 2S-POTENT-help(TA)-3-PL
 ‘You might be able to help them.’ [O:Woman Captive, 48]
- 62) *'oh heebéhcée3bí3ih, héétniise'énóuutóneen.*
 'oh e-eebeh-cee3i-bii3ihi eti-iise'enouuton-een
 but 2S-POTENT-by accident-eat(AI) IC.FUT-be prepared for s.o.(TA)-1PL/2S
 ‘If you accidentally eat it, we will be ready for you.’ [O:Eagles, 34–35]

Additional examples of this preverb can be found in *Arapaho Historical Traditions* (see Cowell and Moss 2005b:456, ‘Potential’ and ‘Subjunctive’).

11.6 ‘HOW . . . !’ CONSTRUCTION

Wh- question words are used to create constructions expressing ‘how . . . it is!’ and similar concepts. The non-affirmative with /*tou3/* ‘what/how’ is used in these constructions:

- 63) *yéinóú'u tóotou3éí3enino!*
 yeino-uu toon-tou3-ei3e-nino
 tomato-PL.OBV REDUP-how-big(AI)-4PL
 'How huge the tomatoes are!' [R:The Good Garden]
- 64) *hitesoohok wootii tousini'eihin hisein.*
 ites-oohok wootii tousi-ni'eihi-n isein
 come upon(TA)-3S/4.SUBJ like how-pretty(AI)-4S woman.OBV
 'He happened to meet a woman—how pretty she was!' [A:Text II]

A related construction meaning 'no matter how . . .' uses the conjunct iterative but with non-affirmative question words:

- 65) *hé'ih'eene'in tou'cihi'eihí3i.*
 e'ih-eene'in tou'u-cihi'eihi-3i
 NPAST-REDUP.know(TI) when-small(AI)-3S.ITER
 '[Even a child] knew about these things, no matter how small he was.' [R:
 Surviving Disaster]

11.7 'WHETHER' CONSTRUCTION: EMBEDDED YES/NO QUESTIONS

In phrases involving embedded questions, such as 'I don't know if he will come' or 'I don't know whether he will come', the concept of 'if/whether' is expressed by the proclitic *wohóé'* = or *wohé'* =, which requires use of the non-affirmative. The construction can take past, present, or future tenses. The proclitic can also mean 'maybe' or 'I wonder if', again requiring non-affirmative but used in main clauses:

- 66) *'oh néihoowóé'in wohóé'iinónó'éitino' hiiwóonhéhe'.*
 'oh ne-ihoowu-e'in wohoe'=inono'eiti-no' iiwoonhehe'
 but 1S-NEG-know(TI) DUBIT=speak Arapaho(AI)-3PL now
 'I don't know whether they still speak Arapaho today.' [O:Enemy Trail, 79]
- 67) *wohóé'etí'ítowuu.*
 wohoe'=eti-tei'it-owuu
 DUBIT=FUT-withstand s.t.(TI)-3PL
 '[We'll see] whether they'll be able to withstand [the test]' [O:Buffalo Wheel, 64]
- 68) *wohóé'ihciinóóhobé'i.*
 wohoe'=ih-cii-noohow-ei
 DUBIT=PAST-NEG-see(TA)-4/3PL
 'Maybe he couldn't see them.' [O:Enemy Trail, 46]
- 69) *"núhu' héniistóotíbin," níine'éeno' núhu' wohóé'etniístíino'.*
 nuhu' ei-niisitootiiv-in níine'eeno' nuhu'
 these 2S.IMPERF-use.DEPPART-INCL here they are these

wohoe'=eti-niisitii-no'

DUBIT=FUT-do(AI)-3PL

'“Our things . . .”, they don't know what they'll do with them.' [R:Surviving Disaster]

70) *wohóe'híhniibé'i.*

wohoe'=ih-niibei

DUBIT=PAST-sing(AI)

'I wonder if he sang.'

71) *wohóe'hetniiniibé'i.*

wohoe'=eti-ii-niibei

DUBIT=FUT-IMPERF-sing(AI)

'I wonder if he will sing.'

Additional examples are in Paul Moss's stories (see Cowell and Moss 2005b:454, 'dubitative').

11.8 'PROBABLY' CONSTRUCTION

In main clauses, the dubitative proclitic *he'*= can be used with the non-affirmative to express the idea of 'probably' or 'might'; note the dropping of initial /h/ in the person markers:

72) *hé'eito'óówuun.*

e'=e-ito'oowuuni

DUBIT-2S-possess house(AI)

'You probably have a house.' [E:19.9]

Other forms are:

73a) *hé'iito'óówuun* 'S/he probably has a house'

73b) *hé'neito'óówuun* 'I probably have a house'

73c) *hé'eito'óówuuníbe* 'You(PL) probably have a house'

Used with the contrary-to-expectation particle *híiwo'*, this construction indicates that a previous supposition was incorrect. It is very similar to constructions using *híiwo'* and the conjunct subjunctive (13.2.6), but the latter seems to be used more often to indicate a surprising discovery of a fact rather than a surprising discovery of a negative.

74) *híiwo' hé'einóno'éit héé3eeneb3en!*

iiwo'

e'=e-inono'eiti

ee3-eenew-e3en

CONTR DUBIT=2S-speak Arapaho(AI) what-think of s.o.(TA)-1S/2S

'I thought you spoke Arapaho!'

11.9 CONTRARY-TO-FACT, NEGATIVE JUDGMENT CONSTRUCTION

The same dubitative proclitic seen in 11.8 can be used in a construction that indicates the speaker's lesser evaluation of a person in relation to that person's own evaluation:

75) *he'ii3óú'uno'otéih.*

e'=ii3ou'u-no'oteihi

DUBIT=how much-be powerful(AI)

'He thinks he's so strong! [but really he's not]'

76) *wo'eiz he'et- woow xookunih'oo3ounibe.*

wo'eiz e'=e-eti- woow xooku-nih'oo3ouni-be

or DUBIT=2S-FUT now through-be white(AI)-PL

'Or else now [it seems to me] you want to be like the white man.

'oh he'einosounotiitiibe hini' cee'iyoono ni'ihi'i.

'oh e'=e-ii-nosouni-notiitii-be ini' cee'iyoon-o ni'ihi-i

but DUBIT-2S-IMPERF-still-look for(AI)-PL that payday-PL called(II)-0PL

But you're still looking for those [reservation per capita] paydays, as they are called.

'oh he'einiiniitobe'ekuube,

'oh e'=e-ii-niiniitobeekuu-be

but DUBIT=2S-IMPERF-REDUP.stand first(AI)-PL

[I guess] you're first in line [for your pay],

he'eiciihinono'eitibe.

e'=e-ii-cii-inono'eiti-be

DUBIT-2S-IMPERF-NEG-speak Arapaho(AI)-PL

but you don't even [seem to] speak Arapaho.' [V: 53]

11.10 'SEEMS . . .' CONSTRUCTION WITH *WOOTÍÍ*

The particle *wootíí* can mean 'like, similar to', in which case affirmative inflections are used. When non-affirmative inflections are used, it means 'seemingly, apparently'. Salzmann records this particle used with a non-affirmative verb, but Alonzo Moss rejects this construction:

77) *wootíí hesówobéih. [?]*

wootii esowobeihi

like sick(AI)

'It seems that he is sick.' [C:182, with modified transcription]

11.11 'SHOULD BE KNOWN THAT . . .' CONSTRUCTION WITH WÓÓCE'

The particle *wóóce'* is used in conjunction with the non-affirmative to express the idea of 'you should know that . . .', 'don't you remember that . . .?', 'I told you that . . .', and similar ideas:

- 78) A. *wohei ciibeh'otoonootoo beneetno.*
 wohei ciibeh-otoonoot-oo beneeton-o
 well PROHIB-buy(TI)-0 drink-PL
 'Okay, but don't buy any drinks!'
- B. *'ii, wooce' neihciinih'eb teecxo'*
 'ii wooce' ne-ih-ciin-ih'ebi teecixo'
 gee you should know it 1S-PAST-cease-drink(AI) long ago
 'Oh my, you know I quit drinking a long time ago!' [Curricular materials]

11.12 EMPHATIC NEGATIVE CONSTRUCTION

The standard negative marker /*ihooow*/ can be combined with the *wh-* question markers to form an emphatic negative, roughly equivalent to English 'not a thing', 'no reason at all', and so forth:

- 79) *hoowtou3e'enowuu hinono'einiine'etiit.*
 ihooow-tou3-e'in-owuu inono'ein-iine'etiiton-i
 NEG-how/what-know(TI)-3PL Arapaho-life-S
 'They don't know a thing about Arapaho life.' [V:56]

11.13 'I SUPPOSE . . .' CONSTRUCTION

The modified particle *koox=woow* (again=now), used with the non-affirmative order, produces the idiomatic meaning of 'I suppose that . . .':

- 80) *kóóxwoow héetkóokóhtowúnihíi.*
 koox=woow e-eti-koo-kohtowunihii
 again=now 2S-FUT-REDUP-speak in funny/improper way(AI)
 'I suppose you're going to say funny things now.' [H:6.6]

11.14 ADDITIONAL NEGATIVE ROOTS, PREVERBS, PROCLITICS, AND PARTICLES

As already noted, the negative marker in the non-affirmative order is /*ihooow*/ and its allomorphs (/neihooow/), except in negative questions and with the narrative past tense /*e'ih*/, where it is /*cii*/. The form /*cii*/ is likewise the negative marker used in

nih-ii-nee'etoh-iine'etii-3i' inono'ein-o'
 PAST-IMPERF-that where-live(AI)-3PL Arapaho-PL
 'Before there were tepees, Arapahos lived in a willow hut.' [J:I.Shelter]

There are two special negative markers used only in the conjunct order—the proclitic *heecét=* and the preverb /*heescii/*, which is a contraction of /*heecisi/* + /*cii/*. Both are used in subordinate clauses to indicate 'before . . .' or 'while not yet . . .':

- 87) *wohéi héesciibée3iinisi' núhu' yeiniis . . .*
 wohei eescii-bee3iinisi-' nuhu' yein-iiis
 well while not-come to an end(II)-0S this four-days [period]
 'Well before the fourth day was done . . .' [O:Bad Dreamers, 29]

11.15 AFFIRMATIVE ORDER NEGATIVE MARKERS

There are two roots that although negative in meaning, occur with affirmative order inflection. The first is /*cii/*, which is used in certain lexicalized expressions—typically, with an imperfective or habitual aspect:

- 88) *cenikó'ootéiht.*
 ci-ko'-oot-eihi-t
 IC.NEG-separation-characteristic-AI-3S
 'He is stingy, not willing to share.'

For a few speakers, /*cii/* is used as the negative marker with the future tense, in place of the normal /*ihoow/*. In this usage, affirmative order inflections are used, but at the same time, the *neet-/heet-* alternation between first and second person futures that occurs in the non-affirmative is used:

- 89) *néetciibi3ihino'.*
 ne-eti-cii-bii3ihi-no'
 1S-FUT-NEG-eat(AI)-12
 'We're not going to eat.' (vs. more common *heetnéihoowbii3ihin*)

The second is the auxiliary type preverb /*coon/* 'unable to . . .':

- 90) *wohéi héi'cooncowóuwuhéit núhu' koo'ohwuu . . .*
 wohei e'i-cooni-cowouuwuh-eit nuhu' koo'ohw-uu
 well when.PERF-unable to-wait for s.o.(TA)-4/3S this coyote-OBV
 'Well when this coyote couldn't wait for him anymore . . .' [O:Apache Captive, 24]

Finally, there is a lexical preverb/initial with the meaning of 'fail to':

- 91) *hoo3óntoot.*
 o3on-i-too-t
 IC.fail to-EP-do(AI)-3S
 'He has failed to do it.' [R:Blood Clot Boy]

11.16 NARRATIVE PAST TENSE /e'ih/ AND OTHER
SPECIAL FEATURES OF NARRATIVE

The special narrative past tense /e'ih/ is very common in Arapaho narratives. This form requires the use of the non-affirmative, in both positive and negative statements. Although derived historically from the dubitative marker *he'* = plus the past tense marker /ih/, it is now grammaticalized as a fixed form, and it always requires use of the non-affirmative, not the conjunct order iterative mode as required by *he'* = alone in everyday speech.

It should be noted that this form is not a simple, non-firsthand evidential. It is not used when speakers in narratives indicate some specific source for the narrative, such as in Paul Moss's "The Shade Trees," in which Moss says that his aunt personally saw the events recounted and then told them to him. In telling the story himself, he does not use /e'ih/, even though the information is not firsthand. The force of the form /e'ih/ is 'it is said to have happened' where no definite source of information can be identified. The form can also be used in everyday speech when one wishes to avoid identifying any definite source of information:

- 92) *necééno' hé'ihnonsih'ebino' hínee néécee sítyoho'onooké'i.*
necéen-o' e'ih-nonisih'ebi-no' inee neccee[n] sítyoho'onooke-'i
 chief-PL it is said-drunk(AI)-3PL that chief sandstone-LOC
 'Some councilmen got drunk [they say] over there just west of Shoshoni [at
 'Council Sandstones']. ' [J:III.Locative]

One morphological peculiarity of narration is that obviation marking has been retained on verbs, whereas it has been lost in everyday speech in the non-affirmative. Thus, one finds sentences such as:

- 93) AI: *hitééxokúúton hé'ih'iicó'ooceihcehín.*
i-teexokuuton e'ih-ii-co'ooceihcehi-ñ
 3S-saddle horse.OBV NPAST-IMPERF-pull rope back and forth-4S
 'His saddle horse was pulling back and forth [on the rope].'
 [O:Bad Dreamers, 29]
- 94) TI: *he'ih'itesee hinenin; he'ihnosoutoxu'ohowun hi'oo3in.*
e'ih-ites-ee inenine'ih-nosoun-toxu'oh-owun i-'oot-in
 NPAST-meet(TA)-4 man.OBVNPAST-still-sharpen(TI)-4S 4S-leg-OBV
 'He came upon this man; he was still sharpening his leg.'
 [B:1.1.3; ending in Salzmann given as -owuu]
- 95) TA: *he'ih'iicihwoniite'eineen nehe' honoh'ochi' hitonih'o.*
e'ih-ii-cih-woni-iite'ein-ee-ñ
 NPAST-IMPERF-to here-ALLAT-lead here(TA)-4[Patient]-4[Agent]
 'He [OBV] would come over here and lead this

nehe' onoh'ehi' i-onihi'-o
 this young man.DIM 3S-horse-OBV
 boy's horse back [to his own camp]. [U]

In all of the above examples, the final, underlined obviative inflection on the verbs is not present in everyday speech (although the obviative inflection on the nouns is).

It is important to note that Arapaho narratives can actually be considered to have a pervasively different grammar from everyday speech. In Proto-Algonquian, independent order clauses took prefixed person markers and a negative marker attached to the verb stem that did not affect inflection, whereas subordinate clauses took suffixed person markers and formed the conjunct order. Arapaho narratives preserve this same structure: the non-affirmative order with which /e'ih/ is used is inherited from the PA independent order, and the negative marker in such clauses is /cii/, inserted within the clause without further morphosyntactic changes. (The modern negation marker /ihoow/ does not occur in negative clauses in narrative, except in reported speech; nor do affirmative order forms occur in narratives except in the same circumstances.)

- 96a) *hé'ihnoohóbee.* (vs. everyday *nih-noohów-oot*)
 e'ih-noohow-ee PAST-see(TA)-3S/4
 NPAST-see(TA)-4
 'S/he saw him/her.'
- 96b) *hé'ihciinoohóbee.* (vs. everyday *hih-'oow(u)-noohób-ee*)
 e'ih-cii-noohow-ee PAST-NEG-see(TA)-4
 NPAST-NEG-see(TA)-4
 'S/he didn't see him/her.'

Subordinate clauses in Arapaho narratives, including relative clauses, maintain the old PA conjunct order forms, such as the changed conjunct participle:

- 97a) *hé'ihnoohóbee hini' nihtókohuni3.*
 e'ih-noohow-ee ini' nih-tokohu-ni3
 NPAST-see(TA)-4 that PAST-flee(AI)-4S
 'He saw the one who fled.'

These PA conjunct order forms have been generalized into affirmative order in standard spoken Arapaho, so that in everyday conversation, the above sentence is:

- 97b) *nihnoohówoot hini' nihtókohuni3.*
 nih-noohow-oot ini' nih-tokohu-ni3
 PAST-see(TA)-3S/4 that PAST-flee(AI)-4S
 'He saw the one who fled.'

Thus, in traditional narratives, the distinction between independent and relative clauses is immediately clear, with only relatives using the *nih-* past tense marker,

whereas in the everyday spoken language, the difference between independent and relative clauses is indicated only by syntax rather than by morphology. More generally, the grammar of traditional narratives more closely resembles the independent order grammar of the vast majority of modern Algonquian languages in comparison to that of everyday Arapaho grammar. On the other hand, when direct speech is reported in narratives, that speech occurs in the grammar of the everyday spoken language.

He'= in Narrative

In rare instances, *hé'*= is used alone in narratives. It still requires use of the non-affirmative order in these cases (and thus is not to be confused with the dubitative *hé'*=, requiring conjunct order iterative mode and used fairly commonly in both narration and everyday speech). This usage seems mostly to occur with verbal pronouns: *hé'néén* 'it was him . . .' (< *nenéénit*). Since these nouns are actually functionally personal pronouns, they are not time-sensitive in the way that reported action expressed by verbs is, or at least that is how Arapaho speakers seem to analyze the situation. Thus, the past tense component of /e'ih/, (/ih/) is dropped, as in the first line below:

- 98) *hé'*=*néén nih-bí'eenebéih-t.* 'He was the one who was chosen.
hé'ih'ii-níihonkóóhu; He used to run for a long time;
níihonkóóhu . . . run for a long time . . .
hé'ih-'éso'óó. He was fast.'

[O:White Horse, 2; note: *níihonkóóhu-* was translated in the anthology as 'run a long way', but its more literal meaning is 'long-winded, run for a long time'.]

/eh/ Number Marker

When number verbs are used in narratives, the special marker /eh/ is used. It takes affirmative order inflections and is used even when the statement is in the present (as in the third example).

- 99) *héhniitootoxú3i' notkóniinénno'.*
eh-niitootoxu-3i' notikoniinenin-o'
 #-be six(AI)-3PL scout-PL
 'There were six scouts.' [O:Scouts, 6]
- 100) *wohéi ní'óobeti3i' héhyóó3oni3i'.*
wohei ní'oobeti-3i' eh-yoo3oni-3i'
 well IC.agree(AI.RECIP)-3PL #-be five(AI)-3PL
 'Well the five of them agreed to this.' [O:Scouts, 13]

- 101) *hehniiseiht hini'ó3o' ceenihi' niinóhobéihit.*
 eh-niiseiht-t ini' o3o' ceenihi' nii-noohobeiht-t
 #-be one(AI)-3S that star lower IMPERF-be seen(AI)-3S
 'The one star we see below the others . . .' [B:3.2.115]

In contemporary speech, this marker seems to be used only when the number verb occurs as a syntactically nominal form (as in example 100). In traditional narratives, it occurs with all number verbs, including those used as adjectives (as in examples 99 and 101).

Unchanged Past Tense

As noted earlier, Arapaho stems show initial change when in the present tense, ongoing aspect, and more generally, when they lack elements added prior to the stem in the affirmative order (which effectively amounts to saying the same thing). In narrative, however, it is fairly common to have an unchanged stem, without any other preceding element, and the verb stem takes affirmative order inflection. In some cases, this is simply because a preceding verb has a tense or aspect preverb, and the following unprefixing verb stem automatically takes the same preverb by implication—a common feature more generally in Arapaho (see section 18.15). But sometimes this is not the case, and the unprefixing form seems to be automatically taken as a past tense form in narration. Examples of the first type are:

- 102) *núhu' séenook héétestéi'óocéihit nii3óotéénit.*
 nuhu' seenook eti-tesi-tei'ooceiht-t nii3ooteeni-t
 this rope IC.FUT-very-strong rope(AI)-3S [FUT]-braided(AI)-3S
 'This rope will be very strong and braided.' [O:Bad Dreamers, 20]
- 103) *wohéi bíkooníhi' né'cowóuubéiht wóttónóúht.*
 wohei biikoonihi' ne'i-cowouubeiht-t wotitonouhu-t
 well at night then-wait(AI)-3S [then]-make fire for self(AI)-3S
 'Well, nighttime came, then he waited and made a fire for himself.' [O:Bad Dreamers, 27]
- 104) *hé'ih'íine'étii, nii3íine'étii.*
 e'ih-iine'etii niit-iine'etii
 NPAST-live(AI) [NPAST]-with-live(AI)
 'He lived there, he lived with them.' [O:Apache Captive, 1]

Examples of the second type (i.e., true unchanged past tense) are:

- 105) *hiit héi'towúunéihit, noowúukóó' . . .*
 iit e'itowuuneiht-t noow-iikoo'
 here be told(AI)-3S down-in the brush.LOC
 'Here where he was told, down in the brush . . .' [O:Bad Dreamers, 25]

- 106) *wohéi ciitéi3i' níinóné'.*
 wohei ciitei-3i' níinon-e'
 well enter(AI)-3PL tepee-LOC
 'Well, they went inside the tepee.' [O:Bad Dreamers, 13]

11.17 PERSONAL NAMES

Finally, it should be noted that the grammar of Arapaho personal names also preserves the same older PA-derived pattern (see Cowell and Moss 2003 for additional details and examples), as do a few animal names (*nóuuuh be'éih* 'red fox' as opposed to standard spoken *bee'éiht nóuuuh* 'a red fox'; *hééyei nookéih* 'northern harrier (male)' as opposed to standard spoken *nonookéiht hééyei* 'a white hawk'). Verbs in these names lack initial change and lack person markers in the third person; they thus resemble modern negative forms:

- 107a) *hééyei nookéih*
 eeyei nookeihi
 hawk white(AI)
 'northern harrier male hawk'
- 107b) *hoownookéih*
 ihoowu-nookeihi
 NEG-white(AI)
 'S/he is not white.'

Where modern-looking verbs occur in personal names, they are inevitably older conjunct forms (like the ones that occur in traditional narratives)—in particular, headless relative clauses:

- 108) *neníitowóoto' nec*
 niitowoot-o' nec-i
 IC.hear s.t.(TI)-3S water-S
 'The one who hears the water.' (not 'S/he hears the water.')

11.18 NON-AFFIRMATIVE INFLECTIONS WITH COMMANDS AND REQUESTS

Two different types of constructions that are functionally imperatives occur in Arapaho and make use of non-affirmative verb inflections rather than imperative inflections. These are the future and suggestive imperative. They are treated in detail in chapter 11, on imperative usage and function. Both constructions are limited to use with second person addressees and thus allow only a limited set of the possible non-affirmative inflections. An example of each construction is given here.

Future imperative:

- 109) *hetnéí'ooohówoo.*
 eti-neí'oohow-oo
 IMPER.FUT-look at(TA)-3S
 'You must look at him [later].'[cf. *néí'oohow-ún* 'look at him!']

Suggestive imperative:

- 110) *héhbii3ihin.*
 e-eh-bii3ihi-n
 2S-SUGG-eat(AI)-INCL
 'Let's eat!'

11.19 THE CONCEPT OF IRREALIS AND UNCERTAINTY IN ARAPAHO

The idea that languages code a concept called “irrealis” has been fairly widely debated among linguists (see the special issue of *Anthropological Linguistics* 40:2 [1998]). The general conclusion has been that languages virtually never have a single marker that codes a unitary concept of irrealis, in contrast to the widespread existence of such markers for concepts like tense, aspect, negation, person, number, degrees of evidentiality, and so forth.

Arapaho also lacks any single marker of irrealis. However, it is quite interesting in that it shows a pervasive distinction on the level of verbal structure between realis and irrealis. In particular, what we have called the non-affirmative order is used in a wide variety of constructions that seem to share at their core a basic sense of irrealis.

We have already seen that the non-affirmative order is used in a variety of places in the language. In all of these cases, there are specific preverbs or proclitics that can be understood as triggering—and requiring—its use. There are very few preverbs or proclitics in Arapaho that can occur with the non-affirmative and another order (although *he'* is one exception, taking both non-affirmative and conjunct iterative). The non-affirmative is required for yes/no and *wh*-interrogation and for negation. It also is used for the future and suggestive imperative, although not for the direct or indirect imperatives. It is also used with the narrative past tense /*e'ih*/. There are a number of other preverbs that require use of the non-affirmative, as seen in this chapter. As we have noted, the affirmative order in Arapaho is derived from the older PA conjunct order changed participle. The non-affirmative order, conversely, is inherited directly from the PA independent order. Thus, this is the more conservative order. The uses just described, and the additional ones that will be illustrated shortly, are thus retained “old” constructions (with the exception of possible modern analogical innovations). The important question to ask is why the use of the old PA independent order would have been preserved obligatorily only with certain preverbs and proclitics but not with the majority. The answer seems to be that as Arapaho evolved and the old PA conjunct participle took over more and more functions in the Arapaho independent order, the old PA independent order

gradually came to be associated with a general notion of irrealis. The fact that it came to be used most commonly in negation and interrogation would certainly explain this association. Because of this association, it also continued to be used with a number of proclitics and preverbs whose semantics was seen by speakers to be associated with the concept of irrealis. Thus, rather than explaining the retained irrealis constructions as individual accidents, it seems far more reasonable to appeal to a generalized speaker concept of irrealis, which although not associated with any specific morpheme or single marker, was and is associated with a fundamental component of the overall structure of verb phrases and, in particular, with a specific inflectional order.

Note that the preverbs that require use of the non-affirmative occur in the same position in the verb as the negation and wh- question preverbs. They include:

eebeh-	potential, 'if', 'might'
ibeexu-	admonitive, 'should'
wonoh-	dubitative, 'I wonder if'
wohoe'-	dubitative, 'I don't know if'

- 111) *neebéhno'úsee.*
 n-eebeh-no'úsee
 1S-POTENT-arrive(AI)
 'I might come.'
- 112) *neebéhno'úsee héétno'úxohó' néínoo.*
 n-eebeh-no'úsee eti-no'uxoh-o' ne-inoo[n]
 1S-POTENT-arrive(AI) IC.FUT-bring(TA)-1S/3S 1S-mother
 'If I come, I'll bring my mother.'
- 113) *heibééxno'úsee.*
 e-ibeexu-no'úsee
 2S-ADMON-arrive(AI)
 'You should come.'
- 114) *koowonóhno'úsee.*
 koo=wonoh-no'úsee
 INTERR-DUBIT-arrive(AI)
 'I wonder if s/he's coming.'
- 115) *neihoowóé'in wohóé'ihno'úsee.*
 ne-ihoowu-e'in wohoe'-ih-no'úsee
 1S-NEG-know(TI) DUBIT-PAST-arrive(AI)
 'I don't know if s/he came.'

In addition, there are a number of other forms that require the irrealis:

- 116) *he'ihnonsih'eb biikoo*
e'ih-nonisih'ebi biikoo
 reported-drunk(AI) night
 'S/he supposedly got drunk last night.'
- 117) *kookooshebi'in*
kookoos=e-bii'in
 hope=2S-find(TI)
 'I hope you find it.'
- 118) *wootii hesowobeih*
wootii esowobeihi
 seems sick(AI)
 'Apparently, s/he is sick.'

The above examples make a fairly compelling case that the non-affirmative order in Arapaho carries with it an overall semantic valence of irrealis. Arapaho thus has a much more grammatically unified notion of irrealis than most languages.

At the same time, the concept of irrealis is expressed in other ways in the language as well. In particular, the non-affirmative order seems to be especially focused on questions of *modal* (desire, wish, admonition, etc.) or *evidential* (lack of full or certain knowledge) irrealis. In contrast, *temporal* irrealis (or better, *indefiniteness*) seems to be expressed much more commonly through the use of the iterative (see chapter 12). Referential/nominal indefiniteness is likewise often expressed through the iterative.

The other area of the language where modal and especially evidential irrealis is commonly expressed is the conjunct order subjunctive mode (see chapter 13). In fact, this is the form used to express what is often seen as the prototypical narrow definition of the irrealis, contrary-to-fact statements:

- 119) *hibbio'nóó'oonoohók nih'etwónotíibeenoo.*
ih=bi'onoo'oo-noohok nih'eti-woonotiibee-noo
 CONTR=rich(AI)-1S.SUBJ POTENT-possess new car(AI)-1S
 'If I were rich, I'd buy a new car.'

Note, however, that such clauses do not involve expressions of uncertainty as to *whether* something will occur (as with modals) or as to whether it has occurred (as with evidentials). There is no uncertainty; only an *unrealized* condition. Likewise, the prototypical meaning of subjunctive clauses involves unrealized (but not necessarily uncertain) temporal events:

- 120) *no'úseenéhk, héétiiné3en bé'ici3é'i.*
no'úsee-nehk eti-biin-e3en be'ici3e-ii
 arrive(AI)-2S.SUBJ IC.FUT-give(TA)-1S/2S money-PL
 'When you arrive, I'll give you some money.' (little or no doubt expressed regarding the arrival)

- 121) *nooke'ėhk hė́tnoohobé3en.*
nooke'ėhk *eti-noohow-e3en*
 dawn(II)-0S.SUBJ IC.FUT-see(TA)-1S/2S
 'I'll see you tomorrow.' (no doubt expressed)/

Thus, as a first order generalization, one could say that the subjunctive mode is used in expressing *unrealized* events or states, whereas the non-affirmative order is used in expressing evidential or modal *uncertainty* about past, present, or future events or states and whether or not they were, have been, or will be realized.

It is nevertheless true that the subjunctive is used in some circumstances to express evidential uncertainty—with verbs of report, for example (13.2.4–5, 13.2.7–8):

- 122) *nihniitóbeenoo hė́tno'úseehėk.*
nih-niitobee-noo *eti-no'usee-hehk*
 PAST-hear news(AI)-1S FUT-arrive(AI)-3S.SUBJ
 'I heard that he will come.' (indicates uncertainty as to whether he actually will come)
- 123a) *hee-hė́hk* 'He is reported to have said.' (limited to use in traditional narratives)
- 123b) *hee3-oohók* 'He is reported to have said to him.' (limited to use in traditional narratives)

It is also used—rarely—in main clauses of traditional narratives (where conjunct order preverbs are nevertheless used):

- 124) *tih'ėso'óhohkóni'.*
tih-eso'oo-hohkoni'
 when.PAST-fast(AI)-3PL.SUBJ
 '[The Arapahos] used to be really fast runners in the old days.' [O:Apache Captive, 37]

The forms in example 123 are fossilized, however; whereas examples like 124 are quite rare in Paul Moss's stories from the 1980s (literally, only a handful of examples in several thousand sentences) and the usage seems obsolete (although such sentences do occur more commonly in manuscripts of stories recorded in Oklahoma in the early twentieth century). It is interesting to note that Gros Ventre has largely lost the subjunctive mode. Arapaho shows preliminary evidence of this trend as well. Not only has this occurred in traditional narrative, with the shift away from constructions such as in example 124 and a reliance almost entirely on /*e'ih*/, but it is also occurring in if-then clauses. Although one can say: *no'úsee-noo-hók* (arrive(AI)-1-SUBJ) 'if I come', it is equally common to hear this expressed as in example 112 above: *n-eebė́h-no'úsee*. The subjunctive is older, whereas the use of the non-affirmative in this way appears only in more recent texts (it is absent from Kroeber and Michelson's manuscripts of traditional narratives recorded between 1900 and 1920). Thus, there is strong evidence that many of the remaining *uncertainty* constructions

of the subjunctive mode are being taken over by the non-affirmative, leaving the subjunctive to express only the *unrealized* situations. This shift suggests a continuing strengthening and extension of the link between the concept of modal and evidential irrealis and the grammatical structure of the non-affirmative in Arapaho.

It should be noted that one other Algonquian language shows a pattern similar to Arapaho—Miami-Illinois. That language's evolution away from PA structure has gone even further than Arapaho's in that the vast majority of independent clauses (not just affirmative ones) use conjunct order grammar (Costa 2003:422). The places where the language uses old PA-derived independent order grammar are with negation (423–425); with a dubitative clitic (425–426) and with a dubitative suffix (426–427); with a future tense marker (427–430); with irrealis contexts generally (430–431); and in traditional narratives as memorized quotes (436–439). Thus, the use of the PA-derived independent order in Miami-Illinois presents some striking parallels to Arapaho (see also Costa 2003:443), and both languages appear to have preserved it specifically in certain types of modal and evidential constructions involving uncertainty and, broadly speaking, irrealis situations. These apparently unconnected parallels deserve additional attention.

12

USAGE—IMPERATIVES AND THE IMPERATIVE ORDER

Commands and requests are complicated in Arapaho, both morphologically and socially. Additional details on the social issues in particular can be found in Cowell 2007. Morphologically, Arapaho has not only direct and indirect imperative forms, as described in chapter 2, but also two command/request forms, which we will call “future” and “suggestive” imperatives, that use non-affirmative order verb inflections but are restricted to use only with second person addressees and thus function as imperatives.

12.1 LEXICAL IMPERATIVES

Arapaho has a number of invariable imperative particles. These include:

<i>céitee</i>	‘Come this way, here!’
<i>(hi)ʒooowo’(o)</i>	‘Remember (that’s how it is, should be)!’

<i>honóoyóó</i>	‘Don’t you dare!’
<i>howóho’oe</i>	‘Wait! (man speaking)’
<i>kookoh</i>	‘Be sure that you do it!’
<i>néénowo’</i>	‘Hurry!’ (C:115 also gives <i>néénowo’ónin</i>)
<i>néé’ee</i>	‘Wait! (woman speaking)’
<i>nehéíc(oo)</i>	‘Come here!’
<i>nehínee</i>	‘That’s enough! Stop it!’
<i>noxúhu</i>	‘Hurry!’
<i>sóóxe</i>	‘Let’s go!’
<i>3íwoo</i>	‘Wait a second!’ / ‘Let’s see . . . !’
<i>wonó’o</i>	‘Why do you keep doing that! Enough already!’
<i>wootóó</i>	‘Get out of the way! Watch out!’
<i>xonóu</i>	‘(Do it) right away!’

Most of these can be—indeed, usually are—used as independent, complete sentences. A few (*kookoh*, *honóoyóó*) seem to be used only in conjunction with other imperatives:

- 1) *kookoh hetbis3ei’eikuutii . . .*
kookoh eti-bisi-3eikuutii
 be sure IMPER.FUT-all-put s.t. inside s.t.(AI)
 ‘Be sure to put all [your clothes] into [the washer]!’ [J:III.Verb]

These lexical imperative forms seem for the most part to carry special moral injunctions, as in ‘wait (and think about the rules of Arapaho life)!’. There are equivalent, regular verbs for saying ‘wait!’ (/AI *cowouuwutii*/, /cowouubeihi/, TA /toyoohow/) or ‘watch out!’ (TA /oonoyoohow/, TI /oonoyoohoot/), and these are often heard, but they are value-neutral. In addition, lexical imperatives tend to be used alone as complete clauses, whereas imperative forms of regular verbs often are used in complex clauses involving complements, subordination, and so forth.

There is also a special “imperative” preverb /neeni/ (underlying pitch accent /neení/), which is used with affirmative order verbs and has the meaning of ‘leave it as is’, ‘it is good as it is’:

- 2) *wohéí neenitheesiini.*
wohei neeni-eesiini
 well leave-be thus(II.EXIST)
 ‘Let it go!’, ‘Don’t worry about it!’ [F]
- 3) *neeníheni’ ein, héétnii3óótee’ ein.*
neeni-eni’ei-n eti-nii3ootee’ei-n
 leave-long hair(AI)-2S IC.FUT-braid hair(AI)-2S
 ‘Leave your hair long so you can braid it!’ [H:6.4]

- 4) *“hínee níinon céése’ neeniheesíseen,” hee3éihok híseino.*
 inee níinon-i ceese’ neeni-eesisee-n ee3-eihok
 that tepee-S one leave-how go(AI)-2 say(TA)-4/3S.SUBJ
 isein-o
 woman-OBV.PL
 ‘“You can go over to that one tepee and use it,” the women said to him.’ [B:2.4.36]

12.2 USE OF DEICTIC DIRECTIONALS WITH THE IMPERATIVE

The deictic directionals /*cih*/ and /*eh*/ have taken on special functions within the imperative mode. In addition to indicating directionality, /*eh*/ (*neh*- when word-initial) is used as an admonitive form (‘you better do it’). Similarly, /*cih*/ is used as an emphatic form, in the strongest cases expressing the meaning of ‘must’. The following example shows the use of both forms:

- 5) *wohei nehniistii beete’ noh ho3ii.*
 wohei eh-niisitii beete-’ noh o3-ii
 well ADMON-make s.t.(AI) bow-S and arrow-PL
 ‘Well, you should make a bow and arrows.’ [N:line 93]
- 6) *wohéi néhnóhohóúhu’!*
 wohei eh-nohohouhu-’
 well ADMON-hurry(AI)-PL
 ‘Well, you(PL) had better hurry up!’ [O:Scouts, 25]
- 7) *cihbebiisiixoohowu!*
 cih-bebii3-iixoohow-i
 to here-properly-learn from s.o. by watching(TA)-1S
 ‘Learn it the right way by watching me closely!’ [O:Apache Captive, 26]
- 8) *ciibéhcihnóóhowú!*
 ciibeh-cih-noohow-i
 PROHIB-to here-see(TA)-1S
 ‘Don’t look at me!’

The directionals still retain elements of their lexical meaning in these constructions, however: /*eh*/ is rarely or never used to express admonition to do an action directly affecting the speaker, and /*cih*/, conversely, is most often used to express an emphatic command concerning action directed toward the speaker, although as the examples above show, the directionality can be fairly abstract, especially with /*eh*/.

/*Cih*/ can be used as an emphatic form with II and AI stative/descriptive verbs, to form a direct imperative. The meaning of this construction is ‘it must be (II/AI)’ or ‘you must make it like (II/AI) for me’. With quantities, it is used to mean the quantity must be up to a specific amount, whereas with types of objects, it means that the object must be just as specified.

- 12) *honóoyóó ceebéhnonihi'ihce!*
 onooyoo ceebeh-nonihí'-ihce
 don't dare PROHIB-forget(AI)-3S.INDIR.IMPER
 'Don't you dare let her forget it!' [O:Eagles, 38]

The sentence literally says 'she mustn't forget it', but it will be through reminders from the second person that this is accomplished. Because of the way it constructs relative agency between second and third persons, the indirect imperative is often used for the purposes of politeness and deference—when, for example, it would be rude to give a third person a direct command (e.g., an elder) but also rude to give a second person a direct command to act transitively on the third person (e.g., a younger person who would not have the authority to “make” an elder do something). In asking that an elder be seated during a ceremony in which a younger person is the ceremonial assistant, the speaker typically says to the younger person *ceenokúhee* ('have him be seated'). In such a situation, the second (younger) person is enjoined to “act in some way in the world” such that the third person ends up seated. Neither a direct AI imperative to the elder (*ceenóku*) nor a direct TA imperative to the young person (*ceenókuh-ún*) is used.

These forms should be compared to the Cheyenne immediate hortative forms (Leman 1980:42[AI], 86[TA], 100[TI]) in terms of both usage and potential cognates among the inflectional suffixes. More details and discussion of the social contexts for the use of this form can be found in Cowell 2007.

12.4 SUGGESTIVE/POTENTIAL IMPERATIVE

For the AI, the TI, and the TA, one can express the idea of 'let's . . .' or 'let me/us . . .', using the suggestive imperative. A preverb /*(e)h/* is used, along with non-affirmative inflections. This preverb seems related to the preverb /*eebeh/* meaning 'might, potentially', which also requires non-affirmative inflections (see 11.5). This form can only be used in addressing second persons and can only be used to refer to action by either first persons alone or first persons acting with second persons. In other words, the addressee must be 2 or 2PL, and the actor must be 1, 1PL, or 12. The form essentially asks for the assent of the second person for the first person's action, with or without that second person's participation.

Inflections are as follows.

II (does not occur)

AI	
1S	néh-
1PL	néh- -be
12	éh- -n
TI	
1S	néh-
1PL	néh- -éébe
12	éh- -ow

TA

	<i>Singular object</i>	<i>Plural object</i>
1S/2	éh- -é3e > -é3	éh- -e3ébe
1PL/2	éh- -eé	éh- -éébe
1S/3	néh- -oo	néh- -óóno'
1PL/3	néh- -óóbe	néh- -óóbe
12/3	éh- -oon	éh- -oon

Examples are:

- 13) *héhbii3ihin.*
 eh-bii3ihi-n
 2S.SUGG-eat(AI)-INCL
 'Let's eat!' [E:24.6]
- 14) *héhnii3óenowoon.*
 eh-nii3oenowoo-n
 2S.SUGG-make willow shelter(AI)-INCL
 'Let's make a sweat lodge for ourselves!' [O:Scouts, 12]
- 15) *héhniiteheibetin.*
 eh-niiteheiw-eti-n
 2S.SUGG-help(TA)-RECIP(AI)-INCL
 'Let's help each other!'
- 16) *héhwonesoohóótow.*
 eh-won-esoohoot-ow
 2S.SUGG-go-watch(TI)-INCL
 'Let's go look at it!' [I]
- 17) *nee'ée! néh'itén notookóúbiixúút.*
 nee'ee ne-h-iten ne-ookoubiixuuton-i
 wait 1S-SUGG-get(TI) 1S-coat-S
 'Wait, let me get my coat!' [E:25.7]
- 18) *héhbiinoon.*
 eh-biin-oo-n
 2S.SUGG-give(AI)-3-INCL
 'Let's give it to him!'
- 19) *héhnéstoobé3.*
 eh-nestoow-e3e
 2S.SUGG-warn(TA)-1S
 'Let me warn you.' [O:Apache Captive, 25]

- 20) *howóho'oe! néhbee3itii núhu'.*
 owoho'oe neh-bee3itii nuhu'
 wait 1S.SUGG-finish(AI) this
 'Wait, let me finish this.' [H:7.2]

Negations use the marker /cii/:

- 21) *héhcíibii3ihin.*
 eh-cii-bii3ihi-n
 2S.SUGG-NEG-eat(AI)-INCL
 'Let's not eat!'

Complementary Distribution of Suggestive and Direct Imperatives

The direct imperative, which asks for action by a second party, and the suggestive imperative, which asks for action by a first party (or the first and second party together) with the permission of the second party, are in complementary distribution. An example with the TA stem /nestoow/ 'to warn' is:

	Standard imperative	Suggestive imperative	Gloss
1S/2S	N/A	<i>héh-néstoob-é3</i>	'Let me warn you!'
1S/2PL	N/A	<i>héh-néstoob-e3ébe</i>	'Let me warn you(PL)!'
2S/1S	<i>néstoow-ú</i>	N/A	'You warn me!'
2PL/1S	<i>néstoow-ú'</i>	N/A	'You(PL) warn me!'
1PL/2S	N/A	<i>héh-nestóób-eé</i>	'Let us(EXCL) warn you!'
1PL/2PL	N/A	<i>héh-néstoob-éébe</i>	'Let us(EXCL) warn you(PL)!'
2S/1PL	<i>néstoob-éi'ee</i>	N/A	'You warn us(EXCL)!'
2PL/1PL	<i>néstoob-éi'ee'</i>	N/A	'You(PL) warn us(EXCL)!'
1S/3S	N/A	<i>neh-nestóów-oo</i>	'Let me warn him/her!'
1S/3PL	N/A	<i>neh-nestóów-oonó'</i>	'Let me warn them!'
1PL/3	N/A	<i>neh-néstoow-óobe</i>	'Let us(EXCL) warn him/her/them!'
12/3	N/A	<i>héh-nestóów-oon</i>	'Let's warn him/her/them!'
2S/3	<i>néstoow-ún</i>	N/A	'Warn him/her/them!'
2PL/3	<i>nestóób-e'</i>	N/A	'You(PL) warn him/her/them!'

This same distribution occurs in AI and TI as well.

12.5 FUTURE IMPERATIVE

Arapaho has a delayed or future imperative, which commands that something be done, but not at the moment of the command. The preverb /eti/ is used to mark the future imperative, and non-affirmative inflections are used (as with the suggestive imperative). This form can only be used in addressing a second person. Note that although the preverb is cognate with the standard future tense /eti/, the epenthetic /n/, which is added for vowel-initial verb stems occurring with that preverb, does not occur with the future imperative for most speakers.

- 22) *ooxou'ei'oo* 'to smile' > *hetóoxóú'ei'óó* = 'You smile (later)'

The (standard non-affirmative) inflections are as follows:

II (does not occur)

AI

2S	eti-
2PL	eti- -be

TI

2S	eti-
2PL	eti- -éebe

TA

	<i>Singular subject</i>	<i>Plural subject</i>
2S/1S	eti- -i > Ø	eti- -íbe
2S/1PL	eti- -éí'ee	eti- -éí'éeébe
2/3S	eti- -oo	eti- -óóbe
2/3PL	eti- -óóno'	eti- -óóbe

Examples of the form used in sentences are:

23) *nóóh'ouubé3en, heténo'ús.*

noh'ouuw-e3en eti-no'usee

IC.invite(TA)-1S/2S FUT.IMPER-arrive(AI)

'I'll invite you, you must come over [later].' [E:30.7]

(/i/ > /e/ epenthetic vowel unexplained. Note loss of final /ee/ of verb, unlike IMPER.)

24) *hoo3nee'eestoohok hetniiniskohoe.*

oo3i-nee'eesitoo-hohk eti-nii-nisikoh-oo

next-thus do(AI)-3S.SUBJ IMPER.FUT-REDUP-spank/whip-3S

'Next time she does that, spank her.' [E:31.6]

The negation marker is /ihoowu/, as with the non-affirmative future tense; note that in this case, epenthetic /n/ is used, so that the allomorph of the negative is /neihoowu/.

25) *hetnéihoowto'ówoo.*

eti-ihoowu-to'ow-oo

FUT.IMPER-NEG-hit(TA)-3S

'You're not to hit him.'

Additional examples of this construction occur in *Arapaho Historical Traditions* (see Cowell and Moss 2005b:455, 'Imperative, future' and 'Imperative, future imperfective').

It is important to note that other than the element of futurity involved in the future imperative, it also has important social functions in Arapaho. The delayed form of a command is considered less "imperative" than a direct imperative, and

it thus functions deferentially in many situations. A general tendency in Arapaho speech is to give addressees options with regard to desired actions and to avoid demanding specific commitments as to time, place, date, and so forth. The delayed imperative, with its temporal vagueness, fulfills this function.

12.6 CONJUNCT ORDER SEMI-IMPERATIVE/ HORTATORY CONSTRUCTION WITH /EETIH/

The plain conjunct order (section 13.1) preverb /eetih/ ('in order that', 'so that') is often used in independent clauses as a form of hortatory semi-imperative, expressing a wish or weak command. It can be used for all persons, singular and plural, and all four stem types (including II). The negative is the standard conjunct order negative marker /cii/:

- 26) *heetih'óyein.*
 eetih-oyei-n
 so that-win(AI)-2S
 'I hope you win.' / 'Let it be that you win.'
- 27) *heetihciíteit.*
 eetih-ciítei-t
 so that-enter(AI)-3S
 'Let him enter.'
- 28) *heetihciíceenókut.*
 eetih-cii-ceenoku-t
 so that-NEG-sit down(AI)-3S
 'Don't have him sit down.' / 'Let him not sit down.'

This form often follows other true imperatives:

- 29) *woníitowuunín heetihbii3woonéínoo.*
 woni-níitowuun-in eetih-bii3iwoon-eínoo
 go to do s.t.-ask earnestly(TA)-3 so that-cook for s.o.(TA)-3 / 1S
 'Go ask him to cook [ceremonially] for me.'

In these constructions, it expresses an embedded wish or command: *héi'towuun-in heetih-ciítei-t* 'tell him to enter'.

Both this form and the indirect imperative are used in prayers: *heetih'osóóti* = 'let it rain'; *hoosootihee* = 'let it rain'. In general, the hortatory form is weaker than the indirect imperative in force.

12.7 IMPERSONAL VERBS AS COMMAND FORMS

The impersonal verb construction (7.7), sometimes combined with the future tense, is used as a vague command form, lacking any particular addressee:

“wohei tous,” hechehk.

wohei tous ee-hehk

okay then say(AI)-3S.SUBJ

‘Okay then,’ the other one said.’ [N:lines 54–55]

The imperative *sóóxe* ‘let’s go’ is often used this way as well, especially in the form *wohéi sóóxe* ‘well, let’s go then’.

12.9 FUTURE TENSE AS IMPERATIVE

The future tense can be used as an imperative, as in:

35) *cihciítei, ceenóku, héétbebiyein.*

cih-ciitei ceenoku eti-bebiyei-n

to here-enter(AI) sit down(AI) IC.FUT-drink coffee(AI)-2S

‘Come in! Sit down! Have some coffee!’

Future tense imperatives are usually very mild commands in Arapaho and not peremptory as in English. In Arapaho, it is considered rude to ask an older person if they are hungry or thirsty, thus forcing them to respond and indirectly request food or drink. Instead, food and drink are simply provided as a matter of course. The above form recognizes that cultural imperative, so to speak, by simply saying what is going to happen rather than asking for or commanding it.

12.10 IMPERATIVE MORPHOSYNTAX AND SYNTAX

Imperatives take all the standard verbal preverbs that occur in the independent order affirmative and non-affirmative, with the exception of tense markers. When the imperfective marker /ii/ is used, it creates commands that function as general rules whose force extends beyond the immediate circumstance.

36) *ciibéh’oohnéé’eesitoo!*

ciibeh-ooh-nee’eesitoo

PROHIB-no longer-do thus(AI)

‘Don’t do that any more!’ [O:Bad Dreamers, 68]

37) *ciibéh3o’néé’eesitoo!*

ciibeh-3o’u-nee’eesitoo

PROHIB-never-do thus(AI)

‘Never do that!’

38) *ciibéh’iinéé’eesitoo!*

ciibeh-ii-nee’eesitoo

PROHIB-IMPERF-do thus(AI)

‘Don’t do that (as a rule)!’

- 39) *hiinéé'eestoo!*
 ii-nee'eesitoo
 IMPERF-do thus(AI)
 'That is to be done regularly/as a rule.', 'One must do that.'
- 40) *hi'nístii!*
 i'i-niisitii
 INSTR-do s.t.(AI)
 'Do it with this!'
- 41) *ciinéé'eestoo!*
 ciini-nee'eesitoo
 stop doing s.t.-do thus(AI)
 'Quit doing that!'
- 42) *ciibéh'oo3íistoo!*
 ciibeh-oo3-iisitoo
 PROHIB-next-do(AI)
 'Don't ever do that again!' (< /oo3/ 'next [time]')

Normally, object NPs follow the imperative, but they can precede it as well when highly salient pragmatically:

- 43) *nonóónokó' sósoni' hétwoniíni níiteheiwóóbe.*
 nonoonoko' sosoni' eti-woni-ini níiteheiw-oobe
 might as well Shoshone FUT.IMPER-ALLAT-DET help(TA)-2PL/3
 'You might as well go help out the Shoshones.' [O:Woman Captive, 48]

When imperatives occur in larger sentence structures (as in example 45), the syntactic rules for such sentences described in 18.10.2 apply. In example 45, a temporal subordinate clause precedes the imperative, since these clauses normally precede main clauses. Similarly, independent particles are typically sentence initial (as in example 46) just as with main clauses (see 15.4).

- 44) *hiíce'e'íhe' beh'éihohó'.*
 ii-cee'ih-e' beh'eihoho'
 IMPERF-give gift(TA)-2PL/3.IMPER old men
 'You must always give things to the old people.' [O:Arapaho Boy, 48]
- 45) *heniicoonóó3i, ceebéh'iicebíhcehi'.*
 iicoo-noo3i ceebeh-ii-cebihcehi'
 IC.smoke(AI)-3PL.ITER PROHIB-IMPERF-run(AI)-IMPER.PL
 'Whenever the [old men] are smoking, don't run in front of them!' [O:Arapaho Boy, 48]

- 46) *béébeet hi'iibée3iheti hiisóho'.*
 beebeet i'i-ii-bee3iheti iisoho'
 only INSTR-IMPERF-bless.RECIP(AI) like this
 'Just bless yourself with it like this!' [O:Bad Dreamers, 52]

12.11 SPECIAL FORMS USED IN PRAYERS

There are several imperative or hortative forms that occur primarily in prayers. The emphatic particle *kookóú'unéihii* means 'please!'. Its use outside prayers, in dialogue, indicates extreme beseeching on the part of the user. It sometimes occurs in shortened forms; any of the last three syllables may be dropped by some speakers. See chapter 3, example 77 (last line).

The particle *wootíi*, meaning 'like' or 'as if', is used commonly in prayers, sometimes with every sentence by some speakers. Its meaning in this circumstance is really 'hopefully things can be like I'm asking for'—thus, it closely corresponds to the hortative function of the preverb /eetih/ (12.6).

The particle *wo'íi3* 'or' is likewise used often in prayers by some speakers to begin each new request. Its meaning in this case is closer to 'and', as in 'and I also ask this', but the use of 'or' pragmatically offers the sacred addressee a series of options, so that the speaker is saying 'or perhaps you may wish to grant *this* wish. . . .'

The particle *héinoosít* is used virtually only in prayers and means 'hopefully it will be so, hopefully I'm right.'

13

USAGE—CONJUNCT ORDER

The conjunct order, as described briefly in chapter 2, occurs primarily in subordinate clauses that express things like the background to or consequence of the action in the main clause. In this chapter, information is presented on the various more specific uses of the conjunct order beyond the prototypical uses described earlier.

13.1 CONJUNCT ORDER, SIMPLE CONJUNCT MODE

13.1.1 Basic Preverbs

The simple conjunct verbs look exactly like the affirmative order verbs in Arapaho as far as their person and number inflectional suffixes. They are distinguished only by sets of preverbs that are limited to subordinate clauses. Many of these express temporal and/or aspectual distinctions. The primary Arapaho simple conjunct order preverbs of this type are:

toh-	‘when’/‘after’ in the past or present (background to another action, with causal or logical link between the actions; serial actions)
	‘because’ (in the present or past—background to another action)
tih-	‘when’ in the past (background to another action, no causal or logical link between the actions, imperfective aspect)
ei’i-	‘when’—pluperfect or future anterior usages, with perfective aspect
eetih-	‘in order that, so that’
eecisi-	‘while, during (a time)’
ee(ci)si-cii-	‘before, while not yet’

All of these preverbs are used with *adverbial* subordinate clauses. Before presenting examples of these preverbs in clauses, we offer an overall analysis of their function, concentrating on /toh/, /tih/, and /ei’i/. The fundamental distinction between these preverbs is between /toh/ on the one hand and /tih/ and /ei’i/ on the other. The distinction is based on a judgment of the relevance of the given background event referred to by the conjunct verb for the action in the main clause, as suggested by the parenthetical remarks in the above list. /Toh/ marks maximal logical relevance or connectedness between the actions of the main and subordinate clauses and is used in cause-and-effect statements. On the other hand, /tih/ and /ei’i/ mark events that are less clearly related to or necessary for the events in the main clause where there is no clear causal connection. The distinction between /tih/ and /ei’i/ is that the former marks the imperfective aspect, whereas the latter marks the perfective aspect. Background actions occurring in the present tense seem to require /toh/ obligatorily (and thus to be relevant by default), whereas actions in the past can be marked by any of the three preverbs. Note that /tih/ often occurs with the imperfective marker /ii/, which seems initially strange given the analysis just presented of its aspectual meaning. When the imperfective marker is used, this gives one of two additional senses to the verb: a background *habitual* aspect or a background *ongoing* aspect. Examples of the different temporal/aspectual usages follow.

‘After’ /toh/:

- 1) *tohuuscíitei3i’, né’ookóho’.*
 toh-iisi-ciitei-3i’ ne’i-ookoh-o’
 after-PERF-enter(AI)-3PL then-close(TI)-3S
 ‘After they went in, then he closed it.’ [O:Scouts, 17]

‘Because’ /toh/:

- 2) *hé’ih’iitókóús toh’ésteiniisiini’.*
 e’ih-ii-toukousi toh-esiteiniisiini-’
 NARR.PAST-IMPERF-stay in shade(AI) because-hot day(II)-0S
 ‘He stayed in the shade [of this dry gulch] because it was a hot day.’ [O:Apache
 Captive, 14]

- 3) *woow nooxowcóóno'óón tohcíí3o'ubi3ihin.*
 woow noxowucoono'oo-n toh-cii3o'u-bii3ihi-n
 now IC.very weak(AI)-2S because-never-eat(AI)-2S
 'Now you are really weak, because you've never eaten.' [O:Apache Captive, 19]
- 4) *tohú'eenetíno' hoséino' ní'ésneeno.*
 toh-i'i-eeneti-no' oseino- ní'i-esinee-noo
 because-INSTR-speak(AI)-12 meat-S INSTR.IMPERF-hungry(AI)-1S
 'I'm hungry because we're talking about meat.' [E:24.3]
- 5) *nooxowcóóno'óón . . . tohceentou' nec.*
 noxowucoono'oo-n toh-cii-entou nec-i
 IC.really weak(AI)-2S because-NEG-be located(II) water-S
 'You are really weak . . . because there is no water here.' [O:Apache Captive, 19]

'When'—Past, Imperfective / tih/:

- 6) *tihwowóónímit híí3e' hé'ih'íine'etíi, níi3íine'etíi.*
 tih-wowooniini-t ii3e' e'ih-iine'etii níit-iine'etii
 when-be captive(AI)-3S over there NARR.PAST-live(AI) with-live(AI)
 'When he was a captive he lived there, he lived with them.' [O:Apache Captive, 1]
- 7) *tihciiní'eihíínit, hé'ih'etóocéin núhu' hitíine'.*
 tih-cii-nii'eihiiini-t e'ih-etoocéin nuhu' i-iin-e'
 when-NEG-be eagle(AI)-3S NARR.PAST-pull(TI) this 3S-mouth-LOC
 'When he wasn't yet an eagle, he took it out of his mouth.' [O:Eagles, 87]

'When'—Past, Perfective / ei'i/:

- 8) *hei'bétóóténé3i', cí'né'ce'íitookúúti3i'.*
 ei'i-beet-ootinee-3i' cí'=né'i-ce'i-iitookuutii-3i'
 when-finish-sing(AI)-3PL again=then-again-pour(AI)-3PL
 'When they had finished singing [the holy songs], they poured water again.' [O: Scouts, 21]
- 9) *wohéi híni' hei'íise'énou'út, hí'in hei'íise'énou'út, 'oh né'nóoxnóótiini' . . .*
 wohéi ini' ei'i-iise'enouu-t i'in ei'i-iise'enouu-t
 well that [time] PERF-ready(AI)-3S that PERF-ready(AI)-3S
 'oh né'i-nooxunootiin-i'
 and then-announce(AI.PART)-IMPERS(II)-0S
 'Well, once he was ready, once he was ready, then the announcement was made . . .'
 [O:Enemy Trail, 31]

‘While’ /eecisi/:

- 10) *héecisíini towóho’*.
 eecisi-ini towoh-o’
 while-DET cut off(TI)-3S
 ‘While she was cutting it off . . .’ [R:Splitting of the Tribes]

‘Before’ /ee(ci)sicii/:

- 11) *wohéi héesciibée3iinisi’ núhu’ yeiniis . . .*
 wohei eescii-bee3iinisi’ nuhu’ yein-iis
 well before-come to and end(II)-0S this four-days
 ‘Well, before the fourth day was done . . .’ [O:Bad Dreamers, 29]

- 12) *heecisciinoohobéit núhu’enéceen*
 eecisicii-noohow-eit nuhu’ eneeceen
 before-see(TA)-4/3S this buffalo bull.OBV

hihceno’oo3óóón, hé’ihnéh’ee.

ih-ceno’oo3-ooon e’ih-neh’-ee
 3.PAST-jump at(TA)-4.DEP.PART NARR.PAST-kill(TA)-4

‘Before this buffalo bull that he jumped at caught sight of him, he killed it.’
 [B:2.1.21]

Note that there is also a particle *hóókoh*, which means ‘because’. It tends to be used to express reasons for actions, as opposed to causal sequences, although the exact distinction between the particle and the preverb /toh/ is sometimes subtle. The opposition is discussed more fully in section 17.2.3. An example of its use is:

- 13) *betéencecéecó’ohút, hóókoh nih’iistoot nóno’éi.*
 beteeniceceeco’ohu-t ookoh nih-iistoo-t inono’ei[n]
 to be blessed in a holy way(AI)-3S because PAST-do(AI)-3S Arapaho
 ‘He was ceremonially blessed in a sacred way, because that is how Arapahos did it.’
 [O:White Horse, 34; see also O:Eagles, 77; Scouts, 16, 49]

OTHER USES OF THE CONJUNCT ORDER, SIMPLE CONJUNCT MODE

13.1.2 /toh/ and tih/ as Complementizers and Relativizers

In addition to being used in adverbial clauses as illustrated above, both /tih/ and /toh/ are used with complement clauses, meaning ‘that’, as well as with relative clauses, meaning ‘who, which, whom’, and so forth. /Toh/ is used for present tense, /tih/ for past tense. The following place-names (which are headless relative clauses) illustrate the usage of these forms as relativizers.

- 14) *tóh'okóóxeeni'.*
 toh-okooxeee-ni'
 REL-gather tepee poles(AI)-1PL
 '[The place] where we get tepee poles.' (area in Kawuneeche Valley, Rocky Mountain National Park)
- 15) *hiwóxuu tihkootóó'ni3i'.*
 iwoxuuh tih-kootoo'on-i-3i'
 elk REL-trap animals in enclosure(TA)-IMPERFPASS-3PL
 '[The place] where elk were trapped.' (area south of Grand Lake, Colorado)

An example of use as complementizer is:

- 16) *hee'inowoo toh'éntoot.*
 e'in-owoo toh-entoo-t
 know(TI)-1S COMPL-be present(AI)-3S
 'I know that he is here.'

Both of these uses are discussed in more detail in chapter 17 on subordinate clauses.

13.1.3 /eetih/

This preverb is used in purpose clauses, to express embedded wishes and commands, and in pseudo-imperative hortative statements.

- 17) *niineyéi3éinoo heetih'iixoohóótowóónoo.*
 nii-neyei3ei-noo eetih-iixoohootowoo-noo
 IMPERF-go to school(AI)-1S so that-learn things(AI)-1S
 'I go to school so I can learn things.'
- 18) *héi'towuunin heetihnéé'eestoo.*
 e'itowuun-in eetih-nee'eestoo-t
 tell s.o. s.t.(TA)-3 so that-do thus(AI)-3S
 'Tell him to do it that way.'
- 19) *heetihni'óyein.*
 eetih-ni'i-oyei-n
 so that-good-win(AI)-2S
 'Let it be that you win lots.' [said when giving money to a person so they can go to the casino]

These uses are covered in more detail in chapters 12 and 17, on imperatives and on subordinate clauses, respectively.

- 28) *totoósniibeí'ihók, hééteenéihinoo.*
 totoos=niibeí-hohk eti-teeneíhi-noo
 even=sing(AI)-3S.SUBJ IC.FUT-sad(AI)-1S
 'Even if he sings, I'll be sad.'

Negative clause: 'even if not . . .':

- 29) *totooshihciini'eetebeininehk . . .*
 totoos=ih=cii-ní'eetew-eininehk
 even=CONTR=NEG-stay with, run with, keep up with(TA)-4/2S.SUBJ
 'Even if she doesn't treat you as she should . . .' [S]

13.2.3 'Until' Statements, with *hónoot*

The subjunctive is obligatory with the particle *hónoot* 'until' when used in the present or future:

- 30) *héétne'eh'éntoonoo hónoot niisnóoke'éhk.*
 eti-e'eh'entoo-noo onoot niisinooke-'ehk
 IC.FUT-remain(AI)-1S until Tuesday(II)-0S.SUBJ
 'I will stay here until Tuesday.'

13.2.4 Supposition and Probability

The subjunctive is used in independent clauses to indicate supposition about the future:

- 31) *hétniibeí'ihók.*
 eti-niibeí-hohk
 FUT-sing(AI)-3S.SUBJ
 'He is supposed to/supposedly going to sing.'
- cf. *héétniibéí't.*
 eti-niibeí-t
 IC.FUT-sing(AI)-3S
 'He is going to sing.'

13.2.5 With Verbs of Report

A use similar to the preceding is with verbs of hearing, reporting, and other second-hand sources of information. When the speaker is sure that something occurred, the affirmative is used, but when doubt is suggested, the subjunctive is used:

- 32) *neniitóbeeno tihniibéí'ihók.*
 niitobee-noo tih-niibeí-hohk
 IC.hear news(AI)-1S COMPL.PAST-sing(AI)-3S.SUBJ
 'I hear that he sang.' (not verified by speaker)

- 33) *nenittóbeenoo hétniibeí'ihók.*
 niitobee-noo eti-niibeí-hohk
 IC.hear news(AI)-1S FUT-sing(AI)-3S.SUBJ
 'I hear that he will sing.' (not considered certain by speaker)

- cf. *hee'inebeenó' nihniibéi't.*
 e'inebeen-o' nih-niibeí-t
 IC.know fact about s.o.(TA)-1S/3S PAST-sing(AI)-3S
 'I know that he sang.'

A similar use, especially in narratives, is for reported thought:

- 34) *"néé'etbée3toonoo," heesi3ecoo'hók.*
 nee'etoh-bee3itoo-noo ee3-i3ecoo-hohk
 that where-finish(AI)-1S what-think(AI)-3S.SUBJ
 "'This is where I finish/die," he thought to himself.' [K:Apache Captive]

13.2.6 Contraindicative, with *hííwo'*

The subjunctive is usually used with the contraindicative, expressing surprise or unexpectedness in relation to action, in conjunction with the particle *hííwo'*:

- 35) *hííwo' nihbiici3eininéhk.*
 iiwo' nih-biici3ei-ninehk
 contrary PAST-sew(AI)-2S.SUBJ
 'So you know how to sew!' [H:7.5] [i.e., 'I didn't know you knew how to sew.'
 (See also B:2.5.25 and Cowell and Moss 2005:455.)

13.2.7 Citational Form, in Traditional Narratives

The evidential use of the subjunctive was formerly common in traditional narratives and still occurs occasionally in this context. It often occurs with /tih/, even in main clauses, but can occur without any preverb as well. It is still regular in the special narrative citation forms (example 38), although the affirmative is (much less often) used with these forms as well.

- 36) *bih'ih he'ih'iinoo'ei. hitoxoohok wootii tousini'eihin hisein.*
 bih'ih e'ih-iinoo'ei
 deer NPAST-hunt

 itex-oohok wootii tousi-ni'eihi-n isein
 come upon(TA)-3S/4.SUBJ like how-pretty(AI)-4S woman.OBV
 'He was out hunting deer. He came upon a woman—how pretty she was!' [A:Text 1]
- 37) *héétee3owó3neniteeno' tih'éeso'óóhkóni'.*
 eetee-3owó3ineniteen-o' tih-eso'oo-ohkoni'
 former-Indian-PL when-fast-3PL.SUBJ
 'The old-time Indians were fast.' [O:Apache Captive, 37]

- 38a) *hee-héhk.* ‘S/he said.’
 38b) *hee3-oohók.* ‘S/he said to him/her/them.’ (3S/4)
 38c) *hee3-éihók.* ‘S/he/they said to him/her.’ (4/3S)

Incidentally, the latter (#38) citation forms always occur with the syntax “CITATION” + *heehéhk/hee3oohók* etc. + SPEAKER AND/OR ADDRESSEE. They never take prefixes and never show initial change. They are likely derived from the relative root /ee3/ ‘how, what’.

13.2.8 Dubitative, with *wot=*

The dubitative proclitic *wot=* can occur with either the affirmative or conjunct subjunctive. In the latter case, it is more strongly dubitative. The following example comes from a narrative:

- 39) *he’ihcooncooo’utoo3ibeeno’ nuhu’otiiw.*
 e’ih-cooni-cooo’utoo3iw-ee-no’ nuhu’ otiiw
 NPAST-unable-drag s.t. out-4-3PL this wagon.OBV
 ‘[The horses] couldn’t drag the wagon [out of the mud];
wottesiiheyooti’ehk.
wot=tesi-ihyooti-’ehk
 DUBIT=very-heavy(AI)-3S.SUBJ
 I guess it must have been very heavy.’ [U] (See also Cowell and Moss 2005:454.)

13.3 CONJUNCT ORDER, ITERATIVE MODE

In addition to the prototypical use, the iterative mode is used in a number of other constructions. Most of these focus on indefiniteness—with regard to when an event will take place, what someone else is doing, the exact identity of the actor, and the like. This mode is used to express the equivalent of English dubitative ‘ever’ constructions, such as ‘whoever’, ‘wherever’, and ‘whenever’, as well as the indefinite ‘some-’ constructions such as ‘someone’, ‘somewhere’, and ‘something’.

13.3.1 Indefinite Future, with Proclitic *toon=*

The use of the iterative in this and the following construction contrasts with the use of the subjunctive, which is less indefinite (see section 13.2.3).

- 40) *ceebéhcoúú’tii hónoot tóonhéét[n]óuunoneenóú’u.*
 ceebeh-coo’utii onoot toon=eti-ouunoneenoo-’i
 PROHIB-mess with s.t.(AI) until INDEF=IC.FUT-difficult(II)-0.ITER
 ‘Don’t mess with this [knowledge] unless things should get difficult.’
 [O:Apache Captive, 25; gloss slightly modified from anthology]

Indefinite future anterior, with proclitic *toon=* and/or preverb /ei’i/:

Toon= can also be replaced by the dubitative *he'*=, plus the iterative, to produce the same meaning of ‘... ever.’

- 48) *héétóótóunínoo3ó' he'ítoxonóó3i woxhóóxebii.*
 eti-toon-touninoo3-o' e'=iitoxu-noo3i woxhooxew-ii
 IC.FUT-REDUP-capture(TA)-1S/3S DUBIT-number(AI)-3PL.ITER horse-PL
 ‘I will capture I don’t know how many/however many horses.’ [O:Scouts, 33]

(Note singular object marking on verb with indefinite plural object; cf. 14.5.1, 14.5.2.)

13.3.3 Indefinite Identity: ‘some- . . .’ Construction, with Proclitic/Preverb Combination *he'ii-*

The Arapaho words for ‘someone’, ‘something’, and the like are actually verbs that use the iterative mode. They are all based on an abstract root /t/, whose meaning seems to be ‘indefinite identity’, to which stative-type derivational suffixes are added, with use of the iterative required.

- 49) *he'íitnéí'i*
 e'ii-t(e)n-ee-'i
 DUBIT-indef-II-0.ITER
 ‘somewhere’
- 50) *he'íiteihí3i*
 e'ii-t-eihi-3i
 DUBIT-indef-AI-3S.ITER
 ‘someone’
- 51) *he'íi3óú'u*
 e'ii-t-yoo-'i
 DUBIT-indef-II-0.ITER
 ‘something’
- 52) *hé'íitéeéenóú'u?*
 e'ii-tee-eenoo-'i
 DUBIT-indef-II-0.ITER
 ‘which one?’ (IN)
- 53) *hé'íitéeeihí3i?*
 e'ii-tee-eihi-3i
 DUBIT-indef-AI-3.ITER
 ‘which one?’ (AN)

Related is the expression ‘somehow’, /e'ii3/, formed from *he'*= + /ii3/ (‘how’):

- 54) *hé'ih'iisiitico'óotonéi3i.*
 e'=ih-iisi-iix-iico'ooton-ei3i
 DUBIT=PAST-how-PERF-discover(TA)-4/3S.ITER
 'Somehow they had already caught sight of him.' [O:Scout's Escape, 3]

13.3.4 Uncertain Identity/Location, with Reduplication

Often, but not always, when reduplication is used to indicate extension or indefiniteness, the iterative is used, especially with the preverb /eet/, meaning 'where', and similar spatial preverbs:

- 55) *heenétoonó3i.*
 eeneetoo-noo3i
 REDUP.where located(AI)-3PL.ITER
 'Wherever they were.' [R:Nih'oo3oo and Butt]
- 56) *heenéetwo'owúúhunó3i.*
 eeneetoh-wo'owuuhu-noo3i
 REDUP.where-move camp farther along(AI)-3PL.ITER
 'Wherever they moved the camp to.' [R:Nih'oo3oo and Butt]

13.3.5 'No matter what/how . . .' Construction

Expressions involving the concept of 'no matter how . . .', 'no matter what . . .', and the like use the iterative in conjunction with wh- question words:

- 57) *hé'ih'eene'in tou'cihi'éihi3i.*
 e'ih-eene'in tou'u-cihi'eihi-3i
 NPAST-REDUP.know(TI) when-small(AI)-3S.ITER
 '[Even a child] knew about these things, no matter how small he was.' [R:
 Surviving Disaster]

13.3.6 Dubitative, with the Proclitic *he'*=

The proclitic *he'*= is often combined with imperfective marker *-ii-*; note that the combination *he'ii-* can be used as a verb initial stem as well as a preverb. *He'ii-* requires use of the iterative. In addition to being used in the 'some . . .' construction, it is used to indicate lack of knowledge on the part of the speaker and can often be glossed as 'I wonder . . .', 'some indeterminate time/amount/extent', or the like.

- 58) *he'ii3éi'neeni3oowú3eecoóni.*
 e'ii-3ei'neen-i3oow-i3eeco-n-oni
 DUBIT-amount/degree-true-think(AI)-2S-ITER
 'I wonder to what degree you believe in this.' [O:Eagles, 94]

- 59) *he'íitóó3i.*
 e'ii-too-3i
 DUBIT-do(AI)-3S.ITER
 'I wonder what he's doing.'
- 60) *he'íicxooyéinihi* [an adverbial participle, to illustrate broader usage of *he'ii-*]
 e'ii-cix-xooyein-iihi'
 DUBIT-length-time passage-ADV
 'Some time later, after a while'

The /e'ii/ combination often replaces the relative root element /ee/:

eecix-	>	e'ii-cix-	'indet. length of time; unknown distance'
ee3ei'-	>	e'ii3ei'-	'indet. degree or extent; up to unknown point'
eetox-	>	e'ii-tox-	'indet. number'

This use of /e'ii/ is especially common in narratives. Since the narrative past tense /e'ih/ can only be used in independent clauses, and expressions of amount, degree, extent, and so forth often occur in dependent and complement clauses, /e'ii/ essentially replaces /e'ih/ as a marker of narrative past with these particular concepts, with the meaning of indefiniteness often being secondary.

/e'(ii)/ can be used in the past or future as well as the present. When used with the past, the resulting form is *hé'ih'ii-*, which looks exactly like the narrative past tense, imperfective aspect. The latter takes non-affirmative inflections, however, whereas the former takes iterative inflections.

- 61) *hé'ih'íicisééntóó3i.*
 e'=ih-ii-cisi-entoo-3i
 DUBIT=PAST-IMPERF-length of time-stay/be located(AI)-3S.ITER
 'He was there for I don't know how long.' [O:Eagles, 19]

Note that the proclitic *he'*= alters to *ne'*= when an expression involves the first person.

- 62) *“wohéi ne'etníistoonóóni,” hechéhk néhe' hinén.*
 wohei ne'=eti-niisitoo-nooni ee-hehk nehe' inen[in]
 well DUBIT.1S=FUT-do(AI)-1S.ITER say(AI)-3S.SUBJ this man
 '“Well, I wonder what I'm going to do now,” the man said.' [R:Satisfied Bear]

13.3.7 'Every-?' Construction, with Proclitic *hééyow*=

The proclitic *hééyow*=, meaning 'each . . .' or 'every . . .', requires the use of the iterative.

- 63) *hééyowhéete3éinobeenóóni.*
 eeyow=ete3einobee-nooni
 every=IC.collide with the ground(AI)-1S.ITER
 'Every time I hit a bump in the road . . .' [R:George Quiver]

14

THE NOUN PHRASE

In the following section, we will examine the larger noun phrase, consisting of multiple words beyond the simple noun word. The additional forms common in noun phrases include independent adjectival modifiers, demonstratives, and pseudo-verbal presentational forms.

14.1 ADJECTIVAL MODIFICATION

14.1.1 Prenouns and Noun Initials

Prenoun-noun combinations show many similarities to preverb–verb stem combinations in Arapaho, and similarly, noun initial and final combinations resemble verb initial and final constructions. As seen in chapter 4, many common lexical items consist of these combinations.

- 1) *nóók-ox* 'polar bear' (white-bear)
 2) *héébet-óoxé* 'sword' (big-knife)

However, it is also fairly common for these kinds of modifier + base noun constructions to be used even when they do not form fully lexicalized expressions. This seems to occur with common semantic pairings, and primarily with /*ecex*/ ('little'), /*eebet*/ ('big'), colors, and a few other prototypical adjectival modifiers.

- 3) *hoonoyóóhowún hínee heebeté3!*
 oonoyoohow-in inee eebet-e3
 be on guard against s.o.(TA)-3.IMPER that big-dog
 'Watch out for that big dog!'
- 4) *hé'ih'itétowuu héébe3niicie.*
 e'ih-itet-owuu eebe3i-niicih-eh-i
 NPAST-reach/get to(TI)-3PL big-river-S
 'They arrived at a big river.' [R:Surviving Disaster]
- 5) *hecéxoo'óé' hé'ihniiwoh'un.*
 ecex-oo'oo-' e'ih-niiwoh'un
 little-pistol-S NPAST-carry(TI)
 'He had a little pistol with him.' [R:Two Bullets]

14.1.2 Independent Verbs and Particles as Adjectival Modifiers

Adjective-type roots can also be expressed independently of the noun word when they are particularly salient. Contrast the following with examples 3–5 above:

- 6) *wohéi hínee niicíhoho, hínee hééteh- nih'iibeesoú'u niicíhoho*
 wohei inee niicih-eh-o inee eetoh- nih-ii-beesoo-'i niicih-eh-o
 wohei that river-PL that where PAST-IMPERF-big(II)-0PL river-PL
 'Well, those rivers, they reached the place where there were
hé'ihcih'itétowuu.
 e'ih-cih-itet-owuu
 NPAST-to here-reach/get to(TI)-3PL
 big rivers.' [R:The Splitting of the Tribes]
- 7) *'oh nécesíhi' bi'níinihítowoo hínee heesini'oo', héestéi'óó',*
 'oh necex-ihi' bi'i-nii-nihit-owoo inee eesi-ni'oo-'
 but IMPERF.little-ADV just-REDUP.say s.t.(TI)-1S that what-good(II)-0S
 eesi-tei'oo-'
 what-strong(II)-0S
 'But I'm just saying a little bit that will be beneficial and provide strength [to the
 tribe].' [R:Speech]

Adverbial particle:

- 13) *3ebis'eenétsin néito'éino', bisíhi' neníteeno'.*
 3ebi-bisi-eeneti3-in ne-ito'ein-o' bis-iihi' ineniteen-o'
 there-all-speak to s.o.(TA)-3.IMPER 1S-relative-PL all-ADV person-PL
 'Call over my relatives, all the people.' [O:Eagles, 69]

In some cases, the adjectival relative clause is placed after the head noun. This always occurs when the relative clause involves more than a single word. In the context of the discussion in this section, it is worth noting that it also seems very rare for relative clauses to be preposed to the noun when the modifying verb is non-stative:

- 14) *tohuunoono3ihit heihii wootii*
 toh-ii-noono3ihi-t eihii wootii
 because-IMPERF-REDUP.smoke(AI)-3S soon like
 'Because he always smokes,
- xouu'ceyoo nih'iiniseenoo'.*
 xouu'ceyoon-i nih-iiniseenoo-'
 stove pipe-S PAST-wander around(II)-0S
 he's beginning to look like a walking stovepipe.'
 (lit. 'like a stovepipe that walked around') [J:III.Shelter]

14.1.3 Semi-independent /ini/ Construction

There is an additional adjective-noun construction, in which a prenoun (but not noun initials) takes the suffix /ini/ and is detached from the noun. As when this construction is used with verbs, this process only marginally creates an independent word, since the basic morphosyntactic structure of the noun is maintained (see 9.15 for further details):

- 15) *núhu'úúno hohóótiiniini bíino.*
 nuhu'-uuno ohootiini-ini biino
 this-EMPH tree like-DET chokecherries
 'These tall, tree-like chokecherry bushes.' [O:Captive, 7]
- 16) *hiit 3o3óuuteiniini cebiini cowouúte'.*
 iit 3o3ouuteini-ini cebi-ini cowouute-'
 here ridge/summit-DET along-DET ridge/rim-S
 'Here at this sharp-edged, horizontally extending ridge.' [O:Scouts, 24]

This construction is used either for emphatic purposes, when no suitable independent verb form is available to create an independent adjective (as with /cebi/), or when the modifying element is unusual and not attached to the noun stem for this reason (unlike more common pre-nouns).

14.1.4 Adjective Incorporation into Verb Word

Finally, with regard to adjectival modification, it should be pointed out as an aside that many modifications that in more analytic languages are part of the noun phrase are attached to the verb as preverbs in Arapaho. We have already seen this in the case of the ‘all’ modifiers (section 9.4). In many cases, this is because the nominal element is itself incorporated in the verb, either directly (example 18) or in the underlying semantics of the stem (example 17), but this is not necessarily the case, especially with quantifiers (as in example 19). Examples are:

- 17) *nebesiibehe' niikooko3einoo3itooneinoo.*
 ne-besibehe' nii-kooko3ein-oo3itoon-einoo
 1S-grandfather IMPERF-REDUP.old-tell story(TA)-3S/1S
 ‘My grandfather tells me old stories.’ [J:I.Family]
- 18) *heetwoonotiibeet.*
 eti-woon-otiibeet-t
 IC.FUT-new-possess car(AI)-3S
 ‘He is buying a new car.’ [J:I.Family]
- 19) *hini'iit heete'i'eiit niino'ototooto' hiiniinsooni'i.*
 ini'iit ete'i'ei-t nii-no'ot-otoot-o' iniinisooni-'i
 that IC.pushed in face(AI)-3S IMPERF-a lot-eat(TI)-3S IC.horn-shaped(II)-0PL
 ‘That monkey eats a lot of bananas.’ [J:II.Animals]

14.1.5 Particles: Quantification, Distribution, and so forth

In Arapaho, several quantifiers that modify nouns occur as particles, which can function either as indefinite pronouns or adjectives. When the noun is an independent form, the particle precedes the noun, whereas when the noun is incorporated into the verb, the particle is preposed to the verb.

- 20) *hóoyei nih'ókokúh'ebínoo.*
 ooyei nih-okok-ih'ebi-noo
 most PAST-soup-drink(AI)-1S
 ‘I ate most of my soup.’
- 21) *beniicé'i hóoyei bisíii'óótno niibiskóú'kooti'i.*
 biice-'i ooyei bisiii'ooton-o nii-bisiko'ukooti-'i
 IC.summer(II)-0.ITER most plant-PL IMPERF-blossom(II)-0PL
 ‘During the summer, most plants are in full bloom.’ [H:19.9]

These particles include:

<i>beenhéhe'</i>	‘a few, little bit’
<i>céése'</i>	‘one, another’

<i>hité3eicííhi</i>	‘each’
<i>hoo3óó’o’</i>	‘some, others’
<i>hoowíúni</i>	‘no, none’
<i>hóóyei</i>	‘most’

14.2 DEMONSTRATIVES

Arapaho has a basic dual ‘this’ and ‘that’ demonstrative system. Arapaho has no definite articles, and the demonstratives meaning ‘this’ and ‘that’ are relatively weaker in force than the English gloss suggests. Although in some instances they do have full demonstrative force, on many occasions they simply indicate that the noun in question is definite, and so they can be glossed as ‘the’. *Núhu* ‘this’ seems to be the default form for ‘the’, but *hínee* ‘that’ is also used in this way, so that Arapaho to a certain extent has a dual definite article system, indicating ‘the (here)’ and ‘the (there)’.

There are, in fact, two forms for ‘this’:

<i>núhu</i>	EMPH <i>núh(u)’úúno</i>
<i>néhe</i>	EMPH <i>néh(e)’ééno</i>

Strictly speaking, *néhe*’ is used for proximate nouns, whereas *núhu*’ is used for obviative and inanimate nouns (which include all clauses treated as nominals). However, in the usage of many speakers, this distinction is not fully observed. Even in the stories of Paul Moss, Moss adheres to this distinction more strictly in some stories than in others. In the fourth text in the anthology, “The Captive,” the distinction is quite clear, and there are numerous clear-cut oppositions between *néhe*’ and *núhu*’, often in the same strophe. The “emphatic” forms of these demonstratives are relatively rare.

Even in earlier texts, the forms *núhu’úúno* and *néhe’ééno* are rare, and this is certainly the case today. It is perhaps incorrect to label them “emphatic” forms, as they often seem to function somewhat like indefinite or approximative forms. In “Tangled Hair,” collected by Michelson, is the following sentence:

- 22) *he’ne’níiwoot nuhu’uuno hecesiseini3.*
e’ne’i-níiw-oot nuhu’-uuno ecex-isei-ni3
 then-marry(TA)-3S/4 this-?? small-woman(AI)-4S
 ‘Then he married the girl.’ [N:line 216]

In a prayer recorded by Kroeber is:

- 23) *nehe’eenoo honoono3i’eeniinit, heetih’i3eti’ hiniixoot.*
nehe’-eenoo oon-o3i’eeniini-t eetih-i3eti’
 this-?? IC.REDUP-be a servant(AI)-3S let it be-good(II)-0S
 i-niixooton-i
 3S-go through(AI.PART)-S
 ‘This one who is serving [them], let his travels be good.’ [S]

The forms should be compared to the pair *hiit* / *hiit-iino*, with the former meaning ‘here’ and the latter ‘around here’. This latter pair shows the same contrast between more and less definiteness that could be seen in the above two examples, especially example 23. Although *núhu’úúno* is fairly rare in Paul Moss’s texts, *néhe’ééno* is even more so. Examples from texts collected recently by Lisa Conathan, which suggest a more emphatic or contrastive meaning, include:

- 24) *niisiine’etiit nehe’eeno hinono’ei, hehneenit nei’eenetiit.*
 niisi-iine’etii-t nehe’-eeno inono’ei[n] eh-neeni-t
 IMPERF.how-live(AI)-3S this-?? Arapaho EMPH-be(AI)-3S

 ne-ii-heenetiit[on]
 1S-IMPERF-speak(AI.DEP.PART)
 ‘How this [old-time] Arapaho lived, that’s the one I’m talking about.’ [V:56]
- 25) *noh nehe’ neinoo niit, nehe’eeno nihii, bih’ihiniibe, ne’nih’iisih’it.*
 noh nehe’ ne-inoo[n] niit nehe’-eeno nihii bih’ih-i-niibe
 and this 1S-mother here? this-?? well deer-EP-sing(AI)

 ne’=nih-iisih’i-t
 that=PAST-named(AI)-3S
 ‘And my mother, she . . . well, Singing Deer, that was her name.’ [V:164]

Hí’in/híni’: ‘that aforementioned’

In addition to the basic this/that distinction, Arapaho has a second ‘that’ demonstrative, *hí’in* or *híni’*, with emphatic form *híni’iit(iino)*, whose basic meaning is ‘that aforementioned’. In part, the two forms seem to be in free alternation with each other, but they also occur in the speech of the same speaker, even within a few lines of each other in the same narrative. At this point, however, no clear semantic distinction between the two has been found.

As might be expected from its meaning, this demonstrative is prototypically used with relative clause constructions, as well as in the common narrative summation formula *hí’in nenéé’* (‘that is it’). Note especially the contrast in example 27 between the first and second mentions of Casper:

- 26) *noh woow nih’otóóbenoo;*
 noh woow nih-otoobe-noo
 and now PAST-consume(AI)-1S
 ‘And now I’ve eaten it;

hootóóbenoo hí’in heinéstoobe3éét.
 otoobe-noo í’in e-ii-nestoow-e3eet[on]
 IC.consume(AI)-1S that 2S-IMPERF-warn(TA)-1S/2S.DEP.PART
 I have eaten that [part of meat] that I warned you about.’ [O:Eagles, 68]

- 27) *wohéi hé'ihnóó3eeno' hinee béi'i'einiiciihéhe'.*
 wohei e'ih-noo3-eeno' inee bei'i'ei-niiciihéh-e'
 well NPAST-fetch(TA)-3PL/4 that shell-river-LOC
 'Well, they went and fetched [coal] at Casper, Wyoming.

hó3o'uunisitee- hotíiwo['] niiciinóó'onbéeséi3[é]'i.
 o3o'uunisitee- otiw-o'nii-ciinoo'oni-beesei3e-'i
 coal- wagon-PLIMPERF-fairly-big(AI)-3PL
 The coal wagons are pretty big.

wohéi né'íini 3ebiiisnóú'uséé3i', hí'in béi'i'einiiciihéhe' . . .
 wohei né'i-ini 3ebiiisi-no'usee-3i' i'in bei'i'ei-niiciihéh-e'
 well then-DET to there-arrive(AI)-3PL that shell-river-LOC
 Well, then they arrived over there at that [aforementioned] Casper, Wyoming . . .
 [R:Strong Bear and the Wagon]

- 28) *né'eesi-nihitóu'u, híni' nii'eihiiinó'et.*
 nee'eesi-nihit-o'u ini' nii'eihiiin-o'et-i
 thus-say s.t.(TI)-3PL that thunderbird-cloud-S [lack of t + i > 3i unexplained]
 'That's how they call it, that [aforementioned] Thunderbird Cloud.

nee'éetoonoo. héétné'níitooonoo.
 nee'eetoo-noo eti-ne'=niitoo-noo
 that where be(AI)-1S IC.FUT-that=where be(AI)-1S
 That's where I live now. That's where I will be.

hoowúúhu' hí'in ní'oonóóyeinoosóó'; híni'
 ihoow-iíhi' i'in nii'i-oonooyein-ooosoo-' ini'
 NEG-ADV that when-REDUP.drizzle-rain(II)-0S that

héetnii'eihiiinó'eti', héétné'níitooonoo.
 eetoh-nii'eihiiin-o'eti' eti-ne'=niitoo-noo
 where-thunderbird-cloud(II)-0S IC.FUT-that=where be(AI)-1S
 Not when it's that drizzling rain; where that Thunderbird Cloud is, that's where I
 will be.' [O:Eagles, 92]

The third example (28) is a good illustration of the alternation between *hí'in* and *híni'*. The third line also shows the use of *hí'in* in a situation where the drizzling rain has not actually previously been mentioned. The use of the 'aforementioned' demonstrative here seems to involve the fact that Moss is talking about a well-known distinction between thunderstorms and drizzling rain, and he is appealing rhetorically to the shared knowledge of the listener about the events in question, which is taken to be an active part of the discourse. This demonstrative also can serve to implicitly ask for such agreement and sharing of assumptions, as well as sharing of similar pragmatic status for referents, similar to the use of "you know" in the English construction "that—you know—really big one."

Demonstratives can function as either adjectives or pronouns (*cihbiini núhu* ‘give me this one!’). When functioning as adjectives, they always precede the noun.

The somewhat mysterious form *hini’iit*, occasionally found as *hini’ítiiino* (O: Shade Trees, 13) has unclear meaning and function. It appears to be simply a lexicalized, emphatic combination of *hini’* and *hiit* ‘here’ or *hítiiino* ‘around here’, corresponding roughly to the English expression “this here X,” although speakers do not recognize this analysis (see also the discussion of *néhe’ééno* and *núhu’úúno* in the preceding section). In the stories of Paul Moss, it occurs just thirteen times in the several thousand lines of text and seems to correlate with no specific category of nouns, occurring with singulars and plurals, with inanimates and animates, with proximates and obviatives, with subjects and objects. It also occurs in stories collected by Truman Michelson in Oklahoma (N:lines 167, 182).

14.3 PRESENTATIONAL CONSTRUCTIONS

Arapaho has several pseudo-verbal “presentational” or existential constructions, which serve to highlight nominal referents even more strongly than simple demonstratives. These are often used to introduce new referents into a discourse but are also used to reactivate referents and sometimes simply for emphatic purposes. A common such construction is the ‘here is . . .’ construction:

29) *níine’eehék néhe’ hinén.*

‘Here is this man.’

30) *níiyóu núhu’ niicíi.*

‘Here is this stream.’

This construction is often used in stories, to introduce new referents, and in situations where speakers typically point to something new and use *níine’eehék* plus the name of the object to draw other interlocutors’ attention to it, as in English ‘hey, look at that . . .!’ or ‘hey, there’s a . . .’. The complete set of forms are:

	PROX	OBV	INAN
SING	<i>níine’eehék</i>	<i>níine’één</i>	<i>níiyóu</i>
PL	<i>níine’ééno’</i>	<i>níine’ééno</i>	<i>níiyóúno</i> (not often used)

(s.t. OBV.PL *níine’éénino*, apparently by analogy with AI non-affirmative 3PL.OBV)

These are clearly morphologically nominal forms (although the proximate singular ending /hehk/ is a subjunctive verb affix). Wolfart (1996:423) calls the equivalent Plains Cree forms “existential interrogative” and “existential demonstrative” pronouns, whereas Valentine (2001:570) labels the Nishnaabemwin forms “demonstrative presentationals”. But in Arapaho, they function similarly to existential verbs semantically and often introduce the heads of relative clauses, as is normally done by verbs. Related forms are:

<i>nééne'eehék, néeyóu</i> , etc.	'there is . . .'
<i>hééne'eehék, heeyóu</i> , etc.	'who is . . .?'/'what is . . .?'
<i>tééteehék</i> , etc.	'where is . . .?' [no *teeyou form is documented]
<i>héteehék</i>	'it is you who are . . .'

Examples are listed below.

From near the beginning of a story (with an unusually high number of presentational forms):

- 31) *kookón hooweenéitenéhiinóó heeyóúhuu*.

kookón	ihoowu-eeneiten-eihiinoo	eeyouhuuh-i
for no reason	NEG-REDUP.take-PASS(II)-0S	a thing-S

'A thing isn't just taken [and used] for no reason.

nih'iinestóóbee'i3i' níine'ééno' beh'éihohó', níiyóu núhu'.

nih-ii-nestoobee-i-3i'	niine'ee-no'	beh'eihohó'	níiyóu	núhu'
PAST-IMPERF-warn people(AI)-3PL	here is-PL	old man-PL	here is	this

These old men would warn people about this [rule].

wohéi níine'ééno' núhu' níi'ehího', níi'ehího', hínee coo'óuu3i'i,

wohei	niine'ee-no'	núhu'	níi'ehího'	níi'ehího'	hínee	coo'óuu3i'i
well	here is-PL	this	eagle-PL	eagle-PL	that	IC.be high up(AI)-3PL

Well, here are these eagles, the eagles, those that fly high in the sky,

eagles ní'ii3éihí3i'. hee'inonóónee. [hii]nookó3oni3i'.

eagles	ní'ii3éihí3i'	e'inonóónee	inooko3oni-3i'
eagles	be called(AI)-3PL	IC.know s.o.(TA)-2PL/3	IC.have white rump(AI)-3PL

"eagles" they are called [in English]. You know them. They have white rumps.

wohéi níine'eehék néhe' hinén.

wohei	niine'ee-hehk	nehe'	inen[in]
well	here is-S	this	man

Well, here's this man.

hé'ih'iinestóóbe' níine'éénino núhu' beh'éihoh'ó.

e'ih-ii-nestoo-e'	niine'ee-nino	núhu'	beh'eihehi'o
NPAST-IMPERF-warn(TA)-4/3S	here is-PL.OBV	this	old man.PL.OBV

They would warn him, these old men.' [O:Eagles, 4–8]

As head of relative clause:

- 32) *"'ee héteehék nonó'otéiht," hee3oohók híih'o.*

'ee	eetee-hehk	no'oteiht	ee3-oohok	íih'e[h]-o
so	you	IC.strong(AI)-3S	say(TA)-3S/4	his son-OBV

"So, you're the more powerful one!" he said to his son.' [R. Moss:The Two Sons]

Since these forms are used to reactivate old referents, as well as emphatically, they are quite often used with demonstratives or possessives (75 percent of the time in an anthology of thirty texts by Richard Moss). This is not a requirement, however, and the forms can be used with indefinite NPs, as one would expect for a presentational form:

- 33) *yeh, nééne'eehéék nooko3ónii'éihii.*
 yeh neene'ee-hehk nooko3onii'eihii[h]
 hey! there is-S golden eagle
 'Hey, there's a golden eagle!' [R:King of the Birds]

One indication that these forms mark very high saliency is that they normally occur in the marked preverbal position, and it is uncommon to find them after the verb. This does occasionally occur, however, as in example 31. Additional examples are given below—note that various special circumstances seem to account for these examples: in example 34, the occurrence is with an imperative, where preverbal NPs are extremely rare; in example 35, the NP is a peripheral element (either implied object or locative, depending on one's analysis); in example 36, the NP occurs with a verb with *ne'* = back-reference proclitic, where preverbal NPs do not occur (see 18.12).

- 34) *néi'íitiibi' niyóu henii3iyoonin!*
 nei'íitiibi-' niyóu e-nii3iyoon-in
 hold on tight-IMPER.PL here it is 2S-possessions-INCL
 'Hold on tight to our heritage!' [R: Splitting of the Tribes]
- 35) *nee3ebwotééset niyóu núhu' niwohóe.*
 nee3ebi-woteesee-t niyóu nuhu' niwohoen-i
 HABIT.there-join in(AI)-3S here it is this flag-S
 '[The Indians] enlisted [and served under] the [US] flag.' [R:Speech]
- 36) *hé'né'nih'ístoot níne'eehéék néhe' beh'éihehi'; hé'ihniistónee.*
 e'ne'=nih-iisitoo-t níne'ee-hehk nehe' beh'éihehi' e'ih-niisiton-ee
 that=PAST-do(AI)-3S here is-S this old man NPAST-make s.t.
 for s.o.(TA)-4
 'And that's what this old man did; he made them for him.' [R:Blood Clot Boy]

Although the presentational forms can be used with first and second persons, when this is done (as in example 32), the construction conveys a sense of surprise or discovery. The presentational forms are not normally used with first and second persons simply for presentation or emphasis. In such cases, the particle *hiit* or *huut*, meaning 'here', is normally used:

- 37) *hiit nenééninoo* 'So here I am.'
- 38) *huut noosouniini bii3wóhunoó.*
 uut nosouni-ini bii3iwouhu-noo
 here IC.still-DET cook for oneself(AI)-1S
 'I'm right here cooking a meal for myself.' [R:Strong Bear and Ghost]

- 39) 'oh huut nenéeninó' niinosouniinónó'éitino', hee3éi'neené'inowúno'.
 'oh uut neeni-no' nii-nosouni-inono'éiti-no'
 but here IC.to be(AI)-12 IMPERF-still-speak Arapaho(AI)-3PL
 ee3ei'neen-e'in-owuno'
 to what extent-know(TI)-12
 'But us here, we still speak Arapaho, as much as we're able.'
 [R:Splitting of the Tribes]

Occasionally, *niiyóu* and *niíne'eehék* and the other forms are replaced by *hiiyóu*, *hiíne'eehék*, and so forth. Although this alternation of *n-* and *h-* is quite common elsewhere in Arapaho, with the *h-* forms indicating a single punctual event and the *n-* forms representing imperfective habitual meanings, the alternation is obsolete or archaic in this particular case. Virtually all of the attestations in narratives are from early-twentieth-century records. In the following example, a man dives below the ice and surfaces with two beavers. The instantaneous appearance seems to be the reason for the use of an *h-* presentational form:

- 40) he'ihcihbisisee nohkuuhu' hebesii hehniisini3i;
 e'ih-cih-bisisee nohk-iíhi' hebes-ii eh-niisi-ni3i
 NPAST-to here-appear(AI) with-ADV beaver-PL #-be two(AI)-4PL
 'He reappeared with two beavers;
 noh hee3eihok, "beenii, hiíne'eeno' hebesii."
 noh ee3-eihok beenii iine'ee-no' ebes-ii
 and say(TA)-4/3S friend here is-PL beaver-PL
 and he said to [his friend], "Here are two beavers, friend."
 [M:Beaver Catcher, lines 18–19]

The interrogative forms 'where is . . . ?' and 'who is . . . ?', as well as 'what?', are discussed more fully in section 11.1 in conjunction with interrogation.

The reader should also consult section 19.1, on presentational particles. Those particles function similarly to the presentational constructions discussed here—both have important discourse-level pragmatic roles. However, the pragmatic particles always precede the presentational construction, do not show agreement marking with the noun (unlike the presentational construction), can introduce verbal actions and other elements as well as nouns, and are even more likely than the presentational construction to occur as the heads of independent pseudo-verbal phrases. For these reasons, they are treated in the chapter on discourse-level phenomena (chapter 19) rather than in the discussion of noun phrases.

14.4. NOUN SEQUENCES

When nouns occur in sequences, they often are simply listed one after the other without the use of *noh* 'and', even when only two such nouns are present, but *noh* is certainly used sometimes in this circumstance (see example 42). The Arapaho equiv-

alent of English ‘X, Y, and Z’ is sometimes ‘X, Y, *wohéi* Z’ (at least for men), although the placement of *wohéi* can vary:

- 41) *wohéi nóosoukóohú3i’ núhu’ nisícoho’, bih’ihii, wohéi nóókuho’, céneeno’.*
 wohei nosoukooohu-3i’ nuhu’ nisiceh-o’ bih’ih-ii wohei nookuh-o’
 well IC.still run(AI)-3PL this antelope-PL deer-PL well rabbit-PL
 ceneen-o’
 grouse-PL
 ‘Well, they were still running these antelope, deer, well rabbits, grouse.’ [O:Forks, 15]

The adverbial *nohkúúhu* ‘with’ is often used to conjoin nouns as well—not just in prepositional-phrase-type constructions but when two subjects or objects occur together. In these cases, one constituent is seen as more central than the other, since /nohk/ indicates subsidiary participants in joint actions (note lack of agreement in example 42 between the presentational form and the animate noun ‘your wife’):

- 42) *hiiyou henec noh hebii3wo, nohkuuhu’ hetesih’e.*
 iiyou e-nec-i noh e-bii3iw-o nohkuuhu’ e-tesih’e[h]
 here it is 2S-water-S and 2S-food-PL with 2S-wife
 ‘Here is your water and your food, along with your wife.’ [S:marriage speech]

Constituents included via *nohkúúhu* also do not show agreement with the verb stem—another indication of their subsidiary status:

- 43) *hohou hee3e3enee hiitoonehinee,*
 ohou ee3-e3enee itoonehi-nee
 thank you say(TA)-1S/2PL IC.have daughter(AI)-2PL
 ‘Thank you I say to the parents of the daughter,
tohuuni’ihinee nohkuuhu’ neih’e.
 toh-ii-ni’ih-inee nohkuuhu’ ne-ih’e[h]
 because-IMPERF-treat s.o. well(TA)-2PL/1S with 1S-son
 for treating me and my son (lit. ‘me, with my son’) so well.’ [S:marriage speech]

The equivalent of ‘or’ is *wo’éi3*:

- 44) *tih’iinokó3tonóó3i’ koo’óhwuu wo’éi3 nii’ehiiho.*
 tih-ii-noko3iton-oo3i’ koo’ohw-uu wo’ei3 nii’ehiih-o
 when-HABIT-imitate(TA)-3PL/4 coyote-PL.OBV or bird-PL.OBV
 ‘When they would imitate coyotes or birds.’ [O:Scouts, 50]

The expression ‘and so forth’, ‘etcetera’, and ‘and the like’ is *heenéisíihi*, often pronounced *heenéi’isíihi*, an adverbial derived from the reduplicated relative root /ee3/ ‘how, what’:

- 45) *heenéiyoo3ko'úxo' niinóoxoo, wohéi biisíwoo, híikóno, heenéi'isíihí'.*
 eeneiyoo3i-ko'ux-o' niinooxon-i wohei biisiwoon-i iikon-o
 clean.REDUP-cut s.t.(TI)-3S tripe-S well paunch liner-S lung-PL
 eeneisihi'
 various things
 'He was busy cutting out the tripe, and the paunch liner, the lungs, various things,
 from the carcass.' [R:Nih'oo3oo and the Entrails]

14.5 DEFINITENESS AND INDEFINITENESS

14.5.1 Marking Definiteness

The demonstratives are central to the indexing of definiteness in Arapaho. As a general rule, indefinite nouns lack demonstratives. They also are much more likely to occur postverbally than preverbally, although when they are new to a discourse, especially when they will subsequently be important in the discourse, they can occur preverbally. As the titles of the stories from which the following citations are drawn suggest (examples 46, 48, and 49 in particular), the indefinite objects in question below, each of which is introduced into the narrative for the first time in the citations given here, are central to the narratives. Thus, they occur preverbally but lack demonstratives (note also in passing that both animate and inanimate nouns, as well as agents, patients, and subjects, all occur in this very limited sample, and all can occur preverbally):

- 46) *wohéi núhu' bíih'iyóú'u 'oh béé3ei hé'ih'iicóocoo'ú3éi'i.*
 wohei nuhu' bih'iyoo-'i 'oh bee3ei[n]
 well this IC.be dark(II)-0.ITER and owl
 e'ih-ii-coocoo'u3ei
 NPAST-IMPERF-REDUP.bother(AI)
 'Well, at night, well, an owl would bother people.' [R:The Owl Man]
- 47) *wohéi héétníini . . . hiwóxuu heetnótiihóú'u.*
 wohei eti-ini iwoxuuh eti-notiih-o'u
 well IC.FUT-DET elk IC.FUT-search for s.o.(TA)-1S/3PL
 'Well, I'm going to . . . I will look for some elk.' [R:Strong Bear and the Ghost]
- 48) *hoowóé'in wox hé'ihcihno'úseen.*
 ihoowu-e'in wox e'ih-cih-no'usee-n
 NEG-know s.t.(TI) bear NPAST-to here-arrive(AI)-4S
 'He does not know that a bear has arrived.' [R:The Satisfied Bear]
- 49) *hecéxoo'óé' hé'ihniiwoh'ún, heniiscítóhóúúni'.*
 ecex-oo'oo-' e'ih-niiwoho'un iisi-ciitohuuni-'
 small-pistol-S NPAST-carry s.t.(TI) IC.PERF-be loaded(II)-0S
 'He had a small pistol with him, which was already loaded.' [R:The Two Bullets]

Indefinite nouns are thus unmarked in Arapaho. In fact, speakers often do not even mark plurality on indefinite nouns (see example 47), especially those that refer to categories of individuals (Wolfart 1996:399 discusses the same feature in Plains Cree). Another example is:

- 50) *totóónee héentoot 3owó3nenítee, cenééce'íseihí3i' 3owó3neníteeno'.*
 tootoonee entoo-t 3owo3inenitee[n] cece'eseihi-3i'
 everywhere IC.be present(AI)-3S Indian IC.REDUP.different(AI)-3PL
 3owo3ineniteen-o'
 Indian-PL
 'There are Indians all over, different Indian tribes.' [R:Splitting of the Tribes]

Normally in such cases, the noun and verb are both singular, although with fairly clear plural meaning. In some cases, plural verbs are used but with singular indefinite nouns:

- 51) *nóno'ei3owó3nenítee, tih'iinéseineeníne'etí3i'*
 inono'ei-3owo3inenitee[n] tih-ii-neseineeniine'etii-3i'
 Arapaho-Indian when-HABIT-live wild(AI)-3PL
 'Arapaho Indian[s], when they were living close to nature
heenéi3eenéiténowoot níyóu núhu'
 eenei3-eeneitenowoo-t níiyou nuhu'
 REDUP.how-REDUP.get s.t.for oneself(AI)-3S here it is this
 [that was] how they came to possess these
bébéteeníini.
 beebeteeni-*ini*
 REDUP.sacred-DET
 sacred powers.' [O:Apache Captive, 48]

14.5.2 Definite Markers with Indefinite Nouns

The definite-indefinite distinction shows a number of special nuances. Most importantly, when nouns are introduced into a discourse, with the intention to mention them again, many languages have a tendency to treat the noun as indefinite in the first instance, and then switch to definiteness subsequently, as in English: 'He was walking down the street. He saw a dog. The dog was really big.' Arapaho speakers, on the other hand, often treat such nouns as definite from the first mention when the speaker anticipates or plans that these nouns will be definite in subsequent mentions. This is certainly not always the case (see examples 46–49 above, all from Richard Moss), and the exact reasons for the choice are not entirely clear. Note the contrast in the two examples below from Paul Moss, the father of Richard, with no definite marker in the first, but a definite marker in the second:

- 52) *hé'ih'eetét níyóu níicíhoho.*
 e'ih-eetét níyou níicíheh-o
 NPAST-reach/get to(TI) here is stream-PL
 'He reached some streams.

níyóu hé'ih'íibíibíinee.
 níyou e'ih-ii-bíibíinee
 here is NPAST-IMPERF-REDUP.eat berries(AI)
 He would eat berries [along the streams].

béébeet hé'néén híbíí3híitono.
 beebeet e'=neeni i-bíí3híiton-o
 only DUBIT=to be(II) 3S-food-PL
 That was the only thing he had to eat.' [O:The Captive, 6]

- 53) *'oh howóó níyóúno níhíí núhu' níhíí yóókoxuu.*
 'oh owoo níyou-no níhii nuhu' níhii yookox-ii
 and also here is-PL well this well willow-PL
 'And also there were, well, these, well, willows.

hé'ih'íicíhíixoén híit.
 e'ih-ii-cíhíixoén híit
 NPAST-IMPERF-peel s.t.(TI) here
 He would peel them here.

hé'ih'ii- hé'né'nih'íténowoot.
 e'ih-ii- e'ne'i-nih-itenowoo-t
 NPAST-IMPERF then-PAST-take s.t. for oneself(AI)-3S
 He would—then he took some for himself.

cí'núhu' yóókoxuu, hé'ih'íicíhíixoén.
 cí'=nuhu' yookox-ii e'ih-ii-cíhíixoén
 also=this willow-PL NPAST-IMPERF-peel s.t.(TI)
 These willows too, he would peel them.' [O:The Captive, 7]

In the first case, the stream is introduced into the discourse as indefinite, is placed postverbally, and receives no subsequent explicit mention (although it is the place where the berries that the character eats are growing). In the second case, the willows are introduced into the discourse as definite, with a special pragmatic particle (*howóó*) to mark their introduction, and are placed preverbally. They then continue to be the focus of the discourse. This usage is common in the speech of Paul Moss (see in the same narrative, strophe 3, line 4; strophe 7, line 6; strophe 14, line 1 [with *hínee*]; strophe 45, line 4).

This usage can be compared to English, as in the following narration of a joke: "So there's this penguin who walks into a bar. He sees these two guys . . ." This joke could be told using "a penguin" and "he sees two guys," but the use of the demon-

strative effectively gives the nouns in question a more definite pragmatic status (even though they are clearly no more cognitively or semantically definite) and signals the listener that they are likely to be important elements of the narrative. (Note, for example, that if the narrator says “walks into this bar” the suggestion is that the bar will perhaps play some specific role in the story, perhaps due to its being a specific kind of bar, such as a biker bar, a gay bar, and so forth.) We will not belabor the various nuances of the contrasting English sentences, but the Arapaho use of demonstratives with first mentions of nouns seems to accomplish a roughly similar type of pragmatic signaling. Valentine (2001:541) notes a similar use of demonstratives with indefinites in Nishnaabemwin.

Plurality with indefinites

We have already noted that indefinite forms tend to be treated as singular, even when there are multiple members in the category in question (examples 50, 51). The use of the plural, in fact, often correlates with definiteness. Note the contrast:

- 54) *tih'eenéisiíne'etíit nóno'ei.*
 tih-eenei3-iine'etii-t inono'ei[n]
 when-REDUP.how-live(AI)-3S Arapaho
 '[A story about] when Arapahos lived according to those old ways.' [O:Apache
 Captive, 49]
- 55) *tih'eenéisiíne'etíi3i' núhu' hééteenóno'éino'.*
 tih-eenei3-iine'etii-3i' nuhu' eetee-nono'ein-o'
 when-REDUP.how-live(AI)-3PL this before-Arapaho-PL
 '[A story about] when these old-time Arapahos lived according to those old
 ways.' [elicited as a contrastive example; note in passing /inono'ei/ treated as if
 /nono/ei/]

The use of the plural, with the demonstrative/definite marker, indicates ‘these (specific, certain) Arapahos’.

Definite markers with contrastive indefinites

A similar usage also occurs in contrastive constructions, such as ‘a story about [the] Arapahos [as opposed to (the) Cheyennes, for example]’. In such a case, ‘Arapahos’ is indefinite but is normally modified by a demonstrative (unlike example 54) and made plural. In fact, contrastive constructions are another common instance where demonstratives are used with indefinites more generally (see chapter 19, example 47, the contrast between ‘berries’ and ‘roots’ in subsequent sentences). The same usage occurs in Nishnaabemwin: Valentine (2001:541) gives the sentence ‘he could only kill skunks’ in which skunks is indefinite but made plural and modified by a demonstrative, and which clearly suggests an implicit contrastive relationship toward the other things that the person could not kill.

14.5.3 Definite Nouns without Definite Markers

Definite referents can be mentioned without using a demonstrative / definite marker. This is especially the case when there is only one possible such referent (but note, nevertheless, the use of the presentational form *niiyóu* below):

- 56) *héihii koo'óhwuu né'ec- nii3eenéntoo3i' niiyóu nóno'éíteen.*
 eihii koo'ohw-uu né'ec- nii3i-eenentoo-3i' niiyou
 soon coyote-PL then with-REDUP.be located(AI)-3PL here it is
 inono'ei-teen-i
 Arapaho-tribe-S
 'Soon [the] coyotes, then—they stayed here with the Arapaho tribe.' [O:Apache
 Captive, 47]

14.5.4 Additional Uses of Definite Markers

Although marking of possession tends to automatically indicate definiteness cross-linguistically, Arapaho speakers nevertheless often use definite markers with possessed forms in discourse. This is especially so with obligatorily possessed forms, which is not surprising, since obligatory possession tends to counteract the connection of possession-marking with definiteness:

- 57) *hé'ih'óotoowkúutii hí'in hitóó3et.*
 e'ih-otoowukuutii í'in i-oo3et
 NPAST-swallow s.t.(AI) that 3S-saliva
 'He swallowed his saliva.' (lit. 'that his saliva') [O:Apache Captive, 7]

Speakers also typically use definiteness markers with both place names (see example 27) and personal names. On the other hand, they typically do not use them with locatives, although this can occur:

- 58) *hé'ih3í'ok 'oh niiyóu núhu' ciitóowíú' núhu' niinóné'.*
 e'ih-3í'oku 'oh niiyou nuhu' ciitooowuu' nuhu' niinon-e'
 NPAST-sit(AI) but here is this inside this tepee-LOC
 'He was sitting, just right here inside the tepee.' [O:Eagles, 78]

14.5.5 Unknown Existence: Proclitic *toon=*

The proclitic *toon=* is used to highlight the specifically indefinite character of a referent. In some circumstances, it is equivalent to English 'a' or 'any', meaning 'any one matching the description':

- 59) *ceixótoní toonnonookéíht wóxhoox.*
 ceixoton-i toon=nookeihi-t woxhooxew
 bring to me(TA)-1S INDEF=IC.white(AI)-3S horse
 'Bring me a white horse', 'Bring me any white horse [that you can find].'

- 60) *niinotiitiiinoo toonnonoocóó’.*
 nii-notiitii-noo toon=noocoo-’
 IMPERF-see(AI)-1S INDEF=IC.white(II)-0S
 ‘I’m looking for a white one.’

Note that the proclitic is attached to the verb(al adjective) rather than the noun, but it affects the definiteness of the noun in question. In this construction, the existence of a referent matching the description is *not* assumed, and thus the construction could also be glossed (using the first sentence) ‘Bring me a white horse, if one can be found, if there is one.’

A related construction is the ‘. . . -ever’ construction. In this construction, the use of the iterative renders the identity of the referent or likelihood of the event more uncertain:

- 61) *toonnonóóhowót.*
 toon=noohow-ot
 INDEF=IC.see(TA)-2S/3S
 ‘Whoever you see.’ (assumes someone will be seen)
- 62) *héébtíicitoné3en toonhebií’eenéé3oo.*
 eti-biiciton-e3en toon=e-bii’eenéé3oo[n]
 IC.FUT-bead for s.o.(TA)-1S/2S INDEF=2S-discover by thinking(TI.DEP.PART)
 ‘I will bead you whatever you think of.’ [H:7.7]

toon= can also be used with clausal complements following negative main verbs, in which case it renders the overall clause more emphatically indefinite:

- 63) *néihoowóé’in héétníistoonoo.*
 ne-ihoowu-e’in eti-niisitoo-noo
 1S-NEG-know(TI) IC.FUT-do(AI)-1S
 ‘I don’t know what I’m going to do.’
- 64) *néihoowóé’in tóonheetníistoonoo.*
 ne-ihoowu-e’in toon=eti-niisitoo-noo
 1S-NEG-know(TI) INDEF=IC.FUT-do(AI)-1S
 ‘I don’t know what in the world I’m going to do.’

14.6 PRONOUNS

14.6.1 Personal Pronouns

Arapaho lacks a set of clear-cut pronouns from a morphological perspective. Rather, the AI/II verb /neeni/ ‘to be . . .’ is used for all semantic roles, with several variants.

- 65) *nenééninoo*.
 neeni-noo
 IC.to be(AI)-1S
 'It is I.', 'I', 'me', 'It is me.'

	<i>Singular</i>	<i>Plural</i>
1	<i>nenééninoo</i>	<i>nenéénini'</i>
12	N/A	<i>nenéénino'</i>
2	<i>nenéénin</i>	<i>nenééninee</i>
3	<i>nenéénit</i>	<i>nenéé3i'</i>
4	<i>nenéénin3 / nenéénini3</i>	<i>nenéénin3i / nenéénini3i</i>
0	<i>nenéé' / nenéénini'</i>	<i>nenéé'i / nenéénini'i</i>

This verb often occurs as part of pseudo-cleft or relative clause constructions, and the original meaning was likely 'I am the one who . . .', 'you are the one who . . .', but it also occurs simply as an emphatic form. Personal pronouns are generally not common, and their use is typically emphatic or contrastive. The following (atypical) passage shows several examples:

- 66) "wohéi *nenéénin*," *hee3éihók núhu' koo'óhwuun*,
 wohei neeni-n ee3-eihok nuhu' koo'ohw-uun
 well IC.to be(AI)-2S say(TA)-4/3S this coyote-OBV
 [note reanalysis with /-n/]

nenééninoo hee'inonín tohnéé'etéihinoo.
 neeni-noo e'inon-in toh-nee'eeteihi-noo
 IC.to be(AI)-1S IC.know s.o.(TA)-2S/1S because-that is where from(AI)-1S

núhu' né'eeshnéhtihín tohnéé'etéihinoo.
 nuhu' nee'eesi-nehtih-in toh-nee'eeteihi-noo
 this thus-recognize s.o.(TA)-2S/1S because-that is where from(AI)-1S

nenééninoo wootíi hoo3í'eebéénoo héétniiteheibé3en.
 neeni-noo wootii o3i'eebee-noo
 IC.to be(AI)-1S like/as IC.to have been asked to do s.t.(AI)-1S

eti-niiteheiw-e3en
 IC.FUT-help(TA)-1S/2S

'Well, you,' the coyote said to him, 'you know me because I am from there [where your tribe is]. This is how you recognize me, because I am from there. I am going to help you, as I was asked to do.'" [O:Apache Captive, 19]

Independent reflexive pronouns ('myself', 'yourself', etc.) are formed with the combination of the adverbial particle *níiheníihi* 'by oneself' and the relevant pronoun:

- 67a) *níiheníihi' nenééninoo* 'myself'
 67b) *níiheníihi' nenéénin* 'yourself'

- 68) *“hoowúúni honóót niinotóónoo3óú’u néito’éino’*
 ihoowu-ini onoot nii-notoonoo3-o’u ne-ito’ein-o’
 NEG-DET until IMPERF-defend s.o.(TA)-1S/3PL 1S-relative-PL
 ‘[I won’t use that power] unless I’m defending my relatives
wo’éi3 howóó niiheníihí’ nenééninoo,” hé’ih’íi.
 wo’ei3 owoo niiheníihí’ neeni-noo e’ih-ii
 or also oneself IC.to be(AI)-1S NPAST-say(AI)
 or myself, of course,” he said.’ [R:Strong Bear and the Boxer]

14.6.2 Contrastive Pronouns/Adjectives *céése’* and *hoo3óó’o’*

The pronoun/adjective *céése’* (obv. *cééxoón*) means ‘one’ and also ‘another one, the other one’. It is used to mean specifically ‘one’ or contrastively (note the preverbal placement in most cases):

- 69) *hé’ihníisnino: céése’ hé’ih3i’óókuu, céése’ hé’ih3i’ok.*
 e’ih-niisi-nino ceese’ e’ih-3i’ookuu ceese’ e’ih-3i’oku
 NPAST-be two(AI)-4PL one NPAST-stand(AI) one NPAST-sit(AI)
 ‘There were two of them: one was standing, one was sitting.’ [R:The Two Bullets]
- 70) *wohéi céése’ kooxhé’né’ce’wo’wúuhú3i’.*
 wohei ceese’ koox=e’ne’i-ce’i-wo’owuuhu-3i’
 well another [time] again=then-again-move camp(AI)-3PL
 ‘Well, then yet again they moved camp.’ [R:The Owl Man]
- 71) *wohéi hí’in céése’ né’no’ookéit.*
 wohei i’in ceese’ ne’i-no’ookei-t
 well that other one then-bring home meat(AI)-3S
 ‘Well, then that other son brought home some meat.’ [R:The Two Sons]
- 72) *wohéi néhe’ hísei, céése’ hísei hé’ih’éi’towúúnee hí’in cééxoón.*
 wohei nehe’ isei[n] ceese’ isei[n] e’ih-e’itowuun-ee i’in
 well this woman one woman NPAST-tell s.o. s.t.(TA)-4 that
 ceexoón
 other.OBV
 ‘Well, this woman—the one woman told the other woman.’ [R:The Good Garden]

The form *hoo3óó’o’* ‘others, the others, some’ is basically the plural of *céése’*. It is used in the same contrastive constructions, and it too typically is used preverbally as both a pronoun and a modifier:

- 73) *hé’ihníisnieniini; hínee hoo3óó’o’ beneniiniini hóotí3i’.*
 e’ih-niisnieniini inee oo3oo’o’ beneniini-ini ootii-3i’
 NPAST-alone(AI) those others clustered-DET camp(AI)-3PL
 ‘He stayed alone; the others camped in a group.’ [R:The Owl Man]

- 74) *wohéi núhu' hoo3óó'o' beniinenno', 'oh síihé'ih- kookón síihé'ih- hoowúúni.*
 wohei nuhu' oo3oo'o' beniinenin-o' 'oh sii=e'ih- kookon
 well these other soldier-PL but INTENSE=NPAST for no reason
 sii=e'ih- ihoowu-ini
 INTENSE-NPAST NEG-DET
 'Well, the other soldiers, well, they just couldn't do it no matter what they did.'
 [O:Scout's Escape, 11]

14.6.3 Distributive Pronoun/ Adjective

The adverbial particle *hité3eiciíhi'* functions as both an adjective and a pronoun. It is used with plural nouns and verbs with plural inflection.

- 75) *hité3eiciíhi' hinénno'.*
 ite3eiciíhi' inenin-o'
 each man-PL
 'each man'
- 76) *biseenéhi', hité3eiciíhi' nih'eenísi' nokooyéí3i'.*
 biseen-iihi' ite3eiciíhi' nih-eenei3-i'i-nokooyei-3i'
 all-ADV each one PAST-REDUP.what-INTR-fast(AI)-3PL
 'All of them, each one, whatever he was fasting for . . .' [O:Eagles, 93]

14.6.4 Indefinite Pronouns

Like the personal pronouns, the indefinite pronouns indicating 'someone', 'something', 'somewhere', and so forth are verbal forms—in this case, conjunct mode iterative forms, all based on a root meaning 'indefinite identity' (see 13.3.3 for full exposition of all forms).

- 77) *yeh ceníhto3ihee-noo he'úiteihí3i.*
 yeh cih-to3ihee-noo e'ii-teihi-3i
 gee to here-be followed(AI)-1S DUBIT-indefinite(AI)-3S.ITER
 'Gee! I'm being followed [by] someone!' [R:Fooling the Ghost]

The forms can be rendered more indefinite through the use of the proclitic *toon=*, which in this case produces the meaning of ' . . . ever':

- 78) *3iwoo néyehé'inonínee toonhe'úiteihí3i.*
 3iwoo neyei-e'inon-inee toon=e'ii-teihi-3i
 let's see try-know s.o.(TA)-3.IMPER INDEF=DUBIT-indefinite(AI)-3S.ITER
 'Why don't you try to find out who[ever] it is!' [R:The Old Couple and the Ghost]

Like the personal forms, these pronouns take inflection for number and obviation:

- 79) *hé'né'ee'ino' tihto3ihéit hé'iitéhini3.*
e'ne'-e'in-o' tih-to3ih-eit e'iiteihi-ni3
 then-know s.t.(TI)-3S COMPL-follow(TA)-4/3S someone-OBV
 'And then he realized that someone was following him.' [R:The Ghost by the Road]

The noun *heeyóúhuu* 'a thing' also functions as an indefinite pronoun on many occasions, with a meaning of 'something, anything, nothing', depending on the context:

- 80) *héétnéi'towuuné3en heeyóúhuu.*
eti-e'itowuun-e3en eeyouhuuh-i
 IC.FUT-say s.t. to s.o.(TA)-1S/2S a thing-S
 'I am going to tell you something.' [O:Eagles, 53]
- 81) *kookón hiihoowúuténowuu heeyóúhuu.*
kookon ii-ihoowu-iten-owuu eeyouhuuh-i
 just any way 3.IMPERF-NEG-take(TI)-PL a thing-S
 'They didn't take anything just any old way [and use it].' [O:Eagles, 93]

The noun *hinenítee* 'a person' functions similarly:

- 82) *kookón hoowúutétehéi3toneih,*
kookon ihoowu-itetehei3toneihi
 for no reason NEG-to be given a divine blessing(AI)
- wo'ei3 kookón hoowucé3enéih*
wo'ei3 kookon ihoowu-ce3eneihi
 or for no reason NEG-to have s.t. passed on to you
- hónoot nenítee hééteekó'o'.*
onoot inenitee[n] eti-teeko'-o'
 until a person IC.FUT-fit/be suited(TI)-3S

'A thing isn't received from above just anyhow, or things aren't passed down until a person/someone is suited [to receive them].' [O:Scouts, 61]

14.7 NOUN PHRASE SYNTAX

In complex noun phrases, modifying elements—independent adjectival words, demonstratives, presentational forms, pronouns like *ceese'* and *hoo3oo'o'*—virtually always precede the noun. The only exception to this rule occurs with single-word verbal-adjective relative clauses (14.1.2) and with adverbial particles that function like English prepositions: these can precede or follow the noun (see 15.5).

More specifically, among the various potential preposed elements, the standard word order is:

THE NOUN PHRASE

Pragmatic Particle + Presentational Form + Demonstrative + Adjectival Element
(including *céése'*/*hoo3óó'o'*, etc.) + Noun

An example with several different elements—and hesitation particles thrown in for good measure—is:

83) *'oh howóó niyóúno nihíí nuhu' nihíí yóókoxuu.*

'oh owoo niyoo-no nihii nuhu' nihii yookox-ii

but also here is-PL well this well willow-PL

'And then there are these, well . . . these, well . . . willows.' [O:Apache Captive, 7]

15

THE VERB PHRASE—PARTICLES

Arapaho has a rich collection of particles, which are defined here as non-inflectable words. Many of these are invariable and occur only in particle form. Others can occur at least occasionally as roots within nouns or verbs but can also be used independently (unlike the vast majority of Arapaho roots). There are also a number of secondarily derived particles that are based on common and widely used roots. Of special note is a subclass of derived particles that will be labeled “adverbials” and play a major role in the sentence. Also of note are a number of particles that interact very closely with the verb; these particular particles require specific inflectional orders and modes on the verb stem and constitute fixed constructions. Finally, there is a large collection of discourse-level particles. This chapter examines only particles that occur specifically within the verb phrase and interact closely with the verb semantically and/or syntactically.

15.1 GENERAL PARTICLES

There are many particles that express concepts similar to those expressed by preverbs. These include temporal and aspectual forms and a modal auxiliary:

<i>biikoo</i>	'last night; at night' [also occurs in the noun <i>biikousiis</i> 'moon']
<i>(he)néeébees</i>	'to have the chance/opportunity to . . .' (see section 15.4)
<i>hóhkonee</i>	'finally'
<i>hóóno'</i>	'not yet'
<i>koxúúte'</i>	'sometimes'
<i>nohkúseic</i>	'in the morning, early in the morning' [also occurs as a preverb/verb root]
<i>téébe</i>	'just now'
<i>woow</i>	'already'
<i>xonóu(u)</i>	'right away, immediately'

There are some quantifiers and qualifiers:

<i>bebené(h)</i>	'approximately'
<i>béébeet</i>	'just, only'
<i>béenhéhe'</i>	'a few, a little'
<i>hóóyei</i>	'most'

15.2 LOCATIVE PARTICLES

There are quite a number of locative particles. Note that most of these are derived forms consisting of a recognizable root and the locative suffix, and this may be an open class. On the other hand, some of these contain roots that are not otherwise recognizable and do not occur elsewhere in the language. The commonest forms are:

<i>Particle</i>	<i>Meaning</i>	<i>Root</i>
<i>céee3i'</i>	'outside'	
<i>cénohó'</i>	'the east, downward'	cen- 'down'
<i>híhcebéhe'</i>	'nearby'	
<i>híhcébe'</i>	'above, up above, in the sky'	ihk- 'up'
<i>híikóó'</i>	'in the brush, in the timber'	ko- 'foliage'
<i>híi3e'</i>	'over there' (also <i>húú3e'</i>)	ii3- 'from there to here'
<i>hi3óóbe'</i>	'underneath s.t.'	i3oow- 'below'
<i>kox3i'</i>	'over the hill or mountain, on the other side'	koxut- 'over hill, other side'
<i>neehii3éi'</i>	'in the middle'	neehii3- 'like, similar(?)'
<i>niicibe'</i>	'in back of the circle, toward the rear'	niiciw- 'in back'
<i>noxúutéi'</i>	'the west, upriver'	noxuutei- 'upriver'
<i>no'ó'</i>	'way out, far from camp'	no'o- 'far from camp'
<i>teesi'</i>	'on top of s.t.'	teex- 'on top, over'
<i>3óówohóú'u'</i>	'in the middle, at the center'	3oon- 'middle, apex(?)'

Note that unlike locativized nominal forms, many of these locative particles take the pitch accent on the locative suffix. More specifically, this is not the case with forms ending in /e'/, but it is the case with forms ending in /i'/. It is the case with forms ending in /o'/ as well, but there are relatively few of these forms, and it is not at all clear that the /o'/ is an actual locative suffix in some cases.

At least some of these particles can be modified lexically (although not inflectionally, of course), which further points to the openness of this class:

- 1) 'oh né'íini 3ebíisihi', 3ebce'kox3í',
 'oh ne'i-ini 3ebíisihi' 3ebi-ce'i-koxu3í'
 and then-DET toward there there-again-on the other side.LOC
 'And then over there, over there again on the other side,
 néeyóu niitcǐhbise'éinini3i
 neeyou niitoh-cih-bise'eini-ni3i
 there it is where.IMPERF-to here-show head(AI)-4PL
 there's where they were sticking their heads up.' [O:Scouts, 46]

There are also locative particles that are semantically locative, although they are not morphologically so. This is a closed class:

<i>beebé'on</i>	'way far away'
<i>hiit</i>	'here' (also <i>huut</i>) [also occurs as a verb root]
<i>hítiino</i>	'around here' (also <i>húútiino</i>)
<i>hinít</i>	'right there' (also <i>hunít</i>)
<i>hóóxonó'o</i>	'across the river'
<i>hó3es</i>	'out in the open, in plain sight' [also occurs as a preverb/verb root]
<i>nónotee</i>	'anywhere, wherever'
<i>nookóó3</i>	'off to the side'
<i>totóónee</i>	'all around, everywhere'

Imperative Particles

There are a number of invariable particles that function as imperatives. They are listed and discussed further in section 12.1.

Discourse-level and Emphatic Particles

There are a number of particles that operate at the discourse-pragmatic level to introduce new referents or topics to a discourse, reactivate and otherwise manage existing referents, comment emphatically on the discourse, or function as independent sentences. These are treated in chapter 19.

15.3 MULTIPLE PARTICLES TOGETHER

Multiple particles can occur together. One fixed construction involving two particles is ‘oh *beebeet*, meaning ‘provided that’ or ‘only if’:

- 2) *hee, heetniihe3en* ‘oh *beebeet heetwo’xeenot*.
 ee eti-iih-e3en ‘oh *beebeet*
 yes IC.FUT-lend(TA)-1S/2S but just/only

 eti-wo’oxeen-ot
 IC.FUT-shoe a horse(TA)-2S/3S
 ‘Yes, I’ll lend [the horse] to you, provided you shoe it.’ [Curricular materials]

15.4 PARTICLE/VERB STEM INTERACTIONS

Among the numerous particles that occur in Arapaho, there is a subset that interacts very closely with the verb stem. These particles occur prior to the verb (typically immediately prior to it) and in some cases require specific inflectional orders and modes be used on the verb stem. Based on these behaviors, a set of specific “particle + verb” constructions can be defined. Not surprisingly, this subset of particles closely bound to the verb tends to have interrogative, temporal, aspectual, evidential, or modal functions and meanings that interact fairly closely with those of the verb stem. Many of these particles are likely on the path toward becoming proclitics. In all of the following examples, the particle in question is the only one used for the construction in question. Examples include:

Obligation construction with *héénoo*:

- 3) *héénoo héétwotééseenoo*.
 eenoo eti-woteesee-noo
 OBLIG/RULE IC.FUT-go to town(AI)-1S
 ‘I have to go to town.’

Héénoo can indicate not only obligation but also ‘customarily’ or ‘as a rule’, as well as the idea that something is ‘naturally’ a certain way. It is also used to indicate that something was done ‘on purpose’:

- 4) *héénoo neih’oownéé’eestoo*.
 eenoo ne-ih-ihoo-wu-nee’eesitoo
 on purpose 1-PAST-NEG-do thus (AI)
 ‘I didn’t do it on purpose.’

Mirative / contrary-to-expectation construction with *hííwo’*:

- 5) *hííwo’ nihno’úseeninéhk*.
 iiwo’ nih-no’usee-ninehk
 CONTR TO EXPECT PAST-arrive(AI)-2S.SUBJ
 ‘So you came after all!’, ‘I didn’t know you were coming!’
 [*hííwo’* almost always occurs with the subjunctive mode]

Contrary-to-reason, without-reason construction with *kook(uy)ón*:

- 6) *kookón tih'iicíteneíhiinóó heeyóúhuu.*
 kookon tih-ii-cii-iiteneihiinoo eeyouhuuh-i
 NO REASON when-IMPERF-NEG-be taken(II) a thing-S
 'A thing isn't just taken [and used] for no reason.' [O:White Horse, 7]
 [fixed syntax: *kookón* + VERB (+ NOUN); noun is often *heeyóúhuu*]
- 7) *híni' biixóxko'ó' kookón niibíi3i' heeyóúhuu.*
 ini' biixoxko'ó' kookon nii-bii3i-' eeyouhuuh-i
 that goat NO REASON IMPERF-eat(AI)-3S a thing-S
 'That goat eats just anything.' [J:I.Animals]

Potential construction with *nooxéihi'*:

- 8) *nooxéihi' heesówobéiht.*
 nooxeihí' esowobeihí-t
 maybe IC.be sick(AI)-3S
 'Maybe he's sick.'

Terminative construction with *hóhkonee*:

- 9) *hóhkonee hé'né'no'oxúúhetít.*
 ohkonee e'ne'i-no'oxuuheti-t
 finally then-get oneself to a place with great effort(AI.REFL)-3S
 'He finally managed to get himself there.' [O:Eagles, 15]

'Not yet' construction with *hóóno'*:

- 10) *hóóno' tihciisi'i'oot, nihce3kóóhut.*
 oono' tih-cii-iisiii'oo-t nih-ce3ikoohu-t
 not yet when.IMPERF-NEG-be grown(AI)-3S PAST-run away(AI)-3S
 'Before he was grown/when he was not yet grown, he ran away.'
 [*hóóno'* requires non-affirmative or plain conjunct negative]

'Until' construction with *hónoot*:

- 11) *héétoyóóhobé3en hónoot no'úseeninéhk.*
 eti-toyoohow-e3en onoot no'úsee-ninehk
 IC.FUT-wait for s.o.(TA)-1S/2S until arrive(AI)-2S.SUBJ
 'I'll wait for you until you arrive.'
 [*hónoot* requires conjunct subjunctive when referring to the future]

Recent past construction with *téébe*:

- 12) *téébe nihno'úset.*
 teebe nih-no'úsee-t
 just now PAST-arrive(AI)-3S
 'He just now arrived.'

- 13) *téébe héi'ce'nóóhobé3en.*
 teebe eí'i-ce'i-noohow-e3en
 just now PERF-again-see s.o.(TA)-1S/2S
 'This is the first time I've seen you in quite a while.'

Emphatic perfective construction with *woow*:

- 14) *woow nih'iisbii3ihinoo*
 woow nih-iisi-bii3ihi-noo
 now / already PAST-PERF-eat(AI)-1S
 'I have already eaten.'
 [*woow* typically occurs with the perfective marker /iix/]

'Have a chance to . . .' construction with *(he)néebees*:

- 15) *'oh néebees honóonoyoohóo3éi't woxhóóxebii.*
 'oh neebees oonoyoohoo3ei-t woxhoosexew-ii
 but have a chance guard things(AI)-3S horse-PL
 'And he is taking advantage [of being outside] to guard the horses.' [O:Scouts, 13]

(he)néebees can mean 'have the chance to . . .', 'have the opportunity to . . .', 'take advantage of the opportunity to . . .', or 'get to . . .'; syntactically, it functions as an auxiliary verb.

'Should be known that . . .' construction with *wóóce'*:

- 16) *wóóce' heihsei'ikúútoné3.*
 wooce' e-ih-se'ikuuton-e3e
 it should be known 2S-PAST-send s.t. to s.o.(TA)-1
 'Remember, I sent it to you!'
 [*wóóce'* requires use of the non-affirmative, according to Alonzo Moss; but in V: Spotted Elk, Communication between Generations and V:Hutchinson, What the Elders Taught Me, it occurs with the affirmative.]

For most of the particles illustrated above, the only possible syntactic order is prior to the verb, and this is the most common order by far for all of them. Examples 8 and 9 could be expressed with the particle following the verb.

15.5 ADVERBIAL PARTICLES

15.5.1 Introduction

Strictly speaking, "adverbials" as they will be defined in this part of the grammar are simply a type of particle. However, unlike other particles in Arapaho, which are typically invariable except for the occasional addition of proclitics, adverbials are a special type of particle that constitutes an open class, often shows a high degree of internal compositional complexity, and interacts extremely closely with the semantics of the verb stem. These particles are also derived from bound forms, unlike

- 23a) *nenesihi' he'ihnoh'ohusee coo'oteni'.*
 nenes-iihi' e'ih-noho'usee co'oteni-'
 pretend-ADV NPAST-walk up(AI) IC.hill(II)-0S
 'He pretended to walk up to the hills.' [N:47]
- 23b) *heetnenesiinikotiiwo'.*
 eti-nenesi-iinikotiiw-o'
 IC.FUT-pretend-play with s.o.(TA)-1S/3S
 'I will pretend to be playing with him.' [N:66]

Adverbials are a key focusing device in Arapaho, allowing not just preverbs but almost any lexical morpheme to occur as an independent word as opposed to being part of the verb. Note that the adverbial participles can be formed based on verb initials as well as preverbs (see example 24). They are especially widely used in conversation, where pragmatic considerations often make the use of complete verbs unnecessary or repetitive. In this context, they allow almost any morpheme to occur as an independent sentence (as in example 20):

- 24) A: *héétwoteekóóhunoo.*
 eti-wotee-koohu-noo
 IC.FUT-town-go by car(AI)-1S
 'I am going to town.'
- B: *héétóústoo woteeníhi'?*
 e-eti-tou3-i-too woteen-iihi'
 2S-FUT-what-EP-do(AI) town-ADV
 'What are you going to do in town?' [H:6.1–2]

The adverbial in example 24B can be replaced by a full verb form such as:

- ... woteekóóhuninéhk.*
 wotee-koohu-ninehk
 town-go by car(AI)-2S.SUBJ
 '... when you go to town.'

This latter form would normally be used only when the action of going to town was being newly introduced into the discourse (in which case it would normally occur in sentence-initial position as well).

As has already been noted in chapter 6, the same constructions that are used to deincorporate common lexical elements for emphasis are also used for the expression of less common semantic meanings that cannot be—or at least are not normally—expressed using incorporation. The following is an example of this process involving adverbials:

- 25) *seesíhinoo bíí3hiiniíhi*.
 sesíhi-noo bíí3hiin-íhi'
 IC.eager(AI)-1S eat(AI)-ADV
 'I am eager to eat.' (cf. /bíí3íhi/ 'to eat')

Example 25 *cannot* be expressed by using either of the verb stems as a preverb in conjunction with the other stem. Another example where the adverbial element cannot occur as part of the verb is:

- 26) *hé'ih'iinítéhéino' hiinóó'einiíhi*.
 é'ih-ii-niítehei-no' iinoo'ein-íhi'
 NPAST-IMPERF-help out(AI)-3PL hunt(AI)-ADV
 'They would help out with the hunting.' [O:Apache Captive, 45] (cf. /iinoo'ei/ 'to hunt')

15.5.2 Formation

The adverbials are formed by deriving a verb initial and then adding /íhi' / (/uuhu' / in cases of vowel harmony) to the end of the initial. The underlying pitch accent is /íhi'/. The initials are derived according to the normal derivational rules (9.1, 9.10). The unchanged form of the root or stem is always used, never the changed form:

- 27) *nih'óó3oo > nih'óó3ouníhi* 'in white man style'

Adverbials can become quite complex, with many different elements combined into a single form. It is not uncommon to find three morphemes prior to the adverbial final:

- 28) *héé3eboowúniíhi*.
 ee3ebi-oowu-niíh-íhi'
 there-down-along(stream)-ADV
 'Down stream there.'

15.5.3 Usage and Semantics

Manner, time, direction, and location adverbials

Perhaps the most common usage of adverbials (and the motivation for their name) is as independent modifiers of verbs. Preverbs expressing manner of action, direction, time, and location are commonly converted into independent adverbials. A study of texts 4 and 5 of the stories of Paul Moss—a total of around 690 lines of text—revealed eighty-seven adverbials, with roughly fifty of these being examples of this type. The differences between the two sentences in example 22 and between examples 23a and 23b above is a matter of relative emphasis, with the adverbial being the more marked construction.

The following table gives an idea of the relative frequency of other types of uses for adverbials in the 690 lines of two stories by Paul Moss:

Total adverbials	87
Modifying verbs	49
Noun-like, often with determiners	23
Instrumentals	5
Preposition-like	3
Verb-like	3
Negative marker	1
Qualifier of other adverbial	1
Unclassified	2

Preposition-like adverbials are really just a subclass of the basic adverbials, which modify verbs by specifying when, where, how, and so forth. The preposition-like construction allows for the adverbial to govern a nominal element; the adverbial can either precede or follow the nominal element:

- 29) *hé'né'ce3kóóhoot 3ebóoniiniíhi', níihííhi' hínee hoh'éni'.*
e'ne'i-ce3ikoooh-oot 3ebi-ooniin-iíhi' níih-iíhi' inee ohe'en-i'
 then-run away from(TA)-3S/4 there-down-ADV along-ADV that mountain-LOC
 'Then he ran away from them down that way along that mountain.' [O:Scout's
 Escape, 4]
- 30) *"nih'iicebésó'onóónó' sósoni'ii néeyóu hoh'éni' níihííhi'" nih'íi3i'.*
nih-ii-cebeso'on-oono' sósoni'-ii
 PAST-IMPERF-chase(TA)-12/3 Shoshone-PL
neeyou ohe'en-i' níih-iíhi' nih-ii-3i'
 there it is mountain-LOC along-ADV PAST-say(AI)-3PL
 '“We were chasing the Shoshones along the mountain there,” they said.'
 [O:Shade Trees, 15]

Adverbials that qualify other adverbials are another subclass of the basic type. An example is:

- 31) *néhe' 3owó3neníteeno', néhe'nih'iinéseiniíne'etíi3i';*
nehe' 3owó3ineniteen-o' nehe'=nih-ii-neseiniine'etii-3i'
 this Indian-PL that=PAST-IMPERF-live wild(AI)-3PL
 'These [old-time] Indians, that's how they lived close to nature;
béexo'úúhu' híyoo3ííhi'.
beexo'-iíhi' iiyoot-iíhi'
 only-ADV clean-ADV
 only in a clean way.' [O:Scouts, 66]

Pronoun-like Forms: The Instrumental and Related

The instrumental form *hi'ííhi'* 'with (it)' is another special subclass of the verb-modifying adverbials (see 15.5.6 for details on the instrumental construction). Unlike

most other adverbials, it can function syntactically as what resembles a pronoun, as can *nohkúúhu* ‘with a subsidiary’. Since neither of these forms is ever inflectionally marked on the verb stem, however, they do not have the full morphological properties of other Arapaho pronouns. On the other hand, when they occur as preverbs, they function morphosyntactically more like inflectional markers or anaphoric clitics than more standard preverbs. In example 32, the first sentence illustrates an anaphoric usage, with the instrumental preverb referring to ‘it’, whereas the second sentence illustrates a quasi-pronominal usage of the adverbial formed from the corresponding preverb.

- 32) *heihí'tóústoo?*
 e-ih-i'i-tou3-i-too
 2S-PAST-INSTR-what-EP-do(AI)
 ‘What did you use it for?’
- nihbebiistiinoo hi'iíhi'.*
 nih-bebiisitii-noo i'iíhi'
 PAST-fix(AIO)-1S INSTR.ADV
 ‘I fixed (something) with it.’

Nominals

It is easy to see how adverbials could shift from modifying a verb by specifying where or in what direction something occurs and become independent nouns denoting locations and directions. Their nominal status is often (although not always) indicated by preceding determiners:

- 33) *néeyóu hínee héétóh3i'e'eíte', bo'óobe', hínee noowúúhu'.*
 neeyou inee eetoh-3i'e'eíte-' bo'óobe-' inee noow-iíhi'
 there it is that where-be pointy(II)-0S red earth-S that south-ADV
 ‘There is that pointy area, [in] Oklahoma, [at] that [place] down south.’ [O:White Horse, 27]

It is fairly common for these location nominals to be extended metonymically to refer to the people from the place in question, so that *hínee noowúúhu'* sometimes means ‘those [people] down south’.

Although these expressions function syntactically as nouns, note that they can be analyzed internally as consisting of a nominal head and a modifying relative clause. The head is the determiner *hínee* plus an indefinite unstated nominal element implied by the context and the remainder of the clause (‘place, people’). The verb is ‘to be’ (which does not occur explicitly in Arapaho), and the adverbial modifies this verb. In some cases, the adverbial modifier is itself internally complex, consisting of a prepositional phrase:

- 34) *hí'in nóno'ei, bo'óocéinén, né'nih'iisih'éiht hínee,*
i'in inono'ei[n] bo'ooceinen[in] ne'=nih-iisih'eih-t inee
 that Arapaho red willow man that=PAST-be named(AI.PASS)-3S that
 'The [Northern] Arapahos were called "red willow men" by those, those [people]
hínee hii3íihi' híí3e', tih'iibéi'i'í3i'.
inee iit-iihi' ii3e' tih-ii-be'i'ei-3i'
 that [from] here-ADV over there when.PAST-IMPERF-paint self red(AI)-3PL
 from there (i.e., the Southern Arapahos), since they painted themselves red.' [O:
 White Horse, 26]

In example 34, *hínee hii3íihi' híí3e'* literally means 'those from there', but the full underlying semantics is 'those people who are from there.' (Note in passing that this sentence is ambiguous in that literally, 'those from there' could refer to either the Southern Arapaho agents, who gave the name to the Northern Arapahos, or the Northern Arapaho recipients, who received the name. In the latter case, the phrase would be the subject of the passive verb 'to be called'. Alonzo Moss prefers the translation given.)

Similarly, time, quantity, and manner adverbials can shift to become effectively nouns of time, quantity, or manner.

- 35) *beebéi'on he'íitox- beesbeteetosoo' céciniíhi' 3ebíihi'.*
beebéi'on e'=iitox- beesibeteetosoo' cecin-iihi' 3ebiihi'
 very far away DUBIT=how many a thousand year/winter-ADV there
 '[This story] is from way far back, maybe a thousand winters ago.' [O:Apache
 Captive, 49]
- 36) *howóó níiyóu nih'óó3ouníihi', neenéiniíni.*
owoo níiyou nih'oo3oun-iihi' neeneini-ni
 also here it is white man-ADV IMPERF.REDUP-DET
 'And also this white man way of doing things, that's how it's done [around here].'
 [O:Scouts, 65]

Although this type of construction is extremely productive, not all of the resulting noun-like expressions are lexicalized. Some that are, however, include *heenéisíihi' / heenéi'isiihi'* 'various ones, various types, and so forth' and *toon=hei'íihi'* 'sometime'. Another major category that is lexicalized is the one that encompasses direction forms: *noowúúhu'* 'the south'; as are the forms for 'all':

- 37) *núhu' híseino' heenéixoohóótowóó3i' behíihi'.*
nuhu' isein-o' eeneixoohootowoo-3i' beh-iihi'
 this woman-PL REDUP.learn s.t. for oneself(AI)-3PL all-ADV
 'These [Ute] woman learned everything [by watching her].' [O:Woman Captive, 23]

Verb-like forms

Adverbials may replace verbs, particularly in what might be called ‘ablative absolute’ constructions:

- 38) *wohéi híí3e’ 3ébwowúúhu’, cí’ne’úicóó3i’.*
 wohei ii3e’ 3ebi-wo’ow-iihi’ cí’=ne’i-iicoo-3i’
 well there there-farther-ADV also=then-smoke(AI)-3PL
 ‘Well, further along there, then they smoked again.’

wohéi noxowneeyéinííhi’, né’ce’[úicóó3i’].
 wohei noxowu-neeeyin-iihi’ ne’i-ce’i-iicoo-3i’
 well intense-close by-ADV then-again-smoke(AI)-3PL
 ‘Well, [when they got] really close to [their destination], then they smoked again.’
 [O:Woman Captive, 45]

Such constructions are an extension of the basic nature of adverbials—they allow for the independent word-level expression of semantically salient elements describing a situation, while leaving out verbal stems or finals that are non-salient, such as ‘go’. Not surprisingly, these ablative-absolute-type constructions normally occur when the underlying verbal element is a common and relatively vague element such as ‘go’, ‘be located at’, ‘move camp’, and so forth. The latter three verbs are all dependent verbal finals (see section 6.10), and the adverbial ending /iíhi/ can often be replaced by such finals in these constructions, as the elicited contrastive example below shows:

- 39) *hei’noxowneeyéísé3i’ . . .*
 hei’i-noxowu-neeeyi-see-3i’
 when.PERF-intense-close by-go(AI)-3PL
 ‘Once they had gotten very close [to their destination] . . .’

When ablative absolutes are replaced by full verbal forms (through contrastive elicitation), conjunct order preverbs and inflections are used, as in the above example. Adverbials cannot take tense and aspect preverbs, so they remain underspecified in comparison to full verb forms, but the underlying tense and aspect is usually clear in the context of the overall phrase, as in example 38.

The distinction between standard adverb-like verbal modifiers and full-fledged ablative-absolute constructions is not always clear. Example 54 below verges on being an ablative-absolute construction (with underlying verb final /see/ ‘to go’).

Note that in example 55 below, the adverbial functions in place of a full independent-order verb. The underlying verb final, expressed in the preceding sentence, is /iikohei/ ‘to ride’. This type of construction is rarer than the ablative-absolute type but also perfectly consistent with the general nature and function of adverbials—an already-active verb stem is dropped in the second clause with only the salient adverbial element retained explicitly.

Adverbials from noun and verb stems

As noted, adverbials can be formed with noun and verb stems as well as preverbs. Many of these uses are relatively less common than preverb-based adverbials, and the possibility of attaching the adverbialized element to the verb stem often does not exist.

When noun stems indicating time are used, the adverbial expresses a temporal duration. Typically, such sentences indicate the time during which some action occurs or the duration of the action:

- 40) *wohéł néhe' honóh'oe, hé'né'nih'í'ciskóóhut híisiinihi'.*
 wohei nehe' onoh'e[h] e'ne'=nih-ii'-cix-i-koohu-t híisiin-ihi'
 well this boy that=PAST-to limit-indet. distance-EP-run(AI)-3S day-ADV
 'Well, this boy, that's how far he would run in a day.' [O:Apache Captive, 6] (cf.
híisi' 'day')

When nouns describing birds, animals, and so forth are used, the most common meaning is 'in the manner of . . .':

- 41) *nih'íitóuuuhú3i' ní'ehiiníhi'.*
 nih-ii-[ni]touwuh-3i' ní'ehiin-ihi'
 PAST-IMPERF-call out/whistle(AI)-3PL bird-ADV
 'They would call out like birds.' [O:Scouts, 51] (cf. *nii'éhii* 'bird')

Adverbials formed from verb stems often function as infinitives or express the idea 'with . . .' or 'with regard to . . .'. They can also indicate the specific mode of action (especially when no concrete final exists to express this concept):

- 42) *sesíihinoó bíi3hiinihi'.*
 sesihi-noo bíi3hiin-ihi'
 IC.eager(AI)-1S eat(AI)-ADV
 'I am eager to eat.'
- 43) *hé'ih'íimútehéino' hiinóó'einihi'.*
 e'ih-ii-niitehei-no' hiinoo'ein-ihi'
 NPAST-IMPERF-help out(AI)-3PL hunt(AI)-ADV
 'They would help out with the hunting, help to hunt.' [O:Apache Captive, 45]
- 44) *né'níitóuuhut nishiinihi'.*
 ne'i-niitouwuh-t nishiin-ihi'
 then-call out(AI)-3S whistle(AI)-ADV
 'Then he called out by whistling.' [O:Eagles, 84] (cf. /nisihi/ 'to whistle')

These last three sentences are examples of forms that cannot be expressed through incorporation—speakers cannot say any of the above all in one word, as there are no concrete finals for concepts such as 'by whistling', unlike more common concepts such as 'by tool' or 'by manual manipulation'. This defines at least one of the limits of polysynthesis in Arapaho.

niscihíninouhuunííhi'.

niscihín-inouhuun-iíhi'

buckskin-wear(AI)-ADV

[such as] buckskin clothing.' [O:Woman Captive, 10] (cf. /inouhu/ 'to wear')

- 48) *hínee héétníini cebe'écí3éi'it: bee3ebééxoyóo3ííhi'.*

inee eti-ini cebe'eici3ei-t bee3ebeexo-yoot-iíhi'

that FUT-DET lead [horses] past(AI)-3S close by-hidden-ADV

'that place where he's leading them to: a hidden place close by.'

[O:Enemy Trail, 15]

- 49) *co'óokóote'einííhi'.*

ce'-oookoot-e'ein-iíhi'

back-take s.t. home-direction-ADV

'concerning taking something in the direction of back home.' [O:Enemy Trail, 63]

Such complex forms can occur as preposition-like adverbials as well:

- 50) *ceité'e, ciiskóx3ííhi' hínee hoh'éni', wo'tééneihí' ní'itou'u.*

ceitee ciisi-koxut-iíhi' inee ohe'en-i' wo'oteeneihí'

over here far-on the other side-ADV that mountain-LOC Utah

ní'itou'u

they call it

'on this side way over that mountain; "where the Utes live" they call it.' [O:Scouts, 6]

Examples of proclitics, abstract directionals, reduplicated forms, incorporated nominal medials, and intensifiers used in adverbials include the following.

Proclitic:

- 51) *wohéi hoo3óó'o' hí'in niinotikoni3i' ci'behííhi' heeyóúhuu.*

wohei oo3oo'o' í'in nii-notikoni-3i' ci'=beh-iíhi' eeyouhuuh-i

well others those IMPERF-scout(AI)-3PL also=all-ADV thing-S

'Well, there were others who also kept on the lookout for all kinds of things.' [O:

Bad Dreamers, 3]

- 52) *wohéi níine'ééno' núhu' notkóniinénno' hiit hé'cí3ihííhi'.*

wohei níine'eeno' nuhu' notikoniinenin-o' iit e'=ci3ih-iíhi'

well here they are this scout-PL here DUBIT=from inside-ADV

'Well, here are these scouts here, probably [coming] from inside the area.' [O:

Scouts, 2]

- 53) *toonhe'íicisííhi'.*

toon=e'ii-cix-iíhi'

INDEF=DUBIT-far-ADV

'After some indeterminate time.' [O:Enemy Trail, 39]

Negative preverb:

- 54) *héihíí, hoowúciisíihí' hé'ih'itoyéinóús.*
 eihii ihoowu-ciix-iihí' e'ih-ii-toyeinousi
 soon NEG-far-ADV NEG.PAST-IMPERF-rest(AI)
 'Soon, he would rest again after not going very far.' [O:Apache Captive, 17]

Qualifier:

- 55) *wohéí né'téii'íikohéít.*
 wohei né'i-teii-iikohei-t
 well then-quietly-ride(AI)-3S
 'Well, then he rode along quietly.
- héihíí ciind[ó]'oniciisíihí' woow.*
 eihii ciinoo'oni-ciix-iihí' woow
 soon fairly-far-ADV already
 Soon [he had ridden] quite a ways already.' [O:Enemy Trail, 19]

Deictic directional:

- 56) *cihkóx3íihí' híitoo'óó3i' wootíí, wootíí*
 cih-koxut-iihí' iitoo'oo-3i' wootii wootii
 to here-over hill-ADV be flowing, pouring(AI)-3PL as if as if
 'They came pouring over the top [of the mountain] as if
- [hé'ih]cihtéyoonkóúskuu3éihino'.*
 e'ih-cih-teyoonkousikuu3eihi-no'
 N.PAST-to here-to be spilled out of something (AI.PASS)-3PL
 they were spilled out of something.' [O:Scouts, 31]

Reduplication:

- 57) *wohéí bebiisnéénou'ut.*
 wohei bebiisi-neenouu-t
 well properly-prepare things(AI)-3S
 'Well, [the thief] got things prepared correctly.
- nénehyóhoníihí' téébe woxhóóxebii.*
 nee-nehyohon-iihí' teebe woxhooxew-ii
 REDUP-investigate-ADV just now horse-PL
 [He started by] checking out the horses carefully.' [O:Enemy Trail, 11]

Incorporated medials:

- 58) *hínee hi3óóbecíihí'.*
 inee i3oow-ec-iihí'
 those under-water-ADV
 'Those [creatures that live] under the water.' [used in Arapaho prayers]

59) *hínee hi3óóbesíhi'.*

inee i3oow-es-iíhi'

those under-grass/earth surface-ADV

'Those [creatures that live] below the ground.' [used in Arapaho prayers]

A few examples of tense/aspect markers on adverbials have been found:

60) *tih'íisiimíhi' hé'ih'íice3kóóhuno'.*

tih-iisiin-iíhi'

e'ih-ii-ce3ikoohu-no'

when.IMPERF.day-ADV

NPAST-IMPERF-start running(AI)-3PL

'When it was daytime, they would start running.' [O:Apache Captive, 5]

61) *tóónhei'íihí' hei'cé3bii3nóni.*

toon=eí'-iíhi'

eí'-cee3i-bii3i-noni

INDEF=when.PERF-ADV

PERF-by accident-eat s.t.(AI)-2S.ITER

'If you ever happen to have accidentally eaten [that type of meat] . . . ' [O:Eagles, 36]

Toon=hei'íihí' is a lexicalized form with idiomatic meaning of 'sometime'. The verb *tih'íisiimí'* is also lexicalized, meaning 'yesterday', and this is likely a factor in the use of the form in example 60.

15.5.5 Internal Syntax of Adverbial Clauses

Note that the term "adverbial clause" here refers only to clauses whose head is the part of speech labeled "adverbial particle." These clauses represent one variety of more traditional adverbial clauses (i.e., clauses that serve to modify verbs); all varieties are discussed in more detail in section 17.2.

As already noted, adverbials can function as the heads of complex adverbial clauses involving nouns and determiners as well as adverbials (see examples 21, 29, 30, 34, 50, and 67–70). In such clauses, the adverbial occupies the outermost position in the clause—either as the first element or, less commonly, the last one (postposed to the noun). The order of the rest of the elements matches that of standard complex noun phrases (see 14.7).

15.5.6 Details on the Instrumental Construction

The instrumental and related constructions were mentioned earlier. Here we add details concerning adverbial uses of the instrumental marker /i'/. This form always occurs as a preverb (except when used to create adverbial particles) and thus always appears with underlying form /i'i/. It has the morphophonemic peculiarity that when following preverbs ending in /h/, it does not produce /h'/, unlike all other vowel-initial preverbs and stems. Thus, /ih/ PAST + /i'i/ INSTR produces *nihí'*-word-initially, not **nih'í'*.

This marker is used, in effect, to mark instruments or modes of action on the verb stem. The instrument or mode need not be specifically stated in the sentence if it is clear from the context, but it often is stated, and in this case, the marker "agrees"

with the instrument or mode. Recall that common instruments and modes of action have concrete finals that are used in creating verb stems (see 6.4 and 6.5). The instrumental is used for two purposes: to deincorporate an instrument or mode when it is highly salient and to express less common instruments and modes for which no concrete final exists:

- 62) *heni'to'óótowoo to'úút.*
 i'i-to'oot-owoo to'uuton-i
 IC.INSTR-hit(TI)-1S hammer-S
 'I am hitting it with a hammer.'
- 63) *héétni'ko'úxowoo núhu' wóoxé.*
 eti-i'i-ko'ux-owoo nuhu' wóoxeh-i
 IC.-INSTR-cut(TI)-1S this knife-S
 'I will cut it with this [particular, contrastive] knife.'
- 64) *nih'i'bebiistiinoo cesiiiyóó.*
 nih-i'i-bebiisitii-noo cesiiiyoon-i
 PAST-INSTR-fix(AI)-1S wrench-S
 'I fixed it with a wrench.'
- 65) *núhu' niixóónee3éé3oo hení'niibé3en.*
 nuhu' niixoonnee3ee3oon-i i'i-niiw-e3en
 this ring-S IC.INSTR-marry(TA)-1S/2S
 'With this ring I thee wed.' [J:II. Verb]
- 66) *heni'ciinóó'onee'éíht neyéi3óoot.*
 i'i-ciinoo'oni-e'eíhi-t neyéi3oooton-i
 IC.INSTR-fairly-smart(AI)-3S read(AI.PART)-S
 'He has learned a lot by reading.' [J:II. Verb]

Constructions with the adverbial *hi'iíhi'* alternate with those in which /i'i/ occurs as a preverbal element. The adverbial can occur either alone (in which case it functions much like a pronoun) or as the head of an adverbial phrase containing nouns, determiners, and so forth:

- 67) *nebesiibéhe' nóonoo3itooenéinoo*
 ne-besiibehe' noon-oo3itooon-einoo
 1S-grandfather REDUP.IMPERF-tell story(TA)-3S/1S
- hi'iíhi' hinee téécxo' hinóno'éino'.*
 i'iíhi' inee teécxo' inono'ein-o'
 about.ADV that long ago Arapaho-PL
 'My grandpa tells me stories about Arapahos a long time ago.' [H:19.1]

Like other adverbials, it occurs either prior to or following the noun it governs. The prenominal position is most common, but postnominal examples can be found:

- 70) *tei'yoonoh'o' ni'iinestoobee3i' hi'iihi' hebiiteet.*
 te'iyooneh'e-o' ni'ii-nestoobee-3i' i'iihi' ebiiteeton-i
 child-PL CAUS-warn(AI.MID)-3PL INSTR steal(AI.PART)-S
 'Children are to be warned about stealing.' [J:IV.Verb]

About/concerning

As illustrated in examples 67 and 70, the instrumental preverb is used to express the idea of 'about, concerning':

- 71) *heni'oo3itoon-é3en hínee téi'yoonéhe'.*
 i'i-oo3itoon-e3en ínee te'iyooneh'e'
 IC.INSTR-tell s.o. a story(TA)-1S/2s that child
 'I am telling you a story about that child.'

Lengths of time

The preverb is also used to reference a time during which something occurs:

- 72) *niiscéniwo nihí'tóukuhút.*
 niisi-ceciniw-o nih-i'i-toukuhu-t
 two-year-PL PAST-INSTR-be placed in jail(AI.PASS.IMPERF)-3S
 'He was sentenced to two years in prison.' (see also B:2.2.30)

Verbs with /ni'/

There is a set of verbs, all meaning 'to be called', formed with the imperfective form of the instrumental, used as a verb initial, and the verb final /ii/ meaning 'to say'. These verbs always occur in unchanged form, with the name (X) preceding the verb.

- | | |
|------------|-----------------------|
| ni'ii- | 'to call s.t. X' (AI) |
| ni'ii- | 'to call s.t. X' (TI) |
| ni'ii3- | 'to call s.o. X' (TA) |
| ni'iihi- | 'to be called X' (II) |
| ni'ii3eih- | 'to be called X' (AI) |

Non-volitional causes of action

The instrumental is also used to indicate causation in situations where there is no volitional actor. In the first two examples below, note the use of the imperfective form /ni'/ and then the standard imperfective marker /ii/, forming a single unit /ni'ii/:

- 73) *ni'iiitei'eihiiitooni' cebxoot.*
 ni'ii-tei'eihiiitoon-i' cebixooton-i
 INSTR.IMPERF-strong(AI.PART)-IMPERS-0S walk(AI.PART)-S
 'Walking makes you [causes/enables you to be] strong.' [J:I.Verb]

- 74) *hoxo'oniit ni'iini'ouubeihiitooni'.*
 oxo'oniiton-i ni'i-ni'ouubeihiitoon-i'
 laugh(AI.PART)-S INSTR.IMPERF-feel good(AI.PART)-IMPERS-0S
 'Laughing makes you feel good.' [J:I.Verb]
- 75) *nuh'uuno heeyo'oono'ohno heni'no'xoyou'u no'ooto.*
 nuhu'-uuno eeyo'oono'ohn-o i'i-no'oxoyoo-i ne'-oot-o
 this-EMPH boot-PL IC.INSTR-sore(II)-0P 1S-leg/foot-PL
 'My feet are sore from these boots.' [J:II.Clothing]

Not only concrete but also complex abstract “causes” can be expressed through this construction:

- 76) *hinee hoheisiiniicie heni'niisih'iinoo' hisei tihtoowunenoo'oot.*
 inee oheisiiniicih-i i'i-niisih'iinoo-' isei[n] tih-toowunenoo'oo-t
 that Crazy Woman River-S IC.INSTR-be named(II)-0S woman when-go crazy(AI)-3S
 'Buffalo [Wyoming] got its name because of a woman who went crazy there.' [J:
 II.Loc]

Note that this construction very often is used when in English an inanimate/non-volitional subject would be used. The non-volitional cause fulfills the instrumental role in Arapaho, and the affected undergoer becomes the subject (cf. Black-foot, Frantz 1991:45, 61). In the following example, the chinook wind is “marked” on the verb with the imperfective instrumental marker /ni'/, and the undergoer (the snow) is the subject of the sentence:

- 77) *hookuunéese'ehk ni'iwo'owté'ci'oot hiii.*
 ookuunee-se-'ehk ni'i-wo'owute'ci'oo-t iii[n]
 chinook wind(II)-0S.SUBJ CAUSE-melt faster(AI)-3S snow(AN)
 'A Chinook wind will [better: 'would'] help melt the snow.' [Curricular materials]

Placement of /i'i/

Unlike all lexical preverbs, which occur after abstract grammatical preverbs and before the verb stem, /i'i/ normally occurs *between* the tense and aspect marker:

- 78) *nih'i'iwóttónéé3i'.*
 nih-i'i-ii-wotitonee-3i'
 PAST-INSTR-IMPERF-start fire (AI)-3PL
 'They would use it to start fires.' [O:Enemy Trail, 55]

This unique placement to the left of other preverbs reinforces the suggestions made above that /i'i/ is undergoing grammaticalization, becoming an anaphoric clitic or abstract agreement marker.

15.5.7 /Nohk/ Constructions

Closely parallel to the instrumental construction is the /nohk/ ‘with a subsidiary’ construction. It resembles the /i’i/ instrumental construction in that /nohk/ can occur as an adverbial or as a preverb (and also as a verb initial; see example 80). It functions similarly to an anaphoric clitic when it occurs without an NP (as in example 81) and similarly to an agreement marker when it occurs with an NP (as in examples 79–80):

- 79) *heebéhnohknoh’úhcesinen núhu’.*
 e-eebeh-nohku-noho’uhcesine-n nuhu’
 2S-POTENT-with-slip and fall(AI)-INCL this
 ‘We might slip and fall with it.’ [R:White Man and Butt]
- 80) *béébeet ciibéhnohkúh’ebí cíitee wo’éi3 nih’óó3ounéc.*
 beebeet ciibeh-nohk-ih’e’bi ciitee[hinec-i] wo’ei3 nih’oo3ounec-i
 only PROHIB-with-drink(AI) beer-S or liquor-S
 ‘Just don’t drink it with beer or whiskey!’ [R:George Quiver Goes to Doctor]
- 81) *siihe’ihnohkce3ei’oo.*
 sii=e’ih-nohku-ce3ei’oo
 INTENSE=NPAST-with-set off(AI)
 ‘He just set right off with it [in his possession].’ [R. Moss:White Man and the Butt, written version]

Nohkúúhu’ functions like *hi’íhi’* as a virtual pronominal form when it stands alone; more commonly, it governs a prepositional phrase.

- 82) *nih’iinókooyei3i’ nohkúúhu’ hitóuwúnoo.*
 nih-ii-nokooyei-3i’ nohk-iihi’ i-ouw-inoo
 PAST-IMPERF-fast(AI)-3PL with-ADV 3S-blanket-POSS.PL
 ‘They would fast with their blankets.’ [O:Buffalo Wheel, 15]

As all the previous sentences illustrate, when /nohk/ occurs in a sentence with an NP, that NP normally agrees with /nohk/. However, sentences with two NPs also occur:

- 83) *nihnóhkce3kóóhut néhe’ hecexóóxebhíhi’ neníisbéi’ci3eiwóó.*
 nih-nohku-ce3ikooht nehe’ ecexooxew-ehihi’ ne-niisibe’ci3eiwoon-i
 PAST-with-run off(AI)-3S this puppy-DIMIN 1S-purse-S
 ‘This dog ran off with my purse.’ [H:13.6]

Note finally that the adverbial functions to conjoin nouns—in some cases, it replaces English ‘and’ with a more specific meaning of ‘and/with’. However, only the head noun, not the conjoined one, agrees with the verb.

- 84) *nehe'onoh'oe nohkuuhu' hiniito'eino heenee3o'ounit,*
 nehe' onoh'e[h] nohk-iihi' ini-ito'ein-o eenee3-o'ouni-t
 this young man with-ADV 3S-relative-PL.OBV how.REDUP-be related(AI)-3S
heetihnohkuni'cebiseet heeti3eti'.
 eetih-nohku-ni'i-cebisee-t eetoh-i3eti-'
 so that-with-good-walk(AI)-3S where-be good(II)-0S
 'This young man and/with all his relatives, may he walk well with them.' [S]

15.5.8 Comparing the /ini/ and /iihi'/ Constructions

Although the /ini/ construction discussed in chapters 9 and 14 bears some similarity to the /iihi'/ constructions, the /ini/ forms are syntactically much more closely linked to the verb: they always occur immediately before the verb, and the entire morphosyntactic structure of the verb is preserved, including initial person, tense, and aspect markers and so forth. This is the reason that the /ini/ form is labeled a detachment device: it simply interrupts the verb at some strategic point, whereas the /iihi'/ construction allows the complete extraction of one or more morphemes out of the verb, their placement independent of it, and even the dropping of the verb entirely. Furthermore, the /iihi'/ construction does not require (and, in fact, cannot take) elements such as person markers, tense markers, and the like. Conversely, such elements can be detached from the verb using /ini/. Moreover, the /ini/ construction occurs with pre-nouns and well as preverbs, whereas the /iihi'/ adverbial construction functions in relation to (overt or underlying) verbs only. And finally, /ini/ is attached only to elements prior to the stem, whereas /iihi'/ can be used to form independent particles from morphemes that are part of verb stems.

The exact distinctions between the (always preverbal) /ini/ construction and the (usually postverbal) /iihi'/ construction are nevertheless not fully clear. One can find contrasts such as the following, whose exact differences are unclear:

- 85) *bebiisiini notikoni3i'.*
 bebiisi-ini notikoni-3i'
 proper-DET scout(AI)-3PL
 'They scouted properly.' [O:Scouts, 51]
- 86) *bebiisihi' cihnénoohówu!*
 bebi3-iihi' cih-nee-noohow-i
 proper-ADV to here-continuous-look at s.o.(TA)-1.IMPER
 'Keep paying proper attention to me [as I do this]!' [O:Captive, 26]

16

THE VERB PHRASE— NOUN-VERB AGREEMENT

In this chapter, we examine the ways in which different types of verb stems are used in Arapaho for functional communicative purposes, and the ways in which NP marking on the verb stem can be manipulated for the same purposes. Topics include proximate/obviative marking, alternation between different primary verb stems for reasons of NP saliency and emphasis, and derivation of secondary stems for the same reasons.

16.1 PROXIMATES AND OBVIATIVES

16.1.1 The Basic Proximate/Obviative Distinction

As seen in chapter 3, the person hierarchy in combination with the direction-of-action markers determines the shape of TA inflections. The grammatical categories of subject and object are certainly present, but they do not control the inflectional

system. Similarly, the semantic roles of agent and patient, although clearly specified by the overall TA inflection, are not fundamental in the determination of which participant will be marked explicitly on the verb using a person marker. For example, a second person will always be marked finally on the verb due to the rules of the person hierarchy, whether the second person is subject, object, agent, or patient. The direction-of-action markers then indicate whether that person is subject or object:

- 1a) *béiniinín.*
 biin-i-n
 IC.give(TA)-2/1 action-2S
 ‘You have given it to me.’
- 1b) *beniiné3en.*
 biin-e3e-n
 IC.give(TA)-1/2 action-2S
 ‘I have given it to you.’

A similar situation occurs with the fourth person or obviative. In all Algonquian languages, when two third persons are involved in a discourse, one is normally marked as more salient (and thus more elevated on the person hierarchy). This is the proximate participant. All other participants are marked as less salient, lower on the person hierarchy, and thus obviative. Proximates and obviatives do not correspond to grammatical subjects and objects, nor do they correspond to the semantic roles of agent and patient. The proximate person resembles what is called the topic in many other languages, and in Arapaho, marking for proximate and obviative tends to be a discourse-level phenomenon that does not change from sentence to sentence—at least in narratives.

Examples of the way the proximate/obviative distinction works are as follows. Note that proximate/obviative status is marked on the noun; the theme marker indicates subject/object relationships. Note that either proximate or obviative NP can occur before or after the verb (and indeed, neither need be explicitly mentioned, which argues for treating the markers as anaphoric clitics rather than agreement markers):

- 2) *hisei nonoohówoot hinénin.*
 isei[n] noohow-oot inenin
 woman.PROX IC.see(TA)-3S/4 man.OBV
 ‘The [more important, proximate] woman sees the man.’
- 3) *híseino’ nonóóhowóó3i’ hinénin.*
 isein-o’ noohow-oo3i’ inenin
 woman-PROX.PL IC.see(TA)-3PL/4 man.OBV
 ‘The [more important, proximate] women see the man.’

- 4) *hísei nonoohobéit hinénin.*
 isei[n] noohow-eit inenin
 woman.PROX IC.see(TA)-4/3S man.OBV
 ‘The man sees the [more important, proximate] woman.’
- 5) *híseino’ nonoohobéi3i’ hinénin.*
 isein-o’ noohow-ei3i’ inenin
 woman-PROX.PL IC.see(TA)-4/3PL man.OBV
 ‘The man sees the [more important, proximate] women.’
- 6) *hísei nonoohobéit hinénino.*
 isei[n] noohow-eit inenin-o
 woman.PROX IC.see(TA)-4/3S man-OBV.PL
 ‘The men see the [more important, proximate] woman.’
- 7) *hinénin nonoohobéit hísei.*
 inenin noohow-eit isei[n]
 man.OBV IC.see(TA)-4/3S woman.PROX
 ‘The man sees the [more important, proximate] woman.’

When AI or TI verbs occur, they also show agreement. This can include agreement with the obviative constituent in a sentence if that constituent is the subject of the verb:

- 8) *hísei nonoohówoot hinénin noo’úseeni3.*
 isei[n] noohow-oot inenin no’úsee-ni3
 woman.PROX IC.see(TA)-3S/4 man.OBV arrive(AI)-4S
 ‘The woman sees the man who is arriving.’
- 9) *hísei nonoohówoot hinénin bebií3énowuni3.*
 isei[n] noohow-oot inenin bebií3en-owuni3
 woman.PROX IC.see(TA)-3S/4 man.OBV fix s.t.(TI)-4S
 ‘The woman sees the man who is fixing it.’

The choice of which third person participant is proximate and which is obviative is open to the speaker. There are fairly strong general tendencies, however: animals seem rarely to be marked as proximate when a human is involved as the other participant. The same is true for other grammatically animate but non-human participants, such as rocks, balls, and so forth. When members of the following list co-occur, a hierarchy can be established based on animacy, with those highest on the list most likely to be marked proximate:

- 1) humans
- 2) animals
- 3) other animate referents
- 4) non-animate referents

Wolfart (1996:410) notes that for Plains Cree, the direct inflection is less marked than the inverse, and this is a valid statement for Arapaho as well. It makes sense in terms of the hierarchy above: things lower on the hierarchy, which are obviative, are less likely to act upon things higher on the hierarchy, which are proximate, in the real world—thus, the inverse obviative-acting-on-proximate inflection is more highly marked.

A key exception to the possibility of choice involves third-person-possessed objects, such as ‘his wife’. Such forms are automatically obviative and can be labeled “grammatically obviative.” Examples are:

- | | | |
|-----|-----------------------------------|--|
| 10) | <i>néih'e neniibéi'i-t</i> | ‘my son is singing’ (AI) |
| | <i>hiih'o neniibéi'i-ni3</i> | ‘his/her son(OBV) is singing’ (AI) |
| | <i>néih'oho' neniibei'i-3i'</i> | ‘my sons are singing’ (AI) |
| | <i>hiih'oho neniibéi'i-ni3i</i> | ‘his/her sons(OBV.PL) are singing.’ (AI) |
| | <i>hiih'oho nonoohóót-owuni3i</i> | ‘his/her sons(OBV.PL) see it’ (TI) |

In some situations, two different obviative persons can occur in a discourse, without a proximate person. This typically occurs in cases where automatic grammatical obviatives are involved. In these situations, speakers still can judge an obviative person as more salient or topical in the discourse in relation to the other obviative person. In this case, the more central obviative acting on the less central one is indicated by the direct inflection, and the opposite situation is indicated by the inverse inflection. The person marking on the verb then agrees with the more central obviative participant—this is the situation where 4/4 inflections occur in the TA.

- | | | | |
|-----|---|------------------------|----------------------------|
| 11) | <i>hiih'o nihto'ówooni3</i> | <i>hinee cééxoon</i> | <i>hinénin.</i> |
| | <i>iih'e[h]-o</i> | <i>nih-to'ow-ooni3</i> | <i>inee ceexoon inenin</i> |
| | his son-OBV | PAST-hit(TA)-4S/4 | that other.OBV man.OBV |
| | ‘His son [more central] hit that other man [less central].’ | | |

Here, ‘his son’ is treated as the functionally proximate participant: this is the participant marked finally on the verb (as the /ni3/ inflection shows), and the /oo/ direction of action marker indicates that this functionally more important participant is acting on the less important ‘other man’. Were the direction of action reversed, the verb would be *nihto'obéini3* ‘the other man hit his son.’ If the subject was ‘his sons(PL)’, then the verb would be *nihto'ówooni3i*.

16.1.2 Archaic Obviative and Related Inflections

There also exists an archaic special inflectional marker indicating split first person. What this means is that whenever a first person talks about himself or herself as if he or she were the object of a third person’s actions, a special marker is used on verbs relating to this first person. A few examples are cited in Salzmann’s dictionary:

- 12) *nihnóóhobéinoo tihnihi'kóóhunóóno'.*
 nih-noohow-einoo tih-nihi'koohu-noo-no'
 PAST-see(TA)-3S/1S when-run(AI)-1-SPLIT
 'He saw me when I was running.' [C:177–178]

The meaning of this sentence is that the speaker is talking to a second person (the addressee) about a third person (the one doing the seeing) who is acting on what is essentially a fourth person (the speaker, but in the past, and seen from the point of view of the third person as a kind of separate, fourth person). This form is obsolete in everyday modern Arapaho but is still recognized by native speakers and can still be used by older speakers if they desire to show “how we used to talk.” It is also occasionally used in traditional narratives. Here is another example, from a story told and written down by Richard Moss in the early 1990s:

- 13) “*téébe héétnehnou'úúkoheinóóno'.*” *heehéhk téi'ox.*
 teebe eti-eh-no'-iikohei-noo-no' ee-hehk téi'ox.
 just now IC.FUT-to there-arrive-ride(AI)-1-SPLIT said(AI)-3.SUBJ Strong Bear
 ‘“I was just about to ride over there [before you stopped me],” said Strong Bear.’ [U]

Here, Strong Bear (a person) is talking to an addressee about himself as if he himself were another person, at least from the Arapaho perspective. Note that the underlying semantics of the sentence indicates a transitive relationship, with Strong Bear as object of the addressee’s action. The implication of the sentence is that he has now changed his mind and is looking back on a different person, or at least is operating from a different perspective from his former self due to the intervention of the third person. For first person plural, no such marker exists so far as we have found.

Another archaic form, not clearly documented in either Salzmann’s dictionary or any texts, is an inflectional marker that distinguishes fourth (grammatical obviative) person from fifth (grammatically *and* functionally obviative) person, as in examples such as the one cited above (example 11). In the past, rather than simply saying *hinénin* (OBV) for the ‘other man’, speakers used the form *hinéniniho’* (*hinén-in-iho’*), according to Alonzo Moss. The inflectional ending is one of the following:

- iho’ or -úho’ (due to vowel harmony)
- hího’ or húho’ after vowels

The ending was added not to the noun stem but to the obviatively inflected form, although in some cases the latter could be dropped. Other examples are:

	PROX	OBV	“Double OBV”
woman	<i>hísei</i>	<i>hísein</i>	<i>híseiního’</i>
bear	<i>wóx</i>	<i>wóxuú</i>	<i>wóxuuhúho’</i>
beaver	<i>hébes</i>	<i>hébesii</i>	<i>hébesiihího’</i> or <i>hébesiho’</i>

Wolfart reports a similar usage apparently occurring in the past in Plains Cree (see Wolfart 1996:401, which has additional references to the phenomenon). Cowell

the sentence—are themselves closely related to the semantics of the verb initial and medial roots, as we saw in chapter 6.) Speakers, however, can also choose to mark the noun ‘shoe’ on the verb stem by switching to an alternate TI stem:

- 16) *hotoonóótowoo wo’óhno.*
 otoonoot-o-woo wo’ohn-o
 IC.buy(TI)-INAN-1S shoe-PL
 ‘I am buying [these] shoes.’

This alternation occurs commonly with inanimate patients and other types of inanimate undergoers, especially with the AIO semi-transitive final /tii/:

- 17) *benii’íitiinoo.*
 bii’iitii-noo
 IC.find s.t.(AIO)-1S
 ‘I have found it.’
- 18) *benii’inowoo.*
 bii’in-o-woo
 IC.find s.t.(TI)-INAN-1S
 ‘I have found it.’

As examples 17 and 18 show, the question of explicit mention of the NP is a separate issue from the choice of whether to mark it on the verb. Just as mentioned NPs can be left unmarked (as in example 15), non-mentioned NPs can still be marked (see example 18).

The same alternation occurs with animate patients and undergoers. In this case, however, rather than alternating primary stems, a secondary AIO stem is derived from an original TA stem. The secondary stem is used for indefinite patients, and an explicit NP is much less likely to be used with this type of stem, but explicit NPs can still occur, as in examples 20–21:

- 19) *nih-tóu’ci3óú’u woxhóóxebii.*
 nih-too’uci3-o’u woxhooxew-ii
 PAST-stop with rope/reins(TA)-1S/3PL horse-PL
 ‘I stopped the horses.’
- 20) *nih-tóu’ci3eiinoo woxhóóxebii.*
 nih-too’uci3ei-noo woxhooxew-ii
 PAST-stop things with rope/reins(AIO)-1S horse-PL
 ‘I stopped the horses.’
- 21) *hé’né’e[e]t . . . tóu’kuu3éi’it hitonih’o.*
 he’ne’=eetoh too’ukuu3ei-t i-onihi’-o
 that=where stop thing with rope/reins(AIO)-3S 3S-horse-OBV
 ‘That’s where he stopped his horse.’ [O:The Scout’s Escape, 8]

As a general rule, nominal arguments that rank higher in the person hierarchy in Arapaho are more likely to be marked on the stem. Thus, animate persons are more likely to be marked than animate things (in ditransitive verb constructions, for example). Similarly, animate arguments are much more likely to be marked than inanimate arguments.

However, the actual determining factor for whether an NP is grammatically marked on the stem is its saliency in the sentence. Factors such as person hierarchy and thematic role often correlate with saliency, not surprisingly, as do factors such as definiteness, but it is important to recognize that virtually any argument can be marked on the verb stem, should speakers so choose. Thus, the second major factor in marking is the decision of *which* argument to mark on the verb. Speakers can alter the morphological shape and/or the lexical content of the verb stem in highly complex and creative ways to allow for shifts in the NP that are marked on the verb. These changes in the verb stem are accomplished by using secondary derivational finals and also by the use of lexical preverbs, with the two operations often operating simultaneously.

Just as alternations between primary stems allow for the option of marking or not marking arguments on the stem, and thus of changing the valency, secondary derivational finals allow for further changes of both semantic and grammatical valency.

Grammatical valence shift (1 > 2):

- 22) *héétceenókunoo*.
eti-ceen-oku-noo
IC.FUT-down-sit(AI)-1S
'I will sit down.'
- 23) *héétniitókuwó'*.
eti-niit-okuw-o'
IC.FUT-with-sit(TA)-1S/3S
'I will sit with him.'

Semantic valence shift (2 > 3):

- 24) *héétniiténowoo*.
eti-iten-owoo
IC.FUT-take(TI)-1S
'I will take/accept it (IN).'
- 25) *héétniitenowúúno'*.
eti-iten-owuun-o'
IC.FUT-take(TI)-BENEF(TA)-1S/3S
'I will take/accept it for him (AN).'

Example 25 shows not only semantic valence shifting but also a shifting of the participant that is marked on the verb, from theme in the first case to benefactee in

the second. Of course derivation to allow a shift from an inanimate referent being marked to an animate referent being marked is not surprising given the Arapaho person hierarchy. But derivations to allow shifts from animate to inanimate arguments being marked on the verb also commonly occur:

- 26) *ceecéeco'óheinoo.*
 ceceeco'oh-ei-noo
 IC.bless(TA)-AIO-1S
 'I am blessing things.'
- 27) *ceecéecó'ohéihinóú'u.*
 ceceeco'oh-eihi:-noo-'i
 IC.bless(TA)-PASS(AI)-II-0PL
 'The things (IN) have been blessed.'

Often preverbs are used in this process of shifting both the valency and the particular participant marked on the verb:

- 28) *3ii'óokuunoo teesi' biito'owúú'.*
 3i'ookuu-noo teesi' biito'owu-i'
 IC.stand(AI)-1S on top earth-LOC
 'I am standing on the ground/on the earth.'
- 29) *núhu' biito'owu' 3ii'ookúútoowo.* (or: *tenééxookúútoowo*)
 nuhu' biito'owu-' 3i'ookuu-t-owoo
 this earth-S IC.stand-TI-1S
 'On this earth I stand.' [line from a gospel song]

In the first sentence above, 'earth' is not marked on the verb, whereas in the second sentence, it is. The semantic distinction between these sentences is essentially nonexistent, but the second sentence clearly gives much more saliency to the earth, both through the use of the demonstrative, through the fronting of the argument, and through the marking on the verb. In some cases, fronting or use of the demonstrative may not occur, and the marking may be the primary or only technique used to show saliency. In the following sentence, a theme participant (the subject about which stories are told) is marked on the verb. The NP is neither fronted nor definite (although it is a place-name), but the marking of the NP on the verb serves to place sentence focus on the White Hills as a place especially notable for the number of stories that existed about that place:

- 30) *hini' beh'éihohó' nih'ii[te]có'onoo3itootóú'u nonookóteyooni'i.*
 ini' beh'eihoho' nih-ii-teco'on-oo3itoot-o'u nook-otoyooni-'i
 that old men PAST-IMPERF-always-tell about(TI)-3PL IC.white-hill(II)-0PL
 'Those old men had a lot of stories about the White Hills.' [J:III.Loc]

It is much more common simply to use the AI verb /oo3itee/ 'to tell stories' in a sentence like the one above, or else the TA equivalent /oo3itoon/ 'to tell a story to

s.o.’ so that ‘White Hills’ would not be marked on the verb, but clearly such marking is an option.

In closing this introduction, we should underline the interest of this Arapaho marking strategy for theories of agreement, government, and binding. As is evident from the discussion, virtually any thematic role can be marked on a verb stem. This is not to say that any thematic role can be marked on *any* verb stem. Many types of stems have important restrictions on potential marking. But alternating primary stems can be chosen, and a primary stem can be secondarily *manipulated* using derivational finals and/or preverbs to *allow* for virtually any argument to be marked on the verb. In the remainder of this section, we will explore the morphosyntax and syntax of these particular interesting constructions.

16.3 TRANSITIVE VS. SEMI-TRANSITIVE STEMS: A TEXT SAMPLE

We begin by looking more closely at the basic choice available to speakers of whether or not to mark constituents (whether explicit or not) on the verb. This choice involves alternations between primary transitive and intransitive stems. We have already examined the morphological processes involved in primary stem formation in section 5.3. Here we present an exposition of the communicative needs that motivate the choice of a stem. We begin with several citations from a traditional narrative. The narrative was learned orally in Arapaho by native speaker Richard Moss, and then written down by him (in Arapaho; source U).

In the text, note in particular the alternation between primary AI and TI stems, as well as the use of secondarily derived AIO stems. In the narrative, a man has been given magical power and has used it to shoot an enemy chief. The chief is talking to his fellow tribesmen:

1. “wohei,” hee3oohok nuhu’ hitininiteewo, “notnooxohowu’ hini’ kokiyono3!
 wohei ee3-oohok nuhu’ i-ineniteew-o notinooxoh-owu’
 well say(TA)-3S/4 this 3S-person-OBV.PL look for by digging(TI)-2PL.IMP
ini’ kokiyono3-i
 that bullet-S
 ‘“Well,” he said to his tribesmen, “dig for that bullet!’
2. *bii’inowuneehek, neihoowneh’e’.*
bii’in-owuneehek ne-ihoowu-neh’-e’
 find(TI)-2PL.SUBJ 1S-NEG-kill(TA)-3
 If you find it, then he won’t have succeeded in killing me.
3. *ciibii’inowuneehek, neeh’einoo,” heehchh nehe’ houuneecee.*
 cii-bii’in-owuneehek neh’-einoo ee-hehk nehe’
 NEG-find(TI)-2PL.SUBJ IC.kill(TA)-3S/1S say(AI)-3S.SUBJ this

ouun-eceef[n]

Crow-chief

If you don't find it, then he has killed me," the Crow chief said.

4. *nuhu' neniteen-o' he'ihnooxoheino'.*

nuhu' ineniteen-o' e'ih-nooxohei-no'

this person-PL NARR.PAST-dig(AIO)-3PL [note: TI > AIO]

The Crows dug for it.

5. *he'ihbi'nooko'wuuteen biito'owu' hee3inoo'oo' hini' kokiyono3.*

e'ih-bi'i-nooko'owuuteeni biito'owu-' eet-inoo'oo-' ini'
 NPAST-just-white earth mark(II) earth-S where-INCHOAT(II)-0 that

kokiyono3-i

bullet-S

There was a white streak where the bullet had gone into the ground.

6. *"yeiniis heetnooxoheinee!" heehchk nehe' houneecee.*

yeiniis eti-nooxohei-nee ee-hehk nehe' ouun-eceef[n]
 four days IC.FUT-dig(AIO)-2PL say(AI)3S.SUBJ this Crow-chief

"You're going to dig [for it] for four days," said the Crow chief.

7. *"ciibii'itiinechek, neeh'einoo," heehchk.*

cii-bii'itii-neehek neh'-einoo eehehk
 NEG-find(AIO)-2PL.SUBJ IC.killed(TA)-3S/1S he said

"If you don't find it, then he's killed me," he said.

8. *wohei honounhe'ihnooxoheino'.*

wohei ouun=e'ih-nooxohei-no'

well IC.intense=NARR.PAST-dig(AIO)-3PL

Well, they dug as hard as they could [for it].

9. *wohei yeneimi'owoo' hiisi'.*

wohei yeimi'owoo-' iisi-'

well IC.be fourth(II)-0S day-S

Well, now the fourth day has arrived.

10. *he'ihciibii'ooxoheino'.*

e'ih-cii-bii'ooxohei-no'

NARR.PAST-NEG-find by digging(AIO)-3PL

They didn't find it.'

In the preceding passage, the bullet is mentioned explicitly in line 1 and is marked on the verb. In lines 2 and 3, it is referenced as part of a contrastive construction and is again marked on the verb, although it is not explicitly mentioned. Then in lines 4 through 7, the bullet is no longer marked on the verbs (although it is explicitly mentioned in line 5)—note the fronting of 'these people' in line 4, suggesting the shift in

focus from the bullet to the people digging. In sentences 8 through 10, the narrator continues to choose not to mark the bullet on the verb as he describes the digging by the other Crows. Although narrowly speaking, explicit mention does correlate with marking on the verb (in line 1), the lack of marking in lines 4 and 6, surrounding an explicit mention in line 5, and the marking in lines 2 and 3 without explicit mention suggest that this is not the fundamental determinant of the marking/non-marking choice. The particular choice of verb does not seem crucial, as the root ‘dig’ shows marking (line 1) as well as lack of marking (lines 4, 6, 8, 10), and the same is true for the root ‘find’ (marking in lines 2 and 3 but not in lines 7 and 10). The correlation seems to be whether the bullet itself is the focus of the narrative, or whether it is the digging of the Crows that is the focus—although this is really a tautological distinction, since the choice of marking effectively determines the focus; alternately, the relative newness of the bullet as referent seems to be an important factor. However, as the conclusion of the passage will show, the correlation is not this simple.

After the Crows fail to find the bullet, the narrative concludes as follows:

11. *wohei nehe' hinen he'ihneniisibee hitineniteewo.*
 wohei nehe' inen[in] e'ih-neniisiw-ee i-nineniteew-o
 well this [Arapaho]man NPAST-encourage(TA)-4 3S-people-OBV.PL
 ‘Well, the Arapaho man encouraged his friends who were with him.
12. *“notnooxohowu” hehehkh.*
notinooxoh-owu' eehehk
 look for it by digging(TI)-2PL.IMP he said
 “Dig for it!” he said.
13. *hoowuciixooxoheino', he'ne'bii'inou'u.*
 ihoowu-ciix-ooxohei-no' e'ne'i-bii'in-o'u
 NEG-long time-dig(AIO)-3PL then.PAST-find(TI)-3PL
 They didn't dig very far, and then they found it.
14. *noh nenee' hinono'eino' nih'iinii3inou'u.*
 noh nee-' inono'ein-o' nih-ii-nii3in-o'u.
 and IC.be(II)-0S Arapaho-PL PAST-IMPERF-keep(TI)-3PL
 And the Arapahos kept it.
15. *betebihehi' nih'oononitit.*
 betebihehi' nih-oononitii-t
 old woman PAST-keep safe(AIO)-3S
 An old woman cared for it.
16. *hei'iyyoohoote', [nei]hoowee'inoonoo toonnenii3ino'.*
 ei'i-iiyoohoote-' ne-ihoowu-e'inon-oo toon=nii3in-o'
 PERF-die(AI)-3S 1S-know(TA)-3S INDEF=IC.keep(TI)-3S
 Since she passed away, I don't know who has it.'

Note that the bullet again comes into focus in line 12 as the object of the imperative (as in line 1). It briefly goes out of focus in favor of the digging (as in lines 3–10) but then comes back into focus when it is found (lines 13, 14). It goes out of focus in line 15 (note the fronting of the new referent ‘old woman’ in the sentence, suggesting her saliency) and then returns to focus in line 16.

There is clearly much more that could be said about the interaction of explicit vs. non-explicit arguments, fronting of various arguments, definiteness, newness, and so forth in this passage. But it shows fairly clearly the alternation between primary AIO and primary TI stems, as well as the use of secondarily derived AIO stems, and the correlation between the saliency of an argument and the marking of the argument on the verb.

16.4 /TII/ SEMI-TRANSITIVE STEMS

The existence of the AIO semi-transitive construction with /tii/ stem final, restricted to use with inanimate referents, has been widely recognized for many Algonquian languages, and indeed, the final can be traced back to the PA *-koo stem final. However, three important details need to be recognized for Arapaho. First, AIO verbs with /tii/ final are only one among several sets of verb stems that show semi-transitive behavior (see /otoonee/ in example 15 above). Secondly, in some cases, only AIO /tii/ stems exist for referencing inanimate referents, whereas in other cases, both AIO /tii/ stems and TI stems exist and can alternate freely (as in the story above). And thirdly, although only inanimate referents can be the implied objects of AIO /tii/ stems, animate referents can also participate in intransitive/transitive stem alternations and be implied grammatical objects (as in examples 20–21 above).

In some cases, the implied object of /tii/ stems is indefinite:

- 31) *teebkúú-tii-noo noh'éihóó* ‘I have broken a window’
 32) *benii'í-tii-noo bé'ci3éi'i* ‘I have found some money’

But as the narrative above illustrates, when a referent is definite, AIO semi-transitive as well as TI stems can be used. Thus, transitive/semi-transitive stem alternations are not fundamentally a matter of definiteness/indefiniteness but rather of saliency, although not surprisingly, saliency and definiteness often correlate.

The most common alternations between TI and AIO stems of this sort are /*(e)n/* vs. /*tii/* and /*oh/* vs. /*tii/*:

- 33) *benii'in-owoo* ‘I have found it’ (TI)
 benii'ítii-noo ‘I have found it’ (AIO)
 34) *beebi3én-owoo* ‘I have fixed it/I am fixing it’ (TI)
 beebi3etii-noo ‘I have fixed it’ (AIO)
 35) *tóóxu'óh-owoo* ‘I am sharpening it’ (TI)
 tóóxu'usetii-noo ‘I have sharpened it’ (AIO)

All of these verb stems are commonly used without explicit NPs. There is a tendency for explicit NPs to be used more commonly with TI than AIO semi-transitive stems, but they can occur with both. Another example of an explicit definite NP with an AIO semi-transitive stem is:

- 36) *heenéise'énou'utíi3i' hikokiyínoo, wohéi hó3ii.*
 eenéise'énou'utii-3i' i-kokiy-inoo wohei o3-ii
 REDUP:prepare s.t.(AIO)-3PL 3S-gun-PL well arrow-PL
 'They're getting their guns ready, as well as their arrows.' [O:Scouts, 30]

An examination of around 190 pages of interlinearly glossed text from several sources (not including the Paul Moss texts) revealed ninety-three instances of /tii/ verb stems (not including stems that have no semantic object, as described in chapter 5, such as /iine'etii/ 'to live'). Of these, fifty-four occurred without an explicit implied object, whereas thirty-nine did have an explicit implied object. Thus, explicit objects are quite common with /tii/ verb stems, and indeed, when certain common verbs that almost never have explicit objects (such as /neyei3itii/ 'to try') are excluded from the count, explicit objects occur nearly 50 percent of the time. Of the thirty-nine explicit objects, twenty-two were indefinite, but seventeen were definite, as indicated by the presence of a demonstrative, possession marker, or other determiner. Additional examples of definite NPs include:

- 37) *wohéi héétce3ixotiiinoo núhu' 3iikonoókúh'ee, tohuuuceenéi3óówotóú'u.*
 wohei eti-ce3ixotii-noo nuhu' 3iikonookuh'een-i
 well IC.FUT-take away(AIO)-1S this skull-S

 toh-ii-cii-eenei3oowot-o'u
 because-IMPERF-NEG-REDUP.believe(TI)-3PL
 'Well, I'm going to take this skull away [with me]; otherwise the others won't believe [I really killed this ghost].' [R:Strong Bear and the Ghost]
- 38) *núhu' tohcetó'owoot, 'oh ne'nihikúútiit núhu' kokiy.*
 nuhu' toh-ceto'owoo-t 'oh ne'i-nihikuutii-t nuhu' kokiyon-i
 this when-trip(AI)-3S and then-fire(AIO)-3S this gun-S
 'When he tripped, then he [accidentally] fired the gun.' [R:The Two Bullets]

It should be noted that for examples 37 and 38, the /tii/ stems in question lack a TI alternate, so the kind of oppositions illustrated in the text sample, and in examples 33–35, are not possible in these cases. Certainly, further study needs to be done to fully explain the conditions governing the use of /tii/ verb stems. Although lowered saliency of the NP is certainly an important criterion for predicting occurrence of /tii/ stems, the widespread occurrence of definite NPs with these stems shows that definiteness alone is not the only factor involved in saliency, and that saliency may not be the only criteria at issue. Moreover, NPs can be preposed to /tii/ verb stems in the syntactic position marked for saliency (see chapter 18 for more on NP preposing). This can occur with both definite (example 40) and indefinite (example 39) NPs:

- 39) *bé'ici3éi'i héetwo'o3itiinoo.*
be'ici3e'-ii eti-wo'o3itii-noo
 money-PL IC.FUT-gather(AIO)-1S
 'I will save up money.' [R:The Second Thought]
- 40) *núhu' wo[no]tóyeicii hé'ihbiicitiiino'.*
nuhu' wonotoyeic-ii e'ih-biicitii-no'
 this hide-PL NPAST-sew(AIO)-3PL
 'They sewed up the hides.' [R:Surviving Disaster]

Among the additional factors beyond saliency that need to be considered for a full understanding of the use of /tii/ stems are first, the fact that in some cases there is no alternate TI stem available for use, whereas in other cases, there is; and second, alternations between AIO and TI stems sometimes are involved in important aspectual distinctions, which will be discussed next.

Aspect and /tii/ Semi-transitive Stems

The relationship between AIO and TI stems is rendered more complicated by the fact that AIO semi-transitive stems with initial change typically have a present perfect aspect, whereas TI stems with initial change often (but not always) have present ongoing aspect:

- 41) *téébkkuutii-noo* 'I have broken it' (AIO)
teebén-owoo 'I am breaking it' (TI)
- 42) *3oowóuukúútii-noo* 'I have destroyed it' (AIO)
3oowóuun-owoo 'I am destroying it' (TI)

This is not an inherent semantic component of all AIO /tii/ stems but rather a secondary pragmatic implication that has become lexicalized in many cases. Where alternating AIO and TI stems exist, the TI stems seem to focus more attention on the more salient object to which the action is being done, whereas the AIO /tii/ stems focus attention on the action itself, as performed and completed by the agent, since the object is less salient.

In the two preceding examples, the AIO final /kuutii/, in fact, explicitly adds a component of rapid or violent action to the roots /tew/ 'break' and /3owoy/ 'destroy', which lends itself to present perfect as opposed to ongoing aspect. But as the following pair based on the root /wo'ot/ 'pick up, gather' show, distinctions in saliency and aspect occur even when the /kuu/ element is not present:

- 43) *woo'o3itiinoo* 'I am gathering them up'
woo'ténowoo 'I am picking it up'

In this case, the first verb stem has an iterative aspect, meaning either gathering up several things at one time or gathering up things over multiple times (as in example 39 above). The second TI stem focuses on a single, more salient object that

is being acted upon on a single occasion. Francis 2006 provides additional discussion and examples of this aspectual distinction.

Note in passing that if one wants to focus on the *object itself* as the target of the explicitly *completed* action, one switches from an AIO stem to an II resultative stem: *téebkuutiínoo* ‘I have broken it’ > *tóówotí* ‘it is broken’, *teebíse* ‘it has been broken’; *tóóxu’úse* ‘it has been sharpened’; *soowóuusé* ‘it has been destroyed’, *soowóyotí* ‘it is destroyed’. Thus, Arapaho verb stems—and particularly the abstract finals used in creating these stems—play a major role in the aspectual system of the language, complementing the basic aspectual markers /iix/ (PERF) and /ii/ (IMPERF) as well as the various lexical preverbs indicating aspect, which were discussed in section 9.2.

Finally, it should be noted that the distinctions between AIO and TI verbs do not always match what the above analysis leads one to expect. An example is:

- 44) *heniise’énou’útií-noo* ‘I am getting it ready’ (AIO)
 heniise’énou’úút-owoo ‘I am getting ready for it (an event, for example)’ (TI)

As is typical of derivational systems in languages around the world, the Arapaho system produces a rich but sometimes unpredictable series of resulting meanings, which certainly merit much additional study.

16.5 /YEI/ SEMI-TRANSITIVE STEMS

Another type of semi-transitive verb stem is formed in Arapaho with the secondary final suffix /yei/, which can be added to either TA or TI verb stems. The suffix, which is identical to the /yei/ primary derivational suffix meaning ‘semantically transitive action on objects’ (see section 4.2), creates verb stems that prototypically indicate action on undefined or unspecified objects.

- 45) *honoo’éici3-óú’u* ‘I am herding/leading them together’ (TA)
 honoo’éici3éi’i-noo ‘I am herding/leading things together’ (AIO)
- 46) *woo3onóh-owoo* ‘I am writing it’ (TI)
 woo3ónohéi-noo ‘I am writing (things)’ (AIO)
- 47) *wohéi hínee, nenéé’ 3eb- . . . hoo’éici3éi’it.*
 wohei inee nee-’ 3ebi- oo’éicit-yei-t
 well that [place] IC.be it(II)-S there herd s.t.(TA)-AIO-3S
 ‘Well, that place, that’s where she herded the horses to.’ [O:Woman Captive, 36]
- 48) *’oh níine’eehék honóónoyoohóo3éi’it.*
 ’oh niine’eehek oonoyoohoot-yei-t
 and here he is IC.REDUP.guard s.o.(TA)-AIO-3S
 ‘And here is the one who is guarding [the horses].’ [O:Scouts, 32]

These constructions are clearly different from those involving /tii/ verb stems, since the latter suffix does *not* prototypically indicate action on undefined or unspeci-

fied objects, and as was seen above, /tii/ verb stems are commonly used with definite objects. In addition, whereas /tii/ verbs can only be used with inanimate implied objects, /yei/ verbs can be used with either inanimate or animate implied objects. The distinctions in saliency of objects expressed by alternations between TI stems and AIO /tii/ stems are sometimes difficult to grasp, but the /yei/ suffix produces very clear distinctions, and in fact, many speakers will gloss example 46 (second sentence) simply as ‘I am writing’, not bothering to add ‘things’.

This construction is especially common in negative and interrogative statements where the referent is more often indefinite, especially where ‘something’ or ‘anything’ is meant:

- 49) *heisónoo nihnéyehiinóó’eit . . . hoownéh’éi.*
 e-isonoo[n] nih-neyei-iinoo’ei-t ihoowu-neh’-yei
 2S-father PAST-try-hunt(AI)-3S NEG-kill(TA)-AIO
 ‘Your father tried to get some game . . . he didn’t kill anything.’ [R:Blood Clot Boy]
- 50) *nih’iicéécéeniíni nóonotnóó’ein, hé’ihciínoohóó3éi.*
 nih-ii-cee-ceeni-ini noo-noti-noo’eini
 PAST-IMPERF-REDUP-very-DET REDUP-seek-look around(AI)
 e’ih-cii-noohoo3ei
 NPAST-NEG-see things(AIO)
 ‘He was looking all around far and near; he didn’t see anything.’ [R:Old Couple and Ghost]
- 51) *keihciínoohóó3éi?*
 koo=e-ih-cii-noohoo3ei
 INTERR=2S-PAST-NEG-see things(AIO)
 ‘“Didn’t you see anything?” [she asked him].’ [R:Old Couple and Ghost]

Yet, it is important to recognize that /yei/ stems are used not only with unidentified referents, as in sentences such as 49–51, but also when referents are identifiable but indefinite and less salient. In running discourse, /yei/ stems used in this way tend to occur subsequently to TI or TA stems (as in the text sample above) once a referent has already been brought into the discourse:

- 52) *héetnotiihóó’u híi3einóón. heetnéyehéh’étnoo.*
 eti-notiih-o’u ii3einoon[in] eti-neyei-neh’-yei-noo
 IC.FUT-look for(TA)-1S/3PL buffalo IC.FUT-try-kill(TA)-AIO-1S
 ‘I am going to look for buffalo. I am going to try and kill some.’ [R:Blood Clot Boy]

The /yei/ stems can even be used with explicit animate referents, as in examples 20–21. Thus, the possibility exists of explicitly mentioning an animate NP in a sentence—including the primary “object” of the sentence—without marking it on the verb stem, just as with inanimate referents:

- 53) *'oh néesees honóonoyoohóo3éi'ti'it woxhóóxebii.*
 'oh neebees oonoyoohoot-yei-t woxhooxew-ii
 but opportunity IC.guard s.o.(TA)-AIO-3S horse-PL
 'He is taking advantage [of being outside] to guard the horses.' [O:Scouts, 13]

Although 'horses' in example 53 could be interpreted as a peripheral participant—as a kind of adverbial addition to the verb 'stay on guard, keep a lookout'—rather than as a definite object, in the following sentence this is less clearly the case, given the possessed status of the implied object:

- 54) *hé'né'tetóú'kuu3éi'ti hitonih'o.*
 e'ne'=eetoh-too'ukuut-yei-t i-onihi'-o
 that=where-stop s.o.(TA)-AIO-3S 3S-horse-OBV
 'That's where he reined in his horse.' [P:Scout's Escape, 8]

Sentences such as example 54 with an animate definite implied object are not common in Arapaho but clearly do occur. The /yei/ suffix added to TA verb stems, in alternation with simple TA stems, thus provides speakers with the opportunity to explicitly name primary animate object referents in sentences with or without marking them on the verb stem, just as can be done with inanimate referents. The choice once again seems to be based fundamentally on saliency, with the rarity of sentences such as example 54 corresponding to the fact that animate objects tend to be more salient than inanimate ones. Note in this regard that the explicit animate implied objects above are all animals—none are humans, who are highest on the animacy hierarchy and most often highly salient. And note finally that such animate implied objects never seem to occur preposed to the verb in the syntactic position most marked for saliency (unlike the case for implied objects with /tii/ stems).

16.6 DITRANSITIVE VERBS AND SECONDARY OBJECTS

There are several verbs in Arapaho that are inherently ditransitive—that is, they have two different underlying objects. Most prominent are the several verbs meaning 'to give':

biin-	to give s.t. to s.o., to transfer s.t. to s.o.
cee'ih-	to give s.t. of high value to s.o. permanently
neeceenohoo3-	to give s.t. to s.o. ceremonially
tou3e'ei-	to give s.t. to s.o. permanently

There are also many verbs that are ditransitive as a result of secondary derivational processes. In both cases, the object that is marked on the verb is always the recipient or benefactee, never the object transferred, even when that object is animate. Any of the three underlying roles (actor, object/theme, or benefactee/recipient) may be explicitly mentioned in the noun phrase; this does not affect object marking on the verb stem. In the following, the animate object that is being given is

the only NP explicitly stated, but the two participants marked on the verb stem are the giver and the receiver:

- 55) *ne'íbiinóó3i' hí'in séénookuu.*
 ne'i-biin-oo3i' hí'in seenook-uu
 then-give(TA)-3PL/4 that chain(NA)-OBV
 'Then they gave him the chain.' [R:Strong Bear and Wagon]

The unmarked object in these constructions is termed a “secondary object.” It should be noticed that secondary objects show many syntactic parallels with implied objects of AIO verbs.

16.7 SECONDARY DERIVATION TO SHIFT THE OBJECT MARKED ON VERB STEMS

In the previous sections of this chapter, we focused on valence shifts, either among primary stems or between primary and secondary stems, whose focus was the relative saliency of a single object as it moved from implied to explicit object or vice versa. In this section, we focus on a different process: the use of secondary derivation to shift the object that is marked on the verb stem. With the aid of preverbs in combination with general TA secondary finals, a wide range of different verb stems can be created in Arapaho, allowing various peripheral participants to be marked on the verb. In all of the following examples, the peripheral third person is marked as the object on the TA verb in question:

- 56) *hóóyokúno'.*
 oy-okun-o'
 IC.next to.contact-sit(TA)-1S/3S
 'I am sitting next to her/in contact with her.' (cf. /oku/ 'to sit' [AI])
- 57) *nih'ee3ténoot.*
 nih-ee3iten-oot
 PAST-get from(TA)-3S/4
 'He got it from him.' (cf. /iten/ 'to get s.t. [TI])
- 58) *[hé'ih]nóonoo'oexóótónee.*
 e'ih-noo-noo'oe-xooton-ee
 NPAST-REDUP-around-walk(TA)-4
 'He walked all around him.' [R:Nih'oo3oo and Fox] (cf. /see/ 'to walk' [AI])
- 59) *nóóxownóú'uxóótónoot.*
 noxowu-no'-i-xooton-oot
 IC.close-arrive-EP-walk(TA)-3S/4
 'He is walking up close to him.' [R:Blood Clot Boy] (cf. /see/ 'to walk' [AI])

Elements that in Indo-European languages occur as oblique participants within adverbial clauses (in English, for example) are relatively commonly marked on the verb stem in Arapaho through the use of secondary finals functioning as applicatives. It seems likely that with a large textual database and enough elicitation work, there would be virtually no restrictions with regard to the potential for an NP to be marked on a verb. On the other hand, as already seen, when *multiple* NPs occur as semantic arguments in a sentence, there are often restrictions on which NP is *more likely* to be marked on the verb. Most importantly, as might be expected from the animacy hierarchy rules, participants high on that hierarchy are more likely to be marked as NPs. Thus, inanimate patients are often demoted in order to allow marking of animate recipients, benefactees, and the like (as in example 57). This feature occurs across Algonquian languages more generally and is widely discussed in the grammars of the various languages. But it is important to note that speakers always retain the choice of whether to mention peripheral animate participants: when they choose not to mention them, then lower-ranked (e.g., inanimate) participants are marked on the (usually less complex) verb instead. Saliency—not the animacy hierarchy—drives the choice of which participants to explicitly mention and mark on the verb.

Possessor-raising Construction

One particular construction of the type under discussion here is the possessor-raising construction, in which a possessor, rather than a more directly affected possessed object, is marked on the verb. An example is:

- 60) [nih]nó'o3ihéit tohnéetonéit híih'o.
 no'o3ih-eit toh-neeton-eit iih'e[h]-o
 act cruel(TA)-4/3S because-kill.APPLIC(TA)-4/3S his son-OBV
 'He (OBV) treated him (PROX) cruelly since he killed his (PROX's) son.' [R: Crow Chief]

An alternate construction would be:

- 61) . . . tohneh'éini3 híih'o.
 toh-neh'-eini3 iih'e[h]-o
 because-kill(TA)-4/4S his son-OBV
 '. . . since he (obv.) killed his son (obv).'

The first construction above is subtly different in that the meaning of the verb /neeton/ is 'to kill someone belonging to, related to, or dear to someone'. The son is not marked on the verb. (If he were, the ending would have to be /eini3/, since the son is third person animate possessed and thus also obviative.) Rather, the killer and the father are marked on the verb. In example 61, however, the killer and the son are marked on the verb.

Another example is:

- 62) *hítoníh'o nee3ebebiúténoot.*
 i-onihí'-o nee3ebi-ebiiten-oot
 3S-horse-OBV IMPERF.over there-steal from(TA)-3S/4
 'He would go over there and steal his horse from him.' [R: Crow Chief]

It is not the horse that is marked on the verb, but its possessor. This is clear since even if an inanimate object is stolen, the verb remains a TA form:

- 63) *hibiixúút nées3ebebiúténoot.*
 i-biixuuton-i nee3ebi-ebiiten-oot
 3S-shirt-S IMPERF.over there-steal from(TA)-3S/4
 'He would go over there and steal his shirt from him.' [elicited as a contrastive example]

As the following example shows, when inanimate possessed objects are involved, not only *must* the possessor be marked on the verb, but a special applicative form of the verb (cf. the AI form /otoobe/ 'to consume') *must* be used:

- 64) *hité3ebiiw niicihwonóonotoowúúnoot*
 i-e3ebiiw-o nii-cih-woni-oonotoowuun-oot
 3S-dog-OBV IMPERF-to here-ALLAT-REDUP.consume.APPLIC(TA)-3S/4
 'His dog comes over and eats up
núhu' hecexóóxebii hibí3hiinínoo.
 nuhu' ecex-ooxew-ii i-bii3ihiin-inoo
 this small-dog-PL 3S-food-PL
 these puppies' food.' [E:27.4]

Another variation of possessor raising is the following:

- 65) *3owóúnoo'oo3éínoo*
 3owoy-i-noo'oo-3-einoo
 destroy/ruin-EP-INCHOAT-TA-3S/1S
 'My car has just broken down.' [C:58]

This verb converts the possessor of the vehicle into the object of the verb: whereas the English sentence is intransitive, the Arapaho sentence is transitive, and a closer English gloss is 'my car has just broken down on me.'

Co-participant Raising Construction with /niit/

As discussed in chapter 5, Arapaho has a joint-action construction, which uses the preverb /niit/ 'with'. Although some verbs in Arapaho, as in all languages, are joint-action verbs whose semantics requires two parties ('to argue', 'to fight', etc.), other verbs can be converted to joint-action verbs through the addition of /niit/:

- 66) *héétnii3kóohúno’*.
 eti-niit-i-koohu-no’
 IC.FUT-with-EP-run(AI)-12
 ‘We will run together.’ (AI)

Example 66 clearly involves at least two parties. But Arapaho speakers can also separate out the participating party and mark that party on the verb as an object. To do this, the secondary TA final /:w/ (see chapter 5) is added to the verb, changing the valency from one to two. Speakers have the option of explicitly naming the other party:

- 67) *héétnii3kóohúúwoot híbio*.
 eti-niit-i-koohu-:w-oot i-bi[h]-o
 IC.FUT-with-EP-run-TA-3S/4 3S-older sister-OBV
 ‘S/he will run with his older sister.’ (TA)
- 68) *héétnii3kóohuuwó’*.
 eti-niit-i-koohu-:w-o’
 IC.FUT-with-EP-run-TA-1S/3S
 ‘I will run with him/her.’ (TA)

This type of construction could be considered a “participant raising” construction. Such a label is slightly anomalous given that the participant is actually demoted from co-participant subject in example 66 to object of the verb in examples 67 and 68. But the latter two sentences allow the explicit highlighting of the separate participants in a way that example 66 does not, and these latter two are certainly the more marked construction.

Possessor raising and participant raising are simply two components of the larger process of animacy raising, which occurs widely in Arapaho. But as examples 28 and 29 show, it is crucial to recognize that animacy raising is symptomatic of a more fundamental component of Arapaho grammar—the highlighting of salient elements through marking on the verb stem. Although such salient elements are quite often high on the animacy scale, examples 28 and 29 show that this need not necessarily be the case. Especially in situations where eloquence is called for, such as prayers, songs, or speeches, complex secondary verb stems occur in order to mark not just unusual peripheral participants on the verb but unusual inanimate referents as well.

16.8 AESTHETIC AND POETIC FACTORS IN MARKING ARGUMENTS ON THE VERB

It seems significantly more common for peripheral participants to be marked on the verb stem in elevated speech genres through the construction of less commonly used secondary verb stems. It is also common for more oblique secondarily derived stems to be used in place of simpler primary stems, even when participants are in fact more central. This tendency can be considered a positively valued aesthetic

component of Arapaho speech. In prayers recorded by Alfred Kroeber (source S), one finds sentences with unusual objects or subjects marked on the verb (including via the instrumental preverb, as in example 70):

- 69) *heetihnee'eenihi'neecebixooto' hiine'etiit.*
eetih-nee'ee-nihi'nee-cebixoot-o' iine'etiiton-i
 so that-thus-rapid/intense-walk(TI)-3S life-S
 'Let him walk thusly through life with a firm step.' (lit. 'Let him walk life steadily.')
- 70) *heni'hoo3itoohu' hotooxuwuut.*
i'i-oo3itooh-i' e-ooxuwuuton-i
 IC.INSTR['about']-tell s.t.(TA)-IMPERF.PASS-0S 2S-ruling/law-S
 'The contents of your commandments have been told.'
 (lit. 'Your commandments have been told about.')

One also finds complex secondary stems such as:

- 71) *neiniisooni3i' hinenno' niicee'ini'i3ecootonoo3i' hi3e'exunoo.*
nii-einiisooni-3i' inenin-o'
 IMPERF-REDUP.have children(AI)-3PL man-PL

nii-cee'i-ni'i3ecoo-ton-oo3i' i-3e'ex-inoo [note x + i > xu]
 IMPERF-give-happy-APPLIC(TA)-3PL/4 3S-son-in-law-PL
 'Men who are fathers are accustomed to welcoming their sons-in-law.' (lit.
 'making things happy for them, as a form of gift')
 [cf. simpler *nii-ni'i3ecoo-h-óó3i'* (TA) 'they are accustomed to making them happy']
- 72) *heetih'owouu3ecoohe3en.*
eetih-owouu-3ecoo-h-e3en
 so that-take pity-mental state-CAUS(TA)-1S/2S
 'Let it be that I inspire a state of pity [for me] in you.'
 [cf. simpler *heetih-'owóuunon-in* (TA) 'let it be that you take pity on me']

At this point, grammar begins to cross over into poetics, which is of course not the topic of this book. Nevertheless, it is the hope of both authors that in the future, people will continue to be able to appreciate the complex aesthetic appeal of Arapaho sentences such as those above. We offer one final example:

- 73) *noh núhu' hinóno' éitítít, noosóunéyehitéi'koohúútowúno'.*
noh nuhu' inono' éitiiton-i nosouni-neyeih-tei'ikoohuut-owuno'
 and this Arapaho language-S IC.still-try-"run s.t. strongly"(TI)-12
 'And this Arapaho language, we are still trying to keep it going strong.' [R:Splitting
 of the Tribes]

17

THE VERB PHRASE— SUBORDINATE CLAUSES

17.1 RELATIVE CLAUSES

17.1.1 Introduction

Relative clauses in Arapaho are complex because they involve the use of quite different constructions, depending on the stem class of the verb involved in the relative clause. When the verb is AI or II, the relative clauses look just like independent clauses morphologically, with the exception that they are often governed by a demonstrative such as *hínee*, *hí'in*, or *núhu*:

- 1) *cíhbiini hínee bee'ée'*.

<i>cíh-biín-i</i>	<i>inee</i>	<i>be'ee'</i>
to here-give(TA)-1.IMPER	that	IC.be red(II)-0S

'Give me that red one / the one that is red!' [cf. independent clause *bee'ée'*. 'It is red.']

Note that in traditional narratives where independent clauses are expressed with the special narrative past tense /e'ih/ and the non-affirmative order, the distinction between AI and II independent and relative clauses is much clearer, since relative clauses in the past tense occur with /nih/, not /e'ih/:

- 2) *he'ihniitonee*; “*heetih'iinikotiino'*,”
 e'ih-niiton-ee eeti*h*-iinikotii-no'
 NPAST-hear(TA)-4 so that-play(AI)-12
 'He heard [the other boy]; "We should play,"

heeh^hehk nehe' honoh'ochihi' nih'iisiiteneiht.
 ee-hehk nehe' onoh'ehihi' nih-iisiiteneihi-t
 say(AI)-3S.SUBJ this young man PAST-caught(AI.PASS)-3S
 the young boy who had been captured said [to the other boy].’ [N:lines 77–78]

On the other hand, relative clauses based on TA and TI stems look radically different from regular TA and TI stems, both in the contemporary spoken language and in traditional narratives. These forms are different enough to merit their own special category, and we will designate them as “dependent participles.” Alternately, one might wish to call them “conjunct participles” based on the parallel between their function in Arapaho and the function of the conjunct participle in Proto-Algonquian and many modern Algonquian languages, but the Arapaho dependent participles are not in fact derived from the PA conjunct participle; they derive rather from the PA independent order and are a recent innovation in the language (see Cowell and Moss 2002a).

17.1.2 Dependent Participles

TI

The TI forms of the dependent participle combine a deverbal form (identical to the instrument/product deverbal nominalizations discussed in section 4.5) with prefixes and suffixes marking person and number. The participles take type 2 NI inflections.

- 3) *tonóún-owoo* 'I am holding it' (TI)
no-tóuyoo 'The one I am holding'
- 4) *nonoohóót-owoo* 'I see it' (TI)
no-noohóó3oo 'The one I see'

The prefixes used with these participles are identical to those used in the non-affirmative and to mark possession. The plural markers are the standard possessive plural markers, and when the subject is single, plural objects can be marked on the verb as in the normal possession paradigm. As the paradigm for the TI dependent participle is the same as for possession of inanimate objects, it is not repeated here. Fully conjugated verbs with TI dependent participles can be found in the appendices. An example of usage is:

- 5) *kooonoohóót hini' wo3onohóe nonoohóó3oo?*
 koo=e-noohoot ini' wo3onohoen-i ne-noohoo3oon-i
 INTERR=2S-see(TI) that book-S 1S-see(TI.DEP.PART)-S
 'Do you see that book that I see?'

It should be noted that for unexplained reasons, many speakers regularly tend to use the imperfective marker /ii/ in these dependent participles in situations where it does not normally occur in independent clauses. The above sentence would then be . . . *neinoohóó3oo*.

TA

In the case of the TA dependent participle, the participle is formed in a way similar to AI action/state nominalization participles—a final /:ton/ is added, with shift of the pitch accent to the penultimate syllable in most cases. These participles take type 2 NA inflections; the final /on/ drops from surface pronunciation except with obviative inflection. As explained in 2.3, we list these singular non-obviative forms with the /on/ in brackets in the analyses on line two of the examples to distinguish between underlying forms and modern obviative inflections. There are two particularities in the process, however. First, final /ee/ and /ei/ of verb stems do *not* shift to /oo/ as in the AI participle-formation process. And secondly, the participle is formed based on the verb stem *plus* the direction-of-action theme markers.

Once this formation is complete, the same person and number markers are used as occur with the TI dependent participle. The person hierarchy determines which prefix is used on the participle, as in standard TA verbal inflections. There is usually no /t/ epenthesis after the person prefixes when they occur with vowel-initial stems (see P. Moss:Shade Trees, 13, *no-hoo3ítoon-éiit* 'the one who told me the story'), although some speakers will add this /t/. It is clear that the dependent participles are closely parallel to the non-affirmative order verbs, and indeed they are derived from them (see Cowell and Moss 2002a), although the plural markers are borrowed from the possessed noun paradigm rather than from a verbal paradigm. An example of a TA form is:

- 6) *biine3e-* '1 gives s.t. to 2' >
he-biine3éét "That [thing] that I am giving to you"
 (cf. non-affirmative *hé-íhoow-biiné3* 'I am not giving it to you')

The paradigm shows a number of peculiarities. First, the third person theme/ending /óóton/ alternates freely with /óóón/. Secondly, the fourth person theme/ending /éíton/ occurs as *-éiit* when final. Thirdly, the underlying final /on/ of the participle shifts to /oon/ when plural inflections are added, and the plural inflections show vowel dissimilation between /e/ and /o/: participles ending in /eet/ (always) and /oot/ (for some speakers) take /iininoo/ plurals rather than /ooninoo/ (see the same two phenomena occurring with action/state participles when they are used to form impersonal verbs—section 7.7). Finally, note that the local part of the paradigm

(as in example 6) normally only occurs with ditransitive verbs, and the participles refer to the secondary object of the verb in this case. On the other hand, when the direct and inverse parts of the paradigm are used with ditransitive verbs, the object of the participle can be either the primary object or the secondary object:

- 7) *no-to'ow-óó* 'the one whom I am hitting'
 8) *ne-biin-óó* 'the one to whom I am giving it'
 or 'the thing that I am giving to him/her'

However, local forms can occur with non-ditransitive verbs on occasion. When this happens, the particles always serve as vocative forms, as in 1S/2S *héinoohobe3éét* 'O, you at whom I am looking.' For an example of this in a text, see chapter 4, example 58.

The inflections are as follows (with parentheses indicating elements dropped by some speakers).

Local		
	<i>Singular (2)</i>	<i>Plural (2)</i>
1S/2	e- <i>e3ééton</i> > <i>e3éét</i>	e- <i>e3éétiinínoo</i>
2/1S	e- <i>-íiton</i> > <i>-íit</i>	e- <i>-íitooínnoo</i>
1PL/2	e- <i>-ééton</i> > <i>-éét</i>	e- <i>-éétiinínoo</i>
2/1PL	e- <i>-éi'eeton</i> > <i>-éi'éét</i>	e- <i>-éi'éétiinínoo</i>

Direct		
	<i>Singular object</i>	<i>Plural object</i>
1S/3	ne- <i>-óóton</i> > <i>óót</i> ~ <i>-óóó</i>	ne- <i>-óótono'</i> ~ <i>-óóono'</i>
2S/3	e- <i>-óóton</i> > <i>óót</i> ~ <i>-óóó</i>	e- <i>-óótono'</i> ~ <i>-óóono'</i>
3S/4	(i)- <i>-óóton</i> ~ <i>-óoon</i>	(i)- <i>-óóton(o)</i> ~ <i>-óoon(o)</i>
4S/4	(i)- <i>-óótonin</i> ~ <i>-óoonin</i>	(i)- <i>-óótonin</i> ~ <i>-óoonin</i>
1PL/3	ne- <i>-(óót)oonínoo</i> ~ <i>-óoonínoo</i>	same as singular
12/3	e- <i>-(óót)oonin</i> ~ <i>-óoonin</i>	same as singular
2PL/3	e- <i>-(óót)oonínoo</i> ~ <i>-óoonínoo</i>	same as singular
3PL/4	(i)- <i>-(óót)oonínoo</i> ~ <i>-óoonínoo</i>	same as singular
4PL/4	(i)- <i>-(óót)oonínoo</i> ~ <i>-óoonínoo</i>	same as singular

Inverse		
	<i>Singular actor</i>	<i>Plural actor</i>
3/1S	ne- <i>-éíton</i> > <i>-éiit</i>	ne- <i>-éítono'</i>
3/2S	e- <i>-éíton</i> > <i>-éiit</i>	e- <i>-éítono'</i>
4/3S	(i)- <i>-éíton</i> > <i>-éiiton</i>	(i)- <i>-éíton(o)</i> > <i>-éiiton(o)</i>
4/4S	(i)- <i>-éítonin</i> > <i>-éiitonin</i>	(i)- <i>-éítonin</i> > <i>-éiitonin</i>
3/1PL	ne- <i>-éítoonínoo</i>	same as singular
3/12	e- <i>-éítoonin</i>	same as singular
3/2PL	e- <i>-éítoonínoo</i>	same as singular
4/3PL	(i)- <i>-éítoonínoo</i>	same as singular
4/4PL	(i)- <i>-éítoonínoo</i>	same as singular

As with the TI, singularly possessed TA forms can be inflected for plural (secondary) objects, just as in the normal possession paradigm for nouns:

- 9a) *nehbiinóót* ‘the one I gave to him/her’
 9b) *nehbiinóótono* ‘the ones I gave to him/her’

Morphosyntax

Although in their inflection these forms are morphologically nominal, they show many verbal properties as well. Most importantly, they are the only Arapaho nominal constituents that can be marked for all of the typical verbal categories, including tense, aspect, mood, and so forth:

- 10) . . . *hini’ bé’ci3é’i heihnosóubeetbiine3éét.*
 ini’ be’ci3e’-ii e-ih-nosou-beetoh-biin-e3eet[on]
 that money-PL 2S-PAST-still-want-give(TA)-1S.DEPPART
 ‘. . . that money that I still wanted to give you.’

An example from Paul Moss’s stories showing tense marking is:

- 11) *nih’iinóóte’ hihbí’iyóó.*
 nih-ii-noot-o’ ih-bii’iyoon-i
 PAST-IMPERF-fetch s.t.(TI)-3S 3.PAST-find(TI.DEPPART)-S
 ‘He was fetching home what he had found.’ [O:White Horse, 74]

As is apparent, the morphosyntax exactly matches that of non-affirmative order verbs. The behavior of the forms corresponds to what Ives Goddard calls “transitive nouns” in Massachusetts (Goddard and Bragdon 1988:582). The Arapaho forms show further similarities to the Massachusetts forms in that they are derived from stems with transitive verb themes attached, like the Massachusetts forms (1988:582), and not simply from bare verb stems. The Massachusetts forms also use the prefixes and plural markers of the possessed-noun paradigm (1988:583) on such verbal nouns, like the Arapaho. The process of derivation of the Arapaho forms thus appears to be a characteristically Algonquian pattern.

AI forms

Exactly parallel AI dependent participles can also be derived. Their formation is exactly the same as described for TA participles—that is, they closely resemble standard action/state-nominalization AI participles, but they do not show the shift of final /ee/ and /ei/ to /oo/ in the last syllable of the verb stem. As there is no theme sign, the /:ton/ final is added directly to the stem. The particles take NI type 2 inflections.

These forms have several uses. They are used in ‘what . . .’ questions, in conjunction with the interrogative form *heeyóu* (see section 11.1). The effect of the overall construction is to create implied objects of the AI verb stem:

- 12) *heeyóu héétni'woteekoohúút?*
 eeyou e-eti-i'i-woteekoohuuton-i
 what 2S-FUT-INSTR-go to town(AI.PART)-S
 'What are you going into town for?' [E:1.5]

The instrumental marker need not necessarily be used, as the following example shows:

- 13) *heeyóu heihno'uséetiinínoo?*
 eeyou e-ih-no'useetiin-inoo
 what 2S-PAST-arrive(AI.PART)-PL
 'What have you(PL) come here for?' [O:Bad Dreamers, 13]
 (cf. the normal action-nominalization participle of /no'usee/, *no'xóót* 'act of arriving'.)

Dependent participles are also created with AIO verb stems in ordinary relative clause constructions. Thus, although stative/descriptive AI verbs have relative clause forms that resemble the affirmative order (see example 1 above), AI verbs that are semantically transitive usually occur in relative clauses in their dependent participle form:

- 14) *enetii- 'to lose s.t.'(AI) >*
hínee bé'ci3éi'i neih'énétii3oo.
 inee be'ici3e'-ii ne-ih-enetii3oon-i
 that money-PL 1S-PAST-lose(AI.DEPPART)-S
 'That money that I lost.'

Note that these AIO forms ending in /tii/ add /3/ to the end of the AIO stem (apparently by analogy to the TI forms such as *noohóó3oo*) and then likewise add TI-like /oon/ finals. Thus, morphologically AI stems are treated inflectionally as TI forms in this very interesting (and apparently recent) remodeling of the verb system.

Semantics and syntax of dependent participles

Dependent participles can be quite complex semantically and morphologically. AI passive verbs derived from TA verbs can be inflected as dependent participles, as can middle-voice forms. Examples of the interesting variety of dependent participles that can occur in Paul Moss's stories include the following.

AI implied object:

- 15) *níhenéíhi- 'to possess a thing' (AI) >*
nohkcé3ei'óó3i' hebéih'eihébin, beh'éihohó' hiniihénéihútoonínoo.
 nohku-ce3ei'oo-3i' e-beih'eihew-in beh'eihoho'
 with-depart(AI)-3PL 2S-old man-INCL old men

 i-niiheneihiiiton-inoo
 3S-possess s.t.(AI.DEPPART)-PL
 'Our old men, the old men, left with their [sacred] possessions.' [O:Eagles, 93]

See also in Salzmann's 1956 texts: 3.2.21 *neibenéét* 'the thing that I drink' from AI /bene/ and 2.5.19 *heeyóu héih'ohookeeniít* 'what is [the reason for] you acting crazy/your craziness?' from AI /ohookeeni/ 'to be, act crazy'.

Indefinite dependent participle:

- 16) *oobéihi*- 'to not have/possess s.t.' (AI) >
tóonhoobeihíiton.
 toon=ihoobeihiton-o
 INDEF-not possess(AI.DEPPART)-PL
 'Whatever things people didn't have.' [O:Woman Captive, 13]
- 17) *tonóun*- 'to use s.t.' (TA) >
toonhéetonóunó'ón.
 toon=eti-tonoun-ooon
 INDEF-IC.FUT-use(TA)-3S.DEPPART.OBV
 'Which[ever] one[s] he would use.' [O:Enemy Trail, 8]

Passive dependent participle:

- 18) *néstoobéihi*- 'to have been warned about s.t.' (AI.PASS) >
hóókoh nih'iisonbí3inoo núhu' heeyóúhuu
 ookoh nih-iisi-noni-bii3i-noo nuhu' eeyouhuuh-i
 because PAST-PERF-wrongly-eat s.t.(AI)-1S this thing-S
 'Because I have eaten by mistake the thing

neihnéstoobéihíit.
 ne-ih-nestoow-eihíit[on]
 1S-PAST-warn(TA)-AI.PASS.DEPPART
 that I was warned about.' [O:Eagles, 77]

Obviative dependent participle:

- 19) "*cihnéésee,*" *hee3éihók núhu' céitoonéiton, no'uxóótonéiton.*
 cihneesee ee3-eihok nuhu' ceitoon-eiton no'uxooton-eiton
 come on say(TA)-4/3S this visit(TA)-4/3S.OBV arrive at(TA)-4/3S.OBV
 '“Come on!” said the one [OBV] who had come to visit him, the one [OBV] who
 had arrived there to see him.' [O:Bad Dreamers, 33]

The index of the stories of Paul Moss (Cowell and Moss 2005b) lists all occurrences of dependent participles in the text. Incidentally, some of the forms listed under TA and TI are actually grammatically AI dependent participles that are semantically transitive. Also, in the index, WC28.5 should be 28.6 (but this turns out not to be a dependent participle), and SCS54.7 should be SCS54.6. Examples in Salzmann's 1956 texts include 2.1.21, 2.3.20, 2.4.9, 2.4.31, 3.2.57(TI), 3.4.30 (AIO), and 3.4.34 (AIO).

Dependent participles as lexicalized nouns

As an aside, note that one way of nominalizing patients/undergoers (but not agents) in Arapaho is by using dependent participles. Thus, one can say:

- 20) *neinóó'ei3óóó*
 ne-iinoo'ei3-ooo[n]
 1S-hunt(TA)-3.DEPPART
 'prey' (lit. 'the one I am hunting')

Although such dependent participles are common, this is one of the fairly rare lexicalizations of these forms in Arapaho. Another is *netééxokúúú* 'my saddle horse' (formed from the AI stem /teexoku/ 'to sit on s.t.' and thus meaning 'the one I am sitting on'). Back-formation produces the simple unpossessed noun *tééxokúúú* 'saddle horse'. Note that when such forms are based on AI stems, they often look exactly like regular AI action/state nominalizations. The dependent participles can be distinguished semantically, however, by the fact that they produce a nominalized patient/undergoer rather than an action.

17.1.3 Relative Clauses: Overall Morphology and Internal Syntax

Now that we have explained the morphology of the verb as used in relative clauses, we can examine their overall syntax. Internally, relative clauses with explicit NPs show the following syntax:

(Head Noun Phrase) + (Clause-Internal NP) + Rel.-Clause Verb + (Clause-Internal NP)
 NOTE: Relative Clause Verb: AI, II, TI/TA/AIO dependent participles

On some occasions, when the relative clause consists of only a single stative/descriptive verb and it modifies the head noun adjectivally, it occurs prior to the head noun (see 14.1).

Fairly often, if a single clause-internal noun is present, it precedes the verb. This means that such nouns intercede between the head of the relative clause and the modifying verb, as in example 23 below. On some occasions this can lead to potentially misleading situations (for linguists, not for native speakers) where it initially seems that the clause internal noun is the head of the relative clause. For this reason, in the remainder of this chapter, we will underline all relative clauses and place the corresponding English gloss in brackets for the sake of clarity:

- 21) . . . *hinee woo'óteeyóó' tóuyoo henéinóotéé'*.
 inee wo'oteeyoo-' touyoon-i einootee-'
 that black(II)-0S cup-S IC.be located there(II)-0S
 'That black cup {[that is] sitting there}.'

- 22) . . . *hínee woo'óteeyóó' tóuyoo hónoohóó3oo.*
 inee wo'oteeyoo-' touyoon-i e-noohoo3oon-i
 that black(II)-0S cup-S 2S-see(TI.DEP.PART)-S
 'That black cup {[that] you see there}.'
- 23) . . . *hínee woo'óteeyóó' tóuyoo nétesih'e hinoohóó3oo.*
 inee wo'oteeyoo-' touyoon-i ne-tesih'e[h] i-noohoo3oon-i
 that black (II)-0S cup-S 1S-wife 3S-see(TI.DEP.PART)-S
 'That black cup {[that] my wife sees there}.'
- 24) *hétbebiísé'towúúnoo hínee hísei heníi3e'etiíwóó.*
 eti-bebiíse'itowuun-oo inee isei[n] e-nii3e'etiíw-ooo[n]
 IMPER.FUT-tell properly(TA)-3S that woman 2S-live with(TA)-3.DEP.PART
 'You must explain this clearly to that woman {[whom] you live with}.' [O:Eagles, 37]

An example of two relative clauses, one embedded within the other, is:

- 25) *wohéi né'nih'iisíini césisih'ohút níine'eehék néhe'inén*
 wohei ne'=nih-iisi-ini cesisih'ohu-t niine'eehek nehe' inen[in]
 well that=PAST-how-DET fly away(AI)-3S here he is this man
- nih'iiscée3bí3i' níiyóu hóoté*
 nih-iisi-cee3i-bii3i-' níiyou ooteh-i
 PAST-PERF-by mistake-eat s.t.(AI)-3S here it is sinew-S
- nih'i'ínéstoobéiton níine'eno níi'chíiho.*
 nih-i'i-ii-nestoow-eiton niine'ee-no níi'eihih-o
 PAST-INSTR-IMPERF-warn(TA)-4/3S.OBV here is-PL.OBV eagle-PL.OBV
 'Well, that was how he flew away, this man {who had accidentally eaten this sinew
 {that these eagles had warned him about}}.' [O:Eagles, 86]

As the preceding examples show, head nouns of relative clauses are introduced by either a pragmatic particle, and/or a presentational form, or a verb (which reinforces the earlier statement that presentational forms are pseudo-verbal—see 14.3). This also shows that pragmatic particles could be considered pseudo-verbal in function. The three possibilities (continuing with the model of examples 21–23) are:

- howóó* + Head Noun Phrase + REL CL = 'also that black cup that . . .'
níiyóu + Head Noun Phrase + REL CL = 'here is that black cup that . . .'
nonoohóótowoo + Head Noun Phrase + REL CL = 'I see that black cup that . . .'

On rare occasions, adverbials with a pseudo-verbal function can also introduce the heads of relative clauses:

- 26) *hoowúciisíthi' hinee héetnéé'ehkoxtóotéé' hinee hoho'eni'.*
 ihoowu-ciix-iithi' inee eetoh-nee'eh-koxutootee-'
 NEG-far-ADV that where-from here-located on other side(II)-0S
 inee ohe'en-i'
 that mountain-LOC
 '[It was] not far to that [place] {located on the other side of that mountain}.' [O:
 Enemy Trail, 8]

When there is no explicit full nominal head, a demonstrative is often used, as in example 26:

- 27) *hinee henéinoótéé'.* (II)
 'That [one] {that is sitting/located there}.'
 28) *hinee heinoohóó3oo.* (TI.DEP.PART)
 'That [one] {that you see}.'

Note, however, that no head elements—even demonstratives—are required; the anaphoric person markers on the verbs can serve this purpose (examples 29, 30), as can pseudo-verbal presentational forms (example 35):

- 29) *niiyóu hótónihí' beníino3óohú3i'.*
 niiyóu e-onihí' biino3oohu-3i'
 here they are [the things] 2S-horse IC.to be loaded with things(AI)-3PL
 'Here are all the things {your horses are loaded with}.'
cécece'ihóti hebixoo3óoo.
 cecece'ih-oti e-bixoo3-ooo[n]
 REDUP.give gift(TA)-2S/3PL 2-love(TA)-3.DEP.PART
 You will give these things to them {whom you love}.' [O:Woman Captive, 35]
- 30) *wonoo3ei'i 3owo3neniteeno' nih'iitooootii3i' hinee hinooxuuniicie.*
 woo3ee-i' 3owo3ineniteeno' nih-iitoh-ooootii-3i'
 IC.many(II)-0PL Indians PAST-where-REDUP.camp(AI)-3PL
 inee inooxuuniiciiheh-i
 that Sweetwater River-S
 'Many are [the places] {where Indians camped at the Sweetwater River}.' [J:III.Loc]

17.1.4 Adverbial Relative Clauses

When relative clauses involve adverbial elements, as in examples 26 and 30 above ('the place where . . .', 'the time when . . .'), they take the form:

(Head Noun Phrase) + (Clause-Internal NP) + Adverbial Root + Relative-Clause Verb
 + (Clause-Int. NP)

Note that relative clause verb is standard II, AI, AIO, TI, TA plain conjunct order verb.

Most notably in this case, plain conjunct verb forms are used for all types of stems rather than dependent participles. As with the previous examples, when the head noun is absent, a demonstrative is often used. And as previously, clause-internal nouns often precede the verb.

Adverbial relative clauses without explicit NP heads:

- 31) *hínee héetiíne'etiíno'*.
 inee eetoh-iine'etii-no'
 that [place] where-live(AI)-12
 'That place {where we live}.'
- 32) *hínee nih'ítinóhobé3en*.
 inee nih-iitoh-noohow-e3en
 that [place] PAST-where-see(TA)-1S/2S
 'That place {where I saw you}.'

Adverbial relative clauses with explicit clause-internal NPs:

- 33) *néeyóu hínee híí3e', híitiíne', nóno'éino' nih'ítitiíne'etií3i'*.
 neeyou inee ii3e' itiíne' inono'ein-o' nih-iitoh-iine'etii-3i'
 there is that there at here Arapaho-PL PAST-where-live(AI)-3PL
 'There is that [place] there—here—{where the Arapahos lived}.' [O:Woman
 Captive, 39]
- 34) *hí'in híisiis níitné'íset*
 i'in iisiis níitoh-ne'ísee-t
 that [place] sun IMPERF.where-set(AI)-3S
 'The place {where the sun sets}.' (i.e., 'the west')
- 35) *néeyóu hínee hotíi héétóh'úni héinókut*.
 neeyou inee otii[w] eetoh-ini einoku-t
 there it is that wheel where-DET be located(AI)-3S
 'There is [the place] {where that wheel is located}.' [O:Buffalo Wheel, 2]

Note that example 34 looks initially ambiguous in that one might be tempted to gloss it as a left dislocation: 'that sun, where it sets.' The lexicalized meaning of the clause as 'the west' (i.e., 'the *place* where the sun sets') argues against such a reading. Example 35 offers even more conclusive proof of the actual role of the NP. Note that 'wheel' is animate, and the following verb agrees with it. However, the presentational *néeyóu* is an inanimate form. Clearly, it is not governing 'wheel' but rather is serving as the pseudo-verbal introduction to a headless clause. Thus, the reading 'there is that wheel, where it is located' is incorrect. (The translation used in the anthology was unfortunately sloppy in this case and reflects this incorrect reading. It has been amended in the gloss above.) Example 29, in the first sentence, shows a similar use of an inanimate presentational form introducing an inanimate unstated head followed by animate elements within the relative clause, and example 30 functions similarly.

17.2 ADVERBIAL CLAUSES

17.2.1 Clauses with Relative Roots

Many adverbial clauses involving time ('when [past] . . .', 'after . . .', 'while . . .', 'before . . .') and consequence ('since . . .', 'because . . .') are formed using the special grammatical preverbs of the simple mode of the conjunct order (13.1.1). Others are formed using the conjunct iterative ('whenever . . .') and the conjunct subjunctive ('if . . .', 'when [future] . . .')—see 3.5.1. Adverbials (15.5) also commonly form adverbial clauses. As those types of clauses have been treated as part of the discussion of the various structures in question, their internal structure will not be treated further here.

Other adverbial clauses, involving time, place, amount, reason, manner, and so forth, are formed through the use of relative adverbial roots/preverbs and analytically correspond to verbs inflected in the simple mode, conjunct order. The relative roots, even when word-initial, never take initial change, as would be expected for the conjunct order. When used as preverbs, they take the standard derivational /-i/ suffix.

The relative forms are clearly related to both the corresponding *wh*-question roots used in the non-affirmative and to the relative roots/preverbs used in cleft constructions, which will be presented below. Unlike the interrogative forms, however, the relative forms show alternations between present, past, and future tense, as well as marking of habitual/imperfective aspect, within the relative root itself: present and future tense forms show some form of /ee/, whereas past forms show /ii/. Habitual/imperfective forms show /n-ii/ (including the future habitual). The forms also commonly show reduplication to /eenei/ in all tenses/aspects. In the table below, we present all possible forms for 'where' but then afterward list only the basic punctual/single event vs. habitual opposition in the present tense. Note that 'where' occurs with underlying final /oh/ as /eetoh/ (and likewise for the other forms) when used as a preverb but as /eet/ when used as a verb initial. The forms 'to where' and 'from where' do not occur as preverbs, only as verb initials.

<i>Interrogative</i>	<i>Relative root</i>	<i>Cleft form</i>	<i>Tense/aspect</i>
toot- 'where'	eet(oh)-	nee'eet(oh)-	Present
	niit(oh)-	ne'niit(oh)-	Habitual
	nih'iit(oh)-	ne'nih'iit(oh)-	Past
	heetniit(oh)-	heetne'niit(oh)-	Future Habitual
	heetniit(oh)-	heetnee'eet(oh)-	Future
toot- -ii3- 'to where'	ee3e'ei-	nee'ee3e'ei-	Present
	nii3e'ei-	ne'nii3e'ei-	Habitual
toot- -iit- 'from where'	eet-	nee'eet-	Present
	niit-	ne'niit-	Habitual
tou'- 'when'	ei'-	nee'ei'-	Present
	nii'-	ne'nii'-	Habitual
tou3ee- 'why'	ee3ee-	nee'ee3ee-	Present
	nii3ee-	ne'nii3ee-	Habitual
tou3- 'how/what'	ee3-	nee'ee3-	Present
	nii3-	ne'nii3-	Habitual

tohuutox- 'how many'	eetox- niitox-	nee'eetox- ne'niitox-	Present Habitual
tou3ei'(nee)- 'how much'	ee3ei'(nee)- nii3ei'(nee)-	nee'ee3ei'(nee)- ne'nii3ei'(nee)-	Present Habitual
tohuucix- 'how long/far'	eecix- niicix-	nee'eecix- ne'niicix-	Present Habitual

Examples of where / when / why and so forth adverbial clauses modifying verbs are:

- 36) *nebesiiwoo, cih'oonoo3itooni nih'eeneisiine'etiin teecxo'.*
 nebesiiwoo cih-oon-oo3itoon-i
 grandfather.VOC to here-REDUP-tell story(TA)-1S.IMPER

 nih-eeneisi-iine'etii-n teecixo'
 PAST-how.REDUP-live(AI)-2S long ago
 'Grandpa, tell me stories [about] {how you lived a long time ago}.' [J:III.Family]
- 37) *nihwoo3ei'i nouuciitoo3oono nih'iitoh'ootiini'.*
 nih-woo3ee-'i nouuciitoo3oon-o nih-iitoh-ootii-ni'
 PAST-many(II)-0PL gopher hill-PL PAST-where-camp(AI)-1PL
 'There were many gopher hills {where we camped}.' [J:IV.Shelter]
- 38) *héétniitnókohun héétco'oe'inow.*
 eti-niitoh-nokohu-n eti-co'oe.in-ow
 IC.FUT-IMPERF.where-sleep(AI)-2S IC.FUT-make willow shelter(TI)-2S
 '{Where you will sleep} you will make a willow shelter.' [O:Bad Dreamers, 21]

Very commonly, adverbial clauses of this type, containing relative roots, occur in the form of embedded relative clauses: a relatively semantically empty demonstrative or presentational form (or both, as in example 39) is used as a head, followed by a relative clause containing the adverbial relative root:

- 39) *héé3ebéisiinobéét néeyóu hinee héétéh3i'óó'.*
 ee3ebi-iisiinobee-t neeyou inee eetoh-3i'oo-'
 there-learn by watching(AI)-3S there it is that where-pointy(II)-0S
 'He learned things by observing [at]{that [place] where it's pointy}.' [O:White Horse, 43]

Sentence 39 could also be expressed using a simple adverbial clause: *héé3ebéisiinobéét héétéh3i'óó'* 'he learned things by observing where it's pointy.' The use of the more complex clause with the embedded relative seems to be for emphatic purposes. Note that structurally, the contrast between the two sentences corresponds to that which occurs between the following less and more marked forms:

- 40a) *hé'ihc3éi'oo néhe' hinén.*
 e'ih-ce3ei'oo nehe' inen[in]
 NPAST-depart(AI) this man
 'The man departed.'

- 40b) *hé'ihcé3éi'oo níine'eehék něhe' hinén.*
e'ih-ce3ei'oo níine'ee-hehk nehe' inen[in]
 NPAST-depart(AI) here is-S this man
 'This here man departed.'

In example 40b, the presentational form renders the noun 'man' more salient. The presentational form *néeyóu* functions in the same way in example 39, rendering 'where it's pointy' more salient.

17.2.2 Nominalizations Using Adverbial Clauses and Relative Roots

Virtually any semantic component or participant in a clause can be nominalized using the adverbial relative clause construction. One example is location, using the preverb /niit/, indicating habitual location. The use of the demonstrative *hínee* is not required but is included here to show the syntactically nominal character of these constructions:

- 41) *hínee níitne'íseet.*
inee níitoh-ne'isee-t
 that where.HABIT-go down(AI)-3S
 'the west' (lit. 'That [place] where [the sun] goes down.')
- 42) *hínee níitkóokóho'ohwóótiini'.*
inee níitoh-kookoho'ohowootiin-i'
 that where.HABIT-play ball(AI.PART)-IMPERS(II)-0S
 'the ballfield' (lit. 'That [place] where there is ball playing.')

Less common is the preverb /eet/, indicating onetime or ongoing location:

- 43) *hínee héetíine'etiíno'.*
inee eetoh-iine'etii-no'
 that where-live(AI)-12
 'the Wind River Reservation' (lit. 'The [place] where we live.')

For obvious semantic reasons, the constructions with /niit/ are more common than those with /eet/ among lexicalizations. There is no clear-cut way to distinguish lexicalized examples of these constructions from non-lexicalized ones that commonly occur as subordinate clauses. All three examples above are lexicalized. Other categories that are nominalized and often lexicalized in this way include time nominalization, using the preverb /nii/, indicating habitual time:

- 44) *ní'bií3híitooni'.*
nii'i-bii3ihiiton-i'
 when.HABIT-eat(AI.PART)-IMPERS(II)-0S
 'dinnertime' (lit. 'When one eats.')

- 45) *nii'ne'iseet.*
nii'i-ne'isee-t
 when.HABIT-go down(AI)-3S
 'sunset' (lit. 'When the sun goes down.')

The full range of potential preverbs used in these constructions is discussed in section 17.2.1. Additional examples of lexicalized forms include:

- 46) *heenéicxóoyei'óó'.*
eeneicixi-xooyei'oo-'
 REDUP.how long-time passage(II)-0S
 'season' (lit. 'How far along [the year] is.')
- 47) *hee3éi'xonéet.*
hee3ei'i-xonee-t
 to what extent-EP-school grade(AI)-3S
 'grade (in school)' (lit. 'To what degree s/he has progressed.')
- 48) *hiisóó'.*
ii3-yoo-'
 how-II-0S
 'type' (lit. 'How it is.')

As these examples make clear, the adverbial root /ee3/ 'how, what' and its allomorphs and derivatives (*hiis-*, *heenéis-*, *héécix-*, etc.) are pervasive in the formation of abstract nouns in Arapaho. For example, when nominal forms are needed for the topical concrete verb finals discussed in section 6.6, /ee3/ or the appropriate derivative becomes the placeholder initial element that is combined with the topic final to form a verbal noun with semantic content equivalent to the topic:

- 49) *-iisooo-* 'weather' (II) >
heenéisiiisóoo' 'the weather' (lit. 'How the weather is.')
- 50) *-xooyeihi-* 'time progression' (AI) >
héécxooyéihit 'his/her age' (lit. 'How far through life s/he has progressed.')
- héécxooyéihinoo* 'my age' ('How far through life I have progressed.')

Finally, for the sake of English speakers in particular, it should be noted that the abstract nouns 'reason', 'place', 'time', 'direction', and the like are all expressed in Arapaho as adverbial clauses in which a demonstrative acts as the head and an adverbial relative root conveys the lexical meaning:

- 51) *hi'in nih'ii'nóúxonó'.*
i'in nih-ii'i-nouxon-o'
 that PAST-when-meet(TA)-1S/3S
 'That [time] when I met her.'

- 52) *hínee níí3eení'eenebé3en.*
 ineé níí3ee-ní'eenew-e3en
 that why.IMPERF-like(TA)-1S/2S
 'The [reason] why I like you.'

17.2.3 Purpose Clauses

Adverbial clauses expressing purpose are formed using the preverb /*eetih/* (which is also used to form pseudo-imperatives and express embedded wishes and commands):

- 53) *wohéí 3íwoo héhníí3óenowoon ciibéét*
 wohei 3iwoo eh-níí3oenowoo-n ciibeeton-i
 well let's see SUGG.IMPER-make willow structure-12 sweat lodge-S
 'Well, let's see, let's make a sweat lodge

heetihciibéno', heetih'iicóono'.

eetih-ciibe-no' eetih-iicoo-no'
 so that-sweat ceremonially(AI)-12 so that-smoke(AI)-12
 {so that we can sweat and smoke}.' [O:Scouts, 12]

- 54) *heet3óuxóh'owóono' heetihbii3ihíno'.*
 eti-3ouxoh'owoo-no' eetih-bii3ihi-no'
 IC.FUT-boil for self(AI.SELFB)-12 so that-eat (AI)-12
 'We'll boil them for ourselves so we can eat.' [R:White Man and Entrails]

See also section 5.6.3 on purpose/result clauses with a lexical causative TA verb.

17.2.4 Reason Clauses

Reason clauses—as opposed to clauses expressing logical sequences or closely conjoined causes and effects—are sometime formed using the conjunct order preverb /*tih/*, meaning 'since' or 'because', and in other cases formed using the particle *hookóh*, meaning 'because'. The distinction between the two is not entirely clear, although generally, /*tih/* seems to be used when the connection between reason and resulting action is more immediate or prototypical, and especially more involuntary. Secondly, complex multi-word reasons tend to be expressed using *hookóh*, whereas simpler single-word reasons tend to be expressed using /*tih/*:

- 55) *nih'oo3oo xonou nih'iiniistiit beines*
 nih'oo3oo xonou nih-ii-niisitii-t beinex-i
 white person immediately PAST-IMPERF-make(AI)-3S fort-S
 'The white man would make a fort right away

hookoh nih'eentoo3i' 3owo3neniteeno'.

ookoh nih-entoo-3i' 3owo3ineniteen-o'
 because PAST-be present(AI)-3PL Indian-PL
 {because there were Indians around}.' [J:I.Shelter]

- 56) *nih'íicóó3i' hóókoh heeneesíini notíko[ni]nóó3i, hé'ih'íicóóno'.*

nih-iicoo-3i' ookoh eeneesiini notikoni-noo3i
 PAST-smoke(AI)-3PL because REDUP.what.DET scout(AI)-3PL.ITER

e'ih-iicoo-no'

NPAST-smoke(AI)-3PL

'They smoked {because whenever they were scouting for something, [the custom was that] they smoked}.' [O:Scouts, 49]

- 57) *hé'ih'íini bixóné'etíin tih'íicé3tooní3.*

e'ih-íini bixone'etii-n tih-ii-cee3itoo-ni3

NPAST-DET sob(AI)-4S when.PAST-IMPERF-do by accident(AI)-4S

'She was sobbing {because of what she had accidentally done/since she had made a mistake}.' [O:Eagles, 79]

- 58) *wohéi [hé'ih]biibixooeyinoón, kón-*

wohei e'ih-biibixooeyinooni kon-

well NPAST-REDUP.noise of crying(II) for no reason

'Well, there was the sound of crying all around,

nooxéihi' tih'íi3íikone'éisoot.

nooxeíhi' tih-ii-3iikone'eis-oot

maybe when.PAST-IMPERF-scalp(TA)-3S/4

maybe {since he was scalping them}.' [O:Scouts, 40]

17.2.5 Other Types of Adverbial Clauses

Manner or method is expressed either with incorporated instrumental or manner concrete finals (6.4, 6.5), with the instrumental construction (15.5.6), or with adverbials (15.5). Clauses involving conditions ('if . . .', 'unless . . .') use the conjunct subjunctive (3.5). Clauses involving concession ('even though . . .', 'even if . . .', 'despite . . .') also use the conjunct subjunctive (13.2.2). Clauses involving the concept of 'like' or 'as if' use the particle *wootíi* (see chapter 14, examples 14 and 66). Clauses involving substitution ('instead of . . .') use the particle (*hii*)*ne3óón* or (*hii*)*no3óón*:

- 59) *wóuuceh, hoo3ítoonó', noh hoowuusehce'íini . . .*

wouuceh oo3itooon-o' noh ihoowu-iisi-eh-ce'i-íini.

surprise.EMPH tell s.o. story(TA)-1S/3S and NEG-PERF-from here-again-DET

hiine3óón himiisónoon huut nó'o', nenebíihi' nó'o', né'nih'ixohéit.

iine3oon iniisoonoon uut nó'o' nene-wiíhi' nó'o'

instead his father.OBV here out away north-ADV out away

ne' =nih-ixoh-eit

that=PAST-take(TA)-4/3S

'Well, I'll be darned if I didn't tell him about [the ghost], and [we] never did go out there again. Instead, way out from camp here, way out in the north, that's where his dad took him [to fast].' [R:The Ghost by the Road]

17.3 COMPLEMENT CLAUSES

Complement clauses show agreement with the main verb stem and are always treated as inanimate. They involve the use of several different types of grammatical elements—affirmative order clauses, conjunct order clauses, participles, nominalized adverbial clauses, and relative clauses.

17.3.1 Finite Complements

Finite complements typically are affirmative order clauses. With verbs of telling, commanding, and so forth, the conjunct order is used with the preverb /eetih/ 'so that, in order that'.

Subject:

- 60) *hoowuni'oo nuhu' neyei3eihiiho' tohuuboo3eti3i'.*
 ihoo-wu-ni'oo nuhu' neyei3eihiih-o' toh-ii-boo3eti-3i'
 NEG-good(II) this student-PL when-HABIT-fight.RECIP(AI)-3PL
 'It's no good {when these students fight each other}.' [J:III.Verb]

(Implied) object:

- 61) *hinee ho'oo-wu' niico'u3ootiini' nii3i'.*
 inee o'oo-wu-' nii-co'u3ootiin-i' n-ii-3i'
 that house-S IMPERF-bother(AI.PART)-IMPERS-0S IMPERF-say(AI)-3PL
 'They say {that house is haunted}.' [J:1.Shelter]

Note in passing that /nii/ 'to say (habitually)' functions like other citation forms such as *heehéhk*, *hee3eehók*, and so forth in that it virtually always follows the citation.

Secondary object, verb of commanding:

- 62) *hetei'towuunoo heetih3owoteno' hini' niinon.*
 eti-e'itowuun-oo eetih-3owoten-o' ini' niinon-i
 IMPER.FUT-tell s.o.(TA)-3S so that-erect(TI)-3S that tepee-S
 'You must tell him {to set that tepee up}.' [J:1.Shelter]

The preceding example could seemingly be analyzed as an adverbial clause rather than a complement clause. But the underlying syntax of the verb /e'itowuun/ is 'to tell s.o. s.t.'. An example is *héétnéi'towuuné3en heeyóúhuu* 'I am going to tell you something.' [O:Eagles, 53]. The use of the preverb /eetih/ indicates that what is told is a command.

Finite complements of verbs of knowing, seeing, hearing, and so forth

A special case of complement clauses involves verbs of knowing, hearing, reporting, and so forth in the main clause. In this case, TA verbs with applicative finals are used in the main clause, with the subject of the complement clause being the object of the verb of the main clause:

- 63) *hee'inonó' niitecó'oniisi3ei'tit.*
 e'inon-o' nii-teco'oni-niisi3ei-t
 IC.know(TA)-1S/3S IMPERF-always-work(AI)-3S
 'I know {that he works a lot}.' (lit. 'I know him/he works a lot.')
- 64) *nihniitowoo3o' nooxeihí' niibineece3ixotoot.*
 nih-niitowoo3-o' nooxeihí' niibinee-ce3ixotoo-t
 PAST-hear about(TA)-1S/3S perhaps IMPERF.secretly-date(AI)-3S
 'I heard {that he is dating someone on the sly}.' (lit. 'I heard about him/he is secretly dating someone.')
- [E:32.4]

There is also a special, fairly rare form of the verb 'to know' used *only* with subordinate clauses. It has the form /e'in-eebe-n/ (TA); the /eebe/ element may be cognate with the element /obee/, which appears in verbs such as /niitobee/ 'to hear of s.t.' and /e'itobee/ 'to tell of s.t.':

- 65) *hee'inebeenó' nihniibéi'tit.*
 e'inebeen-o' nih-niibei-t
 know about s.o.(TA)-1S/3S PAST-sing(AI)-3S
 'I know {that he sang}.'

Finite complements with future obligation

When finite complements involve a sense of both future tense and obligation, the preverb *hét-* is used in place of the simple future tense *héét-*. These constructions often involve embedded indirect commands, as in example 66:

- 66) *wohéi hé'né'ei'tobéet, néé'eesnéstoobéit niine'ééno núhu'*
 wohei e'ne'i-e'itobee-t nee'eesi-nestoow-eit niine'ee-no nuhu'
 well then-say(AI)-3S thus-warn(TA)-4/3S here is-OBV.PL this
 'Well, then he told how these eagles had warned him
- nii'ehiiho hétciibii3i' niiyóu núhu'úuno.*
 nii'eihiih-o eti-cii-bii3i-' niiyóu nuhu'-uuno
 eagle-OBV.PL so that-NEG-eat(AI)-3S here is this-EMPH
 {not to eat those [parts of meat]}.'
 [O:Eagles, 60; translation here is a revision of that published in the anthology]

This example raises the same issues as sentence 62 in terms of whether to consider the clause a secondary object complement clause or an adverbial clause (see source B:3.1.54 for a similar example). This is really a deeper theoretical issue of the

relationship between verb stem semantics and surface syntax/grammatical transitivity in Arapaho, which we will not pursue further here, other than to note that the converse side of the issue is whether to consider the implied objects of semi-transitive verbs as adverbial clauses rather than objects (see 5.2, 16.1–16.4).

A less ambiguous example is the following:

- 67) *beni'wo'ohnónéih̄t toh'e'inowuni3i h̄étciisiseet.*
 bi'i-wo'ohnoon-eihi-t toh-e'in-owuni3i eti-ciisisee-t
 IC.just-give shoes(TA)-PASS-3S because-know(TI)-4PL FUT-walk far(AI)-3S
 'He is only given moccasins because they know {that he has to walk a long way}.'
 [O:Apache Captive, 3]

Embedded commands and/or wishes are also expressed using the conjunct order preverb /eetih/ (which is obligatory in this function in imperative clauses—see 12.10). These commands seem to be either less strong than those expressed by /eti/, to leave more volition to the recipient of the command, or to involve indirectness (i.e., an order is given to a second person concerning a third person):

- 68) *héétnii'ei'towúúnot heetih̄ciibi3wóoto'.*
 eti-nii'i-e'itowuun-ot eetih-cii-bii3iwoot-o'
 IC.FUT-then-tell s.o.(TA)-2S/3S so that-NEG-cook s.t.(TI)-3S
 'You will tell her about this so that she doesn't prepare a meal [using this part].'
 [O:Eagles, 37] (Perhaps better translated simply as 'You will tell her {not to cook [that part]}'.')

17.3.2 Non-finite Complements

As seen in section 9.3, many expressions that involve non-finite complements in languages like English are incorporated into the verb in Arapaho and are expressed through the use of auxiliary preverbs in combination with other verb stems:

- 69) *niibéetohwoteekóóhunoo.*
 nii-beetoh-wotee-koohu-noo
 IMPERF-want to-town-go by car(AI)-1S
 'I want {to go to town}.'
- 70) *nóówohbetéet.*
 noowoh-betee-t
 IMPERF.like to-dance(AI)-3S
 'She likes {dancing/to dance}.'
- 71) *niibeetohwonoohowoot hini' honookowuubeeni3i.*
 nii-beetoh-woni-noohow-oot ini' ookowuubee-ni3i
 IMPERF-want to-ALLAT-see(TA)-3S/4 that IC.have bent nose(AI)-4PL
 'He wants {to go and see those elephants}.' [J:II.Animals]

When less common combinations of verbs and/or complements occur, or to emphasize a particular word, action/state participles are used to express non-finite complements.

Subject:

- 72) *woow hiinoo'oeet nihi'neenoo'.*
 woow iinoo'eiton-i nihi'neenoo'
 now hunt(AI.PART)-S IC.go well, intensely(II)-OS
 '{Hunting} is going strong now.' [J:I. Verb]

Object:

- 73) *hinee hinen siineeseineeto' niisi3oot.*
 inee inen sii=neseineet-o' niisi3ooton-i
 that man INTENSE=IMPERF.hate(TI)-3S work(AI.PART)-S
 'That man really hates {working/to work}.' [J:I. Verb]

Secondary object:

- 74) *noyoot heetneeneyei3eih'o' neisie.*
 noyooton-i eti-nee-neyei3eih-o' ne-isiie[h]
 fish(AI.PART)-S IC.FUT-REDUP-teach(TA)-1S/3S 1S-grandchild
 'I am going to teach my grandchild {to fish}.' [J:I. Verb]

In relation to example 74, see the comments following examples 62 and 66 concerning secondary or implied objects.

17.3.3 Complement Clauses with Adverbial Relative Roots/Preverbs

Subject:

- 75) *hóoyei nih'isóó' hinóno'éi hitiine'etiít hoowooh'éntóu.*
 ooyei nih-ii3-yoo-' inono'e[i[n] i-iine'etiiton-i ihoowooh-entou
 most PAST-how-II-OS Arapaho 3-life-S no longer-present(II)
 '{Many of the Arapaho traditional ways} are gone.' [G]
 (lit. 'most of how Arapaho life was')

Object:

- 76) *hé'ih'ii'oonóóxuu'óót nih'itwóttónóúht.*
 e'ih-ii-oonooxuu'oot nih-iitoh-wotitonouhu-t
 NPAST-IMPERF-REDUP/jump over(TI) PAST-where-build fire for self(AI)-3S
 'He was jumping back and forth over {where he built a fire for himself}.' [O:
 Apache Captive, 44]
- 77) *héétnee'ínowoo heesínihii3ín.*
 eti-e'in-owoo eesi-nihii3-in
 IC.FUT-know(TI)-1S what-say to s.o.(TA)-2S/1S
 'I will know {what you are saying to me}.' [O:Apache Captive, 43]

- 78) *néeyóu: héi'inoo nih'ítwooníini*
 neeyou e'in-oo nih-iitoh-wooni-ini
 there it is know(TI)-IMPER.0 PAST-where-recently-DET
 'There it is: remember {where we last camped,
níitóóni'; nih'ítneeyéi3óó'.
 níitoon-i-' nih-iitoh-neeyei3oo-'
 camp(AI.PART)-IMPERS(II)-0S where-PAST-clustered camp(II)-0S
 where the camp was clustered}.' [O:Bad Dreamers, 19; note error on last verb in
 book]

Secondary object (?):

- 79) *neih'oowcéh'e3ihoono' hínee beh'éihohó' nih'iisnéstoowí3i'.*
 ne-ih-ihoowu-ceh'e3ih-oono' inee beh'eihoho' nih-iisi-nestoow-i3i'
 1S-PAST-NEG-listen(TA)-3PL those old men PAST-what-warn(TA)-3PL/1S
 'I didn't listen to {what the old men warned me about}.' [O:Eagles, 20]

Example 79 again raises problems of analysis in relation to the underlying semantics of the Arapaho verb stem and its relationship to surface-level syntax, as in examples 62, 66, and 74. This is clearly a subject that merits much additional study. The English gloss of sentence 79 captures the focus of the sentence, which in shorter form, would be 'I didn't listen to the old men's warning.' Possessor raising (see 16.7) complicates the analysis of underlying semantics.

17.3.4 Complement Clauses with Relative Roots: Embedded in Relative Clauses

Very often, complement clauses containing adverbial relative roots are expressed as relative clauses whose head is a relatively semantically empty demonstrative modified by a relative clause containing the adverbial root. Note that this occurs with adverbial clauses as well (17.2.1).

Subject:

- 80) *héésneet: níiyóu toh'úni ciixóotéé'*
 esinee-t níiyou toh-ini ciixootee-'
 IC.hungry(AI)-3S here it is [the reason] because-DET far(II)-0S
hí'in nih'ítteenéinoo'éi3i' núhu' hiwóxuu.
 i'in nih-iitoh-eeneinoo'ei-3i' nuhu' iwoxuuh
 that [place] PAST-where-REDUP.hunt(AI)-3PL this elk
núhu' henééceno, hí3einóono
 nuhu' eneeceen-o ii3einoonin-o
 this buffalo bull-PL.OBV buffalo-PL.OBV
 'He's hungry, because {that [place] where they had been hunting elk and the
 buffalos} was far away.' [O:Eagles, 65–66]

- 81) *héihíi césisítini nóono'kóohú3i' hí'in hee3éi'iisíteneihí3i'.*
 eihii cesisini noono'ukoohu-3i' i'in
 soon begin-DET REDUP:arrive running(AI)-3PL that
 ee3ei'i-iisiteneihi-3i'
 how many-captured(AI.PASS)-3PL
 'Soon {all those who had been captured} began to run to the camp.' [O:The Forks,
 34]

Object:

- 82) *héétniice'eno'ú3ecóótowoo níiyóu núhu' nih'ítéihinoo.*
 eti-ii-ce'ino'ú3ecoot-owoo niyou nuhu' nih-iit-eihi-noo
 IC.FUT-IMPERF-think back on(TI)-1S here it is this PAST-here where
 [from]-AI-1S
 'I will think back to {that [place] where I came from}.' [O:Eagles, 92]

Implied object:

- 83) *ceebehnonih'i né' níiyóu núhu' nih'eenei3éi'towuuné3en.*
 ceebeh-nonih'i ne'i- niyou nuhu'
 PROHIB-forget(AI) then here it is this
 nih-eenei3-e'itowuun-e3en
 PAST-REDUP,what-say to s.o.(TA)-1S/2S
 'Don't forget {what all I told you}.' [O:Bad Dreamers, 51]

These clauses are pragmatically and structurally very similar to those discussed in the end of section 17.2.1: in all cases in the preceding sentences, the presentational forms and demonstratives could be deleted and grammatically well-formed sentences would result. Indeed, as earlier examples illustrate (75–79), such sentences are common in Arapaho. The presence of the presentational and demonstrative forms in examples 80–83 serves to highlight the complement clause pragmatically.

17.4 RELATIVE ROOTS/PREVERBS AND INDEPENDENT VERBS

Relative roots can form 'to be' verbs in which they act as initial stems rather than preverbs. The derivational finals used are stative/descriptive finals (see 5.3.1). Examples of these verbs are:

- 84) /ee3/ 'how, what' >
heesóó-' 'how it is' (II)
hee3éihinoo 'how I am' (AI)
- 85) /eet/ 'where' >
hee3óó-' 'where it is [from]' (II)
heetéihinoo 'where I am [from]' (AI)

- 86) /iitox/ 'how many.HABIT' >
he'=iitoxéi-'i 'how(ever) many they are' (II—conjunct iterative mode)
he'=iitoxu-nóó3i 'how(ever) many they are' (AI—conjunct iterative mode)

These relative verbs can function as clausal complements, as adverbial clauses, and in relative clauses. As already seen, the same relative roots are also used to form various abstract verbal nouns (see example 48).

17.5 RELATIVIZER/COMPLEMENTIZER/ADVERBIAL CLAUSE MARKERS /TOH/ AND /TIH/

Occasionally, an II or AI relative clause verb (which would otherwise look exactly like an affirmative order, independent verb) is marked by the preverb /toh/ (present or future tense) or /tih/ (past tense):

- 87) *hinee ho3o' tohtesnoh'oeihit*.
 inee o3o' toh-tesi-noh'oeih-t
 that star which-very-bright(AI)-3S
 'That star {which is very bright}.' [L:The Woman Who Climbed to the Sky]
- 88) *heetneeninoo tohniibe3en*.
 eti-neeni-noo toh-niiw-e3en
 IC.FUT-be(AI)-1S who-marry(TA)-1S/2S
 'I am the one {who will marry you}.' [L:The Woman Who Climbed to the Sky]
- 89) *hiisitenowoo núhu' tih'iicih'eneixooóó3ih3i'*.
 iisiten-owoo nuhu' tih-ii-cih-eeneixooóó3ih-i3i'
 grasp, catch(TI)-1S this which-IMPERF-to here-REDUPteach
 s.o.(TA)-3PL/1S
 'I caught on to all the things that they taught me.' [V:9]
- 90) *hini'oo3itoo-i nei'tobeenoo' hini' honoh'oe tih'iiteco'onokohut*.
 ini' oo3itooon-i ne'itobeenoo' ini' onoh'e[h]
 that story-S IMPERF.tell(II)-0S that boy
 tih-ii-teco'oni-nokohu-t
 when/ who-HABIT-always-sleep(AI)-3S
 'In that story, it tells about that boy {who was always sleeping}.' [J:IV.verb]

Note that unlike normal plain conjunct /toh/, meaning 'when, after, because', and /tih/, meaning 'when, since', these forms are general relativizers that can mean 'which, who, where', and so forth and that in fact could be glossed simply as 'that' in the examples above. This usage seems to be obsolescing at the moment in Arapaho, but the form does still occur at the present. The use of these relativizers is very common in place-names recorded in 1914 (Cowell and Moss 2003).

Note that example 89 may be an example of obsolescence effects, as the more normal way to express this idea would be with a dependent participle: *neih'iixoo-*

hóó3ihéitoonínoo ‘what they taught me’. Alonzo Moss finds the form acceptable, however.

The same form is used as a general complementizer meaning simply ‘that’. It seems most common with the verb ‘to know’ and secondarily with other sensory verbs, and occurs with or without the use of applicatives to mark the subject of the complement clause on the verb of the main clause:

- 91) *héi'inóú'u toh'éntoon.*
 e'in-o'u toh-entoo-n
 know(TI)-3PL that-be located(AI)-2S
 ‘They know {that you are here}.’ [O:Bad Dreamers, 44]
- 92) *héé'inonéinóni toh'éntoon.*
 e'inon-einoni toh-entoo-n
 know s.o.(TA)-3PL/2S that-be located(AI)-2S
 ‘They know {that you are here}.’ [O:Bad Dreamers, 32]

The preverbs are also used in sentences with adverbial clauses whose English equivalent is ‘I see him running’, ‘I see her jumping’:

- 93) *nonóóhowo' tohníhi'kóóhut.*
 noohow-o' toh-nihi'koohu-t
 see(TA)-1S/3S when-run(AI)-3S
 ‘I see him/her running.’
- 94) *nihnóóhowó' tihníhi'kóóhut.*
 nih-noohow-o' tih-nihi'koohu-t
 PAST-see(TA)-1S/3S when-run(AI)-3S
 ‘I saw him/her running.’
- 95) *nonóóhowó' neisónoo tohníhi'kóóhut.*
 noohow-o' ne-isonoo[n]toh-nihi'koohu-t
 see(TA)-1S/3S 1S-fatherwhen-run(AI)-3S
 ‘I see my father running.’

18

SYNTAX—MAIN CLAUSES AND SENTENCE LEVEL

In this section we examine in detail the general claims made earlier that the unmarked position for NPs in Arapaho is postverbal and that the marked focus position for NPs is preverbal. We also show more generally that syntax in Arapaho is largely a question of pragmatics, with the marked syntactic position being the pragmatic focus position. Any focused constituent of the sentence can occupy this marked preverbal position. These general observations have been made for other Algonquian languages as well, including Massachusetts (Goddard and Bragdon 1988:586, where they argue that word order often has a “discourse function”), Plains Cree (Wolfart 1996:394), and Nishnaabemwin (Valentine 2001:951–957).

We begin with an examination of main clause syntax, followed by a brief summary of syntax internal to subordinate clauses (much of which has been covered earlier, especially in chapter 17), followed by sentence-level syntax, including sentences with multiple clauses and cleft constructions.

18.1 NP OCCURRENCE IN MAIN CLAUSES

At least in narratives, which are the best-documented form of Arapaho discourse, the vast majority of sentences consist simply of a verb, with the various other nominal participants marked on the verb but not explicitly mentioned in the sentence (there are also typically peripheral elements, such as particles, adverbials, and the like that we will not consider for the moment). The second most common sentence consists of a verb and one NP. The unmarked order of such sentences is V-NP. Only rarely do two NPs appear in a sentence, in which case the most common order is NP-V-NP. In a typical narrative, 70 percent or more of sentences lack explicit NPs (cf. Wolfart 1996:397 on the same features in Plains Cree).

Below, we present data from the first four narratives of Paul Moss, found in *Arapaho Historical Traditions* (Cowell and Moss 2005b). Note that the data are restricted to one (monologic) speech genre, and all come from the same speaker. Nevertheless, comparison with other narratives reveals very similar patterns. The data on occurrence of NPs are as follows:

Total sentences:	711	100%
Verb only (or verbless)	464	ca. 70%
Verb + 1 NP	231	ca. 28%
Verb + 2 NP	16	ca. 2%

Note that this table considers only independent clauses, not NP occurrence *internal* to relative, adverbial, or complement clauses. It also does not consider cleft constructions. Verbal pronouns can normally be analyzed as the heads of relative clauses, so they are not counted as regular NP constituents either. Finally, NPs related to instrumental constructions (which are a type of adverbial clause) are not included in these figures. The figures concern only NPs marked on the verb in the main clause, as well as secondary and implied objects in main clauses, with complement clauses treated as single units whose internal structure is ignored.

Given the facts in the table above, it can be stated that the unmarked form of Arapaho sentences generally is V + anaphoric person markers. The very occurrence of an explicit NP is a marked sentence form, with the occurrence of the NP being due to its pragmatic saliency.

18.2 MARKED SYNTACTIC ORDER: NP-V

In phrases with one verb and one NP, the marked order in Arapaho is NP-V, which indicates greater pragmatic saliency for the NP than the V-NP order. The use of the marked order typically occurs when a new referent is introduced into a discourse, when an old inactive referent is reactivated, or when contrastive focus on two different NPs is involved. Occasionally, the NP alone occurs, prior to the verb. Much more commonly, various presentational and other focusing constructions are used with the preverbal NP—a fact that makes the pragmatic saliency much more obvious from an analytic perspective.

These focusing constructions include the presentational pseudo-verbs *niine'ee-hék* and variants (14.3), the pragmatic presentational particles (19.1), demonstratives (14.2), *wohéi* (19.2), and contrastive/focus adjectives/pronouns (14.6). Examples of preverbal NPs (with preceding context, in English only, and with NPs underlined) are given below. The examples, with preceding context, serve to show that the NPs in question are in fact new or reactivated or contrastively focused referents and, secondly, serve to illustrate the focusing constructions that typically accompany the NP.

New referent, NP only:

- 1) 'Then they brought her up on top, up on top of the mountains,
past this place where the railroad tracks are,
where the railroad is, right there.

It wasn't there yet at that time.

3i'eyóóno' nihbi'eenéntóó3i'.

3i'eyoon-o' nih-bi'i-eenentoo-3i'
stone monument-PL PAST-only-REDUP.be located(AI)-3PL

There were just some stone monuments located there.' [O:Woman Captive, 4]

Presentational construction, reactivating inactive referent (Navajos last mentioned in strophes 27–28):

- 2) 'We are giving you these things in return, since you showed us about life,
how it is, the ways that foods are prepared.

And here in return are blankets, bracelets, and silverwork too.

niine'ééno' cooh'óukutóó3i' niino'[úsee3i'],

niine'ee-no' coh'oukutoo3i' nii-no'usee-3i'
here is-PL IC.Navajos IMPERF-arrive-3PL

[It's from] these Navajos [who] come here

niicihwóníni hooxóebiibiin[éi'ée3i'].

nii-cih-woni-ini hooxoeibiibiin-ei'ee3i'
IMPERF-to here-ALL-DET exchange things(TA)-1PL/3PL

and trade with us.' [O:Woman Captive, 32]

Pragmatic particle *howóó* introducing new referent:

- 3) 'Well, that is this story [of the Wind Caves].

howóó Ben Friday hee'ino' niyóu Wind Caves.

owoo Ben Friday e'in-o' niyóu Wind Caves
also Ben Friday know(TI)-3S here it is Wind Caves

Ben Friday also knows about these Wind Caves [I've been telling you about].'
[O: Woman Captive, 41]

Pragmatic particle *'oh* switching focus from 'you' to 'bones':

- 4) 'If you can lift up this bone, if you can lift it, then we'll let you go.
You will go home.
'oh h́́'ún honóuuneenó'u.
'oh i'in ouuneenoo-'i
but that [bones] IC.difficult(II)-0PL
But those bones are difficult [to lift].' [O:Woman Captive, 25]

Opening line of a story, introducing referent for the first time, with demonstrative:

- 5) *téecxo' h́́nee nóno'úsei hé'ihwowóoniín.*
teecixo' ine inono'-isei[n] e'ih-wowooniini
long ago that Arapaho-woman NARR.PAST-be captive(AI)
'Long ago that Arapaho woman was held captive.' [O:Woman Captive, 1]

Pragmatic particle *wohéi* emphasizing and/or reactivating old referent (preceding strophe of six sentences involves Utes talking to the Arapaho woman in question, with her doing nothing):

- 6) 'But those bones are very difficult to lift.
People can't lift these bones.
wohéi néhe'isei . . . yee biito'ówu' . . . ne'-khoo noh'óeno'.
wohei nehe' isei[n] yee biito'owu-' ne'-khoo noho'en-o'
well this woman yes earth-S then well lift(TI)-3S
Well, this woman well [she put] earth [on her hands] and then she lifted [the bones].'
[O:Woman Captive, 26]

Contrastive focus pronoun *hoo3óó'o'*:

- 7) *nih'íitono'onéit; hoo3óó'o' héétniixóxo'onéit.*
nih-iitono'on-eit oo3oo'o' eti-iixoxo'on-eit
PAST-be on both sides(TA)-4/3S others IC.FUT-approach(TA)-4/3S
'They were [attacking] him from both sides; others will approach him [from the other direction].'
[O:Scout's Escape, 6]

Contrastive focus, with two NPs preceding verb:

- 8) *hoo3óó'o' téce'ii nih'éi'inóu'u.*
oo3oo'o' tece'-ii nih-e'in-o'u
some nighttime PAST-know(TI)-3PL
'Some knew the nighttime
hoo3óó'o' híisiiníhi' nih'éi'inóu'u.
oo3oo'o' iisiin-ihi' nih-e'in-o'u
some/others day-ADV PAST-know(TI)-3PL
some knew the daytime.' [O:Eagles, 93]

As the preceding examples illustrate, markedness of NPs in Arapaho is often a function of multiple syntactic structures operating simultaneously. Although fronting of NPs alone is enough to mark them as salient, the use of a wide range of other focusing constructions with these NPs reinforces the argument that the fronted position is the marked one.

It should be noted that subject/actors and object/undergoers both appear prior to the verb more or less equally commonly, although the majority of examples above are of subjects/actors. Examples with objects/undergoers include the following examples.

New referent, NP only:

- 9) 'Just the day, she just recognized the time of day by the sound of things.
nii'ehiiho nihceh'e3ihoot, wóó'uh'ei noh cóoxúcéénei[hii].
 nii'eihiih-o nih-ceh'e3ih-oot woo'uh'ei[n] noh cooxuceeneihii[h]
 eagle-OBV.PL PAST-listen(TA)-3S/4 magpie and meadowlark
 She listened to eagles, magpies, and meadowlarks.' [O:Woman Captive, 5]
- 10) 'Well, that's what these old men said when they were gathering their sacred items.
nonóonokó' sósóni' hétwoniíni níiteheiwóóbe.
 nonoonoko' sosoni' eti-woni-ini níiteheiw-oo-be
 might as well Shoshone FUT.IMPER-ALL-DET help(TA)-3-2PL
 You might as well go help out the Shoshones.' [O:Woman Captive, 48]

Pragmatic particle *niixóó* reactivating old action:

- 11) 'Well, well, there are lots of stories about how this woman helped out those people.
niixóó né'nih'ii- núhu' nihi'noh'óénowunéhk, héétnééckóóhun.
 niixoo ne'=nih-ii'- nuhu' nihi'-noho'en-owunehk eti-eecikoohu-n
 also that=past-when this if-lift(TI)-2S.SUBJ IC.FUT-go home(AI)-2S
 That was also when [she] . . . "If you can lift this [bone], you will go home" [they told her].' [O:Woman Captive, 49]

18.3 PRAGMATIC SALIENCY AS DETERMINING FACTOR FOR PREPOSED NPS

As the preceding examples make clear, the roles of subject/actor and object/undergoer do not seem relevant to determining whether an NP can be preposed to the verb—nor does definiteness (note that the NPs in examples 1, 8 to an extent, and 9 are indefinite), nor does animacy (the NPs in examples 4 and 11 are inanimate), nor does proximate status (the NPs in examples 7 and 9 are obviative). Rather, any constituent that is highly salient pragmatically can occur in the focus position. Pragmatic saliency can be defined as one of the following: (1) new referents; (2) old referents being reactivated; (3) contrastive referents, contrasting either through syntagmatic switch reference or paradigmatic juxtaposition; and (4) emphatically highlighted (often repeated) referents. There seem to be no restrictions on what kinds of NPs

can occur preverbally, provided they are new and/or important referents. So far, all the NPs in the examples have been marked on the verb, but this need not be the case. The following are additional examples of the variety of NPs that can occur preverbally:

Multiple new referents (note in passing AN + IN treated as IN):

- 12) ‘Well then they sang.
They sang sacred songs.
héénoo síisiiyono’ nookohóéno niinóhktionónóú’u.
eenoo síisiyon-o’ nookohoen-o nii-nohkutonoun-o’u
as a rule gourd rattle(NA)-PL dipper(NI)-PL IMPERF-use s.t. with s.t.(TI)-3PL
They always used gourd rattles and dippers with [the ceremony].’ [O:Scouts, 18]

Indefinite pronoun (emphatic usage, showing repetition of ‘a person’ from preceding):

- 13) ‘Like that, whatever direction the arrow was facing toward, a person was looked for there.
he’íiteihí3i heebéhnótnoohóót niitehéibetiít.
he’iiteihí3i eebeh-notinoohoot niiteheibetiiton-i
someone POTENT-look for(TI) help(AI.PART)-S
Someone might be looking for help.’ [O:Scouts, 64]

Verbal NP/pronoun (note also the obviative status):

- 14) ‘The Utes made a lot of noise, but they didn’t hit him.
he’íitoxuní3i [nih]ceeniikúú3oot.
e’iitoxu-ni3i nih-ceeniikuu3-oot
be an indefinite number(AI)-4PL.ITER PAST-pull down(TA)-3S/4
He pulled several of them down [off their horses].’ [O:Scouts, 36]

Obviative actor in TA construction (note *howóó* used to introduce new referent):

- 15) ‘That’s how tough he was: no one could get near him to hurt him.
howóó beniinenno hiihoowéésiniíthei’i.
owoo beniinenin-o ii-ihoowu-esiniíh-ei
also soldier-OBV.PL IMPERF-NEG-injure(TA)-4PL/3
Not even the soldiers could hurt him.’ [O:Scouts, 59] (Note use of 4/3PL inflection for 4PL/3.)

Clausal complement (an emphatic repeated NP):

- 16) ‘They would watch where the fighting was happening from way away out there.
héetbisíitooni’ nóonoohóotóú’u téi’yoonóh’o’ híseino’
eetoh-bisiitooni-’ noonoohoot-o’u te’iyoonehe’-o’ isein-o’
where-attack.PART.IMPERS-0S see.REDUP(TI)-3PL child-PL woman-PL
Women and children watched where the attack was taking place.’ [O:Scouts, 70]

Note in passing that in example 16, the inanimate NP is fronted, whereas the two animate NPs are not. This is an excellent illustration of the fact that saliency is the determiner of NP placement in Arapaho, not the animacy hierarchy.

Passive subject (reactivated from previous strophe):

- 17) *kookóoshiinosóunée'eesóó hiiwóonhéhe'*,
 kookoos=ii-nosouni-nee'eesoo iiwoonhehe'
 I wish=IMPERF-still-be thus(II) now
 'I wish it were still that way today,
téi'yoonóh'o' tih'éeténiihéhi3i'.
 te'iyoonhehe'-o' tih-eeteniihehi-3i'
 child-PL when-to be taken care of (AI)-3PL
 [like] when children were taken care of well.' [O:Scouts, 69]

Secondary objects in TA ditransitive construction (an emphatic repeated NP):

- 18) 'At the top of the head, at the top of the head.
béeyoo hinií3e'éénin niikóokóho'eikúú3oo3i'.
 beeyoo ini-i3e'een-in nii-kookoh'eikuu3-oo3i'
 just right 4-head-OBV IMPERF-REDUP.split open(TA)-3PL/4
 They just split their [enemies'] heads right open.' [O:Scouts, 45]

Implied object in AIO construction (reactivated with demonstrative—last mentioned in strophe 18):

- 19) 'Another man just is praying now.
 Then they sang holy songs with rattles.
noh hi'in nookohóé hé'ne'iitookúúti3i'.
 noh i'in nookohoen-i e'ne'i-iitookuuti-3i'
 and that dipper-S then-pour(AIO)-3PL
 And with the dipper they poured water.' (lit. 'they poured the dippers of water')
 [O:Scouts, 22]

Implied object in AI self-benefactive construction:

- 20) 'I will run out there. I will go play. I am going to capture some horses
'oh ci'héétniitoxunóó3i héétniisiténowoonoo.
 'oh ci' =eti-iitoxu-noo3i eti-iisiitenowoo-noo
 but also=IC.FUT-be an indefinite number(AI)-3PL.ITER IC.FUT-catch for self(AI)-1S
 and I'll see how many I get for myself.' [O:Scouts, 35]

18.4 LEFT DISLOCATION AND APPPOSITION

It should be noted that both the presentational and *wohéi* constructions that appear in several of the examples above often function as virtually independent clauses, or at the least as left dislocations, so it is quite ambiguous whether one should treat

many sentences as a preposed NP plus a verb or as a verbless presentational construction and an NP followed by a verb-only sentence without an explicit NP. This is best illustrated by sentences in which there appears to be a preposed NP, but then the same referent occurs as a postposed NP as well, suggesting that the NP is not a part of the verbal clause.

- 21) *wohéi níiyóu núhu' no'óó3ínoo; héétnéenéiténow núhu'.*
 wohei níiyou nuhu' ne-'oot-inoo eti-eeneiten-ow nuhu'
 well here it is this 1S-leg-PL IC.FUT-REDUP:take(TI)-2S this
 'Well, here are our legs; you will take hold of them.' [O:Eagles, 40]

A similar example is 2 above (but without the postverbal repetition). On other occasions—notably where personal verbal pronouns are used—the pronouns actually serve as the head of relative clauses rather than as preposed NPs that are part of a main clause, as in the following:

- 22) *Old Man Sleeping Bear, nenéénit nih'oo3íte'et núhu'.*
 Old Man Sleeping Bear neeni-t nih-oo3íteet-t nuhu'
 Old Man Sleeping Bear IC.it is(AI)-3S PAST-tell story(AI)-3S this
 'Old Man Sleeping Bear, he [was the one who] told this story.' [O:Woman Captive, 38]

But two factors make clear that this is not what predominantly occurs when NPs are fronted. First, many of the preposed NPs in the examples above occur without such presentational elements, and secondly, in listening to the narratives as recorded on tape, it is clear that most if not all of the preposed NPs are part of a single clause including the verb (i.e., they are not left dislocations). (In the anthology of Paul Moss's stories, every effort was made to use commas and other punctuation in the Arapaho to indicate clause breaks.) Moreover, even in the case of example 22, the verbal pronouns may be evolving toward true pronouns rather than verbs with the meaning of 'it was X who . . .', given that there are no other independent pronouns in Arapaho. This point needs further investigation.

18.5 SHIFTING FROM FOCUSED TO UNFOCUSED POSITION

It is easy to find examples of a switch from marked to unmarked syntactic order once a new referent has been introduced, as in the following:

- 23) *wohéi néhe' hení3neníiwóóó, néhe' hísei héétníi'hé'towíúnot heetihciibí3wóóto'.*
 wohei nehe' e-ní3neníiw-ooo[n] nehe' isei[n]
 well this 2S-live with(TA.DEP.PART)-3S this woman
 eti-ii'i-e'itowuun-ot eetih-cii-bí3iwoot-o'
 FUT-when-tell s.o. s.t.(TA)-2S/3S so that-NEG-cook s.t.(TI)-3S
 'Well, this [woman] whom you live with, you will tell this woman not to cook this part [of the meat].' [O:Eagles, 37.1–2] ('Woman' is new referent.)

section, we examine the various tendencies in NP usage and placement, depending on both the type of verb stem involved and the type of NP involved.

18.6.1 NP Occurrence in Relation to Verb Stem Type

As noted earlier, the most common sentence type involves no explicit NPs (70 percent of the sample mentioned previously). The second most common type involves one NP (28 percent of the sample), with only 2 percent of the NPs in the sample having two NPs. But as the following table shows, NPs are much more likely to be used with AI and TA verb stems than with II or TI stems. Among the 247 instances of V + NP, 75 percent involved AI or TA stems, whereas only 25 percent (roughly) involved II or TI stems:

<i>NP association type</i>	<i>Number</i>	<i>% among corpus (approx.)</i>	<i>% among V + NPs (approx.)</i>
with II verb	18	2	7
with TI verb	44	6	17
with AI verb	118	15	45
with TA verb	67	10	30
Total sentences with NPs	247		

Note: total II + TI = 62; total AI + TA = 185.

Among the subset of V + 2 NPs, there are not enough examples to show strong statistical trends, but the ratio of TA and AI stems vs. TI and II stems in the sample is 2 to 1—slightly less than the 3 to 1 ratio for V + NP generally:

2 NPs total	16
2 NPs with II	1
2 NPs with TI	5
2 NPs with AI	5
2 NPs with TA	5

Note: total II + TI = 6; total AI + TA = 10.

18.6.2 NP Placement in Relation to Verb Stem Type

The following table summarizes the relative number of NPs that were preposed vs. postposed to the verb for each stem type (note: total NPs here are 263, since all NPs are included in the count: 231 sentences × 1 NP + 16 sentences × 2 NP):

	<i>Total NP</i>	<i>Preposed</i>	<i>Postposed</i>	<i>Ratio (approx.)</i>
II stem	19	5	14	1:3
AI stem	123	54	69	1:1
TI stem	49	13	36	1:3
TA stem	72	20	52	1:3
Total	263	92	171	1:2

Given the earlier finding that arguments tend to be used more often in AI/TA constructions (and thus presumably to be more salient), the fact that arguments are

fronted much more often in AI constructions is not surprising. The low ratio of fronting for TA constructions, however, is surprising at first glance.

18.6.3 NP Placement in Relation to NP Morphology/Role

In the table below, the preposed vs. postposed NPs are compared with respect to their morphology (animate vs. inanimate, proximate vs. obviative) as well as their syntactic roles (subject vs. object vs. TA secondary object vs. AIO implied object) and their semantic roles (active vs. passive subject, actor vs. undergoer). Even finer-grained categories could be established (singular vs. plural, etc.), but the table below suffices to show the general tendencies of Arapaho syntax, at least in narratives.

	<i>Preposed</i>	<i>Postposed</i>
II subject NPs = 18	5	13
non-passive = 12	3	9
passive = 6	2	4
II implied object NPs = 1	0	1
AI subject NPs = 82	46	36
non-passive = 72	41	31
passive = 10	5	5
AI implied object NPs = 41	8	33
animate = 13	5	8
inanimate = 28	3	25
TI subject NPs = 12	9	3
TI object NPs = 37	4	33
TA proximate NPs = 2	1	1
TA obviative actor NPs = 14	6	8
TA obviative undergoer NPs = 32	9	23
TA secondary object NPs = 24	4	20
animate = 2	1	1
inanimate = 22	3	19
TOTAL NPs = 263	92	171
Subject/actor-like = 128	66	62
Object/undergoer-like = 135	26	109

18.6.4 Summary of Placement Tendencies

NP occurrence tendencies:

1. TI object NPs are much more common than TI subject NPs.
2. TA obviative and secondary object NPs are much more common than TA proximate NPs.
3. AI subject NPs are much more common than AI implied object NPs.

From the perspective of likely pragmatic saliency, these trends make sense. In a narrative, the subject/actor is typically well established and need not normally be stated explicitly in Arapaho given the existence of anaphoric person markers. Most tellingly, note that only two examples of proximate NPs with TA verbs occur in the entire 700+ sentences of the sample. It is obviative and secondary participants who tend to enter (and then leave) narratives as new elements, or be reactivated or contrasted, much more often than the subject/actor.

When explicit subject/actor NPs do occur with TI and TA stems, it is typically only because they are being used contrastively or emphatically in highly salient ways—thus, the strong tendency for subjects (especially TI subjects) to be fronted, in comparison to objects/undergoers. Overall, the table above shows a general inverse correlation between occurrence and fronting for NPs with TI and TA stems: NP types that occur more commonly (TI object, TA undergoer and secondary object) are usually postposed, whereas NP types that occur less commonly (TI subject, TA proximate and actor) are—by virtue of their occurrence at all—more salient and thus more likely to be preposed.

On the other hand, for AI verbs, the very fact that an AI stem is used suggests lower saliency for the object in question (see chapter 16 for further details), so it is not surprising that AI implied object NPs are relatively uncommon. The only surprise is that they are typically postposed, whereas the more common AI subject NPs are more often preposed. Further research is certainly needed on inherent differences in the behavior of AI vs. TA/TI/II clauses.

NP placement tendencies:

1. Passive/active subject distinctions seem to have little importance.
2. Inanimate implied and secondary objects are much less likely to be in focus position in comparison to animates.
3. Obviative undergoers are less likely to be in focus position in comparison to obviative actors.
4. Generally, subject/actor NPs are clearly more likely to be in focus position than object/undergoer NPs.

Again, from the perspective of likely pragmatic saliency, these tendencies make sense. The second observation corresponds more generally with the Arapaho animacy hierarchy, whereas the third and fourth observations are related and show the correlation between agency and saliency, which is a cross-linguistic tendency.

Most crucially, however, the table shows that any type of NP (at least in the categories used above), even in this relatively small sample of around 700 sentences, can occur either prior to or after the verb. This finding has already been illustrated through examples in the preceding parts of this chapter, but the table is much more comprehensive.

18.7 CLAUSES WITH TWO NPS

When two NPs occur in the same phrase, the order can be V + NP + NP or NP + V + NP or NP + NP + V. The last is quite rare but does occur (see examples 6 and 8

above). When there is a preposition and a postposition, the preposed NP tends to be hierarchically higher ranked than the postposed NP: actors over undergoers, proximates over obviatives, NPs marked on the verb over secondary and implied objects, and so forth. In other words, the same conditions that lead to fronting in the case of a single NP explain the choice of which NP to front among two NPs. Likewise, when both NPs occur on one side of the verb, the one farthest to the left tends to be hierarchically higher ranked. The ranking is shown here.

<i>Higher rank:</i>	<i>Lower rank:</i>
subject	object
proximate	obviative
actor	undergoer
marked object	unmarked (secondary or implied) object
animate	inanimate

In only one case among the examples below (example 33) do two conflicting criteria overlap. In that case at least, the proximate undergoer outranks the obviative actor.

The fact that such a ranking can be set up based on morphological, syntactic, and semantic criteria alone, seemingly contradicts the finding that when only one NP is involved, the occurrence as well as placement of the NP is a function of pragmatic saliency. However, the same general ranking tendencies also can be seen in the table in section 18.6.2, in terms of relative likelihood of preposing vs. postposting the NP (and as we saw, can be understood as secondary correlations of pragmatic saliency). The rigidity with which the ranking hierarchy seems to apply in the case of 2NP clauses may well be an artifact of the very small sample size. As some of the data in 18.6.3 show, a sample size of only ten NPs (e.g., for inanimate AI implied objects or TA secondary objects) could easily produce a result giving the illusion of a fixed placement (postverbal placement in particular, in the case of the two examples in question) since the alternate order occurs in less than 10 percent of cases. Only a much larger digitized relational database, with careful tagging of sentence structure and morphological and semantic data, would likely produce a true understanding of the way in which 2NP clauses behave in Arapaho. Examples of 2NP clauses with the rank of the NPs illustrated include the following.

subject + VTI + object:

- 26) *he'íiteihi3i heebéhnótnoohóót níitehéibetiít.*
 e'íiteihi3i eebéh-notinoohoot níiteheibetiiton-i
 someone POTENT-look for(TI) help(AI.PART)-S
 'Someone might be looking for help.' [O:Scouts, 64]
 (See also O:Scouts, 58; Woman Captive, 41.)

(marked) undergoer + VTA + secondary (unmarked) object

- 27) *nenécinéec henéí'towuune3énee néhe'nih'íisno'otéhekóni' hinóno'éino'.*
 neeni-nee e'itowuun-e3énee nehe' =nih-iisi-no'oteihi-hehkoni'
 IC.it is(AI)-2PL IC.say to s.o. (TA)-1S/2PL that=PAST-how-tough(AI)-3PL.SUBJ

inono'ein-o'

Arapaho-PL

'I am telling you that's how tough the Arapahos used to be in the old days.' [O: Scouts, 63] (See also O: Woman Captive, 31.)

VII/VAI + subject (IN noun treated as animate and obviative) + implied object

- 28) *hé'ih'iixóoxookuséénino núhu' hó3ii níne'ééno híi3einóón.*
 e'ih-ii-xooxookusee-nino nuhu' o3-ii niine'ee-no
 NPAST-IMPERF-REDUP.go through(AI)-4PL this arrow-PL here is-PL.OBV?
 ii3einooon-[in]
 buffalo-OBV.PL
 'Their arrows went right through the buffalos.' [O: Scouts, 60]

Subject + VAI + implied object

- 29) *neníteeno' nih'iicebixotii3i' nístoowó'o hiníihenehéi3toonínoo.*
 ineniteen-o' nih-ii-cebixotii-3i' niisitoowoon-i
 person-PL PAST-IMPERF-pass on(AIO)-3PL ceremony-S
 i-niihenehei3toon-inoo
 3S-possess through blessing(TI.DEP.PART)-PL
 'People would pass down the ceremonies that they possessed.' [O: Scouts, 54]

Subject + VAI + implied object

- 30) *núhu' híseino' heenéixooohóótowó3i' behíihi'.*
 nuhu' isein-o' eeneixoohootowoo-3i' beh-iihi'
 this woman-PL REDUP.learn s.t. for oneself(AI)-3PL all-ADV
 'These women learned everything by watching her.' [O: Woman Captive, 23]

VTA + obviative (marked) undergoer + secondary (unmarked) object

- 31) *heenéixooohó3ihoot hinénno núhu' hiisíinoo'éi3i'.*
 eeneixooohoo3ih-oot inenin-o nuhu' ii3-iinoo'éi-3i'
 teach.REDUP-3S/4 man-OBV.PL this how-hunt(AI)-3PL
 'She showed the men how to hunt.' [O: Woman Captive, 23]

Proximate actor + VTA + obviative undergoer

- 32) *wónoo3éé' hééneesítini níne'eehék néhe' hísei nih'iisnítehétwoot hínee neníteen.*
 woo3ee-' eeneesiimi niine'eehek nehe' isei[n]
 IC.be many(II)-0S REDUP.how here she is this woman
 nih-iisi-niiteheiw-oot inee ineniteen
 PAST-how-help(TA)-3S/4 that person.OBV
 'There are lots [of stories about] how, how this woman helped out those people.'
 [O: Woman Captive, 49]

Proximate undergoer + VTA + obviative actor (could be analyzed as relative clause)

- 33) *howóo niine'eehék néhe'inén nóno'ei tihyih'oonéit beniinenno hoo3ito'o.*
 owoo niine'eehék néhe' inen[in] inono'ei[n] tih-yih'oon-eit
 also here he is this man Arapaho when-chase(TA)-4/3S
 beniinenin-o oo3itooon-i
 soldier-PL.OBV story-S
 'There's also a story about this Arapaho man who was chased by soldiers.' [O:
 Woman Captive, 53]

Of note in relation to the occurrence of two explicit NPs in a clause is Chris Wolfart's remark that in Plains Cree, "the opening or closing of a discourse unit" within narratives is a common place to find explicit NP occurrence, especially because these are places where "general declarations" occur (1996:397). Note in the Arapaho examples above that examples 27, 32, and 33 all involve narrative summations, either of a discourse unit or an entire text.

18.8 COMPARATIVE EXAMPLE: A TEXT FROM JOHN GOGGLES (1883–1952)

In addition to the fact that the above sections were based only on narratives, they represent the speech of only one individual. Here, we briefly examine another narrative, told around 1950 by someone one generation older than Paul Moss (1911–1995), and from the opposite side of the reservation (settlement of Arapahoe). Goggles's text was collected as a linguistic sample, whereas Paul Moss's texts were performed for and recorded by other Arapahos. Thus, the contexts were very different, and the texts are not truly comparable (see Cowell 2002 for more on the structural differences in Arapaho texts produced by such contextual factors), but Goggles's text at least provides a useful control against excessive idiolectal differences. In the text, verbs are underlined and NPs are bolded. Zdeněk Salzman's transcriptions are retained, with the only alterations being to modernize orthography (the glottal stop, and theta symbol) and the addition of a few consonants in brackets.

'The Indians were moving through thick timber. One woman was behind. She lost a tepee pole. She caught the horse that was dragging the poles. She tied this horse which was dragging the poles to a tree.'

- 3.1.8 *wohéi **néhe'isei** héé'ixce'notííhee **hokóóxun.*** Well, this woman looked for the tepee pole again.
 3.1.9 *héé'ihnono3bii'ínee hí[h]cebéh'e'.* She found it nearby.
 3.1.10 *héé'ix'iténée **núhú'okóóxun.*** She picked up the tepee pole.
 3.1.11 *héé'ixce'eno'oxóhéé **héétoxtóúkuhuni3.*** She brought it back to where [her horse] was tied up.
 3.1.12 *héé'ihco'óyóókú3ee **núhú'okóóxun.*** She tied the tepee pole back on [the horse].

This brief section shows the same tendencies already seen to front proximate actors (and then not mention them again) and to postpose obviatives and undergoers (and to mention them more often). It shows much more use of NPs than in Paul Moss's narratives however. The use of *wohéi* (3.1.8) indicates a new discourse segment in which the woman and the one lost tepee pole are both reactivated after the episode with the horse.

In the following, the various NPs are labeled with regard to morphological status, syntactic role, and pragmatic status:

'Now this woman was staying with him [snake]. Four years she stayed with him. It was in the spring four years later.'

3.1.34 "*wów hóótneecikóóhun*"

hee3oohók núhú'úsein[OBJ.OBV] *siisíyíéi*[SUBJ.PROX]

3.1.35 "*hehniiseti*" [SEC.OBJ.NEW]*hóótmiseineebé3en*"

hehéhek néhé' siisíyíéi[SUBJ.PROX]

3.1.36 "*yéin céc hóótníihoo*[w]3óxoníhe' *héés* [SUBJ.OBV.NEW]"

3.1.37 "*heecét 3óxonihéininéck, híit hóótcí*[h]c'é'eentóón"

3.1.38 "*héito'éino*" [SUBJ.PROX.NEW] *hoowúciixóokunó'*"

3.1.39 "*neecisee*" *hehéxek siisíyíéi* [SUBJ.PROX]

3.1.40 *nehé'isei* [SWITCH TO PROX] *héé'ixcé3éi'oo*

3.1.41 *héé'ihkóxtisee 3o3óutéi* [IMPL.OBJ],

héé'ihnoohóot niyiinóno[OBJ]

3.1.42 *hei'tóó3no'úsete, héé'ihkóókokóhu'uuti*

3.1.43 *héé'ihnéxtiitii híiyéi*[h]'inoo[IMPL.OBJ],

héé'ihnoohóbee té'iyoonóh'o[OBJ.OBV] *héé'ix'iimkotiinino*

3.1.44 *beeyoo héé'ihnéé'esiseet*

3.1.45 *núhú' té'iyoonóh'o*'[SWITCH TO PROX] *héé'ihnéxtiíheenó' héinooninoo*[OBJ.OBV]

3.1.46 "*néinooninoo* [SWITCH TO PROX] *noo'úsete*"

hehexkóni' té'iyoonóh'o' [SUBJ.PROX]

3.1.47 *héé'ixceciikóóhunó' héinooninoo* [IMPL.OBJ.OBV]

34. "Now you'll go home," said the snake to this woman. 35. "I will tell you one thing," said this snake. 36. "For four years your husband should be good to you. 37. If he mistreats you before [four years are over], you will be back here. 38. Your relatives are not far from here. 39. "Go now!" said the snake.

40. This woman started off. 41. She went over the ridges and saw the tepees. 42. When she came closer, she carefully looked all around. 43. She recognized their tepee and saw the children playing. 44. She went right toward them. 45. These children recognized their mother. 46. "Our mother has returned," shouted the children. 47. They ran toward their mother.

The preceding excerpt represents another new discourse segment—often signaled in narratives by the switch into direct discourse. The woman and snake are thus reactivated in the initial line. Note that the only NPs that are fronted are those that involve high-ranking participants—proximates—that are also new to the narrative (3.1.38), or that are being switched into proximate roles after having been obviative in preceding lines (3.1.40, 3.1.45, 3.1.46). Thus, saliency and fronting correspond very closely, even though Goggles continues using relatively more NPs in general than Paul Moss does. (Note that 3.1.40 begins a new discourse segment as well.)

Note, however, the exceptional fronting of ‘one thing (inan)’ in 3.1.35. This sentence illustrates the very strong tendency in Arapaho for expressions of quantity—whether nominal or not—to be fronted (see 3.1.36, as well as examples 14, 20 above). From a pragmatic standpoint this is again unsurprising: specific expressions of quantity tend to be highly salient new pieces of information cross-linguistically.

Note also a violation of the hierarchy rules established in 18.7: in 3.1.34, two NPs occur, and the obviative undergoer precedes the proximate actor. This example reinforces the suggestion that pragmatics, not rigid schemata, accounts for NP placement—note that the obviative undergoer has a determiner, for example, whereas the proximate actor does not, thus marking the undergoer as more salient relative to the actor. On the other hand, one could argue in relation to this sentence that humans outrank animals in hierarchy as well (which is generally true in Arapaho), so more data is still needed to resolve the differing variables determining NP placement.

18.9 WORD ORDER AND FOCUS: BEYOND NPS

Although this section has focused on the placement of explicit NPs in clauses, arguing that the preverbal position is the marked focus position, it is clear that this position can be filled by elements other than explicit NPs. In fact, basically any element can occur in the preverbal focus position. This includes numbers (preceding discussion), adverbials, verbal pronouns (which almost always occur in this position, as their use is largely limited to focus and contrast situations—see 14.6), locative forms, and particles (which in fact most often occur in this position—see 15.4). To better illustrate this point, we look briefly at adverbials (described in 15.5).

Both simple adverbial particles and adverbial-particle-governed clauses can occur either prior to or following the main verb. The following position is less marked, and more common, but preverbal does occur (see chapter 15, examples 54, 56, 60, 61). In the sample of eighty-seven adverbials examined in 15.5, thirteen occurred preverbally (excluding cleft constructions). The use of adverbials itself is already a markedness construction (i.e., it codes the base morpheme[s] of the adverbial as marked), but the preverbal position is clearly even more highly marked. The ratio of preverbal adverbials to the total sample is somewhat deceptive however, as adverbials that occur as independent, noun-like forms often occur without verbs, or in noun-phrase constructions whose relationship to the verb is quite different from that of standard adverbials, and verb-like adverbials by definition occur without verbs. Thus, the ratio of occurrences pre- and postverbally is significantly

greater than thirteen to seventy-four. Nevertheless, the higher markedness of the preverbal position is still clear.

18.10 SYNTAX OF SUBORDINATE CLAUSES

18.10.1 Internal Syntax

Although this chapter has focused on the syntax of main clauses up to this point, the order of constituents in subordinate clauses seems to respond to the same pragmatic criteria as in main clauses. Of course, by their nature, subordinate clauses contain different kinds of information from main clauses, and this affects NP occurrence and placement. For example, in general, it is rare for new referents to be introduced in subordinate clauses. Similarly, subjects are often understood based on the main clause. For this reason, explicit actor/subject NPs are often not expressed in these clauses, and it is very uncommon to have fronted NPs in such clauses. Nevertheless, both of these phenomena can occur. Note in the following iterative subordinate clause the fronting of the explicit subject NP in the first subordinate clause, where the referent is introduced into the discourse, and then the subsequent shift of the NP to postverbal position:

- 34) *hiitou3o'et heisonoo noo'usee3i?*
 ii-tou3-o'eti e-isonoo[n] no'usee-3i
 IMPERF-how-clouds(II) 2S-father arrive(AI)-3S.ITER
 'How do the clouds look {when your father [the Thunderbird] arrives}?'
noh niwo'teeno'eti' noo'usee3i neisonoo.
 noh nii-wo'oteen-o'eti-' no'usee-3i ne-isonoo[n]
 and IMPERF-black-clouds(II)-0S arrive(AI)-3S.ITER 1S-father
 'Well, the clouds are black {when my father arrives}.' [N:lines 148–149]

An examination of iterative subordinate clauses in the stories of Paul Moss found eighteen examples, of which eight had explicit NPs, all postposed to the verb. In all but one case, the NP was an object. The unusual case of an explicit NP subject was a categorical-type statement of a general rule, which Wolfart notes is an occasion when explicit NPs are especially likely to be used in Plains Cree as well (1996:397):

- 35) 'The Arapahos of long ago truly believed in these things. In the old days they didn't just do things any which way.
nóontóó3i neníteé, 'oh xonóu nih'iyihoot beh'éihohó['].
 nonitoo-3i inenitee[n] 'oh xonou nih-i-yihoo-t
 make mistake(AI)-3S.ITER person but immediately PAST-EP-go(AI)-3S
 beh'eihoho'
 old men
 {Whenever a person made a mistake}, well, then he went straight to the old men.'
 [O:Scouts, 57]

A search for subjunctive subordinate clauses in Moss's texts as well as in several other sources produced seventeen examples. There were only three examples of explicit NPs, and the only example of an explicit subject NP being used in a subjunctive subordinate clause was once again a case where a categorical didactic statement was made at the end of a narrative:

- 36) *hihwoxkónceehék nenítee, hé'ih'tice'ísee*
 ih=woxukonee-hehk inenitee[n] e'ih-ii-ce'ísee
 CONTR=bad dream(AI)-3S.SUBJ person NPAST-IMPERF-return(AI)
 'If a person had a bad dream}, he would go back to where

nih'ítwoonítini heeyéi3óó'.
 nih-iitoh-wooni-ini eeyei3oo-'
 PAST-where-recently-DET be camped(II)-0S
 the previous camp had been.' [O:Bad Dreamers, 72]

There is also one example of an explicit NP preposed to the verb within a subjunctive subordinate clause. It occurs at the end of a narrative and recalls the central moment of the narrative, when a woman had to lift a slippery bone in order to win her release from captivity. The bone is reactivated as a referent after several dozen intervening lines and occurs as the object of the verb in question:

- 37) *núhu' níhi'noh'óenowunéhk, héétneeckóóhun.*
 nuhu' níhi'-noho'en-owunehk eti-eecikoohu-n
 this if-lift(TI)-2S.SUBJ IC.FUT-go home(AI)-2S
 'If you can lift [the bone]}, then you'll go home.' [O:Woman Captive, 49]

Thus, one can say that in general, explicit NPs are not uncommon in subordinate clauses, although they tend to be objects rather than subjects. Subject NPs are quite rare but do occur, and fronted NPs of any kind are also rare, but both fronted subjects and fronted objects occur. These rare occurrences are governed by the same pragmatic criteria that determine appearance and placement of NPs in main clauses.

18.10.2 Sentence-level Syntax of Subordinate Clauses

Relative clauses

As noted earlier (17.1.3), relative clauses usually follow the head noun in Arapaho, with the main exception being simple single-word descriptive clauses with stative verbs, which function as adjectival modifiers (see 14.1).

Complement clauses

As the examples in section 17.3 indicate, complement clauses tend to be postposed to the verb most of the time but can be preposed as well (examples 61 and 75 in

chapter 17). The positioning of complement clauses appears to respond to the same pragmatic conditioning as the positioning of simple nouns.

Adverbial clauses

As seen in 18.9, adverbial clauses headed by an adverbial particle normally follow the verb but can precede it as well. The same is true of adverbial clauses that involve the use of relative adverbial roots/preverbs indicating direction, location, reason, and so forth (see chapter 17, example 38 for a preposed adverbial clause of this type). In both cases, the normal pragmatic factors seem to determine the placement of the clause, as with complement clauses.

On the other hand, *temporal* adverbial subordinate clauses tend to occur *prior* to the main clause most of the time in Arapaho. For example, among the iterative subordinate clauses in the stories of Paul Moss, sixteen occurred prior to the main clause and only two following the main clause. Both of the exceptional cases were somewhat ambiguous. Example 38 is ambiguous since the iterative form could be used simply to indicate indefinite *location* as opposed to time, although this normally requires reduplication of the preverb (see 13.3.4):

- 38) *héénoo hini'ítit niinónonoo'óó3i' ní'ehího'*
 eenoo ini'ítit nii-noononoo'oo-3i' ní'ehíih-o'
 rule this IMPERF-soar in circles(AI)-3PL bird-PL
 'Usually, those birds soar around in circles

híni'ítit héétoh'úni noohóótowunóó3i.

- ini'ítit eetoh-ini noohoot-owunoo3i
 this where-DET see s.t.(TI)-3PL.ITER
 {whenever they see something [interesting] at a place}.'
 OR: wherever they happen to see something [interesting]. ' [O:White Horse, 17]

The only other example is ambiguous since the clause could be analyzed as an apposition:

- 39) 'All of them, whatever reason they were fasting for, they asked together for things for themselves.
né'nih'eenéi'ítétehéi3itóú'u, nookóóyeinóó3i.
 ne'='nih-eenei'i-itetehei3it-o'u nokooyei-noo3i
 that=PAST-REDUP.when-receive sacred power(TI)-3PL IC.fast(AI)-3PL.ITER
 That's when they would receive sacred powers, {when they fasted}.' [O:Eagles, 93]

Despite the ambiguity of these last two examples, example 34 makes clear that temporal subordinate clauses *can* be postposed to the main clause. Note, however, that the main clause in that example is interrogative. Among the seventeen subjunctive subordinate clauses examined, only two examples occurred with the subordinate clause following the main clause, one of which was the lexicalized form

nóóke'éhk ‘tomorrow’. The one clear example of a postposed temporal, subjunctive subordinate clause again involved an interrogative main clause:

- 40) *tóóteeni'ihoon hiiscebiehtéhkóni'?*
 toot=e-eti-i'ihoo-n iisi-cebiiheti-ehkoni'
 where=2S-FUT-go(AI)-INCL PERF-compete(AI.RECIP)-3PL.SUBJ
 ‘Where shall we go {after the game [is over]}?’ [H:15.1]

From the examples, it is clear that the unmarked sentence-level syntactic order of Arapaho is for the temporal subordinate clause to precede the main clause. When this does not occur (as in examples 34 and 40), it seems to be because the main clause involves an especially high degree of focus (such as in interrogation), and it is therefore fronted.

Plain conjunct subordinate clauses

Subordinate clauses that occur with the plain conjunct preverbs /*tih*/, /*toh*/, and several others (13.1) are somewhat more complex and variable than the clauses just examined. Subordinate clauses that use /*tih*/ ‘when.PAST.IMPERF’ *temporally* normally occur prior to the main clause. But when /*tih*/ expresses a closer logical or consequential relationship to the verb of the main clause (and thus is better glossed ‘since’ or even ‘because’), it is normally postposed to the main clause, although there are certainly ambiguous cases where *non*-consequential /*tih*/ clauses also seem to follow the main clause.

Background situation, preposed:

- 41) *'oh hú'un tih'iini'ei'inóú'u, néhe'nih'iicxooyéiht.*
 'oh i'in tih-ii-ni'i-e'in-o'u nehe'=nih-iicxooyeihi-t
 but that when-IMPERF-well-know s.t.(TI)-3PL that=PAST-how old(AI)-3S
 ‘{But that age when kids can understand things}, that’s how old she was.’ [O:
 Shade Trees, 13]
- 42) *hóono' núhu' tihciinii'eihíiniit hé'ih'etóocéin.*
 oono' núhu' tih-cii-nii'eihiiini-t e'ih-etoocoin
 not yet this when-NEG-be eagle(AI)-3S NPAST-take out rope-like object (TI)
 ‘{[At the time] when he wasn’t yet an eagle}, he took the sinew
núhu' hitíine' núhu' hóoté.
 núhu' i-iin-e' núhu' ooteh-i
 this 3S-mouth-LOC this sinew-S
 out of his mouth.’ [O:Eagles, 87]

Consequential, postposed:

- 43) *nihnó'otéhe[h]kóni' tih'i3óóbeenéetóú'u núhu' 3owó3nenitee*
 nih-no'oteihi-hehkoni' tih-i3oobeeneet-o'u nuhu' 3owo3inenitee[n]
 PAST-strong(AI)-3PL.SUBJ when-believe in s.t.(TI)-3PL this Indian
 'They were tough in the old days, {when/since they believed in the Indian
híine'etiít, tih'iiwoxu'óo3éíht.
 iine'etiiton-i tih-ii-woxu'oo3eihi-t
 life-S when-IMPERF-be blessed(AI.PASS)-3S
 way of living, when/since an Indian was always blessed}.' [O:Scouts, 59]
- 44) *nihcih'itétéhéi3it-owoo, tih'iičéh'e3ihóú'u*
 nih-cih-itetehei3it-owoo tih-ii-ceh'e3ih-o'u
 PAST-to here-receive sacred gift(TI)-1S when-IMPERF-listen to s.o.(TA)-1S/3PL
 'I received [this story] {when/since I listened to my father,
neisónoo néi'eiwóho' nebésiiwóho'.
 ne-isonoo[n] ne-iwoho' ne-besiiwoho'
 1S-father 1S-grandmothers 1S-grandfathers
 my grandmothers, my grandfathers}.' [O:Apache Captive, 50]

In some cases, the effect of the postposition can be quite subtle. The following is from a story whose larger purpose is to document the Arapahos' presence in an area that might not normally be associated with them by describing their traditional knowledge of the area. At first glance, one is tempted to gloss the verb with /tih/ preverb as 'when' (as was done in the Paul Moss anthology), and this would be acceptable as a gloss. But the import of the phrase seems to be that the Arapahos really did live in this area, despite what some might suggest, and 'because' they were there, they knew about the Wind Caves:

- 45) *heséis nih'itbisinoo'óú'u, hínee nóno'éino' noohóotóú'u tih'íine'etii3i'.*
 eséis nih-iitoh-bisinoo'oo-i inee inono'ein-o' noohoot-o'u
 wind[s] PAST-where-appear(II)-0PL that Arapaho-PL see(TI)-3PL
 tih-iine'etii-3i'
 when-live(AI)-3PL
 'Those Arapahos had seen that area where the wind appeared [from within the
 caves] {when/since they lived there}.' [O:Enemy Trail, 65]

When /tih/ subordinate clauses occur in conjunction with cleft constructions, they are also virtually always postposed. In this case, the clauses with /tih/ are perhaps sometimes better viewed as appositions, which follow the cleft construction. But such clauses are always conjunct and thus always show /tih/ or some other conjunct preverb, never independent order /nih/ (or /e'ih/, in narratives). This shows that although they have characteristics of appositions, they are being treated syntactically as subordinate to the cleft construction.

- 46) *hé'né'nih'íisookónoontóó3i'*
e'ne'=nih-iisi-ookoononitoo-3i'
 that=PAST-how-REDUP.act respectfully(AI)-3PL
 'That's how they acted respectfully
- tih'i'iiinoonokóoyé3i'*
tih-i'i-ii-noonokooyei-3i'
 when-INSTR-IMPERF-REDUP.fast(AI)-3PL
 {when they fasted [for sacred powers]}. ' [O:Apache Captive, 48]

Subordinate clauses with the preverb /toh/ behave in the same manner. Using texts collected by Truman Michelson in Oklahoma in the early twentieth century for the sake of a different data source, the eleven texts examined show eight instances of subordinate clauses with /toh/ having the temporal meaning 'when, after', and seven of these are preposed. There are ten instances of clauses with /toh/ with a causative-type meaning 'because', and seven are postposed, whereas the other three occur as independent clauses in response to questions. Although the sample size is not large, it is quite consistent with the examples of both /tih/ and toh/ subordinate clauses in Paul Moss's stories, and moreover, /tih/ clauses in the Michelson data also correspond with the Moss data. Examples of /toh/ clauses from the Michelson data follow.

When/after—preposed:

- 47) *noh toh'oo3iisiinini', he'ihceixotii hootoho.*
 noh toh-oo3-iisiinini-' e'ih-ceixotii ooteh-o
 and when-next-day(II)-0S NPAST-bring to here(AI) sinew-PL
 'And when the next day came, she brought the sinews.'
 [L:The Woman Who Climbed to the Sky]
- 48) *noh tohnooke', he'ihce3ee beexouu.*
 noh toh-nooke-' e'ih-ce3-ee beexouu[h]
 and when-become morning(II)-0S NPAST-trap(TA)-4 red fox
 'And when the next morning came, he caught a red fox.' [N:line 207]

Because—postposed:

- 49) *he'ihkookoxohei xoucenii, hiih'ohiho'*
 e'ih-kookoxohei xoucen-ii i-ih'e[h]-o-hiho'
 NPAST-REDUP.dig roots(AI) onion-OBV.PL 3-son-OBV-OBV
 'She dug up onions for her little son
- tohuubiinooni3.*
toh-ii-biin-ooni3
 because-IMPERF-eat(TA)-4S/4
 because he [habitually] ate them.' [L:The Woman Who Climbed to the Sky]

- 50) *“heihooiwuni’nií3noyei tohwoxeihin,” hee3oohok.*
 e-ihoowu-ni’i-nii3i-noyei toh-woxeihi-n ee3-oohok
 2S-NEG-able-with-trap(AI) because-ugly(AI)-2S say(TA)-3S/4.SUBJ
 ‘‘You can’t trap with the others because you’re too ugly,’’ she said to him.’ [N:line
 205]

Based on these findings, one would expect that subordinate clauses with other conjunct preverbs indicating temporal background (/ei’i/ ‘once; when.PERF’ and /eeciisi/ ‘while’) would also normally be preposed, and this is in fact the case; whereas clauses involving purpose and sequential result (using /eti/ ‘FUTURE.obligation’ and /eetihi/ ‘so that’) would be postposed, and this is also normally the case (see 17.2.3 and 17.2.4 for examples).

In summary, adverbial clauses in Arapaho focusing on expressions of time are notably more complex than those involving relations of location, manner, reason, and so forth—both in terms of the variety of morphosyntactic elements involved and in the way they behave syntactically. Furthermore, the syntax seems more tightly constrained than is the case with other types of complement clauses and less controlled by purely pragmatic factors. In these cases, syntax interacts closely with the morphology of the clauses to produce contrastive semantic meanings, with pragmatic factors distinctly secondary in determining clause placement. Nevertheless, exceptions to these placement tendencies do occur, as in the following *preposed* causal/consequential subordinate clause:

- 51) *tohú’eenetíno’ hoséíno’ ní’ésneeno.*
 toh-i’i-eeeti-no’ oseino-’ ní’i-esinee-noo
 because-INSTR-talk(AI)-12 meat-S INSTR.CAUS-hungry(AI)-1
 ‘I’m hungry because we’re talking about meat.’ [E.24.3]

In this sentence, the causative element is the clear focus of the sentence—note the use of instrumental preverbs, unlike the other examples of /toh/ cited above. This apparently produces a fronting of the subordinate clause for pragmatic reasons. Examples such as this one reinforce the suggestion made in 18.9 that essentially any constituent element of a sentence can occupy the initial focused position.

18.11 DISCONTINUOUS CONSTITUENTS

Like other Algonquian language, Arapaho allows discontinuous constituents, although apparently less commonly than some others:

- 52) *nookúhnénmo’ tih-bih’iyóó’ nihno’kóohú3i’.*
 nookuhunenin-o’ tih-bih’iyoo-’ nih-no’ukoohu-3i’
 Cree-PL when-dark(II)-0S PAST-arrive(AI)-3PL
 ‘Last night some Crees came.’ [H:8.2]

- 53) *howóó niine'eehéék néhe'inén nóno'ei tihyih'oonéit beniinenno hoo3íto'o.*
 owoo niine'eehek nehe' inen[in] inono'ei[n] tih-yih'oon-eit
 also here he is this man Arapaho when-chase(TA)-4/3S
 beniinenin-o oo3itoon-i
 soldier-PL.OBV story-S
 'There's also a story about this Arapaho man who was chased by soldiers.' [O:
 Woman Captive, 53]

With only two examples here, any analysis is effectively ad hoc. Nevertheless, notice that in example 52, where 'Creeps' occupies the focus position, the separation of the NP from its verb allows for the temporal subordinate verb/clause to remain in its normal position prior to the main verb, while still allowing focus on the NP associated with that verb. Example 53 seems to be an extreme case of what could be called "possessor focusing"—the syntactic equivalent of possessor raising. A paraphrase that better captures the essence of the sentence is 'and there's [this-Arapaho-man-who-was-chased-by-the-soldier]'s story too.' Certainly, much more data is needed to begin to truly address the pragmatics of discontinuous constituents in Arapaho, however (see also example 60 below).

18.12 CLEFT CONSTRUCTIONS

Cleft constructions are another way of highlighting the saliency of some element of a phrase—in this case, by deincorporating the element from the structure of the main clause and fronting it. Such constructions are extremely common in Arapaho. Cleft constructions can be identified by three features: first, the NP or other element is always fronted. Secondly, the verb of the main clause always begins with the *ne'* = back-reference proclitic (sometimes occurring as *néhe'* =, especially in Paul Moss's stories). And thirdly, the main clause always contains a relative root/preverb that governs the fronted NP (see section 17.2.1 for a list of those roots). Any NP that is a part of the clause containing the cleft verb always occurs after that verb (as in examples 55, 58, and 59).

A wide variety of elements can be fronted as part of cleft constructions:

Fronted means, relative /ii3/ 'how':

- 54) *3i'ookuut beebeet, ne'nih'iisni'ooku'ooni'.*
 3i'ookuuton-i beebeet ne'=nih-iisi-ni'ooku'oo-ni'
 stand(AL.PART)-S only that=PAST-how-see well(AI)-1PL
 'By standing, that was the only way we could see clearly.' [J:I.Verb]

Fronted time clause, relative /nii' / 'when':

- 55) *ceeciimi'i, ne'nii'tonounowoo cechou.*
 ceciini-i ne'=nii'i-tonoun-owoo cecihouw-i
 IC.winter(II)-0.ITER that=when-use(TI)-1S quilt-S
 'When it's winter, that's when I use a quilt.' [J:III.Clothing]

Fronted amount, relative /eetox/ ‘how many’:

- 56) *niitootox, ne'eetoxcecinibee.*
 niitootox ne'=eetox-i-cecinibee-t
 six that=how many-EP-possess years(AI)-3S
 ‘Six, that is how old she is.’

Fronted implied object, relative /iitoh/ ‘where’:

- 57) *hici'i3in, ne'nih'iitoh'esiinii.*
 i-ci'i3in ne'=nih-iitoh-esiinii-t
 3-calf.OBV that=PAST-where-be injured(AI)-3S
 ‘His calf was where he got hurt.’ [J:II.Body]

Fronted locative, relative /iitoh/ ‘where’:

- 58) *nete3ee3oone', ne'nih'iitohkoxkokuunoo hini' koh'ok.*
 ne-i3ee3oon-e' ne'=nih-iitoh-koxukoh-einoo ini' koh'ok
 1S-finger-LOC that=PAST-where-sting(TA)-3S/1S that bee
 ‘On my finger is where that bee stung me.’ [J:II.Body]

Fronted locative, relative /eet/ ‘where’:

- 59) *hinee wo'teeneihi', ne'eetou' niicooo'owu'.*
 inee wo'teeneihi' ne'=eet-ou' niicooo'owu'
 that Utah that=where-located(II)-0S Great Salt Lake-S
 ‘Over in Utah is where Great Salt Lake is located.’ [J:IV.Loc]

Multiple fronted elements, relative /niitoh/ ‘where’:

- 60) *cese'hiiho', neeyeci'i, ne'niitoh'oonoyeisi'i.*
 cese'chiiho' neeyeci'i ne'=niitoh-oonoyeisi-i
 wild animals in the forest that=where-REDUP.take shelter(AI)-3PL
 ‘Wild animals use the forest as a shelter.’ [J:II.Shelter]
 (Better translated as ‘Wild animals, the forest is where they take shelter.’)

Cleft constructions with independent verbs can also be created using the relative roots:

- 61) . . . , *nee'ee3óó' níiyóu hoo3ítóo.*
 ne'=eet-yoo-' níiyóu oo3itooon-i
 that=where[from]-II-0 here it is story-S
 ‘. . . , that's where this story is from.’ [O:Apache Captive, 50]
 [cf. *nee'*=*ees-óó'* ‘that's what it's like, that's how it is’]

Morphophonemics and morphosyntax

Note that when the relative root/preverb is in the present tense/aspect (/ee/ form), the proclitic *ne'* becomes *nee'* = (*nee'ee3*- 'that's how/what' vs. *ne'nih'ii3*- 'that was how/what').

The tense markers function unusually in that they occupy different places within the construction. Whereas /ih/ (PAST) follows the proclitic *ne'* = (see examples 57, 58), /eti/ (FUTURE) precedes it:

- 62) *hini' héetnii'éiheino'eti', héétné'níitoonoo.*
 ini' eetoh-nii'eihino'eti' eti-ne'=niit-oo-noo
 that [place] where-Thunderbird Cloud(II)-0S IC.FUT-that=where-located(AI)-1S
 'That place where the Thunderbird Cloud is, that's where I'll be.' [O:Eagles, 92]
- 63) *héétné'níiswóttoneen, héétné'niistonóúnow.*
 eti-ne'=niisi-wotitonee-n eti-ne'=niisi-tonoun-ow
 IC.FUT-that=how-build fire(AI)-2S IC.FUT-that=how-use(TI)-2S
 'That's how you will start a fire, that's how you will use it.' [O:Apache Captive, 24]

The same alternation between *nee'ee-* and *ne'nii-* that occurs in the present vs. past/habitual occurs in the future as well. When something will be done habitually in the future (as in the three preceding examples), *ne'nii-* forms are used. When something will be done once or in some limited occasion or framework, *nee'ee-* forms are used:

- 64) “wohéí,” *hee3oohók núhu' hecéxonóh'oe, “nenéénin nenéénin*
 wohei ee3-oohok nuhu' ecexonoh'e[h] neeni-n neeni-n
 well say(TA)-3S/4 this young boy IC.be(AI)-2S IC.be(AI)-2S
 '“Well,” he said to the young boy, “you, you
hecéxookéén, heetih'e'inow; heetnéé'eesnii3nówoon.”
 ecexooke-n eetih-e'in-ow eti-ne'=eesi-nii3inowoo-n
 IC.young(AI)-2S so that-know(TI)-2S IC.FUT-that=how-possess for oneself(AI)-2S
 are a child, it is right for you to know it: that's how you will gain [power] for
 yourself.” [O:Bad Dreamers, 17]

18.13 APPPOSITIONS/PSEUDO-CLEFTS AND RIGHT DISLOCATIONS

Less common than cleft constructions are appositions and right dislocations. Example 65 is an interesting illustration of the former. Note that the distinction between the cleft construction, with *ne'* = 'that is/was . . .', and the final relative clause of this sentence, with *néeyóu* 'there is . . .', is quite tenuous. This seems to be yet another example of the common Arapaho tendency to use relative clauses that embed complement or adverbial clauses within them (17.2.1, 17.3.4) in order to highlight saliency; in this case, the verb that refers back to the fronted element of an underlying cleft construction is embedded within a relative clause.

- 65) *'oh né'iini 3ebíisíhi', 3ebce'kox3í',*
 'oh ne'i-ini 3ew-ii3-iihi' 3ebi-ce'i-koxu3í'
 and then-DET there-toward-ADV there-again-over the hill.LOC
 'And then over in that direction, back over there on the other side of the hill,
néeyóu niitcihbise'éinini3i.
 neeyou niitoh-cih-bise'eini-ni3i
 there it is where.HABIT-to here-show head(AI)-4PL
 that's [the place] where they were showing their heads.' [O:Scouts, 46]

Example 66 is an example of a right dislocation and is provided simply to show that this construction occurs in Arapaho. The verb looks exactly like verbs in cleft constructions, but the element referred to by *ne'* = follows the verb phrase:

- 66) *né'neenéisíine'étiit 3owó3nenitee, hookónooníihi'.*
 ne'=neeneisi-iine'etiit 3owó3inenitee[n] ookoonoon-iihi'
 that-REDUP.IMPERF.how-live(AI)-3S Indian respect-ADV
 'That's how an Indian lives, respectfully and sacredly.' [O:Scouts, 49]

18.14 COPULATIVES

18.14.1 Pseudo-verbal Copulatives

There are a number of pseudo-verbal constructions (14.3) that function as copulatives in question and presentational constructions:

- 67) *heeyóu hínee?*
 what that
 'What is that?'
- 68) *níiyóu núhu' wó3onohóe.*
 here this book
 'Here is the book.'

18.14.2 Personal Pronoun Copulatives

In affirmative statements, the copulative is the verbal pronoun /*nee(ni)*/:

- 69) *hínee nenéé' wó3onohóe.*
 that it book
 'That is a book.'
- 70) *hínee nóoxnéihii nenéénit néito'éí.*
 inee nooxuneihii[h] neeni-t ne-ito'ei[n]
 that announcer IC.be(AI)-3S 1S-relative
 'That announcer is my relative.' [J:II.Family]

- 71) *nees nenéénit héétniiniibóoto' ko3einóótno.*
 nees neeni-t eti-ii-niiboot-o' ko3einooton-o
 my husband IC.be(AI)-3S IC.FUT-IMPERF-sing(TI)-3S old song-PL
 'My husband is the one who will sing the old songs.' [J:IV.Family]
- 72) *heenetiit hinono'einihi', nenee' hetei'yooniibin heetneyei3eihoonin.*
 eenetiiton-i inono'ein-ihi' nee-'
 speak(AI.PART)-S Arapaho-ADV IC.to be(II)-0S

 e-tei'yooniw-in e-eti-neyei3eih-ooon-in
 2S-children-INCL 2S-FUT-teach(TA)-3.DEP.PART-INCL
 'Speaking with Arapaho is what we will teach our children.' [J:I.Verb]

In copulative constructions, the verbal pronoun /nee(ni)/ often takes affixes and proclitics of various types:

- 73) *hoownéén nebiixúút.*
 ihoowu-neeni ne-biixuuton-i
 NEG-to be(II) 1S-jacket-S
 'It's not my jacket.' [E:31.4]
- 74) *hihneehék nebiixúút . . .*
 ih=nee-hehk ne-biixuuton-i
 CONTR=to be(II)-0S.SUBJ 1-jacket-S
 'If it was my jacket . . .' [E:31.6]

When personal pronouns are used as the head of a phrase, they function as both subject and copulative:

- 75) *nenééninoo neyéi3eibéihii.*
 neeni-noo neyéi3eibeihi[h]
 IC.be(AI)-1S teacher
 'I am a teacher.'
- 76) *nenééninee neyéi3eihíiho'.*
 neeni-nee neyéi3eihiih-o'
 IC.be(AI)-2PL student-PL
 'You(PL) are students.'

Note that many of these copulatives can actually be analyzed as pseudo-cleft constructions:

'It is I who am a teacher.'

'It is my husband who will be the one to sing the old songs.'

18.14.3 Predicative Construction in Place of Copulative

Note that the predicative construction (7.4) often serves in place of a copulative:

- 77) *neyeyí3éibeihíinoo.*
 neyei3eibeihii-ini-noo
 IC.teacher-AI-1S
 ‘I am a teacher.’

The distinction between copulative and predicative constructions is a matter of focus; predicative constructions usually respond to the question ‘what are you?’ or ‘what do you do?’ (*heitóústo?*), whereas copulative constructions usually respond to the question ‘who/which one is a/the X?’ or ‘what/who is X?’:

- 78) *heeyóu hínee?*
 ‘What is that?’
hínee nenéé’ wo3onohóe.
 ‘That is a book.’
- 79) *hénee’eehék hínee?*
 ‘Who is that?’
hínee nenéénit neisónoo.
 ‘That is my father.’

Existential verbs: ‘there is . . .’

The verbs /entoo/ (AI) and /entou/ (II) meaning ‘to be located at, to be staying at’ form predicate locatives. They are often fairly empty semantically and can function as a virtual existential/predicate verb meaning ‘to be, to exist’:

- 80) *hoowéeseinebetiitoon b[en]éexo’héntóu’ bixóó3etiit.*
 ihoowu-eseinebetiitooon-i beexo’u-entou-’ bixoo3etiitooon-i
 NEG-hate(TA.PART)-IMPERS(II) IC.only-be there(II)-0S love(AI.PART)-S
 ‘No one hates anyone else. There is only love.’ [O:Arapaho Boy, 49]
- 81) *yeoh héentóó3i’ hecéxonóh’oehiho’ nihtóuminéé3i’.*
 yeoh entoo-3i’ ecex-onoh’e-hiho’ nih-touninee-3i’
 yes IC.be there(AI)-3PL little-young man-DIM.PL PAST-count coup(AI)-3PL
 ‘Yes, there are very young boys who took captives.’ [O:Scouts, 70]

Similarly, the verbs /einoku/ (AI) and /einoote/ (II) meaning ‘located (there), to be (there)’ often function as virtual existential verbs:

- 82) *néeyóu hínee hotíí héétoh’úni héinókut.*
 neeyou inee otii[w] eetoh-ini einoku-t
 there it is [the place] that wheel where-DET located(AI)-3S
 ‘There is the place where that wheel is [located].’ [O:Buffalo Wheel, 2]

‘There is a lot . . .’, ‘there is none . . .’

The verbs /woo3ee/ (II/AI) and /woo3eih/ (AI) are partially existential in that they mean ‘there are many (count nouns)/there is a lot of (mass nouns)’. For count nouns, the verb is inflected in the plural:

- 83) *hé'ihwóó3eenino.*
 e'ih-woo3ee-nino
 NPAST-be many(AI)-4PL
 ‘There were many of them.’ [O:Scouts 38]

With mass nouns, the verb is inflected with the singular:

- 84) *céésey nihnó'ó3iitoxú3i' hí3einóón.*
 ceeseey nih-no'ó3iitoxu-3i' ii3einoon[in]
 one time PAST-be many(AI)-3PL buffalo [herd]
 ‘At one time there were great herds of buffalo.
nih'iinxoótóú'u nih'eenéitwóó3ee' wóxu'.
 nih-iinixoot-o'u nih-eeneitoh-woo3ee-' woxu'un-i
 PAST-wander(TI)-3PL PAST-REDUP.where-a lot(II)-0S grass-S
 They roamed the lush, grassy plains.’ [lit. ‘Wherever there was lots of grass.’] [U]

The verb /iiyohou'uni/ (II) is likewise partially existential in that it means ‘there is none’. It is derived from the preverb/initial /iiyoo/ ‘to disappear from sight, vanish’:

- 85) *wohéi hei'éésneet, hei'éésneet, 'oh hííyo(o)hóú'uni'.*
 wohéi ei'i-esinee-t ei'i-esinee-t 'oh iiyohou'uni-'
 well when-hungry(AI)-3S when-hungry(AI)-3S but be nothing(II)-0S
 ‘Well, when [an Indian] would get hungry, when he would get hungry,
 there was nothing [to eat].’ [O:Apache Captive, 8]

18.15 MULTI-VERB SERIAL SEQUENCES

Arapaho has a clause-level construction that involves two separate, independent verb stems that are governed by a single preverb, which is attached only to the first of the two verbs but whose meaning is transferred to the second verb as well. In such serial verb constructions, the subject (and object, if present) of both verbs is always the same, and the overall construction usually indicates closely concatenated sequential action. Examples include:

- 86) *heebéhnohkunoh'úhcesinen núhu' 3o'óstiin.*
 e-eebeh-nohku-noh'uhcesine-n nuhu'
 2S-POTENT-with-slip and fall(AI)-INCL this
 3o'osetii-n
 [2S-POTENT]-shatter s.t. by dropping(AI)-INCL
 ‘We might slip and fall with this thing and break it.’ [R:Nih'oo3oo and the Butt]

87) *hé'ih'i3kúú3ee tébe'eikúú3ee.*

e'ih-i3ikuu3-ee tebe'eikuu3-ee

NPAST-seize(TA)-4 [NPAST]-cut off head(TA)-4

'He seized them and cut off their heads.' [R:Nih'oo3oo and Ducks]

88) *hiiwóonhéhe' hiwóxuu, hé'ihnén sé'esinen.*

iiwoonhehe' iwoxuuh e'ih-neeni se'esine-n

now elk NPAST-be(AI) [NPAST]-lie on ground(AI)-4S

'This time it was an elk lying there on the ground.' [R:Nih'oo3oo and Fox]

19

DISCOURSE-LEVEL FEATURES

Arapaho has a rich set of discourse-level affixes and particles, which function in various pragmatic contexts. These particles serve to introduce new nominal or verbal elements (new referents, new actions, etc.) into a discourse, to reactivate these elements in the discourse, or to highlight them emphatically. Some of them are crucial in organizing the larger discourse, such as in extended narratives or speeches.

19.1 PRESENTATIONAL PARTICLES

A number of different “presentational” or “additive” particles are used in Arapaho. They all serve to add new actions or actors to a situation, or to add to already-active actors or actions. They include the following:

	<i>Same Action Again</i>	<i>New Action</i>
SAME ACTIVE PERSON	<i>ci'</i>	<i>niixóó</i>
DIFFERENT ACTIVE PERSON	<i>ci'</i> or <i>niixóó</i>	
NEW, INACTIVE PERSON	<i>howóó</i>	

19.1.1 *Niixóó*

Niixóó adds new actions; additional, new action by same actor(s): ‘he did X, Y, and Z too’; additional, same action but by an additional participant: ‘X did it, and then Y did it too’.

- 1) *niinóuxónoot, niitohóénoot, niixóó nii3óo3ó’ohoenéi’it.*
 nii-nouxon-oot nitohoen-oot niixoo
 IMPERF-meet(TA)-3S/4 IMPERF.take hand(TA)-3S/4 also

 nii-3oo3o’ohoenei-t
 IMPERF-REDUP.crush hand(AI)-3S
 ‘He meets them, takes their hands, and crushes their hands too.’ [R:Strong Bear
 Shakes Hands]
- 2) *hé’ihcihnéi’oohóbe’.*
 e’ih-cih-nei’oohow-e’
 NPAST-to here-look at s.o.(TA)-4/3S
 ‘The chief looked back at him;

 “hoo,” *nii3éihók.*
 oo nii3-eihok
 hey IMPERF.say(TA)-4/3S
 “Hey,” the chief said to him;

 “hoo,” *niixóó hé’ih’íi3ee.*
 oo niixoo e’ih-ii3-ee
 hey also NPAST-say(TA)-4
 “Hey,” he said back to the chief.’ [R:Crow Chief]
- 3) *“héétneh’é3en,” né’íi3oot.*
 eti-neh’-e3en ne’i-ii3-oot
 IC.FUT-kill(TA)-1S/2S then-say(TA)-3S/4
 ‘“I’m going to kill you,” he said to his younger brother;

 [*hé’ih*]cébii, *né’kó3oo3éit.*
 e’ih-ceb-ee ne’i-ko3oo3-eit
 NPAST-shoot at s.o.(TA)-4 then-miss s.o.(TA)-4/3S
 he shot at him, but he missed him;

niixóó nee’ehcóbóot.
 niixoo ne’eh-cob-oot
 also from here-shoot s.o.(TA)-3S/4
 then his younger brother shot back at him [and hit him].’ [R:Blood Clot Boy]

19.1.2 *ci'*=

Ci'= adds participants, such as an additional subject or object, but one already activated in the discourse: 'X, and Y too'; it also adds actions, but only ones already mentioned in the discourse: 'then X did it again'.

- 4) [two people already engaged in discourse]:

A. *héétníhobéinoo*.

eti-niihobei-noo

IC.FUT-accompany(AI)-1S

'I'm going along.'

B. *noh ci'nenééninoo!*

noh ci'=neeni-noo

and also=IC.be(AI)-1S

'Me too!'

- 5) "*híi3eti' tohnóhobé3en; héétneniniíxoo . . .*"

i3eti'

toh-noohow-e3en

eti-neniniíxoo3-

IC.good(II)-0S because-see s.o.(TA)-1S/2S

IC.FUT-shake hand(TA)-

"'It's good to see you. I'm going to shake . . ."

"hee, nohcí'héétneniniíxoo3é3en," hee3oohók.

ee noh=ci'=eti-neniniíxoo3-e3en

ee3-oohok

yes and=also=IC.FUT-shake s.o.'s hand(TA)-1S/2S

say(TA)-3S/4

"'Yeah, and I'm going to shake your hand too," he said to him.' [R:Strong Bear Shakes Hands]

- 6) *wohéi hini'iit 3í'ookuuni3 hé'ihbésii.*

wohei ini'iit 3í'ookuu-ni3 e'ih-bes-ee

wohei that IC.stand(AI)-4S NPAST-hit(TA)-4

'Well, he hit [the aforementioned deer] that was standing;

wohéi núhu' toh'é3ebihéti'éisi', 'oh núhu' kokúyoono3

wohei nuhu' toh-e3ebi-heti'eisi'

'oh nuhu' kokuyoono3-i

wohei this after-there-fall and hit head(AI)-3S but this bullet-S

well, when he hit his head [on the rock when he fell]; well, then the bullet

núhu' hinícito hé'ih-tóún hitóxko'ó' hei'to'ósetiit,

nuhu' ini-icit-o e'ih-toun i-oxko'o' e'i-to'osetii-t

this 3-tooth-PL NPAST-hold (TI) 3S-chin-S when-hit s.t. on the ground(AI)-3S

he was holding in his teeth, when he hit his chin on the ground,

'oh ne'kóe'téese' núhu' hini'iit kokiý.

'oh ne'i-ko'eteese-' nuhu' ini'iit kokiyon-i

but then-go off(II)-0S this that bullet-S

well, then that bullet went off, and [the aforementioned deer],

'oh hú'un 3ii'ókut woow hé'ihkohéisihce; wo'éí'i3ów ci'né'bésoot.

'oh i'in 3i'oku-t woow e'ih-koheisihcehi wo'éi'i3ow
but that IC.sit(AI)-3S already NPAST-jump up(AI) right then

ci'=ne'i-bes-oot

also=then-hit(TA)-3S/4

which was sitting down, had jumped up, and then he hit it too.' [R:The Two
Bullets]

19.1.3 howóó

Howóó activates additional actor(s) not yet activated in the discourse and sometimes additional new actions for the same actor, in which case it has the sense of 'even'.

The form *howóó* very commonly serves a function similar to *wohéí* in that it introduces a new referent. It is especially common in closing commentary sections of stories, which are less "narrative" and more "discursive" in character. Numerous examples can be found in Cowell and Moss 2005b. Others include:

- 7) *nih'iwo'o3tii3i' hoseino' hinee hee3ebceciini'i;*
nih-ii-wo'o3itii-3i' oseino' inee ee3ebi-ceciini-'i
PAST-IMPERF-gather s.t.(AI)-3PL meat-S that there-winter(II)-0.ITER
'They stored up meat for later when it would be wintertime,

nee3eb . . . biibii3ihiini3i'.

nee3ebi- biibii3ihiini-3i'
IMPERF.there REDUP.have things to eat(AI)-3PL
so that they would have plenty to eat then.

howóó bíbinóótno neenei'iixo'otii3i', heenéi'isíhi', bíino, heenéi'isíhi';

owoo biibinooton-o neenei'i-iixootii-3i' eeneisihi' bíino
also berry-PL REDUP.when-dry s.t.(AI)-3PL various ones chokecherries
eeneisihi'

and so forth

and they dried berries [during the fall] too, various kinds, chokecherries and so
forth.

howóó núhu' 3éici'i 'oh nih'iikóokóxuhóú'u.

owoo nuhu' 3eici-i 'oh nih-ii-kookoxuh-o'u
also these root-PL and PAST-IMPERF-REDUP.dig up s.t.(TI)-3PL
And these roots, they would dig them up too.' [R:Nih'oo3oo and the Butt]

- 8) *neebeh'ésiiniíhoo, wo'éi3 heebéh- howóó neebéhnóh'oo.*

n-eebeh-esiiniih-oo wo'éi3 eebeh- owoo n-eebeh-neh'-oo
1S-POTENT-hurt(TA)-3S or POTENT also 1S-POTENT-kill(TA)-3S
'I might hurt him, or I might even kill him.' [R:Strong Bear and the Boxer]

- 9) *hókok heeti'niisihí' wo'éi3 howóó be'éék.*
 okok-i eti-i'i-niisihí-' wo'éi3 owoó be'éek-i [note k + i not > c]
 stew-S IC.FUT-INSTR-be made(II)-0S or also blood pudding-S
 'It could be made into stew, or blood pudding too.' [R:Blood Clot Boy]
- 10) *wohéi hinee beh'éihohó', heetebeh'éihohó' nih'ii3oo3ítéé3i',*
 wohei inee beh'eihoh-o' eetee-beh'eihoh-o' nih-ii3-oo3íteee-3i'
 wohei this old man-PL before-old man-PL PAST-how-tell story(AI)-3PL
 'Well, those old men, the real old timers, [that's] how they told it;
howóó betebihohó' hoonóo3ítéé3i'.
 owoó betebihoh-o' oonoo3íteee-3i'
 also old lady-PL REDUP.tell story(AI)-3PL
 the old ladies as well, they told about it.' [R:Splitting of the Tribes]

19.1.4 *hiikoot*

An additional, related particle is *hiikoot* 'and in addition; and what's more; and moreover; and what's worse; even worse'; it is more emphatic than *howóó* or *niixóó* or *ci'* and typically adds an intensifying action, actor, object, or state.

- 11) *heetniinoo'einoo nooke'ehk. heetceestiinoo kokiyoono3ii,*
 eti-iinoo'ei-noo nooke'ehk eti-ceesitii-noo kokiyoono3-ii
 IC.FUT-hunt(AI)-1S tomorrow IC.FUT-obtain s.t.(AI)-1S bullet-PL
 'I am going hunting tomorrow. I am going to get some bullets,
hiikoot nowooxe heetoxu'usetiinoo.
 iikoot ne-wooxeh eti-toxu'usetii-noo
 also 1S-knife IC.FUT-sharpen s.t.(AI)-1S
 and I'm going to sharpen my knife too.' [E:20.9–21.1]
- 12) Speaker 1: *kooheñíhí'i heenéinóno'eiti3ei'í'*
 koo=e-niihei'i eeneinono'eiti3-ei
 INTERR=2S-parents REDUP.speak Arapaho to s.o.(TA)-3PL/2S
 'Do your parents talk Arapaho to you?'
 Speaker 2: *béébeet néi'eibéhe'.*
 beebeet ne-ibehe'
 only 1S-grandmother
 'Only my grandmother.'
 Speaker 1: *'oh heisónoo?*
 'oh e-isonoo[n]
 and/but 2S-father
 'What about your father?'

Speaker 2: *néi'ei3ehéhk, hiitównih'oo3óunit.*
nei'ei3eihehk itowu-nih'oo3ouni-t
 he thinks wrongly of himself IC.busy-be white person(AI)-3S
 'That one!? He's too busy being a white man!'

Speaker 1: *hií3oobéin; hiíkoot héé3neeníhi' koo'óh.*
i3oobei-n iikoot ee3ineen-iihi' koo'ohw
 IC.be correct(AI)-2S also very-ADV coyote
 'You're right; and he's a real coyote too.' [E:23.2-6]

- 13) *niihéi3e' néhe' hó3o'uunesitee.*
niihei3e-' *nehe'* *o3o'uunesiteen*
 IMPERF.heavy(AI)-3 this coal [wagon]
 'A coal wagon is heavy—'

hiíkoot béesei3éi'i núhu' hotiiwo.
iikoot *beesei3e-'i* *nuhu'* *otiiw-o*
 also big(AI)-3PL this wagon-PL
 and these wagons are big too! [R:Strong Bear and the Wagon]

- 14) *he'itoxíuus hé'ihbééc hínee héetóó3i',*
e'ii-tox-iis *e'ih-beeci* *inee* *eetoo-3i'*
 DUBIT-how many-days NPAST-snow(II) that where located(AI)-3PL
 'It snowed for several days up there'

héétoh'óotíi3i' hóho'éni'.
eetoh-ootii-3i' *ohé'en-i'*
 where-camp(AI)-3PL mountain-LOC
 where they were camped in the mountains;

wohéi hiíkoot nooxéihi' hoowunó'o3íini hibíi3hiinínoo;
wohei *iikoot* *nooxeihí'* *ihoowu-no'ó3i-ini* *i-bii3ihiin-inoo*
wohei *in addition* *maybe* *NEG-much-DET* *3S-food-PL*
 and what's more, they probably didn't have a lot of food either.' [R:Strong Bear
 and the Ghost]

- 15) *“'óhóohéi'i, hií3oobéin! heniishtonihéínoo.*
'oohoohei *i3oobei-n* *iishtonih-einoo*
 oh my! IC.be correct(AI)-2S IC.trick s.o.(TA)-3S/1S
 '“Oh dear, you're right, he has tricked me!

'oh hiíkoot woow heniisibiino' nó'otehít.”
'oh *iikoot* *woow* *iisi-biin-o'* *no'otehiiton-i*
 but also now IC.PERF-give(TA)-1S/3S power-S
 and what's worse, I've already given him power too.”' [R:The Two Sons]

- 21) *noh hínce tó'owoohók, 'oh néihoowóé'in wohóé'etwonoo3iine'etíi.*
 noh inee to'ow-oohok 'oh ne-ihoowu-e'in
 and that hit(TA)-1S/3.SUBJ but 1S-NEG-know(TI)
 wohoe'=eti-wonoo3iine'etii
 DUBIT=FUT-keep living(AI)
 'And if I hit that guy, well I don't know if he would be alive much longer.' [R:
 Strong Bear and the Boxer]

19.1.6 *noh*

Noh 'and' is the converse of 'oh, since it indicates continuity and consequentiality. It is often used clause-initially in sequences of related clauses. It is used to link two nominal referents as well, just as English 'and' is, but this usage is actually far less common than the sentence-level continuity function. In the stories of Paul Moss, up to 90 percent of the uses of *noh* are similar to the two below (with *noh* clause-initial):

- 22) *'oh bíi3inéhk, noh héétníini núhu' hee3éihí'.*
 'oh bíi3i-nehk noh eti-ini nuhu' ee3eihí-'
 but eat s.t.(AI)-2S.SUBJ and IC.FUT-DET this [way] how be(AI)-1PL
 'If you eat it, then you will be the way we are.' [O:Eagles, 30–31]
- 23) *honóoyóó ceebéhnonih'ihee!*
 onooyoo ceebeh-nonihí'-ihee
 don't you dare PROHIB-forget(AI)-3S.IMPER.INDIR
 'Don't you dare let her forget it!
- noh néé'eesnestóóbeen.*
 noh nee'eesi-nestoow-een
 and thus-warn(TA)-1PL/2S
 And that is how we are warning you.' [O:Eagles, 38–39]

19.1.7 *wootíi*

The particle *wootíi*, meaning 'like, as if', can also be used with a meaning roughly equivalent to 'for example' in order to introduce a topic or referent into a discourse. It typically indicates the speaker's awareness that the introduction may be perceived as awkward or out of sequence:

- 24) *heeyowuceeciini'i hinono'eino' nih'iininiistoo3i'*
 heeyowu=ceeciini-'i inono'ein-o' nih-ii-niiniisitoo-3i'
 each=year(II)-0.ITER Arapaho-PL PAST-IMPERF-REDUP.do(AI)-3PL
 'Every year, the Arapahos would hold
beneesbeteeniisiini'. wootii cenece'eseihi3i'
 beesibeteeniisiini-' wootii cece'eseihi-3i'
 IC.big holy day(II)-0S like IC.REDUP.different(AI)-3PL

half or so from men), I found *'ine* occurring only 9 times, whereas *wohéi* occurred well over 100 times. This suggests that women structure long sequences of discourse with elements other than the “official” female equivalent of *wohéi* and/or that *wohéi* serves other perhaps iconic functions for men beyond discourse-pragmatic ones.

19.3 PRAGMATIC PARTICLE *NOHUUSÓHO'* AND OTHER SUMMATINAL DEVICES

The particle *nohuusóho'* is less common than *wohéi* but plays a complementary role. It serves to conclude sequences of discourse. In prayers, it is often used as the equivalent of the English ‘amen’, and it is often used to conclude entire narratives as well. It can be roughly glossed as ‘that’s the way it is/was’. It alternates with several formulaic periphrastic forms, including *hí'in nenéé'* ‘that (aforementioned) is it’, *néé'eesóó'* ‘it is thus’, and *né'nih'íísóó'* ‘that’s how it was’, and *né'nih'íísííni* ‘that’s how it was’. These—along with the general use of the *ne'=*, *néé'ees-*, and related forms in cleft constructions (18.12)—are central elements of large-scale Arapaho narrative structure. They often combine with *wohéi* to simultaneously conclude one section of discourse and begin another. In “The Scouts,” for example, see the beginning of stanza 50 (*wohéi nenéé'*, *wootíi néé'eesóó'*), the beginning of stanza 51 (*wohéi néhe'neenéi3-*), the end of stanza 51 (*néhe'nih'íísííni . . .*), the beginning of stanza 52 (*wohéi nenéé'*, *wootíi néhe'nih'íi3-*), the beginning of stanza 53 (*wohéi nenéé'*), the beginning of stanza 54 (*hí'in nenéé'*), the end of stanza 54 (*oh néhe'nih'íísóó'*), and so on. In Paul Moss’s narrative “White Horse,” these stanza-level pragmatic forms are italicized in the text to better justify the stanzaic/paragraph-level divisions of the narrative made by the editors. This text thus offers good examples for examining these forms in discourse.

19.4 SEQUENTIAL PREVERB /E'NE'I/ OR /NE'I/

Very commonly in narratives, the preverb /e'ne'i/ or /ne'i/ (the two seem to be in free variation) is used. This preverb means ‘and then . . .’, ‘and next . . .’, and ‘so then . . .’. It always has a sense of consequentiality—and thus does not introduce completely new topics or sequences of events—although this can be quite vague at times. It occurs commonly in traditional narratives, where it requires affirmative order inflections, and thus could be considered to be a conjunct order form, occurring in a dependent clause (since affirmative order inflections are not used in independent clauses in narratives except in reported speech).

It is important to recognize that this /ne'i/ is unrelated (morphologically and synchronically at least) to the proclitic *ne'=*, which serves in cleft constructions as a back reference form (see 18.12). For example, /ne'i/ carries an inherent past tense component, whereas *ne'=* has no such component and often occurs with other past tense markers, such as *ne'=nih-* and *heet=ne'=*. Similarly, *ne'=* always occurs with some other relative root, but /ne'i/ never occurs with a relative root.

The situation is unfortunately further confused by the fact that in narratives, *ne'=* can occur as *nehe'=* or *he'ne'=*. Contrast the following:

- 25) *he'ne'=:*
hé'ih'ótoowkúútti hí'in hitóó3et; hé'né'nih'iisíine'étiit cėi3iíhi'.
 e'ih-otoowukuutii i'in i-oo3et e'ne'=nih-iisi-iine'etii-t cėi3iíhi'
 NPAST-swallow(AI) that 3S-saliva that=PAST-how-live(AI)-3S to here.ADV
 'He swallowed his saliva; that's how he lived as he was coming here.' [O:Apache
 Captive, 7]
- 26) */e'ne'i/:*
héésíteé'; hé'né'cėsisnokóóyeit.
 esitee-' e'ne'i-cesisi-nokooyei-t
 IC.hot(II)-0S then-begin-get thirsty(AI)-3S
 'It is hot; [so] then he started to get thirsty.' [O:Apache Captive, 10]

/e'ne'i/ can occur with aspectual markers */ii/* or */iix/*. In this case, the past tense marker */ih/* is sometimes added by Paul Moss, although not in narratives recorded in Oklahoma in the early twentieth century:

- 27) *he'ih'tootoyobe'; he'ihkookou'u'eine'*
 e'ih-tootoyow-e' e'ih-kookou'u'ein-e'
 NPAST-REDUPbite(TA)-4/3S NPAST-REDUP.scratch face(TA)-4/3S
 '[The child] kept biting him; [the child] kept scratching his face;
- hoonii he'ne'iisteteesihoot . . .*
 oonii e'ne'i-iisi-teteesih-oot
 after a long time then-PERF-treat in friendly way(TA)-3S/4
 then after he had treated [the child] in a friendly manner for a long time . . . [N:
 lines 64–66]
- 28) *he'ne'ookoo3oot heetoh'ooteeni'i;*
 e'ne'i-ookoo3-oot eetoh-ooteeni-'i
 then-take s.o. to one's own home(TA)-3S/4 where-camp(II)-0PL
 Then she took him home with her to where the camps were;
- he'ne'iinii3inoot*
 e'ne'i-ii-nii3in-oot
 then-IMPERF-keep s.o.(TA)-3S/4
 then she kept him.' [N:lines 201–202]

19.5 SEQUENCING PARTICLES

Two fairly common particles that indicate sequentiality in narrative are *héihíi* 'soon' and its opposite *hoonii* 'after a long while':

- 29) *wohéi kooxhé'né'cihce'cé3ei'oot.*
 wohei koox=e'ne'i-cih-ce'i-ce3ei'oo-t
 well once again=then-to here-again-set off(AI)-3S
 'Well, once again he started off in this direction.

nóxownéetíkotiit.

noxowu-neetikotii-t

IC.intense-tired from walking(AI)-3S

he is really tired of walking.

héihíi hoowúciisíihí' hé'ih'íicé'toyéinóús.

eihii ihoowu-ciix-iihí' e'ih-ii-ce'i-toyeinousi

soon NEG-far-ADV NPAST-IMPERF-again-rest(AI)

soon he would rest again after not going very far.' [O:Apache Captive, 17]

- 30) *wohéi hooníi ceniinéeci'.*

wohei hoonii ciin-eeci-'

well long time IC.stop-snowing(II)-0S

'Well, after a long time, it has stopped snowing now.' [R:Strong Bear and the Ghost]

Another common narrative form is the adverbial *he'úicxooyéinihi* 'after some (indeterminate) time', 'after a while' and the associated particle *he'úicis* and adverbial *he'úicisíihí* 'for a while':

- 31) *wohéi he'úicxooyéinihi', hé'ne'ce'bisiitonéi3i' síisiiyeiniixoneehího'.*

wohei e'úicxooyeinihi' e'ne'i-ce'i-bisiiton-ei3i' síisiiyeiniixoneehiih-o'

well some time later then-again-attack(TA)-4/3PL snake eater-PL

'Well, sometime later, the Shoshones attacked them again.' [F]

- 32) *wohéi he'úicis né'eésiini híine'étii[t].*

wohei e'úicis nee'eesi-iniine'etii-t

well for a while thus-DETlive(AI)-3S

'Well, for some time, that's how he lived.' [O:Eagles, 58]

Two emphatic narrative particles are *wó'o'(o)to'* and *wó'eii3ów*, both meaning 'just right at that moment, right then and there, just then':

- 33) *wó'eii3ów 3oo3ooníihí; hé'né'bexóheet héetíini- [hi]nií3e'éénin.*

wó'eii3ow 3oo3oon-iihí' e'ne'i-bexoh-oot eetoh-ini- ini-i3e'een-in

right then REDUP.middle-ADV then-hit(TA)-3S/4 where-DET 4S-hair-OBV

'Right in the middle [of his head]; he hit [the enemy] where his hair was.' [O: Arapaho Boy, 36]

- 34) *wó'o'oto' woow heníis-3iikone'éis-oot núhu'inií3e'éénin.*

wó'o'oto' woow iis-3iikone'eis-oot nuhu' ini-i3e'een-in

right then already IC.PERF-scalp s.o.(TA)-3S/4 this 4S-hair-OBV

'He had just now finished scalping the enemy's head.' [O:Arapaho Boy, 37]

(See also B:3.2.41, as *wó'ootó'*.)

Finally, the particle *téécxo'* should be mentioned. It means 'long ago' and very commonly is used at the start of traditional narratives, much like English 'once upon

a time'. See, for example, the opening lines of Paul Moss's "The Scout's Escape," "The Woman Captive," and "The Eagles."

19.6 EMPHATIC AND GENDERED PARTICLES AND PROCLITICS

Arapaho is very rich in emphatic particles, which add a great deal of the "color" to everyday conversation. These forms are extremely difficult to describe in that they are as much pragmatic as lexical, their exact meaning is often very context-dependent, and the tone of voice and other aspects of delivery can be crucial to understanding their meaning. For example, the women's form 'ii(héihoo) can vary from an expression of delight and surprise to a stern reproach. When delivered with high and rising vocal pitch, it can mean something like 'gee, what a pleasant surprise!', but when delivered with lower, falling pitch and creaky voice, it can mean 'gee, what an inappropriate thing to have said!' Its general pragmatic meaning is 'contrary to expectation or social norm'.

Many of these forms are gender specific in their use—in particular, the use is determined by the gender of the speaker. We will present first the gender-specific forms and then the others.

Note that an additional interesting feature of these forms is that many show phonetic forms that otherwise do not occur in Arapaho: word-initial glottal stops; the phones [m], [r], and [æ]; the sequence /wi/; word-initial and first-syllable /u/; and general un-Arapaho-looking forms in many cases. At least some of these forms are shared with other Plains languages (such as *hohóú* and *hee*), and based on the aberrant phonology, one could suspect that others may be borrowed as well. This is an interesting area for further investigation.

19.6.1 Gender-specific Particles

With the exception of *héébe*, which is restricted with regard to both speaker and addressee, all gender-specific forms are restricted with regard to the speaker. In some cases, the forms come in pairs, whereas in others, there is a form for only one gender. The forms are as follows:

	<i>Male speaking:</i>	<i>Female speaking:</i>
hello	<i>hee</i> (be) (to m.) <i>tous</i> (to f.)	<i>tous</i>
yes	<i>hee</i>	'oo
no	<i>híiko</i>	<i>híiko</i> ; formerly <i>kos</i>
no! (emphatic)	'éhte'	<i>kos</i> [obsolete]
gee!	<i>yeh</i> (éihoo)	'ii(héihoo) 'óuu(héihoo)
well, okay	<i>wohéi</i>	'íne(houu)
ouch!	'o'hó'	'o'xú'

DISCOURSE-LEVEL FEATURES

oops!	<i>wih</i>	
welcome! (unexpected visitor)	<i>woúúkohéi</i>	
you bet! darn right!	<i>hestóó</i>	
gee! (mild reproach)	<i>'ostéihoo</i>	[occasionally used by women]
wait!	<i>howóh(o)'oe</i>	<i>néé'ee</i>
how cute!		<i>noníi</i>
stay away! be careful! (used with children)		<i>bé'</i>
I told you so, didn't I? (used with children)		<i>ummbé'</i> [rare]
friend (vocative form— see section 3.6)	<i>hee be</i> <i>wohéi be</i> <i>béénii</i>	
oh oh! watch out! here it comes! (negative)	<i>'éiyó'</i>	<i>'óuwéi'</i>
yuck!; disgust or strong disapproval		<i>érr(rá)</i>
wow! (surprise, astonishment) it's too much!	<i>'óóhoohéi</i>	<i>wo'úucécécinó'</i>

There is also one lexical item that is gender specific in Arapaho but not in English: 'to urinate'. The AI verb stems used are /seikooohu/ (f) and /3i'isoo/ (m).

The forms *wohéi* and *'ine* are especially widespread. *Wohéi* for men is used to indicate the closing of an overall conversation, as a form of 'goodbye', and is also used before hanging up the telephone. It can also open a specific conversational topic and in particular can mean 'well, getting down to business now'. Likewise, it can close a conversation topic, with an indication of general agreement or consensus. It is also used as an equivalent to 'thank you' when receiving gifts or compliments. It very often simply means 'yes'.

Hee likewise means much more than 'yes'. It is often used as a general indicator of ongoing attention as someone is listening to someone talk, much like English 'yeah . . . yeah . . .' or 'umhmm . . . umhmm . . .'. Often it explicitly marks recognition of someone's presence or arrival in a conversation, as when a person walks up to an ongoing conversation and one of those present says *hee*, *co'ouú3ei'éihii* 'yes, High Eagle' or 'oh, hey there, High Eagle'. Both *hee* and *'oo* are used as a mild form of thanks and acknowledgement where in English one often says 'you're welcome'.

19.6.2 Non-gender-specific Emphatic Forms

Forms used by either gender include the ones listed below (the list could certainly be extended with additional research). These forms are all particles in that although some of the forms seem internally complex (note the occurrence of /wo'uu/ in several forms) or definitely derived from verbs or nouns, they are all invariable, frozen forms in current Arapaho.

<i>bééyoo</i>	'just right!, right on!'
<i>béí'</i>	'let's pretend that . . .'
<i>benéébe3</i>	'at least . . . [it happened once]'; 'one more time!'
<i>cééceeyotísín</i>	'what a waste of . . .!'
<i>cee'ínón</i>	response to something done for no apparent reason, which makes no sense, 'that's ridiculous!'
<i>(he)tebínouhuu</i>	'oh you poor thing!' (sympathetic); 'how pitiful!' (less sympathetic)
<i>heh-</i>	'it sure is . . .!' 'boy, it's . . .!' [a preverb]
<i>héinoosít</i>	'hopefully it will be so, hopefully I'm right' [used in prayers]
<i>híh'óó</i>	'okay!' 'all right!'
<i>hííwo'</i>	contrary to expectations (see sections 13.2.6, 15.4)
<i>hóeti</i>	'thank you!' [used in ritual and ceremonial contexts, as when formally, ritually, and publically thanking an elder or Sun Dance 'grandfather' for his or her aid]
<i>hohkónee</i>	'finally!'
<i>hohóú</i>	'thank you!'; also used to complete an activity with approbation, often as <i>wohéí hohóú</i>
<i>hó'(oo)</i>	general expression of displeasure
<i>húutóuuk</i>	'sure enough!'
<i>konóhxuu</i>	'nevertheless, despite all warnings to the contrary'
<i>kookón, kookuyón</i>	'for no reason; just any old way; just anything'
<i>kookóú'unéihii</i>	'please' [used in prayers]
<i>néi'ei3e(i)héhk</i>	'he thinks he's something' 'he's just full of it' 'that guy?!' 'who does he think he is?!'
<i>niitóóx</i>	'you're really lucky to have . . .' 'boy, you're fortunate to have . . .'
<i>(no)nóónokó'</i>	'what the heck, might as well . . .'
<i>notowúuú</i>	used to make s.o. aware of one's presence, to avoid awkward moments (as when approaching a tepee); similar to clearing one's throat
<i>no3=</i>	'I assure you' 'everybody knows that . . .'
<i>'oohéí'</i>	'gotcha!'; also used as a war cry, when striking an enemy
<i>sii=</i>	intensifier
<i>wonó'(oo)</i>	expresses regret; 'oops, I guess I shouldn't have done that!'; also used when someone won't stop doing something wrong or inappropriate
<i>woowotóx</i>	in vain, to no purpose, uselessly
<i>wo'éí'iyóó3ín</i>	'you bet!'
<i>wo'óókowó'oo</i>	'I've got to quit now, I've got to go back now [unfortunately]'
<i>wo'úucééh</i>	'why of all things!'; 'oh well'
<i>wo'úúnoononísín</i>	'why do you have to bring that up?!' 'do you need to mention that?!' 'you're just bragging about yourself!'
<i>wo'úu3óó3onoon</i>	response to something done at the wrong time or place, inappropriately; 'this is a heck of a time to . . .' 'couldn't this wait?!'

<i>wo'úunó3oon</i>	same as above
<i>wíhhó'</i>	'almost' [but not quite] (as when the bingo caller calls a number just one away from what you needed); 'got it!' [see B:2.1.50]; 'oops'
<i>wíuuú</i>	'gee whiz, watch out!' (as when someone almost says something wrong in mixed company); 'oops'
<i>yóhwot</i>	'no sirree!, no way!'

Examples from texts or conversation are:

- 35) *cééceeyotisin hoséino'*
 ceceeyotisin oseino'
 what a waste meat-S
 'What a waste of meat!' [heard in conversation]
- 36) *benéébe3 niinóno'éitin*
 beneebe3 niinono'eiti-n
 at least HABIT.speak Arapaho(AI)-2S
 'At least you can speak Arapaho.' [heard in conversation]
- 37) 'So, was I late?'
 'Almost.'
 'I couldn't get away from my snag [boyfriend].'
 'Next time you must slap him hard.'
- 'ii, neebéhciinihe'! bíxoo3ó'.*
 'ii neebeh-ciinih-e' bixoo3-o'
 gee no! 1S-POTENT-leave(TA)-3 IC.love(TA)-1S/3S
 'Oh my, he might quit me! I love him.'
- cee'inon! wónoo3éé3i' hoo3óó'o' honóh'oehih'o'.*
 cee'inon woo3ee-3i' oo3oo'o' onoh'e-hihi'-o'
 ridiculous IC.be many(AI)-3PL other young man-DIM-PL
 'That's ridiculous! There are lots of other boys!' [E:22.1-6]
- 38) *'oh woow ciini cooh'éntóu'. héhcii'oo'h'éntóu'*
 'oh woow ciini cooh-entou' eh-cii'oo'h-entou'
 but now NEG.DET no longer-be present(II) EMPH-no longer-be present(II)
 'But now it's not . . . it's not like that any more. It's sure not
- hi'in heenéisóó'. kookón hehnónsóó' hiiwóonhéhe'.*
 i'in eeneisoo-' kookon eh-nonisoo-' iiwoonhehe'
 that how things were(II)-0S for no reason EMPH-confusion(II)-0S today
 like that any more! Today it's just a big mess, every which way! [O:White Horse,
 76]

- 39) **hohkónee** hé'né'nó'oxúúhetít.
 ohkonee e'ne'i-no'oxuuh-eti-t
 finally then-arrive by work(TA)-REFL(AI)-3S
 'Finally, he managed to get himself up there [after much effort].' [O:Eagles, 15]
- 40) **ne'bih'yóó'**; **né'ce'wo'wúuhú3i'**.
 ne'i-bih'yoo' ne'i-ce'i-wo'owuuhu-3i'
 then-dark(II)-0S then-again-move camp farther along(AI)-3PL
 'Then it was dark; then they moved a little farther along.
 'oh **húutóuuk** [hé'ih]ʒebéetétowuu.
 'oh huutouuk e'ih-3ebeeteet-owuu
 but sure enough NPAST-reach location over there(TI)-3PL
 and sure enough they reached the [main] camp.' [O:Bad Dreamers, 50]
 (See also B:2.2.46, 3.2.93)
- 41) **"híiko," hee3éihók, "ciibéhné'eestoo!"**
 iiko ee3-eihok ciibeh-nee'eestoo
 no say(TA)-4/3S PROHIB-do thus(AI)
 '“No, don't do that!” they said to him.
konóhxuu, wohéi noh konóhxuu né'nóho'hóuuhut.
 konohxuu wohei noh konohxuu ne'i-noho'houuuh-t
 regardless well and irregardless then-climb up(AI)-3S
 Irregardless, well and irregardless he climbed up [there].' [O:Eagles, 14]
- 42) 'Do your parents talk Arapaho to you?'
 'Just my grandma.'
 'What about your dad?'
néi'ei3ehéhk, hiitównih'oo3óunit.
 nei'ei3eihéhk itowu-nih'oo3ouni-t
 he thinks so IC.busy-be white person(AI)-3S
 'That guy!? He's too busy being a white man.' [E:23.2-5]
- 43) **niitóox nonó'o3ibéi'ci3eibeen**
 niitoox no'ot-ibe'ici3eibee-n
 fortunate IC.much-possess money(AI)-2S
 'You've really got a lot of money!' 'How fortunate you are to have so much money!'
- 44) **nonóónokó' sósoni' hétwoníni níitehiwóóbe.**
 nonoonoko' sostoni' eti-woni-ini níitehiw-oobe
 might as well Shoshone IMPER.FUT-ALLAT-DET help(TA)-2PL/3
 'You might as well go help out the Shoshones. [They don't have anything and you might be able to help them].' [O:Woman Captive, 48]

Also common is the equivalent of the English ‘didn’t I tell you so?’ or ‘I told you so!’.

- 50) *keihcii3é3?*
 koo=e-ih-cii-ii3-e3e
 INTERR-2S-PAST-NEG-tell s.o. s.t.(TA)-1S
 ‘Didn’t I tell you so?!’

In reply to teasing or insults, a common expression is:

- 51) *howóó néihcii3é3en.*
 howoo neih-cii-ii3-e3en
 also 1.POTENT-NEG-tell s.o. s.t. (TA)-1S/2S
 ‘I could say the same thing to you.’

19.8 GREETINGS AND DEPARTURES

Greetings commonly involve use of the forms for ‘hello’ given in 19.6, with or without the name of the person addressed. Initial greeting questions are usually *tóotou-síini* ‘what’s going on?’ or *kooníini’íini* ‘are things good?’, with men sometimes using *nohowóh* ‘are things okay?’. Younger speakers (and especially semi-speakers and non-speakers) often use greetings that are translated from English, including *híi3eti’ noh-kúseic* ‘(it is a) good morning’ and *nii’óóke’* ‘(it is a) good new day/good morning’. Older speakers sometimes criticize these greetings as somewhat comical or silly.

The most common departure form is *héétce’nóóhobé3en* ‘I will see you again’ or *héétce’noohóbeen* ‘we will see you again’. Older speakers tend to vary these expressions depending on the actual numbers of individuals involved (e.g., *héétce’nóóhobe3énee* ‘I will see you(PL) again’), whereas younger speakers (as well as semi-speakers and non-speakers) tend to use only ‘we will see you again’ as a frozen form, much to the annoyance of some older speakers. Less formally, the expressions *wohéi* and *’ine* (‘okay’) are often used for departures, including when hanging up the phone.

19.9 SUBSTITUTIONARY/PAUSAL PARTICLES

The most common substitutionary or pausal particle in Arapaho is *nihíi*, roughly equivalent to English ‘well . . .’. Other forms used are *’eee*, *’éii*, *khoo*, and *’ooo*. The fixed form *koowót*, combining the interrogative proclitic *koo=* with the dubitative proclitic *wot=*, indicates hesitation due to uncertainty.

20

NUMBERS, COUNTING, TIMES, AND DATES

The grammar of numbers, times, and dates is quite complex in Arapaho because except in the case of simple counting, number roots occur in verbal forms. There are numerous derivational suffixes used with number roots to form verbs indicating quantity, ordinal numbers, clock time, and so forth. Although some are familiar primary derivational forms, others are unique to the number verbs.

20.1 COUNT NUMBERS

The simple count numbers are:

1 <i>céésey</i>	6 <i>nítootox</i>
2 <i>niis</i>	7 <i>nísootox</i>
3 <i>nééso</i>	8 <i>néésootox</i>
4 <i>yéin</i>	9 <i>3íó'tox</i> < /3í'otox/
5 <i>yóó3on</i>	10 <i>béteetox</i>

The numbers show clear traces of a quinary counting system, and this is reinforced by the fact that /niit/ is a common root for ‘one’ in the language (/niit-eiyookuu/ ‘to stand in line, to stand one-by-one’, *niito* ‘first’)

The teens series is formed by the addition of the II derivational final /iini/ to the number roots, thus forming verbs—but often *without* initial change. Formerly, the count form for ‘ten’ was added prior to this, and some people still do this today:

11	(<i>béteetox</i>) <i>ceeséini</i> ’
12	(<i>b</i>) <i>níisiini</i> ’
13	(<i>b</i>) <i>néésiini</i> ’
14	(<i>b</i>) <i>yéiniini</i> ’
15	(<i>b</i>) <i>yoo3óniini</i> ’
16	(<i>b</i>) <i>níitootóxuuni</i> ’
17	(<i>b</i>) <i>níisootóxuuni</i> ’
18	(<i>b</i>) <i>néésootóxuuni</i> ’
19	(<i>b</i>) <i>3io’tóxuuni</i> ’

The succeeding decades are formed by adding the II derivational final /yoo/ to the count number roots. Once again, verbs are thus formed—but again *without* initial change for most speakers. The intervening numbers are formed in the same way as the teens:

20	<i>niisóó</i> ’
21	<i>niisóó’ ceeséini</i> ’
22	<i>niisóó’ níisiini</i> ’
30	<i>neesóó</i> ’
40	<i>yéiyóó</i> ’
50	<i>yóó3oyoo</i> ’
60	<i>níitootósoo</i> ’
70	<i>níisootósoo</i> ’
80	<i>néésootósoo</i> ’
90	<i>3i’otósoo</i> ’
100	<i>béteetósoo</i> ’
101	<i>béteetósoo’ noh ceeséy</i>

These forms are also used to name the various bill denominations. In counting out money at the casino (by twenties), one says *niisóó*’, *yéiyóó*’, *níitootósoo*’, *néésootósoo*’, and so forth. In talking about ‘two twenties’ (i.e., two twenty-dollar bills), one says *niis niisóó’u*. ‘Two fifties’ is *niis yóó3oyóó’u*.

20.2 BASIC AI/II NUMBER VERBS

In response to the question ‘how many of them are there?’, one answers ‘there are X of them’, using the appropriate AI or II verb depending on the object in question. The verbs are formed using the II stative/descriptive derivational final /ee/ with the

exception of 'one', where /eti/ is used, and the AI stative/descriptive derivational finals /eih/ (for 'one') and /i/ for the higher numbers. With the teens and higher series, initial change is often not employed.

- | | | |
|----|--|---|
| 1) | <i>neniíséih(i)t</i>
<i>neniíséti'</i> | 'there is one' AI
'there is one' II |
| 2) | <i>néniisi3i' wóxxu</i>
<i>neniiséti' hó3ii</i> | 'there are two bears' AI
'there are two arrows' II |
| 3) | <i>neneh'i3i'</i>
<i>neneeséi'i</i> | 'there are three' (AI) (note the special root used for
'three' in AI only)
'there are three' (II) |
| 4) | <i>yenéini3i'</i>
<i>yenéinéi'i</i> | 'there are four' (AI)
'there are four' (II) |
| 5) | <i>yonóó3oni3i'</i>
<i>yonóó3onéti'</i> | 'there are five' (AI)
'there are five' (II) |
| 7) | <i>neniítootoxú3i'</i>
<i>neniítootoxéti'</i> | 'there are six' (AI)
'there are six' (II) |
| 8) | <i>(béteetox) (ne)níisiini3i' wóxxu</i>
<i>(béteetox) (ne)níisiinóu'u hó3ii</i> | 'there are twelve bears' (AI)
'there are twelve arrows' (II) |

For numbers of twenty and beyond, when used as verbs, the derivational suffix /ou' use/ (II) /ou'usi/ (AI) is added to the roots twenty through fifty, with the related /ou'uhu/ added for sixty through ninety. For the numbers between the decades, the decade roots revert to their count number form, with the singles being declined like the teens.

- | | | |
|-----|--|--|
| 9) | <i>neniísóu'usi3i'</i>
<i>neniísóu'uséti'</i> | 'there are twenty' (AI)
'there are twenty' (II) |
| 10) | <i>niisóó' níisiini3i'</i>
<i>niisóó' níisiinóu'u</i> | 'there are twenty-two' (AI)
'there are twenty-two' (II) |
| 11) | <i>nenésootósou'uhú3i'</i>
<i>nenésootósou'uhú'u</i> | 'there are eighty' (AI)
'there are eighty' (II) |
| 12) | <i>néésootósoo' yóó3oni3i'</i> | 'there are eighty-five' (AI) |

Alonzo Moss notes that an alternate form for the sixty through ninety series is *nenésootósooxú3i'* and so forth.

Numbers with Classifiers

For many common topics or objects associated with classifiers (see 6.6), the topic medial or concrete final is used with a number root that forms a verb initial, to create

a single verb stem. These constructions are exactly parallel to those in section 6.6, with the number here functioning as the descriptive element:

- 13) *nenésótoyóú'u.*
 nees-yotoyoo-'i
 IC.three-mountain(II)-0PL
 'there are three mountains.' (name of Estes Cone and Wind River Cliffs area, Colorado)
- 14) *yéineinóceihi3i'.*
 yein-ooceihi-3i'
 IC.four-rope like(AI)-3PL
 'There are four long, rope-like objects.' [snake, rope, etc.]
- 15) *yéineinóoti'i.*
 yein-ooti-'i
 four-sheet like(II)-0PL
 'There are four flat, sheet-like objects.' [blankets, canvas, sheets, etc.]

This construction is rarely used today by most people, who instead use a simple number verb (see preceding section) combined with an independent nominal element.

Cleft Construction for Avoiding Higher Numbers

In actual speech, the higher verb forms (beyond ten) are often avoided through the use of a cleft construction in conjunction with the simple count numbers:

- 16) *niisóó', néé'eetoxú3i'.*
 niisoo' nee' = eetox-i-3i'
 twenty that-how many-AI-3PL
 'Twenty, that's how many there are.'

20.3 ORDINAL NUMBERS

Ordinal numbers are formed using the derivational final /i'owoo/. As with the counting numbers, paired II and AI verb stems exist. Unlike the count number verbs, ordinal verbs for numbers higher than one can be either singular or plural:

- 17) *yéinein-i'owóó-'* 'it is the fourth one' (II)
yéinein-i'owoo-t 's/he is the fourth one' (AI)
yéinein-i'owóó-3i' 'they (as a group) are the fourth ones' (AI)
- 18) *nenéésootox-ú'owóó-'* 'it is the eighth one'
nenéésootox-ú'owoo-t 's/he is the eighth one'

The form for ‘first’ uses an extended form of the root /niit/, meaning ‘one’, with a different set of derivational finals:

- | | | |
|-----|-------------------------|---------------------|
| 19) | <i>neniítów-o’oo-t</i> | ‘s/he is the first’ |
| | <i>neniítow-óotéé-’</i> | ‘it is the first’ |

Arapaho speakers tend to use ordinals in a number of instances where English speakers would not. For example, instead of saying ‘after four days’, Arapaho speakers say ‘on the fourth day’.

Ordinal numbers do not seem to occur with topic or classifier medials.

20.4 GROUP-COUNT FORMS

The derivational final /nenii/ is used to indicate ‘a group of X members’. These forms characterize the size of the group considered as a group, rather than counting the individuals within the group. Forms include:

- | | | |
|-----|---|--|
| 20) | <i>neniísnenií3i’.</i> | |
| | <i>niis-i-nenii-3i’</i> | |
| | two-EP-be group(Al)-3PL | |
| | ‘They are a group of two.’ (e.g., a married couple) | |
| 21) | <i>nenéésnéniinóó’.</i> | |
| | <i>nees-i-neniinoo-’</i> | |
| | three-EP-be group(II)-0 | |
| | ‘They are a group of three.’ (used to describe the Christian Trinity) | |

A similar II form uses the derivational final /ooneenoo/, from the medial /oonee/, meaning ‘body’, with II final /:noo/.

- | | | |
|-----|--|--|
| 22) | <i>neniisóóneenóú’u.</i> | |
| | <i>niis-ooneenoo-’i</i> | |
| | two-be group(II)-0PL | |
| | ‘There is a group of two there.’ (i.e., two towns at a location) | |

20.5 SPECIAL DERIVATIONAL NOMINAL SUFFIX FOR ‘NUMBER OF DAYS’

A special count-noun-forming suffix in Arapaho, /iis/, is used to indicate numbers of days/lengths of time:

- | | | |
|-----|-----------------------|---------------------|
| 23) | <i>néés-iis</i> | ‘three days [time]’ |
| 24) | <i>yéin-iis</i> | ‘four days [time]’ |
| 25) | <i>niisootox-úuus</i> | ‘seven days [time]’ |

20.6 SPECIAL NUMBER PREVERB FOR NUMBERS USED AS SUBSTANTIVES

When numbers or number verbs are used substantively (as opposed to simply in responding to the question ‘how many are there?’ ‘there are five’), a special preverb /eh/ is used. The numbers take affirmative inflections, even in traditional narratives (see section 11.16).

- 26) *wohéi nii'óóbetí3i' héhyóó3oní3i'.*
 wohei ni'oo-w-eti-3i' eh-yoo3oni-3i'
 well agree-RECIP(AI)-3PL #-be five(AI)-3PL
 ‘Well, the five of them agreed.’ [O:Scouts, 13]

20.7 NUMBER PARTICLES

Concepts such as ‘one-by-one’, ‘two-by-two’, and ‘one-after-another, each in turn’, are expressed only by particles in Arapaho. Note that most of the forms seem reduplicated.

<i>beebíiti'</i>	‘one after the other’
<i>bíiti'</i>	‘one by one, by turns’
<i>nóonóxoo</i>	‘one by one, each in its turn’
<i>heenéiite'</i>	‘two by two’

20.8 THE SEMANTICS OF COUNTING IN ARAPAHO

The roots used to talk about numbers and amounts in Arapaho make a fundamental distinction between inherently ordered amounts, sequences, and progressions and inherently unordered amounts. Examples of the latter include animals, people, trees, and rocks. Examples of the former include clock time, days on the calendar, temperatures, and grades in school (as well as spatial progression over a trajectory). In the case of unordered quantities, the morpheme /tox/ is used:

- | | |
|--------------|-------------------------|
| tohuu-tox-i | ‘how many . . . ?’ |
| nee'ee-tox-i | ‘that's how many . . .’ |
- 27) *tohúútoxúno' hinénno'?*
 tohuutoxu-no' inenin-o'
 how many(AI)-3PL man-PL
 ‘How many men are there?’ (non-affirmative order)
- 28) *néé'eetoxú3i' hinénno'.*
 nee'=eetoxu-3i' inenin-o'
 that=how many(AI)-3PL man-PL
 ‘That's how many men there are.’

In the case of ordered quantities, the morpheme /ei' / or /ou' / is used, often combined with the morpheme /se/ (medial /xon/), indicating recent transformation:

- 29) *nóoko3óó'.*
 nokoo3oo-'
 IC.be very cold(II)-0S
 'It is very cold.'
- 30) *tou3éi'okoo3óó?*
 tou3-ei'-okoo3oo
 how-degree/extent-be very cold(II)
 'How cold is it?' (non-affirmative order)
- 31) *tou3óu'ús?*
 tou3-ou'-i-se
 how-number-EP-go/transition(II)
 'What is today's date?' (non-affirmative)
- 32) *néésotox, néé'eetoxóú'(o)xonéénoo.*
 neesotox nee'=eetox-ou'-i-xon-ee-noo
 eight that=how much-degree/extent-EP-go/transition-AI-1S
 'Eighth, that's the grade I'm in.'
- 33) *nee'éi'ise' núhu' hoo3ítóo.*
 nee'=ei'-i-se-'
 that=extent/degree-EP-go/transition(II)-0S nuhu' oo3itooon-i
 this story-S
 'That's how far the story goes.' ('That's how it ends.')

There are some exceptions to this generalization. For example, in talking about one's age, /tox/ is used: *hei-tohúú-tox-cécnibee?* 'how old are you/how many years do you have?'. Conversely, Paul Moss in his stories occasionally uses forms such as /ee3ei'/ 'the number/amount (of animals they had captured)' for unclear reasons (see Cowell and Moss 2005b:Forks, 34, 37).

20.9 TIMES AND DATES

A large number of different constructions, requiring different verbal orders and modes, are involved in the expression of time and dates. Rather than presenting each construction within the discussion of the order and mode in question, we have gathered all the information here under the general theme of numbers, times, and dates.

20.9.1 'Last . . .'

The meaning 'last (week, month, etc.)' is expressed by the plain conjunct preverb /tih/:

- 34) *tihcowo'óó', nih'osóó'.*
 tih-cowo'oo-' nih-ooóó-'
 when.past.IMPERF-week(II)-0S PAST-rain(II)-0S
 'It rained last week.'

20.9.2 'Next . . .'

The meaning 'next (week, month, etc.)' is expressed by the root /oo3/, requiring use of conjunct subjunctive inflections:

- 35) *hoo3cowo'óóhk, heebéh'osóó.*
 oo3i-cowo'oo-'ohk eebeh-ooóó
 next-week(II)-0S.SUBJ POTENT-rain(II)
 'It might rain next week.'

20.9.3 'This . . .'

The meaning 'this [coming] (week, month, etc.)' is expressed by the conjunct subjunctive:

- 36) *héétnoohobé3en niisnóóke'éhk.*
 eti-noohow-e3en niisinooke-'ehk
 IC.FUT-see(TA)-1S/2S Tuesday(II)-0S.SUBJ
 'I will see you [this coming] Tuesday.'

20.9.4 'During . . . /in . . . /on . . .'

When a general descriptive statement is made about characteristic events of a time, the conjunct iterative is used:

- 37) *cééciniini'i, niibeeci'.*
 ceciniini-'i nii-beeci-'
 IC.be winter(II)-0.ITER HABIT-snow(II)-0S
 'It snows in the wintertime.'

20.9.5 Current Clock Time

A modern way of saying 'it is three o'clock' is with a periphrastic construction, which avoids derivational suffixes used with numbers:

- 38) *nééso noo'xóó'.*
 neeso no'-i-xoo-'
 three arrive-EP-time(II)-0S
 'It is three o'clock.'

An older style involves the use of the AI transitional/resultative derivational suffix /si/:

- 39) *nenéésóú'usi'*.
 nees-ou'-i-si'
 three-extent / degree-EP-go / transition(AI)-3S
 'It is three o'clock.'

Interestingly, this suffix is not used throughout the sequence; for 'four' and 'five' the simple number-verb suffix /i/ is used:

- 40) *yooóó3oni'*.
 yoo3on-i'
 five-II-0S
 'It is five o'clock.'

Beyond 'five', the construction in example 38 seems invariably to be used. No intervening times (halves, quarters) seem to be used currently—speakers simply switch into English when such expressions are called for.

20.9.6 'At . . .' a Specific Clock Time

Expressions equivalent to English 'at', indicating an exact time, likewise use the plain conjunct preverb /tih/ for the past and the conjunct subjunctive for the future, with conjunct iterative for general statements:

- 41) *néésootox tihno'xóó', nihnoóhowó'*.
 neesootox tih-no'uxoo-' nih-noohow-o'
 eight when.IMPERF.PAST-time arrive(II)-0S PAST-see(TA)-1S/3S
 'I saw him at eight o'clock.'
- 42) *néésootox no'xóóhk, héétnoohowó'*.
 neesootox no'uxoo-'ohk eti-noohow-o'
 eight time arrive(II)-0.SUBJ IC.FUT-see(TA)-1S/3S
 'I will see him at eight o'clock.'
- 43) *néésootox noo'xóú'u, níisibínoo*.
 neesootox no'uxoo-'i niisibi-noo
 eight IC.time arrive(II)-0.ITER IMPERF.go to bed(AI)-1S
 'I [habitually] go to bed at eight o'clock.'

20.9.7 Current General Time

Expressions such as 'it is daytime', 'it is nighttime', and so forth are all expressed using verbs derived from the respective nouns for 'day', 'night', and so forth, using the II derivational suffix /iini/:

- 44) *híisi'* 'day' > *heníisiini'* 'it is daytime'
 45) *téce'* 'night' > *téce'íini'* 'it is nighttime'
 46) *koh'úúsi'* 'midday' > *kooh'úúsiini'* 'it is noon'

20.9.8 'During . . .' / 'while it was . . .' / 'for . . .' a Time

Durations of time within which an event occurs are normally expressed with adverbials:

- 47) *nihnókohut téce'iiniíhi'*.
 nih-nokohu-t tece'iin-iíhi'
 PAST-sleep(AI)-3S night-ADV
 'He slept during the night / while it was night.'

There is also a special preverb *nookon-*, meaning 'all night, until dawn':

- 48) *nihnóokonbetéee3i'*.
 nih-nookoni-betee-3i'
 PAST-until dawn-dance (AI)-3PL
 'They danced all night.'

20.9.9 'For X length of time . . .'

For specific lengths of time, the instrumental preverb is used:

- 49) *niiscéniwo heni'tókuhút*.
 niisi-ceciniw-o i'i-toukuhu-t
 two-year-PL IC.INSTR-imprisoned(AI)-3S
 'He is in jail for two years.'

There is also a special nominal suffix /iis/, meaning 'days':

- 50) *néestiis* 'three days'
 51) *yéiniis* 'four days'

When time nouns are used as units of time in counting, the number is expressed as a preverb added to the time word:

- 52) *nihnóohowó' niiscówo'oo' niisnóoke'*.
 nih-noohow-o' niisi-cowo'oo' niisinooke'
 PAST-see(TA)-1S/3S two-week Tuesday
 'I saw him two Tuesdays ago / two weeks ago Tuesday.'

20.9.10 'Up to the present . . .', 'henceforth . . .'

The abstract deictic directionals /cih/ and /eh/ (9.12) are commonly used to express the ideas of 'from the past to the present, up to now' and 'from now on', respectively.

They are also sometimes used to express the ideas of recent past (/cih/) and near future (/eh/):

- 53) *hít cihwooníhi' hiinóóxuwít.*
 iit cih-woon-iihi' inooxuwu-t
 here to here-new-ADV IC.to have a law(AI)-3S
 'Recently, here [the U.S. government] passed a law [against the Sun Dance].' [O: Buffalo Wheel, 32]
- 54) *noh nih'óo3óú'u cihwonóonówoo'óó3i'.*
 noh nih'oo3ou'u cih-woni-oonowoo'oo-3i''
 and white people.PL to here-ALLAT-REDUP:pray(AI)-3PL
 'And the white people have recently started coming there to worship.' [O: Buffalo Wheel, 56]

20.9.11 'Around, about . . .'

The concept of 'around' or 'about' a certain time is expressed using the particular time nominal in question with a nominal locative suffix (3.7):

- 55) *3ootéce'* 'night' *3ootécé'i'* 'around midnight'
 56) *koh'úúsi-* 'noon-S' *koh'úúsií'* 'around noon' [C:139, 147]

20.9.12 Time Progression Morpheme

As is clear from the above examples, the morpheme indicating progression of time in Arapaho is /xoo/:

- 57) *tóú'oxóó?*
 tou'u-xoo
 when-time(II)
 'What time is it?'
- 58) *noo'xóó' ní'bii3híitooni'.*
 no'-i-xoo-' nii'i-bii3ihiitoon-i'
 IC.arrive-EP-time(II)-0S when-eat(AI.PART)-IMPER(II)-0S
 'It's time to eat.'
- 59) *héécxooyéíht.*
 eecix-xooyeihi-t
 what/how-time(AI)-3S
 'How old he is, his age.'
- 60) *heenéicxóoyei'óó'.*
 eeneicix-xooyei'oo-'
 what/how.REDUP-time.INCHOAT(II)-0S
 'season' (lit. 'however far along [the year] is')

20.9.13 Simplified Constructions

In some cases, speakers avoid the complex polysynthetic constructions above in a manner similar to the modern way of saying ‘eight o’clock’, particularly with months. The concepts of ‘next’, ‘last’, and ‘this’ are implied by the verb tense of the main clause:

- 61a) *bíiceniisítis, héétnoohowó’*. ‘[Next] June, I will see him.’
 61b) *bíiceniisítis, neesíte’*. ‘[During] June, it is hot.’
 61c) *bíiceniisítis, nihnóóhowó’*. ‘[Last] June, I saw him.’

20.9.14 Celestial Time

When reference is made to time according to the position or appearance of the moon, sun, or stars, the verb /ou3i/ (AI), meaning ‘to hang’, is used:

- 62) *bebene nihóónkoo’ nii’óu3i’*.
 bebene nihoon-i-koo-’ nii’-ou3i-’
 around IC.yellow-EP-foliage(II)-0S when-hang(AI)-3S
 ‘It was around September.’ (lit. ‘The September moon was hanging.’) [R:The Good Garden]

This is the older way of asking what the day or date is as well. The referent of ‘hang’ is either the sun, moon, or stars, all of which are animate, so the verbs are always animate:

- 63) *tou’óu3?* ‘What is the date?’

21

VARIATION IN ARAPAHO

21.1 NORTHERN VS. SOUTHERN ARAPAHO

Extensive study of variation between Northern and Southern Arapaho has never been done, and given the state of Southern Arapaho today, it is largely too late to carry out such an investigation except by using existing published and recorded sources. Salzmann (1956a, 1963) remarks on a few differences, including phonological (Northern [s] is equivalent to Southern [ʃ]), prosodic (northerners are said to speak with a faster tempo), and lexical (he lists variant neologisms). In preparing this grammar, the two authors examined a number of Southern Arapaho texts in manuscript, and no notable differences were found in morphology, and of course Alonzo Moss Sr. has had the opportunity to hear Southern Arapaho on numerous occasions in his younger years. There were a few lexical items that Moss did not recognize in the manuscripts, but it is unclear whether these were specific to the southern dialect or whether they were simply items that have become obsolescent

since the texts were recorded in the early 1900s. It would of course be surprising if there were not a few lexical differences, even within traditional vocabulary. It should also be noted that the Southern Arapaho apparently once spoke the Arapahoan language *Nawathinehena* (*nowoo3iineheeno*) and switched to Arapaho proper during the nineteenth century (Goddard 2001:76), but no clear linguistic evidence of this language exists today.

21.2 NORTHERN ARAPAHO INTERNAL VARIATION

It is likely that there were coherent dialectal differences within Northern Arapaho at an earlier time. The different bands under chiefs Friday, Sharp Nose, Black Coal, and others lived separately much of the time in the nineteenth century and settled on different areas of the Wind River Reservation in 1878. Even today, older people identify with one or the other band, and political differences between the bands are still reflected in contemporary life in some cases. However, due to extensive intermarriage and its correlates (children raised by grandparents living away from the area of the parents, family relocations), as well as to the influence of reservation boarding schools, which brought together speakers from many different areas, many of these dialectal differences have been erased or reduced to family-by-family or even individual idiolectal variations. That said, no extensive survey has been done of differences in speech between the two main settlement areas on the reservation at Ethete and Arapahoe/St. Stephens, although such work would be interesting. Moreover, the *béesóowíunénno*' band and dialect was subsumed into the rest of the Arapaho community only during the twentieth century; therefore, some of the variation present may still be a result of that influence.

A list of the variant features that the authors have noticed, with no attempt at systematic analysis, include the following.

Morphology

Many II verb stems show the variant forms of /oo/, either /ooti/ or /ooni/:

- | | | |
|----|--|---------------------------------|
| 1) | <i>honoosóó'</i>
<i>honoosóóti'</i> | 'it is raining' |
| 2) | <i>níhoonkóó'</i>
<i>níhoonkóóti'</i> | 'the leaves are turning yellow' |
| 3) | <i>he'íi3óú'u</i>
<i>he'íi3ooni'i</i> | 'something' (ITER) |

Formerly, the future tense /eti/ had a variant form /oti/. This form is found in the stories of John Goggles, recorded by Salzmänn around 1950, but is used by very few today.

The first-person exclusive suffix varies between /'/ and /ni'/.

- 4) *tenéi'eihí* 'we(EXCL) are strong'
tenéi'eihíni

(See also the variation noted in 1PL TI forms—section 3.2.3.)

Action nominalizations, as well as the 1S/3S marker in dependent participles, vary between the forms /*(o)oot/* and /*ooo/*:

- 5) *niisi3óóó* 'work, a job'
niisi3óoot

(There is more general variation in the inflection for plural objects and persons in dependent participles—see Cowell and Moss 2002a).

'If . . .' constructions are commonly expressed using the potential morpheme /*eebeh/* by some speakers and the conjunct subjunctive order by others:

- | | |
|--------------------------------|-----------------------------|
| 6) <i>no'úseenooohók . . .</i> | <i>neebéhno'úsee . . .</i> |
| <i>no'úsee-noohok</i> | <i>n-eebeh-no'úsee</i> |
| <i>arrive(AL)-1S.SUBJ</i> | <i>1S-POTENT-arrive(AL)</i> |
| <i>'If I arrive . . .'</i> | <i>'If I arrive . . .'</i> |

The prohibitive marker is /*ceebeh/* for some speakers, /*ciibeh/* for others.

Phonology

There is widespread variation between *hiit* and *huut* 'here' and *híí3e'* and *húú3e'* 'over there'. All speakers occasionally use the /*u/* forms under the influence of external sandhi, but some use these forms in all circumstances.

Some speakers fairly consistently pronounce /*ei/* as /*ii/*. In rapid speech, virtually all speakers do this occasionally, but some speakers do it consistently even in slow speech, producing contrasts such as:

- 7) *beh'éíhehí* 'old man'
beh'ííhehí

Some speakers pervasively pronounce /*ee/* following /*o/* as /*oe/*, under the influence of vowel harmony, whereas others do this only occasionally:

- 8) *noohóótenóóhee.* 'Let/have them see it!' (TI indirect imperative)
noohóótenóóhoe.

The sequence /*iiheh/* has been reduced to /*ii/* in the singular by some speakers, to /*ie/* by others.

- 9) *niicie* 'river'
niicíi (cf. *niicíheh-o* 'rivers' > *niicíihoho*)
- 10) *neisie* 'my grandchild'
neisíi (cf. *neisíheh-o* 'my grandchildren' > *neisíihoho*)

Speaker treatment of triple vowel sequences (/ooo/, etc.) varies considerably (see chapter 1).

Retention of unstressed short vowels, especially after an accented syllable, varies considerably:

- 11) *néé'eesinihiinoo* 'that's what I'm saying'
néé'eesinhiinoo

The detachment suffix /ini/ in conjunction with the preceding final /i/ of the prenoun or preverb is often pronounced -i'in(i):

- 12) *hoowúúni* 'there is none'
hoowú'un(i)

Some speakers insert a secondary glottal stop in the environment VVC, leading to the pronunciation VV'C.

Lexicon

There are many lexical items—primarily neologisms—that vary widely. Examples include:

- | | | | |
|-----|----------|-----------------------|---------------------------|
| 13) | 'banana' | <i>níihooyóó'</i> | 'it is yellow' |
| | | <i>híiniínsiinóó'</i> | 'it is horn-shaped' |
| | | <i>nóóhousóó'</i> | 'it is curved' |
| 14) | 'sled' | <i>síiwohoe</i> | 'sliding thing' |
| | | <i>híixóósotíi</i> | 'slippery wheel/wagon' |
| 15) | 'table' | <i>bíi3hítóóó</i> | 'eating bed/platform' |
| | | <i>teexóú3oo</i> | 'things are placed on it' |

21.3 INCIPIENT OBSOLESCENCE AS A SOURCE OF VARIATION

Since all Arapaho fluent speakers are at least in their late fifties, and the language is thus approaching a moribund stage, it is sometimes difficult to separate simple speaker variation from usages that reflect lack of full fluency. Some speakers as young as sixty use the language daily in the home with spouses and have used it throughout their lives, whereas others in their seventies and even eighties use the language fairly irregularly and have spoken primarily English for several decades. Most lie between these two points on the continuum. Some of the features below are not grammatically incorrect and simply reflect English influence, borrowing, loan translations, and so forth, but they are symptomatic of the growing influence of English and incipient loss of Arapaho. Other features (marked with an asterisk) are rejected as incorrect or improper by fully fluent speakers but nevertheless may be used by them in conversation. Some of these features are of course more widespread than others, and the list below could certainly be enlarged.

Morphology

Inconsistent use of initial change, including regularly dropping it entirely:*

- 16) *néetéhinoo* 'I am tired'
(vs. standard *nenéetéhinoo*)

Use of the imperfective marker /*nii*/ to indicate ongoing aspect:*

- 17) *ní-niisi3einoo* 'I am working'
(rather than the more standard meaning of 'I work [habitually].')

Redundant use of the imperfective marker /*nii*/ with the conjunct iterative:*

- 18) *nii-béenenóóni* . . . 'when I drink . . .'
(vs. standard *béenenóóni*)

Loss of the inclusive/exclusive distinction with first person plural or inconsistent use of this distinction.*

Failure to mark obviative agreement on nouns and verbs.*

Replacement of dependent participles by affirmative order TI/TA verbs forms:*

- 19) *néene'eehék hínee hinén nih'eenéti3ó'*.
neene'ee-hek inee inen[in] nih-eeneti3-o'
 here is-SING that man PAST-speak to s.o.(TA)-1S/3S
 'There's the man I was talking to.'
 (vs. standard *neih'eenéti3óóó*)
ne-ih-eeneti3-ooo[n]
 1S-PAST-speak to s.o.(TA)-3S.DEPPART

Remodeling, especially in derivational processes (in some cases, may just be speaker variation):

- 20) *niinóno'eyéítinoo* 'I speak Arapaho'
(vs. standard *niinóno'étinoo*; based on analogy with *niih'óó3ouyéítinoo* 'I speak English')

Loss of ongoing/imperfective distinctions in the non-affirmative order:

- 21) *kooheiniisi3ei?*
koo=e-ii-niisi3ei
 INTERR=2S-IMPERF-work(AI)
 'Do you work/have a job?'

The above is used by some to mean both 'are you working (habitually)?' and 'are you working (right now)?' (vs. standard *kooheiniisi3ei* for the latter)

Use of cleft constructions to avoid more complex derivational forms, as with numbers.

Replacement of *e-* by *ne-* in TA non-affirmative verbs, in 1S/2:

- 22) *neihoownóóhobé3*.
ne-ihoo-wu-noohow-e3e
 1-NEG-see(TA)-1S/2S
 'I don't see you.'
 (vs. standard *heihoownóóhobé3*)

Lexicon

Use of incorrectly gendered pragmatic forms (*tous* by men to men, *héébe* by women).*

Replacement of common Arapaho morphemes, especially nominal, by their English equivalents, often embedded within Arapaho morphology:*

- 23) *nih'iinoo'éi3oot hínee rabbit-who*. 'He went hunting rabbits.'
 (vs. standard *nóókuho*)

Replacement of standard Arapaho expressions by loan translations:

- 24) *niitehéibeti*. 'Help yourself!' (literal translation from English)
 (vs. standard *necicée* 'go on ahead [and do it]')

It should be noted that this is done jokingly as well by fluent speakers, although these jokes may be a source of subsequent unknowing usage by less fluent speakers. An example is:

- 25) *noo'óeekohyéibi!*
noo'oe-kohuy-eibi
 around-sticky-attached(AI)
 'Stick around!'

Loss of richness in vocabulary

In trying to do ethnobotanical work, Cowell found that for many speakers, all yellow flowers are simply *níihooné'éinóó* 'it has a yellow [flower] head', for example, with specific names for individual species or genera having been lost. This is of course a common cross-linguistic feature in language shift.

A decrease in the polysynthetic character of the language and general complexity of word and phrase structure

Comparisons between texts produced by younger speakers today and those produced by the previous generation, not to mention some recorded in the early twentieth century, show a general decline in the complexity of word structures among many younger speakers. The texts used as the basis of this grammar come either from early and mid-twentieth-century materials; from Paul Moss, who was born in

1911 and raised in a monolingual Arapaho setting; from Alonzo Moss, his son, who has exceptional fluency for someone in his sixties; or from material produced by a number of native speakers born in the 1920s and 1930s (especially Richard Moss, William C'Hair, and Mary Kate Underwood) who were all raised by monolingual grandparents. Some of the more complex examples in the grammar are not necessarily representative of the speech of the average contemporary speaker in his or her sixties.

The above obsolescence phenomena are ones that one can encounter among more-or-less regular users of the language, especially younger speakers. These are people who learned the language as a first language. Needless to say, there are many more features of the type illustrated above that occur in the speech of semi-speakers who learned Arapaho as children but never achieved full fluency.

22

BEYOND GRAMMAR

Fundamental to correct use of the Arapaho language, and to participation in the Arapaho speech community, are the many social rules governing language use, as well as the paralinguistic, kinesic, and proxemic components of communication in the language. These are not part of the “grammar” of the language narrowly conceived, and there is not space to cover them here. But it should be pointed out, for example, that Arapaho speakers use a number of characteristic gestures shared by all in the speech community. Many of these are likely shared more generally throughout the Plains Indian community, whereas others may be Arapaho specific. Certainly some are derived from Plains Indian Sign Language. Although there are less than a handful of fluent users of this language among the Northern Arapaho today (including one man who learned it because he was raised by a deaf grandfather), many speakers know at least a few signs. A highly salient gesture often commented on by Arapahos themselves is the use of pursed lips, in conjunction with a gesture of the head in the appropriate direction, for pointing; use of fingers for pointing is largely avoided.

Because joking and avoidance relationships still play a part in Arapaho life, there are quite intricate rules about trying to use certain words and expressions or avoiding their use, depending on the social setting in question. These rules involve both the use or avoidance of certain particular lexical items and the more general need—in avoidance and respect relationships—to avoid expressions that, however innocent they may be in their literal meaning, might risk sounding like or evoking off limits subjects. One example of a lexical item is *tíí3i3*, which literally means ‘kidney’. Kidney was in the past often eaten raw, and the word is used metaphorically to describe ‘raw’ young boys or men who tend to be somewhat ‘crazy’ or ‘wild’ in their behavior or speech. Uncles speaking to nephews will greet the nephew teasingly with ‘*hee, tíí3i3*’. Conversely, whereas speakers in mixed company will readily talk about eating various specific kinds of meat, they avoid explicitly stating that they are eating kidney, instead using the vaguer expression *beesóónobéénoo* ‘I am eating raw meat.’ There are many such words, and one genre of Arapaho narratives is stories about people who accidentally used such words in the wrong circumstances.

An example of the more subtle need to avoid putting together morphemes that might accidentally converge in their surface pronunciation with something that sounds improper is the following. One says *híí3eti* ‘it is good, nice’. By normal rules, the negative is *hoowú3et*. But it so happens that the word for ‘his/her anus’ is *hí3et*, and the way to say ‘not his/her anus’ is *hoowú3et*. Thus, speakers commonly say ‘it is good’ but usually avoid saying ‘it is not good’ and use alternate verb forms such as *nii’óó’* > *hoowúni’óó*, meaning ‘it’s not okay.’ There are many such convergences, and the basic ones are known to all speakers. But in a highly polysynthetic language such as Arapaho, it is fairly easy to stumble into unfortunate convergences, and speakers themselves take great care (and pleasure) in always being on the lookout for such misstatements. In joking relationships, this aspect of the language is constantly exploited for the sake of jokes and teasing, but in respect relationships, speakers must constantly monitor their speech to avoid such results. Some of the most hilarious stories one hears around the reservation are about such misstatements: in some cases, the episodes date back over fifty years but are still told today, and such stories are another genre of Arapaho narrative. A related genre is the admiring recounting of someone’s clever picking up on a convergence or resemblance to make an especially amusing joke. Of course, this is all rendered much more complex due to the need to understand exactly how much teasing, respect, or avoidance is required for each different type of relationship, and also due to the need to understand exactly how far one can go or how careful one must be in different social settings. Furthermore, one needs to constantly keep track of who is present, as well as have broad background knowledge of how various people may be more or less related to you, since categories such as ‘sister’ or ‘grandfather’ are much broader than in English.

A related feature of the Arapaho speech community is the widespread exploitation of folk etymologies (based on surface resemblance of various lexical items) for political, religious, historiographic, didactic, and ideological purposes—a topic that deserves a long paper at the very least. Thus, the body (*be-téneyóóó* ‘one’s body’) is said to be holy because the (unrelated) root for holy is /beteen/. This is an art form

in itself, and creative use of such etymologies is widely admired, and competing etymologies are elements of broader community debate about key issues.

Like all languages, Arapaho has various slang expressions as well. A significant part of the slang is dependent on cross-linguistic joking: the word for a ‘crowbar’ in Arapaho translates literally as ‘Crow Indian–Bar/Saloon’ (*hóuu-benohéino’óowú*). Slang also interacts in many cases with joking and respect relationships in terms of when and how it can be used. Code switching is pervasive in contemporary Arapaho and another topic of great interest. Strategies of borrowing and creating neologisms are also quite interesting, with many of the neologisms having joking or slang components as well (‘rice’ is *hi’iisóono* ‘maggots’). Arapaho has many proverbial and idiomatic expressions that reveal interesting components of the culture. The equivalent of ‘he’s still wet behind the ears’ is ‘he hasn’t yet lost his navel cord’ (*hóono’ hoowukoxú3nee*); the navel cord is a key ceremonial and symbolic element in Arapaho culture. And as might be respected in an age-graded society with both gender- and age-based respect relationships, Arapaho has a rich set of features that are used for indirectness and deference. Clearly, an entire separate book needs to be written about the linguistic culture of the Arapaho speech community—a goal that we hope to pursue in the near future.

APPENDICES

1. SUMMARY OF BASIC ARAPAHO DERIVATIONAL RULES

This section provides a summary of derivational rules that appear at several different points in the book, in relation to different parts of speech, but that share common features and have a pervasive character in Arapaho grammar. It does not summarize individual specific derivational morphemes for the most part.

1) Derivation of noun or verb or adverbial initial from independent word and of preverb/verb reduplicated form (see pp. 101–102, 197–198, 209, 221, 333):

Noun Singular + /in/ > Initial

II/AI Verb Stem + /:n/ > Initial

Preverb/Verb of form (C)V1(V2): (C)V1 + /:n/ + (C)V1(V2) > Reduplicated
Preverb/Verb

Note: *derivational* /-n/ drops secondarily before a following consonant; in contrast, when final /-n/ is part of a root, it remains and /i/ epenthesis occurs; also /h#/ + /V/ > /hV/.

2) Derivation of noun or verb or adverbial medial, or noun or verb final element, from independent word (see pp. 100–101, 188): if initial consonant is /b/, /n/, or /w/, this consonant is dropped.

3) Derivation of prenoun or preverb from initial element (follows rule 1):

/h#/ > /h-/

/C#/ (other than /h/) > /Ci-/

Note: final /-i/ normally drops secondarily unless receiving pitch accent; final *derivational* /-n/ preceding final /-i/ often drops secondarily (variable); /h#/ + /V/ > /h'V/ (see pp. 101, 206–209). Examples of retention of /-i/ due to pitch accent are examples 18 and 17 in chapter 3; examples 4, 6 (with prenouns), and 10 in chapter 4; examples 9 and 72 in chapter 9; examples 2, 3, 5, 12, and 56–58 in chapter 11; examples 21 and 40 or 42(?) in chapter 12; example 45 in chapter 15; example 54 in chapter 16; and example 35 (with preverbs) in chapter 17.

4) Derivation of detached prenoun or preverb from prenoun or preverb (follows rules 1 and 3): Prenoun/Preverb + /ini/ > Detached Prenoun/Preverb (see pp. 231, 304); note: /h#/ + /V/ > /h'V/, as in rule 3.

5) Derivation of action/state nominalization and dependent participles:

AI Verb Stem (primary or secondary) + /:ton/ > Action/State Participle

Note: /ee/ and /ei/ stems > /oo/

TA Verb Stem with Direction-of-Action Theme + /:ton/ > Dependent Participle

AI Verb Stem + /:ton/ > Dependent Participle

Note: /ee/ and /ei/ stems remain /ee/ and /ei/

6) Initial change:

(C)V > (C)VV

(C)VV > (C)enVV

(C)Vh > (C)VVh ~ (C)enVh

Note: e~o vowel harmony with VV produces (C)onVV in the relevant cases.

Exceptions: /ii/ IMPERF > *nii-*, /ih/ PAST > *nih-*, /eh/ FROM SPEAKER > *neh-*, /i'/ INSTR > *heni'*.

7) Phonological derivation of surface noun singular forms from underlying stem:

First: final, unaccented /Vn/, /Vw/, and /Vh/ drop

Second: final /n/, /w/, and /h/ drop

Third: final C in /hC/ clusters drops

2. ARAPAHO AI VERBS WITH -'/-1 THIRD-PERSON INFLECTIONS

(Hyphen indicates dependent verb finals; [ne] indicates loss of this element of the stem with third person inflections.)

bene-	'to drink'
bii3i-	'to eat some specific item'
-boeti[ne]-	'to have X breath characteristic'
ciibe-	'to sweat ceremonially'
co'ouu3i[ne]-	'to be high up, to be high'
ciicii'ou3i[ne]-	'to hobble'
nece-	'to die'
niine-	'to nurse, suckle'
nowone-	'to be sleepy, drowsy'
-si[ne]-	'to lie'; transformative / resultative
-ei3e-	'to have X body characteristic' (size, etc.)
-eti[ne]-	'to have X mouth characteristic'
iiyoohoote-	'to be dead'
iiyoote-	'to be dead'
-isono-	'to have X neck characteristic'
-oobe-	'to sleep in X manner'
otoobe-	'to consume some specific item'
-otoooyoni[ne]	'to have X back characteristic or condition'
-o3i[ne]-	'action by frost or freezing'
ou3i[ne]-	'to hang'
óu3i[ne]-	'to float'
-oxko'o-	'to have X jaw or chin characteristic'

3. VARIABLE GENDER NOUNS IN ARAPAHO, WITH GENDER IN FREE VARIATION (I.E., NO SHIFT IN MEANING OF TERM)

ci'í3	'calf' (of leg)
honi'h'o	'raspberry'
tecénoo	'door'
wóce'ót	'one's stomach'
wonóx	'one's skin'

4. OBLIGATORILY POSSESSED NOUNS OTHER THAN BODY PARTS AND FAMILY RELATIONS

nebií'ó'oo	'my sweetheart'
néíc	'my arrow'
néíteh'éi	'my friend'

<i>néitei</i>	'my louse'
<i>néi'téi</i>	'my bedbug'
<i>netéi</i>	'my flea'
<i>néyehé'</i>	'my tepee; my home'
<i>nótoníhi'</i>	'my pet; my horse'

5. UNEXPECTED ANIMATE NOUNS (SEE SALZMANN 1983 OR CONATHAN 2006 FOR THE ARAPAHO TERMS)

Body parts: artery, blood clot, boil, calf, fingernail, hip, kidney, knee, pupil of eye, shin, skin, snot, stomach, testicle, toenail, vein, waist, wart

New terms based on extension or analogy: car, wagon (< ceremonial wheel); cross (< North Star); month (< moon); radio (< spirit); tire, wheel (< ceremonial wheel)

Old cultural items: backrest, ball, belt, center pole of Sun Dance lodge, doll, door, drum, feather, glove/mitten, pillow, pipe, plume, quill, red ceremonial paint, rock, rope, shoelace, spoon, tepee pole, top, toy

Plants: aspen?, bean, cactus, cantaloupe, carrot, currant, gooseberry, gourd, gum/sap, mint, onion, pea, peyote, pine, poplar, pumpkin, raspberry, rice, rose hip/tomato, squash, strawberry, tobacco, tree/cottonwood, turnip, vine, watermelon

Weather elements: hailstone, snow, snowball, thunder

Miscellaneous: ball bearing, marble, penny, photograph

6. NOUNS WITH PITCH ACCENT SHIFT/LOSS/ADDITION IN SINGULAR

Left shift of pitch accent in stem in singular:

anus: *bé3it* < *be3itno*, arm: *bénes* < *benéxo*, bandana: *níise'eici* < *níise'eicihino*, beak/nose: *bé'is* < *be'í3o*, bone: *hix* < *hixóno*, breast: *bé3en* < *be3éno*, chief: *néécee* < *neecééno'*, drum: *ho'éihí'* < *ho'eih'o'*, halter: *cecéhne'éici* < *cecéhne'éicihino*, heart: *bétee* < *betóóho*, hoop: *toonó'oó'* < *toonó'ou'(ú)*, horse: *wóxhoox* < *wóxhóóxebii*, leg: *wó'o03* < *wo'óoto*, pants: *wótoo* < *wotóóho*, wolf: *hóóxei* < *hooxéihino'*

Loss of pitch accent in final syllable of stem in singular:

cheek: *necé'i'oo* < *necé'i'óóno*, ear of corn: *béskootee* < *béskootééno*, neck: *bésonon* < *bésonóno*, plume: *bíixonoo* < *bíixonóóno'*, rug/mat: *só'o03oo* < *só'o03óóno*

Addition of pitch accent on stem in singular:

belt: *koyóotóó* < *koyóotooho'*, cat: *wo'óoo* < *wo'óúú*, duck: *síisiikó'* < *síisiikó(ú)'uu*, feather: *bííi* < *bííino'*, food: *bíi3ib* < *bíi3iwo*, glove: *3óoxé* < *3óóxohó'*, internal organ: *3eisé3óoo* < *3eisé3o0ono*, knife: *wóoxé* < *wóóxoho*, legend: *heetéetóó* < *heetéetoonó*, lung: *híikón* < *híikono*, napkin: *hehíixóó* < *hehíixoono*, porcupine: *hóó* < *houú*, wart: *ne3íi3iib* < *ne3íi3iwo'*

VERB TABLES

II VERB PARADIGMS			
	[-yoo- stem] NÍHOYÓÓ 'to be yellow'	[-oti- stem] TÓWOTÍ- 'to be broken'	[-se- stem] BE'ÍSE- 'to be rusty'
Affirmative			
S	<i>níhooyóó'</i>	<i>tóówotí'</i>	<i>bee'ise'</i>
PL	<i>níhooyóó'u</i>	<i>tóówotí'i</i>	<i>béé'isé'i</i>
Non-Affirmative, Negative			
S	<i>hoownihooyóó</i>	<i>hoowtówot</i>	<i>hoowbe'is</i>
PL	<i>hoownihooyóóno</i>	<i>hoowtówotino</i>	<i>hoowbe'iseno</i>
Non-Affirmative, Interrogative			
S	<i>koonihooyóó</i>	<i>kootówot</i>	<i>koobe'is</i>
PL	<i>koonihooyóóno</i>	<i>kootówotino</i>	<i>koobe'iseno</i>
Conjunct Order			
ITER	<i>níhooyóó'u</i>	<i>tóówotí'i</i>	<i>béé'isé'i</i>
SUBJ.S	<i>níhooyóohók</i>	<i>tówotí'èhk</i>	<i>be'ise'èhk</i>
SUBJ.PL	<i>níhooyóohóhkóni'</i>	<i>tówotí'èhkóni'</i>	<i>be'ise'èhkóni'</i>
Imperative			
DIR	N/A	N/A	N/A
INDIR.S	N/A	<i>tówotíhee</i>	N/A
INDIR.PL	N/A	<i>tówotínóóhee</i>	N/A

II VERB PARADIGMS (CONTD.)

	[-ee- stem] IISÉTEE- 'to be ripe'	[-yoo(ti)- stem] OOSÓÓ(TI)- 'to rain'	[-yoo- stem] X-OOSÓÓ- 'to be fancy'
Affirmative			
S	<i>heniisétee'</i>	<i>honoosóó'</i>	<i>hónoosóó'</i>
PL	<i>heniiseté't'i</i>	N/A	<i>hónoosóú'u</i>
Non-Affirmative, Negative			
S	<i>hoowíusétee</i>	<i>hoowoosóót</i>	<i>hóowoosóó</i>
PL	<i>hoowíuséteeno</i>	N/A	<i>hóowoosóono</i>
Non-Affirmative, Interrogative			
S	<i>koohiisétee</i>	<i>koohoosóót</i>	<i>koohoosóó</i>
PL	<i>koohiiséteeno</i>	N/A	<i>koohoosóono</i>
Conjunct Order			
ITER	<i>heniiseté't'i</i>	<i>honoosóoti'i</i>	<i>hónoosóú'u</i>
SUBJ.S	<i>hiiséteehék</i>	<i>hoosóótihek</i>	<i>hoosóohók</i>
SUBJ.PL	<i>hiiséteehékóni'</i>	<i>hoosóótihehkóni'</i>	<i>hoosóohókóni'</i>
Imperative			
DIR	N/A	N/A	N/A
INDIR.S	<i>hiisetééhee</i>	<i>hoosóótihee</i>	<i>hoosóóhee</i>
INDIR.PL	<i>hiiséteenóóhee</i>	N/A	<i>hoosóonóóhee</i>

**AI VERB PARADIGMS: BÉNE- 'TO DRINK'
[AI SHORT-FINAL-VOWEL STEM]**

	Affirmative	Non-Affirmative, Negative	
1S	<i>béénoo</i>	<i>néihoowbén</i>	or <i>néihoowubén</i>
2S	<i>bééne</i>	<i>héihoowbén</i>	or <i>héihoowubén</i>
3S	<i>bééne'</i>	<i>hoowbén</i>	etc.
4S	<i>bééne<i>n</i>i3</i>	<i>hoowbéne<i>n</i></i>	
1PL	<i>beené<i>n</i>i'</i>	<i>néihoowbené<i>be</i></i>	
12	<i>beenéno'</i>	<i>héihoowbéne<i>n</i></i>	
2PL	<i>beené<i>ne</i></i>	<i>héihoowbené<i>be</i></i>	
3PL	<i>beené<i>i'</i>i</i>	<i>hoowbéne<i>n</i>o'</i>	
4PL	<i>bééne<i>n</i>i3<i>i</i></i>	<i>hoowbéne<i>n</i>i<i>n</i>o</i>	
	Conjunct Iterative	Conjunct Subjunctive	
1S	<i>bééne<i>n</i>oó<i>n</i>i</i>	<i>béne<i>n</i>oohók</i>	
2S	<i>bééne<i>n</i>o<i>n</i>i</i>	<i>béne<i>n</i>é<i>hk</i></i>	
3S	<i>beené<i>i'</i>i</i>	<i>béne'éh<i>k</i></i>	
4S	<i>bééne<i>n</i>i3<i>i</i></i>	<i>béne'éh<i>k</i></i>	
1PL	<i>bééne<i>n</i>é<i>i'</i>i</i>	<i>benéno'ó<i>hk</i></i>	
12	<i>bééne<i>n</i>é<i>i'</i>i</i>	<i>benéno'ó<i>hk</i></i>	
2PL	<i>bééne<i>n</i>é<i>i'</i>i</i>	<i>bené<i>n</i>ehé<i>k</i></i>	
3PL	<i>beené<i>n</i>oó3<i>i</i></i>	<i>béne'ehkó<i>n</i>i'</i>	
4PL	<i>beené<i>n</i>oó3<i>i</i></i>	<i>béne'ehkó<i>n</i>i'</i>	
	Direct Imperative	Indirect Imperative	
S	<i>béne</i>	<i>bené<i>hee</i></i>	
PL	<i>béne'</i>	<i>benénoó<i>hee</i></i>	
	AIO Dependent Participle		
1S	<i>nebené<i>t</i></i>		
2S	<i>hebené<i>t</i></i>		
3S	<i>hibené<i>t</i></i>		
4S	<i>hibené<i>t</i>on<i>n</i></i>		
1PL	<i>nebené<i>t</i>i<i>n</i>o<i>n</i></i>		
12	<i>hebené<i>t</i>i<i>n</i></i>		
2PL	<i>hebené<i>t</i>i<i>n</i>o<i>n</i></i>		
3PL	<i>hibené<i>t</i>i<i>n</i>o<i>n</i></i>		
4PL	<i>hibené<i>t</i>i<i>n</i>o<i>n</i></i>		
	Impersonal		
AFF	<i>beené<i>t</i>i<i>n</i>'</i>	NON-AFF	<i>hoow(u)bené<i>t</i>i<i>n</i></i>
CONJ.ITER	<i>beené<i>t</i>i<i>n</i>'i</i>	CONJ / SUBJ	<i>bené<i>t</i>i<i>n</i>'éh<i>k</i></i>

AI VERB PARADIGMS: X-BETÉE- 'TO DANCE'
[AI THREE-VOWEL-SEQUENCE STEM]

	Affirmative	Non-Affirmative, Negative	
1S	<i>beetéenoo</i>	<i>néihoowúbetéee</i>	
2S	<i>betééen</i>	<i>héihoowúbetéee</i>	
3S	<i>betééet</i>	<i>hoowúbetéee</i>	
4S	<i>beetéeeni3</i>	<i>hoowúbetéeen</i>	
1PL	<i>betééé'</i>	<i>héihoowúbetééébe</i>	
12	<i>betéééno'</i>	<i>néihoowúbetéeen</i>	
2PL	<i>betééénee</i>	<i>héihoowúbetééébe</i>	
3PL	<i>betééé3i'</i>	<i>hoowúbetéééno'</i>	
4PL	<i>beetéeeni3i</i>	<i>hoowúbetéeenino</i>	
	Conjunct Iterative	Conjunct Subjunctive	
1S	<i>beetééenóoni</i>	<i>betéeenooók</i>	
2S	<i>beetééenóni</i>	<i>betéeeninéhk</i>	
3S	<i>betééé3i</i>	<i>betéeehk</i>	
4S	<i>beetéeeni3i</i>	<i>betéeehk</i>	
1PL	<i>beetéeené'i</i>	<i>betéeenoo'ók</i>	
12	<i>beetéeené'i</i>	<i>betéeenoo'ók</i>	
2PL	<i>beetéeené'i</i>	<i>betéeenineehék</i>	
3PL	<i>bééte.eenóó3i</i>	<i>betéeehkóni'</i>	
4PL	<i>bééte.eenóó3i</i>	<i>betéeehkóni'</i>	
	Direct Imperative	Indirect Imperative	
S	<i>betéee</i>	<i>betéééhee</i>	
PL	<i>betéee'</i>	<i>betéeenóóhee</i>	
	Possessed Action/State Participle		
1	<i>nebetóoot</i>		
2	<i>hebetóoot</i>		
3	<i>hibetóoot</i>		
4	<i>hibetóootonin</i>		
1PL	<i>nebetóootiinínoo</i>		
12	<i>hebetóootiinín</i>		
2PL	<i>hebetóootiinínoo</i>		
3PL	<i>hibetóootiinínoo</i>		
4PL	<i>hibetóootiinínoo</i>		
	Impersonal	NON-AFF	<i>hoowúbetóootiin</i>
AFF	<i>betóootiini'</i>	CONJ.SUBJ	<i>betóootiini'éhk</i>
CONJ.ITER	<i>betóootiini'i</i>		

**AI VERB PARADIGMS: TÉI'ÉIHI- 'TO BE STRONG'
[AI -EIH- STATIVE/DESCRIPTIVE STEM]**

	Affirmative	Non-Affirmative	
1S	<i>tenéi' éihinoo</i>	<i>neihoowtéi' éih</i>	or <i>néihoowutéi' éih</i>
2S	<i>tenéi' éihin</i>	<i>heihoowtéi' éih</i>	or <i>heihoowutéi' éih</i>
3S	<i>tenéi' éiht</i>	<i>hoowtéi' éih</i>	etc.
4S	<i>tenéi' éihiní3</i>	<i>hoowtéi' éihin</i>	
1PL	<i>tenéi' eihí'</i>	<i>néihoowtéi' eihíbe</i>	
12	<i>tenéi' eihíno'</i>	<i>héihoowtéi' éihin</i>	
2PL	<i>tenéi' eihínee</i>	<i>héihoowtéi' eihíbe</i>	
3PL	<i>tenéi' eihí3i'</i>	<i>hoowtéi' éihino'</i>	or <i>hoowtéi' éihino'</i> [final accent tenuous]
4PL	<i>tenéi' éihiní3i</i>	<i>hoowtéi' éihiníno</i>	
	Conjunct Iterative	Conjunct Subjunctive	
1S	<i>tenéi' éihinóóni</i>	<i>téi' eihinoohók</i>	
2S	<i>tenéi' éihinóni</i>	<i>téi' eihinéhk</i>	
3S	<i>tenéi' eihí3i</i>	<i>téi' eihéhk</i>	
4S	<i>tenéi' éihiní3i</i>	<i>téi' eihéhk</i>	
1PL	<i>tenéi' éihinéi'í</i>	<i>téi' eihino'óhk</i>	
12	<i>tenéi' éihinéi'í</i>	<i>téi' eihino'óhk</i>	
2Pl	<i>tenéi' éihinéi'í</i>	<i>tei' éihineehék</i>	
3PL	<i>tenéi' éihinóó3i</i>	<i>téi' eihéhkóni'</i>	
4PL	<i>tenéi' éihinóó3i</i>	<i>téi' eihéhkóni'</i>	
	Direct Imperative	Indirect Imperative	
S	<i>téi' eihí</i>	<i>téi' eihíhee</i>	
PL	<i>téi' éihí'</i>	<i>téi' éihinóóhee</i>	
	Possessed Action/State Participle		
1S	<i>netéi' eihít</i>		
2S	<i>hetéi' eihít</i>		
3S	<i>hitéi' eihít</i>		
4S	<i>hitéi' eihítomin</i>		
1PL	<i>netéi' eihíttoonínoo</i>		
12	<i>hetéi' eihíttoonin</i>		
2PL	<i>hetéi' eihíttoonínoo</i>		
3PL	<i>hitéi' eihíttoonínoo</i>		
4PL	<i>hitéi' eihíttoonínoo</i>		
	Impersonal		
AFF	<i>tenéi' eihíttooni'</i>	NON-AFF	<i>hoowtéi' eihíttoon</i>
CONJ.ITER	<i>tenéi' eihíttooní'í</i>	CONJ.SUBJ	<i>téi' eihíttooni' éhk</i>

AI VERB PARADIGMS: NÍÍ'EENÉ3ÉI- 'TO LIKE THINGS' [AIO -YEI- SECONDARY STEM]

	Affirmative	Non-Affirmative	
1S	<i>níí'eené3éinoo</i>	<i>néIhoowuni'eené3éi</i>	
2S	<i>níí'eené3éin</i>	<i>héIhoowuni'eené3éi</i>	
3S	<i>níí'eené3éit</i>	<i>hoowuni'eené3éi</i>	
4S	<i>níí'eené3éini3</i>	<i>hoowuni'eené3éin</i>	
1PL	<i>níí'eené3óóni'</i>	<i>néIhoowuni'eené3éibé</i>	or <i>ní'eené3éini'</i> (Aff)
12	<i>níí'eené3éino'</i>	<i>héIhoowuni'eené3éin</i>	
2PL	<i>níí'eené3éinee</i>	<i>héIhoowuni'eené3éibé</i>	
3PL	<i>níí'eené3éi3i'</i>	<i>hoowuni'eené3éino'</i>	
4PL	<i>níí'eené3éini3i</i>	<i>hoowuni'eené3éinino</i>	
	Conjunct Iterative	Conjunct Subjunctive	
1S	<i>níí'eené3éinóóni</i>	<i>ní'eené3éinoohók</i>	
2S	<i>níí'eené3éinóni</i>	<i>ní'eené3éinéhk</i>	
3S	<i>níí'eené3éi3i</i>	<i>ní'eené3éihék</i>	
4S	<i>níí'eené3éini3i</i>	<i>ní'eené3éihék</i>	
1PL	<i>níí'eené3éiné'i</i>	<i>ní'eené3éino'óhk</i>	
12	<i>níí'eené3éiné'i</i>	<i>ní'eené3éino'óhk</i>	
2PL	<i>níí'eené3éiné'i</i>	<i>ní'eené3éineehék</i>	
3PL	<i>níí'eené3éinóó3i</i>	<i>ní'eené3éihohkóni'</i>	
4PL	<i>níí'eené3éinóó3i</i>	<i>ní'eené3éihohkóni'</i>	
	Direct Imperative	Indirect Imperative	
S	<i>ní'eené3éi</i>	<i>ní'eené3éihee</i>	
PL	<i>ní'eené3éi'</i>	<i>ní'eené3éinóóhee</i>	
	AIO/TI Dependent Participle		
1S	<i>neni'eené3óót</i>		
2S	<i>heni'eené3óót</i>		
3S	<i>hini'eené3óóton</i>		
4S	<i>hini'eené3óótonin</i>		
1PL	<i>neni'eené3óótiininoo</i>		
12	<i>heni'eené3óótiininoo</i>		
2PL	<i>heni'eené3óótiininoo</i>		
3PL	<i>hini'eené3óótiininoo</i>		
4PL	<i>hini'eené3óótiininoo</i>		
	Impersonal	NON-AFF	<i>ní'eené3óótiin</i>
AFF	<i>níí'eené3óótiini'</i>	CONJ.SUBJ	<i>ní'eené3óótiini'éhk</i>
CONJ.ITER	<i>níí'eené3óótiini'i</i>		

TI VERB PARADIGMS: NOOHÓÓT- 'TO SEE
SOMETHING' [TI -OOT- STEM]

	Affirmative	Non-Affirmative, Negative
1S	<i>nonoohóótowoo</i>	<i>néihoownoohóót</i>
2S	<i>nonoohóótow</i>	<i>héihoownoohóót</i>
3S	<i>nonoohóóto'</i>	<i>hoownoohóót</i>
4S	<i>nonoohóótowuni3</i>	<i>hoownoohóót</i>
1PL	<i>nonóóhowú'</i>	<i>néihoownoohóót</i>
12	<i>nonoohóótowúno'</i>	<i>héihoownoohóót</i>
2PL	<i>nonoohóótowúnee</i>	<i>héihoownoohóót</i>
3PL	<i>nonoohóótóú'u</i>	<i>hoownoohóót</i>
4PL	<i>nonoohóótowuni3i</i>	<i>hoownoohóót</i>
	Conjunct Order, Iterative	Conjunct Order, Subjunctive
1S	<i>nonoohóótowunóóni</i>	<i>noohóótowunoohók</i>
2S	<i>nonoohóótowunóni</i>	<i>noohóótowunéhk</i>
3S	<i>nonoohóótowú3i</i>	<i>noohóótóhk</i>
4S	<i>nonoohóótowuni3i</i>	<i>noohóótóhk</i>
1PL	<i>nonoohóótowuné'i</i>	<i>noohóótowúno'óhk</i>
12	<i>nonoohóótowuné'i</i>	<i>noohóótowúno'óhk</i>
2PL	<i>nonoohóótowuné'i</i>	<i>noohóótowúnechék</i>
3PL	<i>nonoohóótowunóó3i</i>	<i>noohóótóhkóni'</i>
4PL	<i>nonoohóótowunóó3i</i>	<i>noohóótóhkóni'</i>
	Direct Imperative	Indirect Imperative
S	<i>noohóótoo</i>	<i>noohóótéhee</i>
PL	<i>noohóótowu'</i>	<i>noohóótenóóhee</i>
	TI Dependent Participle	
1S	<i>nonoohóó3oo</i>	
2S	<i>honoohóó3oo</i>	
3S	<i>hinoohóó3oo</i>	
4S	<i>hinoohóó3oomin</i>	
1PL	<i>nonoohóó3oonínoo</i>	
12	<i>honoohóó3oonin</i>	
2PL	<i>honoohóó3oonínoo</i>	
3PL	<i>hinoohóó3oonínoo</i>	
4PL	<i>hinoohóó3oonínoo</i>	

TI VERB PARADIGMS: BII'ÍN- 'TO FIND SOMETHING' [TI -(E)N- STEM]

	Affirmative	Non-Affirmative, Negative	
1S	<i>benii'ínowoo</i>	<i>neihoowbii'in</i>	or <i>néihoowbii'in</i> [initial accent tenuous]
2S	<i>benii'ínow</i>	<i>heihoowbii'in</i>	or <i>héihoowbii'in</i> [initial accent tenuous]
3S	<i>benii'íno'</i>	<i>hoowbii'in</i>	
4S	<i>benii'ínowuni3</i>	<i>hóówbii'ínowun</i>	
1PL	<i>benii'ínowuni'</i>	<i>néihoowbii'inéébe</i>	
12	<i>benii'ínowúno'</i>	<i>héihoowbii'ínow</i>	
2PL	<i>benii'ínowúnee</i>	<i>héihoowbii'inéébe</i>	
3PL	<i>benii'ínóú'u</i>	<i>hóówbii'ínowuu</i>	
4PL	<i>benii'ínowuni3i</i>	<i>hoowbii'ínowunino</i>	
	Conjunct Iterative	Conjunct Subjunctive	
1S	<i>benii'ínowunóóni</i>	<i>bii'ínowuunoohók</i>	
2S	<i>benii'ínowunóni</i>	<i>bii'ínowunéhk</i>	
3S	<i>benii'ínowú3i</i>	<i>bii'ínohk</i>	
4S	<i>benii'ínowuni3i</i>	<i>bii'ínohk</i>	
1PL	<i>benii'ínowuné'i</i>	<i>bii'ínowúno'óhk</i>	
12	<i>benii'ínowuné'i</i>	<i>bii'ínowúno'óhk</i>	
2PL	<i>benii'ínowuné'i</i>	<i>bii'ínowúneehék</i>	
3PL	<i>benii'ínowunóó3i</i>	<i>bii'ínohkóni'</i>	
4PL	<i>benii'ínowunóó3i</i>	<i>bii'ínohkóni'</i>	
	Direct Imperative	Indirect Imperative	
S	<i>bii'ínoo</i>	<i>bii'inéhee</i>	
PL	<i>bii'ínowu'</i>	<i>bii'inééhee</i>	
	TI Dependent Participle		
1S	<i>nebí'iyóó</i>		
2S	<i>hebí'iyóó</i>		
3S	<i>hibí'iyóó</i>		
4S	<i>hibí'iyóónin</i>		
1PL	<i>nebí'iyóóninoo</i>		
12	<i>hebí'iyóónin</i>		
2PL	<i>hebí'iyóóninoo</i>		
3PL	<i>hibí'iyóóninoo</i>		
4PL	<i>hibí'iyóóninoo</i>		

TI VERB PARADIGMS: NÍ' EENÉÉT- 'TO LIKE SOMETHING' [TI -EET- STEM]

	Affirmative		Non-Affirmative, Negative	
1S	<i>ní' eenéetowoo</i>		<i>neihoowuni' eenéét</i>	
2S	<i>ní' eenéétow</i>		<i>heihoowuni' eenéét</i>	
3S	<i>ní' eenéeto'</i>		<i>hoowuni' eenéét</i>	
4S	<i>ní' eenéetowuni3</i>		<i>hoowuni' eenéetowun</i>	
1PL	<i>ní' eenowúni'</i>		<i>neihoowuni' eenéetéébe</i>	
12	<i>ní' eenéetowúno'</i>		<i>heihoowuni' eenéetowun</i>	or <i>ní' eenéetowúno'</i> (Aff)
2PL	<i>ní' eenéetowúnee</i>		<i>heihoowuni' eenéetéébe</i>	or <i>ní' eenéetowúnee</i> (Aff)
3PL	<i>ní' eenéetó'u</i>		<i>hoowuni' eenéetowuu</i>	
4PL	<i>ní' eenéetowuni3i</i>		<i>hoowuni' eenéetowunino</i>	
	Conjunct Order, Iterative		Conjunct Order, Subjunctive	
1S	<i>ní' eenéetowunóóni</i>		<i>ní' eenéetowunooohók</i>	
2S	<i>ní' eenéetowunóni</i>		<i>ní' eenéetowunéhk</i>	
3S	<i>ní' eenéetowú3i</i>		<i>ní' eenéetóhk</i>	
4S	<i>ní' eenéetowuni3i</i>		<i>ní' eenéetóhk</i>	
1PL	<i>ní' eenéetowuné'i</i>		<i>ní' eenéetowúno' óhk</i>	
12	<i>ní' eenéetowuné'i</i>		<i>ní' eenéetowúno' óhk</i>	
2PL	<i>ní' eenéetowuné'i</i>		<i>ní' eenéetowúneehék</i>	
3PL	<i>ní' eenéetowunóó3i</i>		<i>ní' eenéetohkóni'</i>	
4PL	<i>ní' eenéetowunóó3i</i>		<i>ní' eenéetohkóni'</i>	
	Direct Imperative		Indirect Imperative	
S	<i>ní' eenéetoo</i>		<i>ní' eenéetéhee</i>	
PL	<i>ní' eenéetowu'</i>		<i>ní' eenéetenóóhee</i>	
	TI Dependent Participle			
1S	<i>neni' eenéé3oo</i>			
2S	<i>heni' eenéé3oo</i>			
3S	<i>hini' eenéé3oo</i>			
4S	<i>hini' eenéé3oonin</i>			
1PL	<i>neni' eenéé3oonínoo</i>			
12	<i>heni' eenéé3oonin</i>			
2P	<i>heni' eenéé3oonínoo</i>			
3PL	<i>hini' eenéé3oonínoo</i>			
4P	<i>hini' eenéé3oonínoo</i>			

TA VERB PARADIGMS: NÓÓHOW- 'TO SEE SOMEONE' [TA -OW- STEM]

AFFIRMATIVE ORDER

Local Forms

1S/2S	<i>nonóóhobé3en</i>	
1S/2PL	<i>nonóóhobe3énee</i>	
2S/1S	<i>nonóóhowún</i>	
2PL/1S	<i>nonóóhowínee</i>	
1PL/2S	<i>nonoohóbeen</i>	
1PL/2PL	<i>nonoohóbeenee</i>	or <i>nonoohóbéenee</i>
2S/1PL	<i>nonóóhobéi'een</i>	
2PL/1PL	<i>nonóóhobéi'éenee</i>	

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>nonóóhowó'</i>	<i>nonóóhowóú'u</i>
2S/3	<i>nonóóhowót</i>	<i>nonóóhowóti</i>
3S/4	<i>nonoohówoot</i>	<i>nonoohówoot</i>
4S/4	<i>nonoohówooni3</i>	<i>nonoohówooni3</i>
1PL/3	<i>nonóóhobéét</i>	<i>nonóóhobéé3i'</i>
12/3	<i>nonóóhowóóno'</i>	<i>nonóóhowóóno'</i>
2PL/3	<i>nonóóhowóónee</i>	<i>nonóóhowóónee</i>
3PL/3	<i>nonóóhowóó3i'</i>	<i>nonóóhowóó3i'</i>
4PL/4	<i>nonoohówooni3i</i>	<i>nonoohówooni3i</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>nonoohobéínoo</i>	<i>nonoohowú3i'</i>
3/2S	<i>nonoohobéín</i>	<i>nonoohobéínoóni</i>
4/3S	<i>nonoohobéít</i>	<i>nonoohobéít</i>
4/4S	<i>nonoohobéíni3</i>	<i>nonoohobéíni3</i>
3/1PL	<i>nonóóhobéi'éét</i>	<i>nonoohobéi'éé3i'</i>
3/12	<i>nonoohobéíno'</i>	<i>nonoohobéíno'</i>
3/2PL	<i>nonoohobéínee</i>	<i>nonoohobéínee</i>
4/3PL	<i>nonoohobéi3i'</i>	<i>nonoohobéi3i'</i>
4/4PL	<i>nonoohobéíni3i</i>	<i>nonoohobéíni3i</i>

NON-AFFIRMATIVE ORDER, NEGATIVE

Local Forms

1S/2S	<i>héihoownóóhobé3</i>	
1S/2PL	<i>héihoownóóhobe3ébe</i>	
2S/1S	<i>héihoownóóhow</i>	
2PL/1S	<i>héihoownóóhowíbe</i>	
1PL/2S	<i>héihoownoohóbeé</i>	
1PL/2PL	<i>héihoownoohóbeebe</i>	or <i>héihoownoohóbéébe</i>
2S/1PL	<i>héihoownóóhobéi'ee</i>	
2PL/1PL	<i>héihoownóóhobéi'éébe</i>	

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>néihoownoohówoo</i>	<i>néihoownoohówoonó'</i>
2S/3	<i>héihoownoohówoo</i>	<i>héihoownoohówoonó'</i>
3S/4	<i>hoownoohóbee</i>	<i>hoownoohóbee</i>
4S/4	<i>hoownoohóbeen</i>	<i>hoownoohóbeen</i>
1PL/3	<i>néihoownóóhówóóbe</i>	<i>néihoownóóhówóóbe</i>
12/3	<i>héihoownoohówoon</i>	<i>héihoownoohówoon</i>
2PL/3	<i>héihoownóóhówóóbe</i>	<i>héihoownóóhówóóbe</i>
3PL/3	<i>hoownoohóbeenó'</i>	<i>hoownoohóbeenó'</i>
4PL/4	<i>hoownoohóbeeníno</i>	<i>hoownoohóbeeníno</i>

Inverse Forms

	Singular Actor	Plural Actor	
3/1S	<i>néihoownoohóbe'</i>	<i>néihoownoohóbei'í</i>	
3/2S	<i>héihoownoohóbe'</i>	<i>héihoownoohóbei'í</i>	
4/3S	<i>hoownoohóbe'</i>	<i>hoownoohóbe'</i>	
4/4S	<i>hoownoohóbe'</i>	<i>hoownoohóbe'</i>	
3/1PL	<i>néihoownoohóbéibe</i>	<i>néihoownoohóbéibe</i>	
3/12	<i>héihoownoohóbéin</i>	<i>héihoownoohóbéin</i>	
3/2PL	<i>héihoownoohóbéibe</i>	<i>héihoownoohóbéibe</i>	or <i>héihoownoohóbéibé</i>
4/3PL	<i>hoownoohóbei'í</i>	<i>hoownoohóbei'í</i>	
4/4PL	<i>hoownoohóbei'í</i>	<i>hoownoohóbei'í</i>	

CONJUNCT ORDER, ITERATIVE MODE

Local Forms

1S/2S	<i>nonóóhobé3enóni</i>
1S/2PL	<i>nonóóhobé3enéi'í</i>
2S/1S	<i>nonóóhowunóni</i>
2PL/1S	<i>nonóóhowunéi'í</i>
1PL/2S	<i>nonoohóbeenóni</i>
1PL/2PL	<i>nonoohóbeenéi'í</i>
2S/1PL	<i>nonóóhobéi'eenóni</i>
2PL/1PL	<i>nonóóhobéi'eenéi'í</i>

Direct Forms (Singular and PL Undergoer)

1S/3	<i>nonóóhowóú'u</i>
2S/3	<i>nonóóhowóti</i>
3S/4	<i>nonóóhówóó3i</i>
4S/4	<i>nonoohówoon3i</i>
1PL/3	<i>nonóóhobé3é3i</i>
12/3	<i>nonoohówoonéi'í</i>
2PL/3	<i>nonoohówoonéi'í</i>
3PL/4	<i>nonóóhówoonóó3i</i>
4PL/4	<i>nonóóhówoonóó3i</i>

Inverse Forms (Singular and PL Actor)

3/1S	<i>nonoohóbéinóóni</i>
3/2S	<i>nonoohóbéinóni</i>
4/3S	<i>nonoohóbéi3i</i>
4/4S	<i>nonoohóbéi3i</i>
3/1PL	<i>nonóóhobéi'ée3i</i>
3/12	<i>nonoohóbéinéi'í</i>
3/2PL	<i>nonoohóbéinéi'í</i>
4/3PL	<i>nonoohóbéinóó3i</i>
4/4PL	<i>nonoohóbéinóó3i</i>

VERB TABLES

Direct Imperative

2S/1S	<i>nóóhowú</i>
2PL/1S	<i>nóóhowú'</i>
2S/1PL	<i>nóóhobéi'ee</i>
2PL/1PL	<i>nóóhobéi'ee'</i>
2S/3	<i>nóóhowún</i>
2PL/3	<i>noohóbe'</i>

Indirect Imperative

3S/4	<i>noohowóóhee</i>
3PL/4	<i>noohówoonóóhee</i>
3/2S	<i>noohobéi3i</i>
3/2PL	<i>noohobéi3i'</i>

AIO Participle (see AI for full inflections)

noohóbetiit

Impersonal

AFF	<i>nonoohóbetiíttooni'</i>
NON-AFF	<i>hoownoohóbetiíttoon</i>
CONJ.ITER	<i>nonoohóbetiíttooni'i</i>
CONJ.SUBJ	<i>noohóbetiíttooni'éhk</i>

CONJUNCT ORDER, SUBJUNCTIVE MODE

Local Forms

1S/2S	<i>noohobé3enéhk</i>	
1S/2PL	<i>noohobe3éne'eehék</i>	
2S/1S	<i>nóóhowunéhk</i>	
2PL/1S	<i>noohowúne'eehék</i>	
1PL/2S	<i>noohóbeeninéhk</i>	
1PL/2PL	<i>noohóbeene'eehék</i>	or <i>noohóbéene'eehék</i>
2S/1PL	<i>noohobéi'eeninéhk</i>	
2PL/1PL	<i>noohobéi'eene'eehék</i>	

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>nóóhowoohók</i>	<i>nóóhowoohókóni'</i>
2S/3	<i>noohówotéhk</i>	<i>noohówotehókóni'</i>
3S/4	<i>noohowooohók</i>	<i>noohowooohók</i>
4S/4	<i>noohowooohók</i>	<i>noohowooohók</i>
1PL/3	<i>noohobéénohk</i>	<i>noohobéénohkóni'</i>
12/3	<i>noohowóóno'óhk</i>	<i>noohowóóno'óhk</i>
2PL/3	<i>noohowóóneehék</i>	<i>noohowóóneehék</i>
3PL/4	<i>noohowóóh(o)kóni'</i>	<i>noohowóóh(o)kóni'</i>
4PL/4	<i>noohowóóh(o)kóni'</i>	<i>noohowóóh(o)kóni'</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>noohobéinoohók</i>	<i>nóóhowukóni'</i>
3/2S	<i>noohobéininéhk</i>	<i>noohobéinehkóni'</i>
4/3S	<i>noohobéihók</i>	<i>noohobéihók</i>
4/4S	<i>noohobéihók</i>	<i>noohobéihók</i>
3/1PL	<i>noohobéi'eehók</i>	<i>noohobéi'eehkóni'</i>
3/12	<i>noohobéino'óhk</i>	<i>noohobéino'óhk</i>
3/2PL	<i>noohobéine'eehék</i>	<i>noohobéine'eehék</i>
4/3PL	<i>noohobéihohkóni'</i>	<i>noohobéihohkóni'</i>
4/4PL	<i>noohobéihohkóni'</i>	<i>noohobéihohkóni'</i>

DEPENDENT PARTICIPLE

Local Forms

1S/2S	<i>honóóhobeʒéét</i>
1S/2PL	<i>honóóhobeʒéétiinínoo</i>
2S/1S	<i>honóóhowúút</i>
2PL/1S	<i>honóóhowúútoonínoo</i>
1PL/2S	<i>honoohobéét</i>
1PL/2PL	<i>honoohobéétiinínoo</i>
2S/1PL	<i>honóóhobéi'et</i>
2PL/1PL	<i>honóóhobéi'eetiinínoo</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>nonoohowóó</i>	<i>nonoohowóónó'</i>
2S/3	<i>honoohowóó</i>	<i>honoohowóónó'</i>
3S/4	<i>hinoohowóoon</i>	<i>hinoohowóoon(o)</i>
4S/4	<i>hinoohowóoonin</i>	<i>hinoohowóoonin</i>
1PL/3	<i>nonoohowóónínoo</i>	<i>nonoohowóónínoo</i>
12/3	<i>honoohowóónin</i>	<i>honoohowóónínoo</i>
2PL/4	<i>honoohowóónínoo</i>	<i>honoohowóónínoo</i>
3PL/4	<i>hinoohowóónínoo</i>	<i>hinoohowóónínoo</i>
4PL/4	<i>hinoohowóónínoo</i>	<i>hinoohowóónínoo</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>nonoohobéít</i>	<i>nonoohobéíitono'</i>
3/2S	<i>honoohobéít</i>	<i>honoohobéíitono'</i>
4/3S	<i>hinoohobéíiton</i>	<i>hinoohobéíiton(o)</i>
4/4S	<i>hinoohobéíitonin</i>	<i>hinoohobéíitonin</i>
3/1PL	<i>hinoohobéi'éét</i>	<i>hinoohobéi'éétono</i>
3/12	<i>honoohobéítoonin</i>	<i>honoohobéítoonínoo</i>
3/2PL	<i>honoohobéítoonínoo</i>	<i>honoohobéítoonínoo</i>
4/3PL	<i>hinoohobéítoonínoo</i>	<i>hinoohobéítoonínoo</i>
4/4PL	<i>hinoohobéítoonínoo</i>	<i>hinoohobéítoonínoo</i>

TA PARADIGMS: NÍÍ'EENEW- 'TO LIKE SOMEONE' [TA -EW- STEM]

AFFIRMATIVE ORDER

Local Forms

1S/2S	<i>níí'enebé3en</i>	
1S/2PL	<i>níí'enebe3énee</i>	
2S/1S	<i>níí'enebin</i>	
2PL/1S	<i>níí'enebínee</i>	
1PL/2S	<i>níí'enebéen</i>	
1PL/2PL	<i>níí'enebéénee</i>	or <i>níí'eenébeenee</i>
2S/1PL	<i>níí'enebéi'een</i>	
2PL/1PL	<i>níí'enebéi'éénee</i>	

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>níí'eenowó'</i>	<i>níí'eenowóú'u</i>
2S/3	<i>níí'eenowót</i>	<i>níí'eenowóti</i>
3S/4	<i>níí'eenówoot</i>	<i>níí'eenówoot</i>
4S/4	<i>níí'eenówooni3</i>	<i>níí'eenówooni3</i>
1PL/3	<i>níí'enebéét</i>	<i>níí'enebéé3i'</i>
12/3	<i>níí'eenowóono'</i>	<i>níí'eenowóono'</i>
2PL/3	<i>níí'eenowóónee</i>	<i>níí'eenowóónee</i>
3PL/4	<i>níí'eenowóó3i'</i>	<i>níí'eenowóó3i'</i>
4PL/4	<i>níí'eenówooni3i</i>	<i>níí'eenówooni3i</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>níí'enebéinoo</i>	<i>níí'enebí3i'</i>
3/2S	<i>níí'enebéin</i>	<i>níí'enebéinóni</i>
4/3S	<i>níí'enebéit</i>	<i>níí'enebéit</i>
4/4S	<i>níí'enebéini3</i>	<i>níí'enebéini3</i>
3/1PL	<i>níí'enebéi'eet</i>	<i>níí'enebéi'éé3i'</i>
3/12	<i>níí'enebéino'</i>	<i>níí'enebéino'</i>
3/2PL	<i>níí'enebéínee</i>	<i>níí'enebéínee</i>
4/3PL	<i>níí'enebéi3i'</i>	<i>níí'enebéi3i'</i>
4/4PL		<i>níí'enebéini3i</i>

NON-AFFIRMATIVE ORDER, NEGATIVE

Local Forms

1S/2S	<i>heihoowni'enebé3</i>	or <i>heihoowuni'enebé3</i>
1S/2PL	<i>heihoowni'enebe3ébe</i>	etc.
2S/1S	<i>heihoowni'eneb</i>	
2PL/1S	<i>heihoowni'enebíbe</i>	
1PL/2S	<i>heihoowni'enebéé</i>	
1PL/2PL	<i>heihoowni'enebéébe</i>	
2S/1PL	<i>heihoowni'enebéi'ee</i>	
2PL/1PL	<i>heihoowni'enebéi'éébe</i>	

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>neihoowni'eenówoo</i>	<i>neihoowni'eenówoonó'</i>
2S/3	<i>heihoowni'eenówoo</i>	<i>heihoowni'eenówoonó'</i>
3S/4	<i>hoowni'eenébee</i>	<i>hoowni'eenébee</i>
4S/4	<i>hoowni'eenébeen</i>	<i>hoowni'eenébeen</i>
1PL/3	<i>neihoowni'eenowóobe</i>	<i>neihoouni'eenowóobe</i>
12/3	<i>heihoowni'eenówoon</i>	<i>heihoouni'eenówoon</i>
2PL/3	<i>heihoowni'eenowóobe</i>	<i>heihoowni'eenowóobe</i>
3PL/4	<i>hoowni'eenébeenó'</i>	<i>hoowni'eenébeenó'</i>
4PL/4	<i>hoowni'eenébeeníno</i>	<i>hoowni'eenébeeníno</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>neihoowni'eenébe'</i>	<i>neihoowni'eenébei'í</i>
3/2S	<i>heihoowni'eenébe'</i>	<i>heihoowni'eenébei'í</i>
4/3S	<i>hoowni'eenébe'</i>	<i>hoowni'eenébe'</i>
4/4S	<i>hoowni'eenébe'</i>	<i>hoowni'eenébe'</i>
3/1PL	<i>neihoowni'eenébéibe</i>	<i>neihoowni'eenébéibe</i>
3/12	<i>heihoowni'eenébín</i>	<i>heihoowni'eenébín</i>
3/2PL	<i>heihoowni'eenébéibe</i>	<i>heihoowni'eenébéibe</i>
4/3PL	<i>hoowni'eenébei'í</i>	<i>hoowni'eenébei'í</i>
4/4PL	<i>hoowni'eenébei'í</i>	<i>hoowni'eenébei'í</i>

CONJUNCT ORDER, ITERATIVE MODE

Local Forms

1S/2S	<i>níí'eenébé3enóni</i>
1S/2PL	<i>níí'eenébé3ené'í</i>
2S/1S	<i>níí'eenébinóni</i>
2PL/1S	<i>níí'eenébiné'í</i>
1PL/2S	<i>níí'eenébeenóni</i>
1PL/2PL	<i>níí'eenébeené'í</i>
2S/1PL	<i>níí'eenébé'íeenóni</i>
2PL/1PL	<i>níí'eenébé'íeené'í</i>

Direct Forms (S and PL Undergoer)

1S/3	<i>níí'eenowó'u</i>
2S/3	<i>níí'eenowóti</i>
3S/4	<i>níí'eenowóó3i</i>
4S/4	<i>níí'eenowóoní3i</i>
1PL/3	<i>níí'eenébé3i</i>
12/3	<i>níí'eenówooné'í</i>
2PL/3	<i>níí'eenówooné'í</i>
3PL/4	<i>níí'eenowoonóó3i</i>
4PL/4	<i>níí'eenowoonóó3i</i>

Inverse Forms (S and PL Actor)

3/1S	<i>níí'eenébéinóóni</i>
3/2S	<i>níí'eenébéinóni</i>
4/3S	<i>níí'eenébé3i</i>
4/4S	<i>níí'eenébéiní3i</i>
3/1PL	<i>níí'eenébé'íé3i</i>
3/12	<i>níí'eenébéiné'í</i>
3/2PL	<i>níí'eenébéiné'í</i>
4/3PL	<i>níí'eenébéinóó3i</i>
4/4PL	<i>níí'eenébéinóó3i</i>

VERB TABLES

Direct Imperative		Indirect Imperative	
2S/1S	<i>ní'eenebí</i>	3S/4	<i>ní'eenowóóhee</i>
2PL/1S	<i>ní'eenebí'</i>	3PL/4	<i>ní'eenowóonóóhee</i>
2S/1PL	<i>ní'eenebéi'ee</i>	3/2S	<i>ní'eenebéi3i</i>
2PL/1PL	<i>ní'eenebéi'ee'</i>	3/2PL	<i>ní'eenebéi3i'</i>
2S/3	<i>ní'eenowún</i>		
2PL/3	<i>ní'eenebe'</i>		
Participle (see AI paradigms for inflected forms)		<i>ní'eenebetiit</i>	

Impersonal

AFF	<i>ní'eenebetiitoooni'</i>
NON-AFF	<i>hoowní'eenebetiitooon</i>
CONJ.ITER	<i>ní'eenebetiitoooni'i</i>
CONJ.SUBJ	<i>ní'eenebetiitoooni'èhk</i>

CONJUNCT ORDER, SUBJUNCTIVE MODE

Local Forms

1S/2S	<i>ní'eenebé3enéhk</i>
1S/2PL	<i>ní'eenebé3éneehék</i>
2S/1S	<i>ní'eenebinéhk</i>
2PL/1S	<i>ní'eenebineehék</i>
1PL/2S	<i>ní'eenebeenéhk</i>
1PL/2PL	<i>ní'eenebééneehék</i>
2S/1PL	<i>ní'eenebéi'eenéhk</i>
2PL/1PL	<i>ní'eenebei'ééneehék</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>ní'eenowoohók</i>	<i>ní'eenowoohkóni'</i>
2S/3	<i>ní'eenowotéhk</i>	<i>ní'eenowotehkóni'</i>
3S/4	<i>ní'eenowoohók</i>	<i>ní'eenowoohók</i>
4S/4	<i>ní'eenowoohók</i>	<i>ní'eenowoohók</i>
1PL/3	<i>ní'eenebeenóhk</i>	<i>ní'eenebeenohkóni'</i>
12/3	<i>ní'eenowóono'óhk</i>	<i>ní'eenowóono'óhk</i>
2PL/3	<i>ní'eenowóoneehék</i>	<i>ní'eenowóoneehék</i>
3PL/4	<i>ní'eenowóóhkóni'</i>	<i>ní'eenowóóhkóni'</i>
4PL/4	<i>ní'eenowóóhkóni'</i>	<i>ní'eenowóóhkóni'</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>ní'eenebéinoohók</i>	<i>ní'eenebéinoohkóni'</i>
3/2S	<i>ní'eenebéinehk</i>	<i>ní'eenebéinehkóni'</i>
4/3S	<i>ní'eenebéihók</i>	<i>ní'eenebéihók</i>
4/4S	<i>ní'eenebéihók</i>	<i>ní'eenebéihók</i>
3/1PL	<i>ní'eenebéi'eehók</i>	<i>ní'eenebéi'eehkóni'</i>
3/12	<i>ní'eenebéino'óhk</i>	<i>ní'eenebéino'óhk</i>
3/2PL	<i>ní'eenebéineehék</i>	<i>ní'eenebéineehék</i>
4/3PL	<i>ní'eenebéi'eehkóni'</i>	<i>ní'eenebéi'eehkóni'</i>
4/4PL	<i>ní'eenebéi'eehkóni'</i>	<i>ní'eenebéi'eehkóni'</i>

DEPENDENT PARTICIPLE

Local Forms

1S/2S	<i>heni'eenebe3éét</i>
1S/2PL	<i>heni'eenebe3éétiinínoo</i>
2S/1S	<i>heni'eenebíit</i>
2PL/1S	<i>heni'eenebíitoonínoo</i>
1PL/2S	<i>heni'eenebéét</i>
1PL/2PL	<i>heni'eenebéétiinínoo</i>
2S/1PL	<i>heni'eenebéi'éét</i>
2PL/1PL	<i>heni'eenebéi'éétiinínoo</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>neni'eenowóóó</i>	<i>neni'eenowóóónó'</i>
2S/3	<i>heni'eenowóóó</i>	<i>heni'eenowóóónó'</i>
3S/4	<i>hini'eenowóóoon</i>	<i>hini'eenowóóoon(o)</i>
4S/4	<i>hini'eenowóóoonin</i>	<i>hini'eenowóóoonin</i>
1PL/3	<i>neni'eenowóóónínoo</i>	<i>neni'eenowóóónínoo</i>
12/3	<i>heni'eenowóóonin</i>	<i>heni'eenowóóonin</i>
2PL/3	<i>heni'eenowóóónínoo</i>	<i>heni'eenowóóónínoo</i>
3PL/4	<i>hini'eenowóóónínoo</i>	<i>hini'eenowóóónínoo</i>
4PL/4	<i>hini'eenowóóónínoo</i>	<i>hini'eenowóóónínoo</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>neni'eenebéiit</i>	<i>neni'eenebéitno'</i>
3/2S	<i>heni'eenebéiit</i>	<i>heni'eenebéitno'</i>
4/3S	<i>hini'eenebéiiton</i>	<i>hini'eenebéiiton(o)</i>
4/4S	<i>hini'eenebéiitonin</i>	<i>hini'eenebéiitonin</i>
3/1PL	<i>neni'eenebéitoonínoo</i>	<i>neni'eenebéitoonínoo</i>
3/12	<i>heni'eenebéitoonin</i>	<i>heni'eenebéitoonin</i>
3/2PL	<i>heni'eenebéitoonínoo</i>	<i>heni'eenebéitoonínoo</i>
4/3PL	<i>hini'eenebéitoonínoo</i>	<i>hini'eenebéitoonínoo</i>
4/4PL	<i>hini'eenebéitoonínoo</i>	<i>hini'eenebéitoonínoo</i>

**TA PARADIGMS: CÍH'OH- 'TO CHOP UP SOMETHING
(AN)' [TA -OH- 'BY TOOL' STEM]**

[Note: all -ee- direct-action themes can be replaced by normal -oo-, or by -oe-; all -uu- inverse-action themes can be replaced by normal -ei-; all -u3e- 1S-action themes can be replaced by normal -e3e-; the -oe- theme is a variant of the -ee- theme, produced by vowel harmony; all other replacements represent remodelling based on the standard paradigm]

AFFIRMATIVE ORDER

Local Forms

1S/2S	<i>cíh'ohú3en</i>
1S/2PL	<i>cíh'ohu3énee</i>
2S/1S	<i>cíh'ohún</i>
2PL/1S	<i>cíh'ohúnee</i>
2S/1PL	<i>cíh'ohéi'een</i>
2PL/1PL	<i>cíh'ohéi'éénee</i>
1PL/2S	<i>cíh'ohéen</i>
1PL/2PL	<i>cíh'ohéenee</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>cíh'ohé'</i>	<i>cíh'ohéi'i</i>
2S/3	<i>cíh'ohét</i>	<i>cíh'ohéti</i>
3S/4	<i>ciih'ohheet</i>	<i>ciih'ohheet</i>
4S/4	<i>ciih'ohéeni3</i>	<i>ciih'ohéeni3</i>
1PL/3	<i>cíh'ohéét</i>	<i>cíh'ohéé3i'</i>
12/3	<i>cíh'ohééno'</i>	<i>cíh'ohééno'</i>
2PL/3	<i>cíh'ohéénee</i>	<i>cíh'ohéénee</i>
3PL/4	<i>cíh'ohéé3i'</i>	<i>cíh'ohéé3i'</i>
4PL/4	<i>ciih'ohéeni3i</i>	<i>ciih'ohéeni3i</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>cíh'ohúúnoo</i>	<i>cíh'ohú3i'</i>
3/2S	<i>cíh'ohúún</i>	<i>cíh'ohúunóni</i>
4/3S	<i>ciih'ohuut</i>	<i>ciih'ohuut</i>
4/4S	<i>ciih'ohuuni3</i>	<i>ciih'ohuuni3</i>
3/1PL	<i>cíh'ohéi' eet</i>	<i>cíh'ohéi'éé3i'</i>
3/12	<i>cíh'ohúúno'</i>	<i>cíh'ohúúno'</i>
3/2PL	<i>cíh'ohúúnee</i>	<i>cíh'ohúúnee</i>
4/3PL	<i>cíh'ohúú3i'</i>	<i>cíh'ohúú3i'</i>
4/4PL	<i>ciih'ohuuni3i</i>	<i>ciih'ohuuni3i</i>

NON-AFFIRMATIVE ORDER, NEGATIVE

Local Forms

1S/2S	<i>héihoowcíh'ohé3</i>	[note: -é3 does not go to -ú3]
1S/2PL	<i>héihoowcíh'ohu3ébe</i>	
2S/1S	<i>héihoowcíh'oh</i>	
2PL/1S	<i>héihoowcíh'ohúbe</i>	
2S/1PL	<i>héihoowcíh'ohéi'ee</i>	

2PL/1PL	<i>héihoowcih'ohéi'éébe</i>
1PL/2S	<i>héihoowcih'ohée</i>
1PL/2PL	<i>héihoowcih'ohéebe</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>néihoowcih'ohée</i>	<i>néihoowcih'ohééno'</i>
2S/3	<i>héihoowcih'ohée</i>	<i>héihoowcih'ohééno'</i>
3S/4	<i>hoowcih'ohée</i>	<i>hoowcih'ohée</i>
4S/4	<i>hoowcih'ohéen</i>	<i>hoowcih'ohéen</i>
1PL/3	<i>néihoowcih'ohéébé</i>	<i>néihoowcih'ohéébé</i>
12/3	<i>héihoowcih'ohéen</i>	<i>héihoowcih'ohéen</i>
2PL/3	<i>héihoowcih'ohéébé</i>	<i>héihoowcih'ohéébé</i>
3PL/4	<i>hoowcih'ohéenó'</i>	<i>hoowcih'ohéenó'</i>
4PL/4	<i>hoowcih'ohéenino</i>	<i>hoowcih'ohéenino</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>néihoowcih'ohé'</i>	<i>néihoowcih'ohéi</i>
3/2S	<i>héihoowcih'ohé'</i>	<i>héihoowcih'ohéi</i>
4/3S	<i>hoowcih'ohé'</i>	<i>hoowcih'ohé'</i>
4/4S	<i>hoowcih'ohé'</i>	<i>hoowcih'ohé'</i>
3/1PL	<i>néihoowcih'ohúube</i>	<i>néihoowcih'ohúube</i>
3/12	<i>héihoowcih'ohuun</i>	<i>héihoowcih'ohuun</i>
3/2PL	<i>héihoowcih'ohúube</i>	<i>héihoowcih'ohúube</i>
4/3PL	<i>hoowcih'ohéi'i</i>	<i>hoowcih'ohéi'i</i>
4/4PL	<i>hoowcih'ohéi'i</i>	<i>hoowcih'ohéi'i</i>

CONJUNCT ORDER, ITERATIVE MODE

Local Forms

1S/2S	<i>cíih'ohú3enóni</i>
1S/2PL	<i>cíih'ohú3enéi'i</i>
2S/1S	<i>cíih'ohunóni</i>
2PL/1S	<i>cíih'ohunéi'i</i>
2S/1PL	<i>cíih'ohéi'eenóni</i>
2PL/1PL	<i>cíih'ohéi'eenéi'i</i>
1PL/2S	<i>cíih'ohéenóni</i>
1PL/2PL	<i>cíih'ohéenéi'i</i>

Direct Forms (S and PL Undergoer)	Inverse Forms (S and PL Actor)		
1S/3	<i>cíih'ohéi'i</i>	3/1S	<i>cíih'ohúunóóni</i>
2S/3	<i>cíih'ohéti</i>	3/2S	<i>cíih'ohúunóni</i>
3S/4	<i>cíih'ohéé3i</i>	4/3S	<i>cíih'ohúú3i</i>
4S/4	<i>cíih'ohéen3i</i>	4/4S	<i>cíih'ohúun3i</i>
1PL/3	<i>cíih'ohéé3i</i>	3/1PL	<i>cíih'ohéi'éé3i</i>
12/3	<i>cíih'ohéenéi'i</i>	3/12	<i>cíih'ohúunéi'i</i>
2PL/3	<i>cíih'ohéenéi'i</i>	3/2PL	<i>cíih'ohúunéi'i</i>
3PL/4	<i>cíih'ohéenóó3i</i>	4/3PL	<i>cíih'ohúunóó3i</i>
4PL/4	<i>cíih'ohéenóó3i</i>	4/4PL	<i>cíih'ohúunóó3i</i>

VERB TABLES

	Direct Imperative	Indirect Imperative	
2S/1S	<i>cih'ohu</i>	3S/4	<i>cih'ohééhee</i>
2PL/1S	<i>cih'ohu'</i>	3PL/4	<i>cih'ohéenóóhee</i>
2S/1PL	<i>cih'ohéi'ee</i>	3/2S	<i>cih'ohúú3i</i>
2PL/1PL	<i>cih'ohéi'ee'</i>	3/2PL	<i>cih'ohúú3i'</i>
2S/3	<i>cih'ohún</i>		
2PL/3	<i>cih'ohóé'</i> [note: -oe' replaces -e'; note also pitch accent on final syllable]		

AIO Participle (see AI verbs for full inflections) *cih'ohóót*

Impersonal

AFF	<i>cih'ohóótiini'</i>
NON-AFF	<i>hoowcih'ohóótiin</i>
CONJ.ITER	<i>cih'ohóótiini'i</i>
CONJ.SUBJ	<i>cih'ohóótiini'éhk</i>

CONJUNCT ORDER, SUBJUNCTIVE MODE

Local Forms

1S/2S	<i>cih'ohú3enéhk</i>
1S/2PL	<i>cih'ohu3éneehék</i>
2S/1S	<i>cih'ohunéhk</i>
2PL/1S	<i>cih'ohúneehék</i>
2S/1PL	<i>cih'ohéi'eenéhk</i>
2PL/1PL	<i>cih'ohéi'éneehék</i>
1PL/2S	<i>cih'ohéenéhk</i>
1PL/2PL	<i>cih'ohééneehék</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>cih'ohéehók</i>	<i>cih'ohéehkóni'</i>
2S/3	<i>cih'ohetéhk</i>	<i>cih'ohetehkóni'</i>
3S/4	<i>cih'ohéehók</i>	<i>cih'ohéehók</i>
4S/4	<i>cih'ohéehók</i>	<i>cih'ohéehók</i>
1PL/3	<i>cih'ohéenóhk</i>	<i>cih'ohéénohkóni'</i>
12/3	<i>cih'ohééno'óhk</i>	<i>cih'ohééno'óhk</i>
2PL/3	<i>cih'ohééneehék</i>	<i>cih'ohééneehék</i>
3PL/4	<i>cih'ohééh(o)kóni'</i>	<i>cih'ohééh(o)kóni'</i>
4PL/4	<i>cih'ohééh(o)kóni'</i>	<i>cih'ohééh(o)kóni'</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>cih'ohúúmoohók</i>	<i>cih'ohúúmoohkóni'</i>
3/2S	<i>cih'ohúúnéhk</i>	<i>cih'ohúúnehkóni'</i>
4/3S	<i>cih'ohúúhók</i>	<i>cih'ohúúhók</i>
4/4S	<i>cih'ohúúhók</i>	<i>cih'ohúúhók</i>
3/1PL	<i>cih'ohéi'eehék</i>	<i>cih'ohéi'eehkóni'</i>
3/12	<i>cih'ohúúmo'óhk</i>	<i>cih'ohúúmo'óhk</i>
3/2PL	<i>cih'ohúúneehék</i>	<i>cih'ohúúneehék</i>
4/3PL	<i>cih'ohúúh(o)kóni'</i>	<i>cih'ohúúh(o)kóni'</i>
4/4PL	<i>cih'ohúúh(o)kóni'</i>	<i>cih'ohúúh(o)kóni'</i>

DEPENDENT PARTICIPLE

Local Forms

1S/2S	<i>hecih'ohu3éét</i>
1S/2PL	<i>hecih'ohu3éétiínínoo</i>
2S/1S	<i>hecih'ohúút</i>
2PL/1S	<i>hecih'ohúútoonínoo</i>
2S/1PL	<i>hecih'ohéi'éét</i>
2PL/1PL	<i>hecih'ohéi'éétiínínoo</i>
1PL/2S	<i>hecih'ohéét</i>
1PL/2PL	<i>hecih'ohéétiínínoo</i>

Direct Forms

	Singular Undergoer	Plural Undergoer
1S/3	<i>necih'ohéét</i>	<i>necih'ohéétno'</i>
2S/3	<i>hecih'ohéét</i>	<i>hecih'ohéétno'</i>
3S/4	<i>hicih'ohééton</i>	<i>hicih'ohééton(o)</i>
4S/4	<i>hicih'ohéétonin</i>	<i>hicih'ohéétonin</i>
1PL/3	<i>necih'ohéétiínínoo</i>	<i>necih'ohéétiínínoo</i>
12/3	<i>hecih'ohéétiinin</i>	<i>hecih'ohéétiinin</i>
2PL/3	<i>hecih'ohéétiínínoo</i>	<i>hecih'ohéétiínínoo</i>
3PL/4	<i>hicih'ohéétiínínoo</i>	<i>hicih'ohéétiínínoo</i>
4PL/4	<i>hicih'ohéétiínínoo</i>	<i>hicih'ohéétiínínoo</i>

Inverse Forms

	Singular Actor	Plural Actor
3/1S	<i>necih'ohúút</i>	<i>necih'ohúútno'</i>
3/2S	<i>hecih'ohúút</i>	<i>hecih'ohúútno'</i>
4/3S	<i>hicih'ohúúton</i>	<i>hicih'ohúúton(o)</i>
4/4S	<i>hicih'ohúútonin</i>	<i>hicih'ohúútonin</i>
3/1PL	<i>necih'ohúútoonínoo</i>	<i>necih'ohúútoonínoo</i>
3/12	<i>hecih'ohúútoonin</i>	<i>hecih'ohúútoonin</i>
3/2PL	<i>hecih'ohúútoonínoo</i>	<i>hecih'ohúútoonínoo</i>
4/3PL	<i>hicih'ohúútoonínoo</i>	<i>hicih'ohúútoonínoo</i>
4/4PL	<i>hicih'ohúútoonínoo</i>	<i>hicih'ohúútoonínoo</i>

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- <http://www.colorado.edu/csilw/archives/archives.htm> (Arapaho language texts with analysis, from curricular materials).
- <http://www.colorado.edu/csilw/research/ForSale.htm> (lists Arapaho materials available from University of Colorado Center for the Study of Indigenous Languages of the West).
- <http://www.linguistics.berkeley.edu/~arapaho/> (Arapaho-English and English-Arapaho dictionaries, plus audio dictionary, produced by Lisa Conathan).

INDEX

Note: where many different sub-entries occur under a single entry, such as 'Aspect', 'Evidentiality', or 'Modality', users should be aware that for the most part only the relevant pages numbers are provided for each sub-entry. The subentries are also listed separately, as their own entry in the index, and it is there that the user will find more fine-grained divisions of the matter in question (i.e. different pages related to different topics within the subentry). Similarly, in the subentries, the user will find more extensive cross-referencing to topics related to the subentry.

- Ablative absolute construction, 337
- Adjectives. *See* Nouns: 'adjectival'-like modification
- Admonitive ('should'), 252–253, 266; 'should be known', 257, 330
- Adverbial particles. *See* Particles: adverbial
- Adverbial clauses, 285–288, 289–291, 384–390; absolute/ablative absolute, 337; action/state participles, used as, 111; concessive, 234, 291–292, 389; conditional/'if' ('provided that') clauses, 89, 228, 253, 266–267, 291, 403, 427, 465; 238, 328; embedded in relative clauses, 385–386; instrumental, 389 (*see also* Instrumental); manner, 389; purpose, 289–290, 388, 422; reason, 388–389, 419–422; relative/adverbial roots, 384–385 (*see also* Relative/adverbial roots/preverbs/initials); result clauses, sentence-level syntax of, 422; sentence-level syntax of, 418–422; similative ('like . . .'), 389; substitutive ('instead . . .'), 389–390; syntax, internal (of clauses headed by adverbial particles), 342, 416–417; syntax, sentence-level, 417–422; temporal, 418–422. *See also* Conjunct Order; Particles: adverbial
- Adverbial modification. *See* Preverbs; Adverbial Clauses; Particles: adverbial
- Adverbial particles, 9, 330–348; comitative (*nohkúúhu*), 347–348; focusing device, use as, 330–330; formation, 333; heads of relative clauses introduced by, 382; incorporation of medials into, 341–342; interrogative, 244, 248; instrumental (*hi'íihi*), 342–346 (*see also* Instrumental); morphosyntax (internal), 339–342; negation, 340–341; nominal ('adjective-like') modifiers, as, 303–304; nouns, used as, 335–336; prepositions/postpositions, used as, 334,

- 340, 342, 343–344, 347; proclitics, used with, 340; pronouns, used as, 334–335, 343–344, 347; reduplication, 341; semantics/usage, 330–333, 333–338, 340–342; time/duration expression, 338, 460; verbs, used as, 337
- Aesthetics/poetic language: argument marking on verbs and, 370–371; nominal participles and, 111–112; secondary verbal derivation and, 370–371. *See also* Narrative; Personal names; Place-names; Prayer; Proverbial expressions
- Affirmative order; inflections, 75–80; pitch accents with, 30–34; usage, 75
- Agent, expression of, in passive and middle-voice constructions, 154–156
- Agent, indefinite, in verb constructions, 141, 194–195
- Agreement: of demonstratives with nouns, 306; of existential forms, with nouns, 309–310, 245–248; lack of, for objects of AIO verbs, 10, 354–366; lack of, for secondary objects of TA ditransitive verbs, 366–367; lack of, with verb, for nouns governed by /nohk/ ‘and/with’, 313, 347–348; lack of, with verb, for plural indefinite nouns, 296, 315, 317; of noun object with verb, 10, 349–371; of noun subject with verb, 59–60, 349–354; obligatory use of obviative with third- and fourth-person possessors, 62, 65; obviative possessors, 65; of possessed object with possessors, 60–68; of presentational forms with nouns, 309–310
- ‘All’, expression of, 211–213, 336; ‘everyone, all of them’ (with impersonal verbs), 194–195; using reduplication, 200, 202; ‘all, to completion’, 202; ‘each, every’, 103, 298
- Allative, 210
- Allophony, 14–16
- ‘Almost’, differing preverbs used to express, and their semantics, 219
- ‘And so forth’, ‘etcetera’, 313–314, 336
- Animacy, grammatical, of nouns, 51–53; semantically “inanimate” animate nouns, 478
- Animacy hierarchy (persons/animals/grammatical animates/inanimates): interaction with object-verb agreement marking, 354–358; interaction with proximate/obviative distinctions, 351–352; interaction with syntax, 10, 407–413
- Anterior tense/aspect: future, with /iix/ + subjunctive, 89; future indefinite, with /ei’/ + iterative, 294–295, 299; past, with /ei’/, 286–287; past indefinite, with /iix/ + iterative, 299
- Antipassives. *See* Object demotion
- Applicatives, 147–150, 175–177, 367–370; with sensory verbs having clausal complements, 391; *see also* Derivation, verbal: secondary
- Appositions, 405–406, 425–426
- Approximateness, expression of: particle *bebené(h)*, 326; with locative suffix, on time words, 71, 461; with potential construction, 238. *See also* Iterative mode
- Archaic words and forms. *See* Obsolete inflections; Obsolete preverb usage; Obsolete vocabulary
- Arguments, nominal, expression of, 9–12, 354–366, 400, 407–410
- Articles. *See* Demonstratives
- Aspect: anterior tense/aspect, 89, 286–287, 294–295, 299; completive /beet/, 209; continuative (/nosou/, /nououtow/, /wonoot/), 209 (*see also* Ongoing aspect); habitual (/ii/, /teco’on/), 202, 209, 286, 299–300; imperfective /ii/, 93–95, 119, 152–153, 198, 206, 281–282, 285–288, 299–300, 312, 345–346, 375, 384–385, 441, 467; inceptive/, 209; inchoative: *See* Verb finals, abstract derivational: inchoative; iterative, 87, 90–91, 200–201, 294–300; morphophonemics of, 95–96; morphosyntax of, 94; ongoing/progressive, 73, 92, 209, 217–218, 286, 467 (*see also* Verb finals, abstract derivational: inchoative); perfective, 93–95, 330; pluperfect (past anterior), 286–287, 299; present perfect, 73, 92; stative/descriptive. *See* Verb finals, abstract derivational: stative/descriptive; terminative(/ciin/, /ooh/), 209, 258; /(t)ii/ abstract final and relation to, 363–364; verb finals and relation to, 363–364; vowel-initial stems and, 95–96; with imperatives, 95, 281–282; with relative roots/adverbial clauses, 384–385
- Auxiliaries, verbal, 209–211
- Avoidance, of certain expressions, due to deference/politeness, 472
- Beesoowuunenno’* band, 464
- ‘Before . . .’ construction (in temporal adverbial clauses), 258–259
- Benefactives, 138–139, 147–148, 170–171
- Black Coal (Arapaho band chief), 464
- Blackfoot language, 5, 23, 141, 149
- Case marking. *See* Obviative marking
- Causatives and causation, 136–138, 146–147, 156–158, 172–174; by natural forces, 182–183; causation via social process, 136; hand, action/causation by, 144–145; imperatives and, 158, 274–275; lexical causative, 158; non-volitional/inanimate causation, 182–183, 345–346; tool, action/causation by, 137, 145–146. *See also* Reason clauses
- Celestial time, 462
- Center for the Study of Indigenous Languages of the West (CSILW), Univ. of Colorado, 7
- ‘Chance to do something’ construction, 330

- Cheyenne language, 5, 275, 317
 /CIH/ deictic directional preverb ('to here'), 206, 217, 223–226; with imperative, 273–274; used temporarily, 460–461
 /CII/ negation marker, used with direct and indirect imperatives, potential/suggestive imperative, all conjunct order modes, negative questions, narrative past tense, and lexical non-affirmative preverbs [/ibeexu/ , /eebeh/ , etc.], 81, 84 (as /cibeh/), 96, 107, 250–252, 257–259, 277, 279, 286
- Citational forms: emphatic, 448–449; in ordinary discourse (AI /ii/, TI /iit/, TA /ii3/), 390; in traditional narrative (AI /ee/, TI /eet/, TA /ee3/), 268, 293–294; syntax of, 294, 390
- Classifiers: with count/number verbs, 453–454; with verb stems, 177–180
- Cleft constructions, 423–425; independent existential verbs used in, 424; list of relative roots used in, 384–385; morphophonemics and morpho-syntax of, 425; multiple fronted elements in, 424; used to avoid higher numbers, 454; used to close discourse topics, 440
- Clock-time, 458–459
- Comitative, 'with a subsidiary' (/nohk/), 347–348; 'with an equal' (/niit/), 148–149, 369–370
- Comparatives, 228–230
- Complement clauses, 288–289, 290, 390–395: adverbial/relative roots in, 393–394; embedded in relative clauses, 394–395; finite complements, 390–392; implied object complements, 110, 390, 395; in syntactic focus position, 404; indefiniteness in, 319; 'knowing' verbs and, 391; non-finite complements, 392–393; object complements, 390–395; obligation/prohibition in, 391–392; secondary object complements, 390, 393, 394; sensory verbs ('see, hear, etc.') and, 391; sentence-level syntax of, 417–418; speech verbs ('tell, command, ask, etc.') and, 390; subject complements, 390, 393, 394–395
- Complementizer/relativizer (/toh/tih/), 288–289, 396–397
- Compound nouns, 100–104
- Compound verbs. *See* Serial verb construction
- Concessive clauses, 234, 291–292, 389
- Conditional/'if' clauses: 'if ... then ...', 89, 253 (then > results); 89, 267, 403, 427 (then > responses); contrary-to-fact, 228, 266, 291; 'even if ...' clauses, 234, 291–292; negative conditional, 89; 'provided that' clauses, 238, 328
- Conjunct order: inflections, 86–91; usage, 285–300. *See also* Dependent/conjunct participle; Iterative mode; Subjunctive mode; Simple conjunct mode
- Conjunctions: 'and', 312–313; 'or', 313
- Consonant clusters, 14; syncope and, 48; variable treatment of /hC/ cluster in initial change, 74
- Consonant inventory, 13–14
- Consonant-vowel sequences, disallowed/non-occurring, 15
- Continuity in discourse, indication of, 438
- Contractions, 42–43 (prosodically controlled), 248–249 (with yes/no questions involving *koo*=). *See also* Syncope
- Contrast/contrastiveness: contrastive focus position, syntactic, 400–402, 406–407, 415–416; contrastive indefinite nouns, marked with definite markers, 317; contrastive referents, in focus position, 402; indefinite pronouns/adjectives, used contrastively, 321–322, 402; personal pronouns, contrastive nature/use of, 320; pre-verbal positioning of contrastive referents, 10, 400–403
- Contrary-to-expectation construction: assumed positive found to be negative, 255; contrastive evaluation, 256; assumed negative found to be positive, 293, 328
- Contrary-to-fact constructions: 'if ...' clauses: 228, 266, 291; admonitive 'should have ...', 253; contrary to opinion, 256; unrealized obligation in past, 227–228. *See also* *hih*=
- Coordination, of clauses, 431–443
- Co-participant raising construction, 11, 148–149, 369–370
- Copulatives, 193, 426–429
- Co-referentiality: of person/number markers indexing both animate and inanimate arguments, 60, 404; of preverbs, 263–264, 429–430
- Counting: lexical time units, 460; number of days, 455, 460; ordered versus unordered quantities, 456–457. *See also* Numbers
- Cree language, Plains, 5, 9, 141, 178, 309, 315, 352, 353–354, 399–400, 413, 416
- Cross-linguistic joking, joke translations, 130, 185, 468, 473
- Dates and times, 457–462
- Deference and politeness, 250–251, 275, 278–279, 281, 283, 472
- Definite markers, 314–315; used to mark contrastive indefinite referents, 318; used to mark discourse relevancy of indefinite referents, 315–317, 402; with locatives, 318; with personal names, 318; with place-names, 318; with possessed nouns, 318
- Definiteness, nominal, 314–319; marking of, with demonstratives, 314–315; unmarked definite referents, 318
- Deincorporation, 4, 9; instruments and modes of action, 343; possessed objects, 191; predicate

- nominals, 193; preverbs, 330–337; produced objects, 192; similative/comparative formations, 193; topics, 193–194. *See also* Detachment construction
- Deictic forms: preverbs, 93, 206, 213–217, 223–226, 273–274 (with imperatives); morphosyntax of, 225–226; temporal usage, 224–225, 460–461. *See also* /cih/; Demonstratives; /eh/; Pronouns: personal
- Delayed/future imperative, 264–265, 277–279
- Delimiters, 211, 326
- Demonstratives, 306–309; emphatic, 306–307, 309; reiterative ('that aforementioned'), 307–309; pragmatics of reiterative form, 308. *See also* Definite markers; Definiteness, nominal
- Demonstrative adjectives/pronouns, 306–309, 321–322
- Denominalization, 189–196. *See also* Incorporation
- Deontics. *See* Obligation
- Departures, 444, 449
- Dependent/conjunct participles, 374–380; formation, 374–375; indefinite, 379; inflections, 376–377; morphophonemics of, 375; morphosyntax of, 377; passive, 379; questions, usage in, 245–246; replacement by affirmative order verbs, 467; semantics of, 378–380; syntax of, 378–380; tense and aspect with, 377; usage, 87, 91, 374–380
- Derivation, adverbial particles, 333, 475–476
- Derivation, cyclical (noun-to-verb-to-noun, etc.), 162–163
- Derivation, nominal, 99–119, 475–476; action/state participles, 108–109, 476; agent/undergoer forms with /i(h)ih/, 116; body part deverbals, 115; compound nouns, 100–104; dependent participles, 374–376, 476; detached preverbs, 304, 476; diminutive, 105–107; finals, concrete, 100–101, 476; initials, 100–103, 475–476; instrument/product deverbals, 113; locations, 117; male/female forms, 105; medials, 100–101, 476; noun singular forms, from noun stem, 54, 476; pitch accent shifts with, 32–33; preverbs, 100–103, 476; 'young of' with /i(h)soon/, 104–105
- Derivation, preverbs, 206–208, 214, 217–218, 475–476; preverbs, 100–103, 475–476
- Derivation, verbal, 121–188; denominalizations, 189–195; detached preverbs, 231–232, 476; initial change, 476 (*see also* Initial change); initials, 206–209, 475–476; medials, 168–172, 476; finals, abstract, 121–164 (*see also* Verb finals, abstract derivational); finals, concrete, 165–88, 476 (*see also* Verb finals, concrete); preverbs, 206–209, 214, 217–218, 475–476 (*see also* Preverbs); reduplication, 197–198, 475–476 (*see also* Reduplication); secondary, 10–11, 122–123, 150–151, 356–358, 367–371 (*see also* Applicatives; Benefactives; Causatives and causation; Middle voice constructions; Passive; Reciprocals; Reflexives)
- Desiderative ('I wish that . . .', 'I hope that . . .'), 234, 253, 267
- Detachment construction, with /ini/: preverbs, 304; preverbs, 231–232, 348
- Determiners. *See* Demonstratives
- Detransitivizer (/i/), 133; usage of with impersonal verbs, 194; usage of with number/count verbs, 452–453; usage of with 'to have a . . .' construction, 189–191, 200
- Deverbals. *See* Nominalization: deverbals used for; Participles
- Dictionaries, Arapaho, 5
- Diminutive, on noun stems, 105–106; nominal inflections, 106; nominal morphosyntax of, 107–108; with possessed nouns, 106, 108
- Diminutive, on verb stems, 132–133
- Diphthongs, 15, 41–42, 45–47
- Directionals and directionality. *See* /cih/; Deictic forms; /eh/; Particles, locative; Preverbs: direction and location
- Discontinuity of reference, discourse-level marking of, 401–402, 437–438
- Discontinuous constituents, 422–423
- Discourse segmentation, 431–443
- Dislocations: left, 405–406; right, 425–426
- Distributives: *hécyow* ('each, every'), 103 (with nouns), 298 (with verbs); *hité3eci3i3i* ('each'), 305–306
- Ditransitive verbs, 366–367; dependent participles of, 375–376. *See also* Objects, secondary
- Dubitative mode (*he'* =), 296–298; contrary-to-expectation, 255; contrastive/negative evaluation, 256; implied ('I wonder . . .') questions, 251, 254–255; probability, 255. *See also* Indefiniteness; Iterative mode; Narrative past tense; Pronouns: indefinite
- /EE/ AI derivational final: action on indefinite objects, 135–137, 168–169, 169–172, 175–177, 190, 200; allomorphs of, 170; middle voice, 140–141; usage of /eee/ variant with gathering/producing construction, 192
- /EETIH/ simple conjunct preverb ('so that, in order that'), 206, 286, 289–290, 388; in complement clauses, 390, 392, 422; pseudo-imperative, 279, 289
- /EH/ deictic directional preverb ('away from here'), 206, 223–226; with future tense, 93; with imperative, 273–274; used temporally, 460–461

- Embedded commands, 279, 289, 391–392
- Embedded questions: substantive, 319; yes/no, 254
- Embedded wishes, 279, 289, 392
- Embedded/nested relative clauses, 381
- Emphasis/emphatic expression: adverbial particles as a means of, 9, 332 (*see also* Particles: adverbial); citational forms, 448–449; cleft constructions, used for, 423–425; deincorporation as a means of, 9, 11 (*see also* Deincorporation); demonstratives, 306–307, 307, 309; embedding of adverbial and complement clauses in relative clauses for, 385–386, 394–395; gender-specific particles, 443–444; *hiikóót* ('and what's more . . .'), 435–437; *howóó* ('even, and even . . .'), 434–435; imperatives, 271–274; indefiniteness, 319; negation, 257, 443; 'no matter how . . .!' construction, 254; nominal argument expression as a means of: *See* Arguments, nominal, expression of; object-verb agreement as a means of, 10–11, 354–371; particles, 443–448; perfective aspect, 330; pre-nouns, 304; presentation forms, used for, 311, 385–386, 401–403; preverbs, 231–232; prohibitive, 273; proximate/obviative distinction, 349–352; repetition (*koox*=), 234, 236–237; syntax (pre-verbal positioning) as a means of, 9–10, 11, 400–410, 415–416; 'how . . .!' construction, 253–254. *See also* Contrary-to-expectation construction; Detachment construction; Insults; Intensifiers and intensification; Narrative; Obligation; Prayer; Rapid action; Retorts; Saliency; *wohéi*
- Endangered Language Fund, Yale University, 7
- Endearment, vocatives of, 69
- Epenthetic consonants: lack of /n/ with affirmative future/delayed imperative, 277; lack of /t/ with dependent participles, 375; /n/ with future tense, 92–93; /t/ with possession markers, 61
- Epenthetic vowel (/i/), 16, 43, 47, 50, 101, 207; pitch accent on, 26–27, 476
- Epistemic mode. *See* Probability
- /ETI/ (obligation and future tense marker), 91–96, 205–207, 243–244, 249, 250–251, 254–255, 281, 290, 294–295, 298, 425; in complement clauses, 290, 391–392; with dependent participles, 245, 377; as future/delayed imperative, 277–279; as obligation marker, 205–206, 227–228, 290, 292, 391–392
- 'Even if . . .'/ 'even though . . .', 234, 291–292, 389
- ' . . . ever' constructions: however many, 296; whatever, 295; whenever, 87, 91, 295; wherever, 202–203, 297; whoever/whomever, 319, 322. *See also* Indefiniteness; *toon*=
- Evidentiality, 265–269; contrary-to-reason construction, 329, 445; contrastive/negative evaluation, 256; 'customarily, as a rule' construction, with *héénoo*, 328; dubitative, 296–298; hearsay, 260, 267–268, 292–293; inference, 234, 256, 267, 294; implied questions, 251, 254–255, 266, 297; 'it is well known that . . .' construction, 445, 448; 'it should be known/you should know that . . .' construction, 330; mirative/contrary to expectation, with *hiíwo'*, 255, 293, 328; narrative past, with subjunctive inflections, 268, 293; narrative past tense, /e'ih/ + non-affirmative, 260–262; possibility, 253, 254–255, 266, 329; probability, with *he'*= + non-affirmative, 255; reported speech: *See* Citational forms; reported thought, 293; supposition/'supposed to', 257, 292, 328. *See also* Indefiniteness
- Existential constructions: existential questions ('where is . . .?'; 'who is . . .?', 'what is . . .?'), 245–248, 310; with noun incorporation (predicate nominals), 193–194, 427–428; pseudo-verbal presentational forms, 309–312 (*see also* Presentational constructions); pseudo-verbal, with /ini/, 231–232; semi-existential verbs, 428–429. *See also* Cleft constructions, independent existential verbs used in; Copulatives; Incorporation, existential; Predicate adjectives; Questions: existential; Relative/adverbial roots/preverbs/verb initials: formation of independent verbs from; Verb finals, abstract derivational: existential
- Experiencer/undergoer, sensory, verbal constructions involving, 180–182
- Extension, grammatical. *See* Grammatical extension
- Extension, spatio-temporal, 201, 202–204; using inchoative verb finals, 130. *See also* Indefiniteness: spatio-temporal; Indefiniteness: temporal; Iterative mode
- Finals, concrete, nominal, 104. *See also* Derivation, nominal
- Finals, concrete, verbal. *See* Verb finals, concrete
- Focus position, syntactic, 11, 400–405, 415–416
- Focus shifting in discourse: using 'oh, 251, 401–402, 437–438; via change in NP placement, 406–407. *See also* Narrative; Particles: presentational; Presentational constructions; Syntax: introduction of new referents into discourse; Syntax: re-activation of referents in discourse; *wohéi*
- Focusing constructions. *See* Emphasis/emphatic expression; New information
- Folk etymology, 472–473
- 'for example . . .' 438–439
- Ft. Laramie, 1851 Treaty, 2
- Friday (Arapaho band chief), 464

- Fronting. *See* Cleft constructions; Focus position, syntactic
- Future tense, 92–96; with cleft constructions, 384–385, 425; with dubitative, 298; with embedded and implied questions, 254–255; future anterior (with /iix/), 89; with imperative (delayed imperative), 277–279; indefinite future, 294; indefinite future anterior, 294–295; used as imperative, 281
- Geminate consonants, secondary, 49
- Gender, grammatical (animacy and inanimacy), 51–53; ambiguous animacy (word's gender varies by speaker, without change in meaning), 477; animacy shifting, 52–53; dual-gender words (animate and inanimate forms have separate meanings), 52; semantic categories which are always animate, 51–52
- Gender (of speaker)-specific particles, 439–440, 443–444
- Goggles, John (important Arapaho consultant, 1949–1950), 413–415, 464
- Grammaticalization, of lexical items: deictic directionals /cih/ and /eh/, as emphatic imperative markers, 273–274; /eeyouhuuh/ 'a thing', as indefinite pronoun, 323; /ineniteen/ 'a person', as indefinite pronoun, 323; /koohu/ 'to run', as a rapid-action marker, 184; /o'ooowu/ 'house', as a general locative form, 117; reduplicated form /nee-/ , as intensifier, 204, 252, 348
- Grammatical extension, of grammar morphemes: deictic directionals /cih/ and /eh/, as time markers, 224, 225; instrumental /i'i/, as inanimate agent/subject agreement marker, 246–247, 345–346; locative, to indicate approximate time, 71, 461; locative, to indicate 'from/within' a group of people, 71; obligation marker /eti/, as delayed imperative, 277–279; obligation marker /eti/, as potential/irrealis marker, 227–228; potential construction (*hei*=), to indicate temporal indefiniteness, 238; potential marker /eebeh/, to conditional uses, 253, 266, 268, 465
- 'Great' relative construction (great-grandfather, great-grandchild, etc.), 67, 68
- Greetings, 252, 449. *See also* Departures
- Gros Ventre language, 76, 268
- Gros Ventre tribe, 2
- Habitual aspect, 119, 198, 202, 286, 299–300; lexical preverbs indicating, 209; with lexical time expressions, 458; via reduplication, 202; with relative roots, 384–384
- 'Have a . . .' construction, 189–191, 200
- 'Have as a . . .' construction (relatives and family), 80, 191–192
- He'*= (dubitative proclitic), 234, 247–248, 251, 255, 296–298, 396, 442; in indefinite pronouns, 322–323; in narrative past tense, 260–262
- Hei*= (potential proclitic), 234, 237–238, 291
- Hesitation. *See* Particles: hesitation
- Hih*= (contrary-to-fact proclitic), 228, 237, 253, 267, 291–292, 417, 427
- Historical evolution of Arapaho, 84, 261–262, 265–266, 361, 373, 374–375, 378. *See also* Grammatical extension; Grammaticalization; Lexicalization; Obsolescence effects; Obsolete/Archaic Inflections; Obsolete/Archaic preverb usage; Obsolete/Archaic vocabulary
- 'How . . .!' emphatic predicative construction, 253–254
- Hypothetical mode: 'if/in case', 417; contrary-to-fact 'if' clauses, 228, 266, 291
- 'I guess that . . .', 294
- 'I hope that . . .', 234, 253, 267
- 'I wonder if . . .', 254–255, 266
- 'I wish that . . .', 234, 253, 267
- 'I wonder what/how/etc . . .', 251, 254–255, 297–298
- /IH/ (past tense marker), 92–95, 206, 209–210; with cleft constructions, 423–424; in contractions with *koow*=, 248–249; with dependent participles, 377; with dubitative, 251, 297–298; with indirect questions, 254–255; as narrative past (/e'ih/), 260–262; with relative roots, 384–385; as unrealized future/obligation in past (/nih'et/), 227–228. *See also* Past tense
- /II/ (imperfective aspect marker), 74, 93–96, 198, 206; with conjunct order preverbs, 286, 299–300; with dependent participles, 375; with /e'ne'i/ sequencing preverb, 441; with imperative, 95, 281–282; with imperfective passive, 152–153; with indefinite past tense, 299–300; with *koow*=, 249; with nominalizations, 119; with non-volitional causes, 345–346. *See also* Habitual aspect; Imperfective aspect
- /IIX/ (perfective aspect marker), 93–95, 330; with future anterior tense/aspect, 89; with past anterior (pluperfect) tense/aspect, 299; with /e'ne'i/ sequencing preverb, 441
- Immersion schools, 2
- Imperatives and imperative order, 84–86, 95, 271–283; aspect (imperfective) with, 95, 281–282; deictic directionals with, 273–274; direct imperative, 84–85; embedded commands (clausal complements of imperative verb), 289, 391–392; emphatic, 273–274; future/delayed, 264–265, 277–279; future tense used as, 281;

- inflection, 84–86, 275–279; lexical imperatives/ imperative particles, 271–272; II verb stems, used as imperatives, 273–274; impersonal verbs, as imperatives, 279–280; indirect imperative, 85–86, 274–275; middle-voice verbs, as imperatives, 280; morphosyntax of, 281–282; negation (of potential/suggestive), 277; pitch accent of, 34; pitch accent shifts with, 31–32; potential/suggestive, 264–265, 275–277; preverb, 272–273; prohibitive, 84, 273, 274–275, 278; pseudo-imperative (/eetiħ/ ‘let it be that . . .’), 279, 289; syntax of (imperative clauses), 282–283
- Imperfective aspect, 93–96, 198, 206, 299–300; aberrant uses of, 467; with dependent participles, 375; with /e’ne’i/ sequencing preverb, 441; with imperatives, 95, 281–282; with imperfective passive, 152–153; with nominalizations, 119; with non-volitional causes, 345–346; in plain conjunct order, 285–288; with presentational constructions, 312; with relative roots/preverbs/initials, 384–385. *See also* Habitual aspect; /ii/ imperfective aspect marker
- Imperfective passive, 152–153
- Impersonal verbs, 194–195, 279–280; as imperatives, 279–280; formation of, 194; with /bisi/, meaning ‘everyone’, 194–195, 212; with negation or yes/no interrogation, meaning ‘anyone/no one’, 194–195
- Inanimacy, grammatical, of nouns, 51–53
- Inanimate nouns, used as animates, 52–53
- Inanimate/non-volitional agents, causes, and subjects, with animate objects/undergoers: experiencer/undergoer constructions, 180–182; in transitive (TA) verbs, 127; expressed with AI verbs and instrumental marker, 246–247, 345–346; in questions, 246–247; natural forces construction, 182–183
- Incorporation, 4, 7–9, 165–188; of adjectival modifiers, 305; body part medials, 169–171; ‘carrying a . . .’ construction, 172; of clausal complements, 392; acquisition/ ‘get a (new/ additional) . . .’ construction, 191; clothing medials, 171; concrete finals, verbal, 8, 165–188; constructions using, typology of, 167–168; examples of (unusual), 186–188; existential/ ‘there is . . .’ construction, 193–194; in adverbial particles, 341–342; of instruments and means, 8, 172–174; medials, verbal, 8, 166–172; object/undergoer incorporation, as medials/concrete finals, 168–169; object incorporation, as noun-like verb initials, 184–186; possession/ ‘have a . . .’ constructions, 80, 189–192, 200; predicative/ ‘to be a . . .’ construction, 192–193; production/ ‘make a . . .’ construction, 192; simulative/ ‘like a . . .’ construction, 193; of non-volitional topics, 8, 177–180; typology of, 165–168
- Indefiniteness: agent (impersonal verbs), 194–195, 279–280; collective forms (‘each, every’), 103, 298; definite markers with contrastive indefinite nouns, 317; dependent participles and, 379; distributive forms (‘different, various’), 103; dubitative *he’=*, 296–298 (*see also* Dubitative); indefinite-object verb stems, 133, 134–136, 364–366 (*See also* /yei/, /ee/); manner (‘somehow’), 296–297; marking of, with reduplication, 202–203, 297; nominal, 295–296, 314–319; possessor, 67; pronouns, 296–298, 314 (‘etcetera’), 322–323; quantity, 296, 298; relative roots, 295–297; spatio-temporal, 202–203, 298; temporal, 87, 90–91, 294–295, 298, 299–300 (*see also* Iterative mode); unknown/indeterminate existence, 318–319. *See also* Approximateness; Evidentiality; *he’=*
- Independent order. *See* Affirmative order; Non-affirmative order
- Indirect imperative, 85–86, 274–275
- Indirect questions. *See* Questions: embedded; Questions: implied
- Inference, 256, 267; with *wot=* (‘I guess that . . .’, ‘apparently’), 234, 294
- Inflection, aspectual, 93–96. *See also* Habitual aspect; Imperfective aspect; Perfective aspect; Present/present perfect aspect; /ii/ imperfective marker; /iix/ perfective marker
- Inflection, nominal, 51–72; demonstratives, 306; dependent participles, 374–377; locative, 70–72; obviate, 57–59, 321–323 (inc. *céése’* > *cééxoon*), 353; pitch accent shifts with, 32–33, 37–40; plurals, 54–59; possessive, 60–68; presentational forms, 309–310; pronouns, 320, 321–323; vocative, 68–69
- Inflection, tense, 92–96. *See also* Tense
- Inflection, verbal, 73–98; 479–499; affirmative order, 34, 75–80, 129, 477; animacy hierarchy and, 351–354, 356–358; conjunct order, 86–91; dependent/conjunct participle, 374–377; direction-of-action/theme markers, 34, 77–78, 124–125, 136–138; imperative order, 34, 84–86, 275–276, 277, 278; initial change and, 73–74; irregular third person, 76, 85, 129, 477; iterative mode, 34, 90–91; non-affirmative order, 34, 81–84; person hierarchy and, 78; pitch accent of, 34; pitch accent shifts with, 30–35; plain conjunct mode, 91; stem classes, 8, 74–75; subjunctive mode, 34, 87–89; theme/direction-of-action markers, 34, 77–78, 124–125, 136–138
- Initial change, on verb stems, 73–74, 90, 92, 467; irregular, 74, 476; lack of, with relative roots, 384; lack of, with subjunctive, 87

- Instruments and means: deincorporated from verb, 343; expressed in verb, 172–174
- Instrumental (/i'i/ and hi'ihi'), 111, 206, 334–335, 342–346; agreement marker, as, 342–343, 346; 'call thusly, to', expressed with instrumental, 345; 'concerning, about', 345; imperatives, with, 282–283; implied instrumentals, 111; implied objects, marked by instrumental in dependent participle construction, 377–378; lengths of time, 345, 460; morphosyntax of, 346; non-volitional subjects/causes indexed by, 246–247, 345–346; pronoun, as a, 335
- Insults, 69. *See also* Retorts
- Intensifiers and intensification, 211–212, 234, 236, 238–239, 445, 448; using inchoative verb finals, 130; using reduplication, 202
- Interjections. *See* Particles: emphatic
- Intermorphemic rules, 16–22
- Interrogation (using proclitics), 242–244, 247–250; on determiners, 235; morphosyntax of (using *koo*=), 249–250; on nominal forms, 107, 242; non-verbal attachment of, 228, 249–250; on particles, 228, 235; using proclitic *hēnee*'= 'who/whose', 247; using proclitic *koo*'= 'yes/no', 242, 248–249, 249–250; using proclitic *toot*'= 'where', 243–244, 249–250. *See also* Questions
- Involuntary/non-volitional action/causation (by non-animate objects), 127, 129–131, 180–183, 246–247, 345–346
- Irrrealis, 265–269. *See also* Conditional/'if' clauses; Contrary-to-expectation constructions; Contrary-to-fact constructions; Delayed/future imperative; Dubitative; Evidentiality; *he'*=; *hei*=; *hih*=; Indefiniteness; Modality; Negation; Potential constructions; Potential/suggestive imperative; Questions
- Iterative aspect/iteration: and iterative mode, 87, 90–91, 294–300; reduplication and, 200–201. *See also* Distributives; Habitual aspect
- Iterative mode (of conjunct order): with dates and times, 458–459; inflection, 90–91; pitch accent of, 34; pitch accent shifts with, 31; usage, 87, 90–91, 294–300. *See also* Distributives; Dubitative; Evidentiality; Future tense: indefinite; Future tense: indefinite anterior; Indefiniteness; Pronouns: indefinite; 'No matter how . . . !' construction; Past tense: indefinite
- Joking and joking relationships, 472. *See also* Cross-linguistic joke translations
- Kroeber, Alfred, 7, 111, 127, 268, 306, 371
- Left dislocation, 405–406
- Lexicalization: abstract preverbs/verb initials, in verb stems, 220–221; action/state nominal participles, 109–110; adverbial particles, 335–336, 342; demonstrative *hīni*' + particle *hiit* as emphatic demonstrative, 309; dependent participles, 380; diminutive verb forms, 132–133; headless, adverbial relative clauses, 386–387; inchoative forms, 131; inchoative verb final, as 'go' and 'flow', 130–131, 455; indefinite-object /*yei*/ verb stems, with reference to prototypical objects, 135; instrument/product deverbals/dependent participles, 113–115; prenoun/noun combinations, 301–302; rapid-action verb final /*ihcehi*/ in combination with various initials, 159; rapid-action verb final /*ihcehi*/ as 'jump' and 'run', 132; rapid-action verb final /*ihcehi*/ + position/transition /*si*/ as 'bounce', 132; rapid/violent action marker /*kuu*/ as 'throw', 137, 157; reduplicated forms, 204; verbs, as verbal nouns, 118–119, 342
- Location. *See* Inflections, nominative: locative; Preverbs: direction and location; Particles: locative
- Locative inflectional suffix, 70–72, 117; pitch accent shifts with, 32; usage/semantics of, 71–72, 117; used with expressions of time (meaning 'around, about X time'), 71, 461; used with verb stems, as deverbalizer, 71, 117
- Locative particles, 72, 326–327
- London, University of (Hans Rausing Endangered Language Documentation Program), 7
- Lullabies, 69
- Male/female forms, of nouns, 105
- Manner, expression of: action/state participles, in, 111–112; adverbial particles, used to express, 330–334, 338; deincorporation of (with adverbial particles), 330–332; preverbs/initials, 218–219; incorporation of mode/manner of action construction, 174–177; nominalization of, with adverbial particles, 336
- Massachusetts language, 4, 377, 399
- Medials, verbal, 8, 166–172; definition of, 166; derivation of, 188; in adverbial particles, 341–342
- Metathesis, of glottal stop, 41
- Miami-Illinois language, 269
- Michelson, Truman, 268, 306, 309, 421
- Middle voice constructions, 140–141, 169–171, 190, 200; expression of agent in, 154–156; as imperatives, 280; nominalizations of, 119
- Mirative (contrary-to-expectation) construction, 255, 293, 328
- Modality, 265–269; admonitive/'should' 252–253, 266; concessive/'even if', 234, 291–292, 389; conditional/'if . . . then . . .', 89, 253 (then >

- results); 89, 267, 403, 427 (then > responses); contrary-to-expectation construction: 255, 293, 328; contrary-to-fact/irrealis, 227–228, 253, 256, 266, 291; deontic/obligation, 227–228, 234, 281–282, 290, 328, 391–392; dubitative, 251, 254–255, 296–298; epistemic/probability/possibility, 253–255, 266, 329; hypothetical, 228, 266, 291, 417; ‘opportunity to, chance to . . .’, 330; optative/wishes, 234, 253, 267; potential, 237–238, 253, 266–267, 291, 329; ‘provided that’ clauses, 238, 328; subjunctive, 89, 267, 403, 427
- Mode of action: deincorporated from verb, 345–346; expressed in verb, 174–177, 183–184
- Morphophonemics: action/state participles, 108–109; affirmative order, first person exclusive suffix, 76, 77; /beetoh/ ‘want to . . .’, 211; ‘by tool’ TA derivational final (/oh/), 79, 145, 496–499; cleft constructions, 425; contractions of *koo*-, 249; deictic preverb /eh/, 93; dependent participles, 375; detachment construction, 231; deverbals, 113; future/delayed imperative, 277; future tense, 92–93; imperative, 85; impersonal verbs, 194; initial change, 73–74; instrument/product participles, 113; medials, 188; obviative inflections on nouns, 57–59; past tense, 92; possession, 61–63; plural inflections on nouns, 54–59; prenouns, 100–103; preverbs, 206–209; proclitic attachment, 234–235; reduplication, 197–198; relative roots, 384–385; verb finals, concrete, 188; verb finals, dependent, 184; vowel-initial verb stems and preverbs, 95–96, 197–198, 384–385
- Morphosyntax: aspect markers, 94; citational forms, 294; cleft constructions, 425; deictic forms, 225–226; dependent participles, 377; diminutive (nominal), 107–108; dubitative, 298; imperatives, 281–282; instrumental preverb, 346; medials (verbal), 165–168; negation, 82; non-affirmative order, 82; nouns, complex, 107–108; noun stem, 100–101, 104; particles, adverbial, 339–342; possession, 61, 107; preverbs, 205–209; proclitics, 235–236; proclitics, interrogative, 249–250; questions/interrogation, 81–82, 241–244, 249–250; reduplication, 197–198; tense markers, 94; verb initials, 205–209; verb finals, abstract, multiple, 162–164; verb stem, 121–123, 165–168; verbs, 7–8
- Moss, Paul (stories of), 5, 23, 260, 306–307, 309, 400, 413, 415, 416–417, 418, 421, 439–441
- Mutation, consonant, 18–20, 55–56, 62
- Narrative: discourse relevancy markers in, 315–317, 402; formulaic opening, 442–443; formulaic summation phrases, 307, 440; higher-than-normal occurrence of nouns phrases and especially two noun phrases in, 413, 416; implied past tense in, 263–264; marking of new discourse topics in, 439–440; obviative marking in, 84, 260–261; reported speech in, 293–294; reported thought in, 293; sequencing particles and preverbs, 440–443; special grammar of, 260–264; strophes/stanzas marked in, 439; subordinate clauses in, 261–262, 374; use of conjunct subjunctive as evidential in, 268, 293, 293–294; use of dubitative in, 298; use of *howwo* in closing commentary sections of, 434
- Narrative past tense /e’ih/, 260–262; replacement by /e’/ with pronouns, 262; replacement by /eh/ with number expressions, 262–263
- National Anthropological Archives, 7
- Negation, 81–84, 257–259; of adverbial particles, 340–341; conjunct order and, 257–258; emphatic, 257, 443; future/delayed imperative, 278; future tense, 259; imperatives and, 257–258; lexical negative preverbs/verb initials, used with affirmative order, 258–259; marker of, 81, 257–258; morphosyntax of, 82; narrative past tense and, 257; ‘never’, 258; ‘no longer/not any more’, 258; of nominal forms, 107; non-affirmative inflectional order and, 81; ‘not yet’, 258; potential/suggestive imperatives, 277; pseudo-imperatives, 279; questions and, 95, 257; vowel-initial stems and, 95–96. *See also* /cii/ negation marker
- Neologisms, 463, 466, 473
- New information. *See* Focus position, syntactic; Particles: adverbial; Particles: presentational; Presentational constructions; Relevancy, of nouns for discourse; Saliency; Syntax: introduction of new referents into discourse
- Nishnaabemwin (Ojibwe) language, 4, 149, 166, 178, 309, 317, 399
- ‘No matter how . . .’, emphatic predicative construction, 254, 297
- Nominalization: action/state, 108–112, 393; agent/actor, 116–117, 118–119; body-part deverbal forms, 115; characterization (‘one who is characterized by X trait’), 116–117; deverbals used for, 113–115; formation of, 113; instruments, 35–36, 113–115; locations, 71–72, 117, 386; manner, 336 (*see also* Manner: nominalization of); participles used for, 108–112; patient/undergoer, 116–117, 380; possessor nominalization (‘one who has X’), 116–117; products, 113–115; semantics/usage of, 113–115; time, 386–387. *See also* Dependent participle; Relative/adverbial roots: syntactic nominalizations; Verbal nouns
- Non-affirmative inflectional order; with imperative, future/delayed, 264–265, 277–279; with

- imperative, suggestive /potential, 264–265, 275–277; inflections, 81–84; pitch accent of, 34; pitch accent shifts with, 31; substantive /wh-questions using, 241–248; tense and aspect with, 94–95; usage, 241–270. *See also* Dubitative; Evidentiality; Irrealis; Modality; Negation; Questions
- 'Not yet' construction, 258, 329
- Nouns, and grammatical gender, 51–53
- Nouns: abstract, 108–112, 387–388; 'adjectival'-like modification, 301–306; alternate plural forms, 56; compound, 100–104; definite, marking of, 314–315; dependent/final, 104; derivation of: *See* Derivation, nominal; indefinite, 314–315; inflection of: *See* Inflection, nominal; interrogatives and, 107; locative forms, 70–72, 117, 318; morphosyntax (internal) of, 107–108; negation of, 107; obligatorily plural forms, 56; obligatorily possessed forms, 66–68, 318; plural, 54–59; plural of mass nouns, 56; possession of, 60–68, 107, 303, 318; proclitics used with, 107, 235; relevancy, in discourse, marking of on indefinites, 315–317; verbal, 118–119; vocative forms, 68–69. *See also* Participles
- Noun incorporation. *See* Incorporation
- Noun phrases: adjectival-like modification, 302–304; demonstratives in, 306–309, 311, 314–318; detachment construction in, 304; focusing constructions, used with new and re-activated referents, 311, 400–403; internal syntax of, 323–324; markedness of occurrence in main clauses, 400, markedness of occurrence in subordinate clauses, 417; occurrence of, with grammatically intransitive verbs, 9–12, 354–371; occurrence of, in main clauses (percentage of clauses), 400; occurrence of, in subordinate clauses, 416–417; optional occurrence of, with transitive verbs, 9–12, 354–371; particles, modifying, used in, 303–306; position of, in main clauses, 399–415; position of, in subordinate clauses, 416–417; presentational constructions, 309–312; presentational particles, used with new and re-activated referents, 431–439; ranking of, in relation to syntactic position (pre- or post-verbal), 411; tendencies in syntactic occurrence of, by type, 407–410; tendencies in syntactic placement of, by type, 407–410; two NP's, occurrence and placement of in main clauses, 400, 402, 408, 410–413, 415. *See also* Emphasis/emphatic expression; New information
- Noun stems, 100; *see also* Derivation, nominal; Nouns: morphosyntax (internal) of
- Number marking: on dependent participles, 374–376; lack of (partial), with conjunct iterative transitive forms, 90–91; lack of (partial), with lower ranked marked participant, due to person hierarchy, 80; on presentational constructions, 309–310; on pronouns, 320, 322–323; on verb stems: *See* Inflection, verbal; with possession, 60–61, 66–67
- Numbers: counting, 451–452; group-count/collective, 455; ordinal, 454–455; preverb marker used with number verbs, 456; verbal, 452–454
- Object demotion. *See* Detransitivizer (/i/); /ee/; Incorporation; Indefiniteness: indefinite-object verb stems; Semi-transitive AIO verb stems; Verb finals, abstract derivational: action-objects intransitive (AI) stems; Verb finals: abstract derivational, detransitives; /yei/
- Object incorporation. *See* Incorporation: object; Incorporation: object-undergoer
- Object-verb agreement. *See* Agreement: noun object-verb
- Objects, implied (of AIO verbs), 354–355, 357, 358–366; complement clauses as, 390; in questions, 377–378; in syntactic focus position, 405, 409
- Objects, secondary (of TA ditransitive verbs), 366–367; complement clauses as, 390; definition of, 367; in syntactic focus position, 405, 409
- Obligation, expression of, 227–228, 234, 281–282, 290, 328; in complement clauses, 290, 391–392. *See also* Imperative: empathic; Imperative: future/delayed
- Obsolescence effects, 300, 396–397, 449, 454, 466–468
- Obsolete/ archaic inflections: nominal, 56, 245, 309; verbal, 184, 27, 248, 260–262, 268, 352–354
- Obsolete/ archaic preverb usage, 312, 396
- Obsolete/ archaic vocabulary, 310, 443
- Obviation, grammatical vs. pragmatic, 352
- Obviative marking: with agents in passive and middle voice constructions, 155–156; archaic, on 'fifth' persons, 353–354; demonstratives, 306; on existential pseudo-verbs, 246, 309–310; fourth/first person, "split" first person, 352–353; on fourth-person-possession nouns, 65–66; on nouns, 57–59; object-verb agreement, 359–364; possession by obviative possessors, 65–66; on presentational constructions, 309–310; on pronouns (personal; indefinite; contrastive), 320–323; subject-verb agreement, 59–60, 349–354; on third-person-possession animate nouns, 62, 352; with two obviatives/ 'fourth' persons, 352–354; on verbs, 351 (*see also* Inflections: verbal)
- Obviative arguments, in syntactic focus position, 404

- Ojibwe language(s). *See* Nishnaabemwin language
- Oklahoma. *See* Southern Arapaho
- Ongoing aspect, 73, 92, 467; aspectual preverbs, 209; root /e'ecex/, 218, 286; root /konow/, 217. *See also* Present tense; Verb finals, abstract derivational: inchoative
- 'only', concept of: delimitation (/beexo' /, bée'beet), 211, 326; devaluation, minimization (/bi'/), 211
- 'Opportunity to . . .' construction, 330
- Optative mode. *See* Desiderative
- Orders, inflectional, 75. *See also* Affirmative order; Conjunct Order; Imperative Order; Non-affirmative order
- Participants, sentential: co-participant raising construction, 369–370; oblique/peripheral, marking on verb stem, 356–358, 367–371; participant-raising constructions, 368–370; possessor-raising construction, 366–369; shifting of object-verb agreement marking in relation to, 356–358, 367–371. *See also* Noun phrases
- Participles, 108–115, 374–380; action/state, 32, 108–112, 393; dependent/conjunct, 87, 91, 245–246, 374–380; instrument/product deverbals, 35–36, 113–115
- Particles, 325–348; adverbial, 9, 244, 248, 303–304, 330–348, 382, 460; aspectual, 326; assent/consequential marker *tous*, 280–281; discourse continuity marker, 438; discourse discontinuity marker, 437–438; discourse topic closure, 440; discourse topic introduction, 439–440; emphatic, 443–448; gender-specific (in relation to speaker), 443–444; hesitation, 324, 449; imperative, 271–272; interaction with verb stems, forming specific constructions, 328–330; interrogative, 245–248; locative, 72, 326–327; modal auxiliary, 326; multiple together, 328; narrative sequencing, 441–43; nominal ('adjective-like') modifiers, as, 303–304; number, 451, 456; pragmatic/discourse level, 431–449; presentational, 431–437, 438–439; quantifiers and qualifiers, 305–306, 326; temporal, 326; substitution, 449
- Passive, 151–156; dependent participles using, 379; derivation of passive verb stems, 125, 127, 133, 150–151, 152–153; expression of agent in, 154–156; imperfective, 151–153; nominalizations of, 119; perfective, 151, 153–154; resultative passive, 138; semantics/syntax of NP's in passive sentences, 154–156, 405, 409–410; use of obviative with agent in, 155–156
- Past tense, 92–96; with cleft constructions, 423–424; in conjunct order, 285–289; with dependent participles, 377; with dubitative, 251, 297–298; with embedded and implied questions, 254–255; with /e'ne'i/ sequencing preverb, 441; implied, 198, 263–264; indefinite past, 299–300; indefinite past anterior, 299; narrative past tense, 260–262; past anterior, 285–287; recent past, 329–330; with relative roots, 384–385; with relativizers/complementizers, 396–397. *See also* /ih/ past tense marker
- Perception verbs, complement clauses with, 391
- Perfective aspect, 93–95; emphatic expression of, 330
- Permission, expression of, 210
- Person hierarchy (2-1-3-4-0), and verb inflection paradigms, 78, 375; interaction with syntax, 10
- Person marking. *See* Inflection, verbal; Possession
- Personal names, 105, 264, 318
- Phonemes, 13–16
- Phonology, 13–50; aberrant, in gender-specific particles, 443
- Phonological rules, secondary (due to pitch accent and prosody), 40–43; consonant cluster reduction, 42–43; diphthong/long vowel reduction, 42; secondary diphthongs, 41–42; secondary glottal stops, 41–42; secondary short vowels, 41
- Pitch accent, 22–40; of common grammatical preverbs, 205–206; grammatical (shift of), 30–35; of inflectional markers, 34; irregular, on verb stems, 80; lexical, 35–37; nouns, singular and plural, shifts in, 37–40, 478; secondary phonological rules controlled by, 40–43; secondary shifts in, due to syncope, 48–49; suprasegmental, 26–29; syllable structure, interaction with, 45–47; syncope, interaction with, 47–49; of TA and TI theme markers, 34; templates, lexical, 35–36; underlying, non-predictable, 24–29; word-level redistribution of, 29–30
- Place-names, 52, 71–72, 288–289, 318, 396
- Pluperfect (past anterior) aspect, 286–287, 299
- Plural marking: on dependent participles, 376–379; of inanimate grammatical objects (via reduplication), 199–200; on nouns, 54–59; obligatorily plural nouns, 56; possessed objects, 62–63, 65–66; reduplication and, 199–200; use of singular inflections with indefinite plural objects, 296, 315, 317; on verb stems (animate grammatical objects), 77–80, 83–84, 86, 88. *See also* Number marking
- Poetic language: argument marking on verbs and, 370–371; nominal participles and, 111–112. *See also* Prayers
- Politeness. *See* Deference
- Possession, marking of on noun stems, 60–68; alternate/suppletive independent and possessed forms, 67; of animate objects, 62–64; by inani-

- mate objects, 64, 190; of inanimate objects, 60–62; indeterminate possessor, 67; morpho-syntax of, 61, 107; obligatorily possessed nouns, 66–68, 477–478; obviative possessor, 65–66; possessed possessor, 64–66; semantic distinctions indicated by: see 63, ‘firewood’ (possessed form of *bes*) versus 55, ‘wood, sticks’ (unpossessed); theme marker, 62–63, 67, 106–108; 189 (with verbal possession construction); verbal/ ‘have a . . . ’ construction, 189–191; verbal/ ‘have as a . . . ’ construction (relations), 191–192
- Possession marker /ew/, 62–63, 67, 70, 100, 106–108; on inanimate nouns, 63; with locatives, 70; with verbal possession nconstruction, 189
- Possessor-raising construction, 368–369
- Possibility: with /eebeh/ + non-affirmative, 253, 266; with particle *nooxéihí*’, 329; with *wohóé*’= + non-affirmative, 254–255
- Potential constructions, 237–238, 253, 266–267, 291, 329
- Pragmatics (and information structure). *See* Saliency, pragmatic
- Pragmatics (and social action). *See* Avoidance; Deference; Departures; Endearment; Greetings; Imperative: future/delayed; Imperative: indirect; Imperative: potential/suggestive; Insults; Modality; Particles: emphatic; Particles: gender-specific; Prayers; Questions: implied; Questions: pragmatics of; Retorts; Ritual expressions; Vocative; *Wohéí*
- Prayers, special words and constructions used in, 97–98, 111–112, 127, 279, 283, 291–292, 370–371, 440, 445
- Predicate adjectives, 125–127: emphatic ‘how . . . !’ construction, 253–254; emphatic ‘no matter how . . . ’ construction, 254
- Predicate locatives, 71–72, 428
- Predicate nominals, expressed as predicative verb, 192–193, 427–428; with copula, 193, 426–427; semi-predicative verbs, 428–429
- Prenouns/noun initials, 100–104, 301–304; detachment from noun, 304; formation of, 100–103, 117; semantics of combination with nouns, 301–302; semi-abstract, 103–104
- Present tense, 73, 92
- Present perfect aspect, 73, 92
- Presentational constructions (pseudo-verbal), 309–312; as copulatives, 426; as head of relative clause, 310, 382–383; introducing new referents in discourse, 309–311; reactivating old referents in discourse, 311, 401; sentence-level syntax of, 311; used in questions, 245, 247
- Preverbs/verb initials, 8, 205–232, 241–245; aspectual, 209; auxiliary/modal, 209–211; comparative, 228–230; definition of, 206; deictic, 216, 223–226; derivation of, 123, 206–208, 221; detachment from verb, 231–232, 348; direction and location, 213–217, 244, 384; extension of reference, of one preverb over multiple verbs, 263; grammatical, 205–206; imperative, 272–273; instrumental, 342–346; intensifiers, 211–212; interesting/unusual, 220–221; interrogative, 241–245, 247–248; irrealis, 227–228; manner, 218–219; multiple together, 217, 218; narrative sequencing, 440–441; number-verb marker, 262–263, 456; qualifiers/quantifiers/delimiters, 200, 211–213; semantics of, 219–220; superlative, 230–231; time, 217–218
- Probability, 255
- Proclitics, 8, 107, 233–239, 340; adverbial particles with, 340; interrogative, 242–244, 247–250; morphosyntax of, 235–236, 249–250; multiple together, 237; nominal forms with, 107, 235; particles with, 238–239; personal pronouns with, 427
- ‘Produce/make a . . . ’ construction, 192
- Prohibition: embedded/indirect, in complement clauses with speech verbs, 391–392; emphatic, 273; with future/delayed imperative, 278; with imperative, 84, 273–275
- Pronouns: contrastive indefinite, 200, 321–322, 402; copulatives, personal pronouns as, 426–427; demonstrative, 306–309, 321–322; distributive, 306, 322 (*hité3eicitíhi*); ‘etcetera’, 314–315; indefinite, 296, 305–306, 321–322, 322–323, 404; interrogative, 296; personal, 319–321; possessive (*nei-niistóotiib* ‘mine/what I use’, *hei-niistóotiib* ‘yours/what you use’, *nei-niistóotiiv-o* ‘mine(PL), the things I use’), 254; reduplication of, 200; reflexive, 320–321; syntax of, 320–321
- Prosody, 40–49
- Proverbial expressions, 473
- ‘Provided that . . . ’ (*’oh béébeet*), 238, 328
- Proximate/obviative distinction, 349–354; interaction with syntax, 403–404, 407–4415
- Pseudo-cleft constructions, 425–426, 427
- Purpose clauses (with /eetih/), 289–290, 388; with /eti/, 290; sentence-level syntax of, 422
- Purposive/intentional construction ‘on purpose’, 328
- Qualifiers. *See* Particles: quantifiers and qualifiers; Preverbs/verb initials, Qualifiers/quantifiers/delimiters
- Quantifiers. *See* Comparatives; Counting; Existential constructions: semi-existential verbs; Numbers; Particles: quantifiers and qualifiers; Preverbs/verb initials, Qualifiers/quantifiers/delimiters; Superlatives

- Questions: adverbials, interrogative, 244, 248; content/wh-, 241–248; dubitative/'I wonder . . .', 251, 254–255, 266, 297–298; embedded substantive/wh- (using relative roots), 319; embedded yes/no (using dubitative *wohóé'*=), 254; existential question verbs, 244, 310; future tense with, 94–95, 250–251; implied, with *he'*=, 251, 254–255, 266, 297; indirect substantive/wh- (using dubitative *he'*=), 251; indirect yes/no (using dubitative *wohóé'*=), 254–255; inflection of, 81–84; morphosyntax of, 81–82, 241–244, 249–250; negative (/ *ci'i*/), 81–82, 95, 250–251; non-verbal attachment of proclitics, 228, 249–250; past tense with, 94–95; particles, interrogative, 245–248; pragmatics of, 250–252; preverbs/verb initials, interrogative, 242, 384–385; proclitics, interrogative, 242–244, 247–250; pseudo-verbal presentational forms, used in questions, 245; substantive/wh-, 241–248, 377–378; tag, 251–252; yes/no ("polar"), 81–82, 248–249
- Quotatives. *See* Citational forms
- Raising constructions, 368–371; co-participant raising, 11, 148–149, 369–370; possessor-raising, 368–369
- Rapid action, grammatical expression of, 131–132, 137, 158–159, 184
- Reason clauses, 388–389, 419–422
- Reciprocals, 139–140, 148–149
- Reduplication, 197–204, 341; adverbial particles, 341; formation/morphosyntax, 197–198; lexicalized, 204; multiple reduplications, in one word, 203–204; relative roots, 384; semantics, 199–204; vowel harmony and, 197–198
- Reflexives, 138–140, 170–171
- Relative clauses, 288–289, 290, 373–383; adverbial, 382–383; anaphoric person markers as heads of, 382; demonstrative *hi'in/hini'* ('the aforementioned') used with, 308; dependent participles in, 245–247, 374–378, 380; embedded/nested, 381; embedding of complement and adverbial clauses in, 385–386, 394–395; existential pseudo-verbs, used as head of, 310, 383–383; existential pseudo-verbs, used to introduce head of, 309–310, 381; headless, 382, 386–387; introduction of head, 381–382; personal pronouns, analyzed as, 320; pragmatic particles used to introduce head of, 382; sentence-level syntax of, 417; syntax (internal), 380–382; verbal adjectives, analyzed as, 303–304; verbal nouns, analyzed as, 118–119
- Relative/adverbial roots/preverbs/initials, 290–291; in adverbial clauses, 384–386; in cleft constructions, 384–385, 423–425; in complement clauses, 393–394; embedded questions, used in, 319; formation of independent verbs from, 395–396; indefinite forms of, 295–296; list of, 384–385; in relative clauses, 382–383; syntactic nominalizations using, 386–388; used to indicate 'all', 212
- Relativizer/complementizer (toh/tih), 288–289, 396–397
- Relevancy, of nouns for discourse, marking of, 315–317, 402
- Reported events (preverb / *e'ih*/), 260, 267, 293–294. *See also* Narrative
- Reported speech, 268, 292–294
- Reported thought, 293
- Retorts, 437, 448–449. *See also* Insults
- Right dislocations, 425–426
- Ritual expressions, 112, 445
- Saliency, pragmatic: 9–12, 354–361, 403–405, 413–416; definition of, 403; NP occurrence and placement in relation to, 9–12, 399–413; with passives, 154; secondary derivation in relation to, 9–12, 367–370; with / *(t)ii*/ stems, 361–364; with / *yei*/ stems, 364–366. *See also* Contrast/contrastiveness; Deincorporation; Definiteness; Emphasis/emphatic expression; Focus position; Focus shifting; New Information; Proximate/obviative distinction; Syntax; Valence shifting
- Salzmann, Zdeněk, 5, 413
- Sandhi effects, 15, 18
- Secondary derivation, 150–151; definition of, 122–123; functions/uses of, 10–11, 356–358, 367–371; with sensory verbs having clausal complements, 391. *See also* Applicatives; Benefactives; Causatives and causation constructions; Middle voice; Passive; Reciprocals; Reflexives
- Secondary phonological rules. *See* Phonological rules, secondary
- ' . . . self' pronouns ('myself', 'yourself' etc.), 320–321
- Semi-transitive (AIO) verb stems, 123–125, 134–138, 168–169, 172, 175–177; definition of, 124–125; objects and, 354–355, 358–366; / *(t)ii*/, 361–364; / *yei*/, 364–366. *See also* / *ee*/; / *(t)ii*/; / *yei*/
- Sensation/experiencing/undergoing, verbal constructions describing, 180–182
- Serial verb constructions, 203, 210–211, 221–222, 429–430
- Sharp Nose (Arapaho band chief), 464
- Sign Language, Plains, 471
- Similative/'like a . . .' construction, 193
- Simple conjunct mode (of conjunct order), 285–291; preverbs used with, 91, 285–286;

- usage, 86, 279, 285–291, 382–383, 457–459. *See also* Adverbial clauses; Aspect; Complement clauses; Relative/adverbial roots/preverbs/verb initials; /eetiħ/; /eti/; Tense; /tiħ/; /toħ/
- Slang, 130, 473
- 'Some . . .' forms (someone, something, somewhere), 296; 'somehow', 296–297; 'sometime', 336, 342
- Southern Arapaho, 1–3, 208, 248, 268, 291–292, 309, 421, 441, 463–464
- Subject, unspecified, in verb constructions, 141, 194–195
- Subjunctive mode (of conjunct order): with dates and times, 457–459; inflection, 87–89; pitch accent of, 34; pitch accent shifts with, 31; usage, 86–87, 88–89, 291–294. *See also* Concessive; Contrary-to-expectation construction; Contrary-to-fact construction; Dubitative; Future tense; Irrealis; Mirative; Narrative; Reported speech; Supposition; 'Until' construction
- Subordinate clauses, 373–397; sentence-level syntax of, 417–422. *See also* Adverbial clauses; Complement clauses; Relative clauses
- Superlatives, 230–231
- Supposition: inference/'seems, apparently', 234, 256, 267, 294; unrealized obligation/'supposed to, expected to', 257, 292, 328
- Syllable structure, 45–47
- Syncope, 47–49; blocking of, 48; interaction with pitch accent, 48–49
- Syntax, 399–430; adverbial clauses, internal syntax of, 342, 416–417; adverbial clauses, sentence-level syntax of, 417–422; citational forms and citations, 294, 390; complement clauses, sentence-level syntax of, 417–418; discontinuous constituents, 422–423; focus position (pre-verbal), 11, 400–405, 415–416; imperative clauses, internal syntax of, 282; imperative clauses, sentence-level syntax of, 282–283; interrogative clauses, 418–419; introduction of new referents into discourse, 309–311, 314–317, 401–404; marked syntactic order (NP + V), 400–403; multiple new referents, 404; new referents, placement of, 314, 401–404; noun phrases, internal syntax of, 323–324; presentational constructions, sentence level syntax of, 311; quantity expressions, syntactic position of, 415; re-activation of referents in discourse, syntax of, 309–311, 401–403; relative clauses, internal syntax of, 380, 382; relative clauses, sentence-level syntax of, 417; shifts, from focused to unfocused position in discourse, and vice versa, 406–407, 415; subordinate clauses, internal syntax of, 416–417; subordinate clauses, sentence-level syntax of, 417–222; unmarked main clause syntax (V + anaphoric person markers), 400
- Teaching, of Arapaho language, 2–3
- Tense: future, 92–96, 254–255, 277–279, 281, 298, 384–385, 425; future anterior, 89; implied past, 198, 263–264; indefinite future, 294–295; indefinite past, 299–300; morphophonemics of, 92–93, 95–96; morphosyntax of, 94, 254–255, 297–298, 377, 384–385, 425; narrative past, 260–262; near future: *See* Allative; past, 92–96, 251, 254–255, 297–298, 285–289, 377, 384–385, 396–397, 425, 441; past anterior, 285–287; present/present perfect, 73, 92; recent past, 329–330
- Terminative construction ('finally!'), 329
- Texts, Arapaho, 5–7
- Texts, sample, in this grammar, 97–98, 152–153, 153–154, 358–359, 360, 413–415
- Theme signs, 8; direction-of-action markers, on TA verbs, 34, 77–78; inanimate object marker /o/, on TI verbs, 34, 77, 124; inanimate object marker /ii/, on AIO verbs, 124–125, 136–138; nominal possession marker /ew/, 62–63, 67, 70, 100, 106–108, 189; pitch accent of, 34
- /TIH/ (conjunct order preverb), 206, 286–289, 299–300, 396–397; with /eti/ to indicate unrealized conditions, 227–228; in reason clauses, 388–389, 419–421; in temporal clauses, 419–421
- /(T)II/ semi-transitive AIO verb final and verb stems, 134, 137–138, 146, 172, 355, 359–360, 361–364; aspectual features of, 363–364; dependent participles of, 378; occurrence of definite NPs with, 362–363; occurrence of explicit NPs (implied objects) with, 362–363
- Time, lexical reference to: 'days' nominal final, 460; lexicalized verbs/adverbial particles, 336, 342 (also, in dictionaries, *toħ'uusiini* 'today'); with particles, 326; with preverbs, 217–218; with verbs, 459–460
- Times and dates, 457–462
- /TOH/ (conjunct order preverb), 206, 286–289, 396–397; with /eti/ to indicate unrealized conditions, 227–228; in reason clauses, 421–422; in temporal clauses, 421–422
- Toon*= (indefinite marker), 234–235, 295–296, 318–319; with adverbial particles, 336, 340, 342; with indefinite pronouns, 322
- Topics/subjects (non-volitional), deincorporated from verb, 193–194; expressed in verb, 177–180
- Topics, discourse level: closure of, 440; marking of new, 439–440
- Transitivity, grammatical, 123–125, 354–358; definition of, 124, 354–355

- Transitivity, semantic, 123–125, 354–358; definition of, 124, 354–355
- 'Until' construction, 292, 329
- Valence, grammatical and semantic. *See* Transitivity, grammatical; Transitivity, semantic
- Valence-increasing operations, 151, 156–158; applicatives, 147–150; benefactives, 147–148; causatives, 156–158; co-participant raising, 11, 148–149, 369–370; possessor raising, 368–369; secondary derivation, 10–11, 150–151, 356–358, 367–371
- Valence-reducing operations, 150–156; impersonal verbs, 194–195; middle voice constructions, 140–141; object demotion: *See* Object demotion; object incorporation: *See* Incorporation; passives, 151–156; reciprocals, 139–140; reflexives, 138–140; secondary derivation, 10–11, 150–151, 356–358, 367–371; self-benefactive, 138–139, 170–171
- Valence shifting, 10, 150–158, 354–358
- Variation, internal to Northern Arapaho: lexical, 466, 468–469; morphological, 76, 77, 125, 198, 464–465, 467–468; phonological, 28, 40–45, 49, 84, 465–466
- Ventative construction, 210–211
- Verb stem classes, 8, 74–75, 121–122, 479–499
- Verb, inflectional orders, 74–75, 479–499. *See also* Inflection, verbal
- Verb initials. *See* Preverbs/verb initials
- Verb finals, abstract derivational, 121–164; action on indefinite objects, 133, 135, 138; action-on-object intransitive (AI) stems, 134–138, 168–169, 169, 172, 175–177, 189–192, 200, 452–453; applicative, 147–148, 149–150, 175–177; benefactive, 147–148; causative, 136, 137–138, 146–147, 172–174; dative, 147–148; detransitives, 133–135; diminutive, 132–133; existential, 193–194, 459–460; hand, action by, 144–145, 361; impersonal, 194–195; inchoative, 129–131; intransitive action, 128–129, 175–177, 181; involuntary/non-volitional action, 127, 129–131; joint action, 148–149, 369–370; middle voice, 140–141, 169–171, 190, 200; morphosyntax of multiple, 162, 163–164; multiple together, 159–162, 163–164; number/count verbs, 452–453, 459; passive, imperfective, 133, 138; passive, perfective, 127; predicative, 192–193; rapid action, 131–132, 137, 158–159; reciprocal, 139–140, 148–149; reflexive, 138–140, 170–171; resultative, 126, 130, 180–181, 364; self-benefactive, 138–139, 170–171; similitive, 193; speech, action by, 146, 172–174; stative/descriptive, 125–126, 177–180, 180–181, 190 (*see also* Passive); tool, action by, 137, 145–146, 172–174, 361; transitive action, 142–150, 172–174, 175–177, 191–192
- Verb finals, concrete, 8, 165–188; collective number verbs, 455; derivation of, 188; ordinal number verbs, 454; ordered quantity/progression verbs, 453, 457, 459; time progression, 458, 461; unordered quantity/amount verbs, 456
- Verb initials, 205–232; definition of, 206. *See also* Preverbs/initials
- Verb stems, 8; primary (definition of), 121–123
- Verbal adjectives, 302–304; syntax of in relation to verb semantics, 304
- Verbal nouns, 118–119; in syntactic focus position, 404
- Verbal pronouns, 319–321
- Verbless constructions. *See* Ablative absolute; Existential constructions; Presentational constructions
- Vocative, 68–69; dependent participles used as, 376; endearment terms, 69; lexical vocatives, 69; pitch accent shifts with, 32–33
- Vowel dissimilation, 109, 194, 375
- Vowel harmony, *e*~*o*, 20–22; blocking of, 21–22; with initial change, 22; with person markers, 22; with reduplication, 197–198
- Vowel harmony, *i*~*u*, 17–18; blocking of, 18
- Vowel harmony, secondary, 43
- Vowel inventory, 14–16
- Vowel length, 14–15
- Vowel sequences, treatment of: intermorphemic, 16–17; secondary phonology, 40–43; syllabification, 45–47
- Wh-/substantive questions. *See* Questions, wh-/substantive
- 'Where' questions, 242, 243–244, 246
- 'Whether . . .', *See* Questions: implied; Questions: embedded
- Wind River Reservation, Wyoming, 1
- Wind River Tribal College, 3, 7
- Wohéi* ('yes, so, okay, etc.'), 439–440, 444
- Wyoming Council for the Humanities, 7
- /YEI/ semi-transitive AIO verb final and verb stems, 134–135, 168–169, 169–170, 175–177, 200, 364–366; with animate NP's, 355, 366; with definite NP's, 355, 365–366; with explicit NP's, 355, 365–366; formation of deverbals from, 113–114; formation of participles from, 108–109; usage, in a text, 358–361; use with negatives and interrogatives, 365
- 'Yet, nor' construction, 258, 329

