Mongolian

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Volume 19

Mongolian
by Juha A. Janhunen

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Cover illustration: Detail of a thangka at the Bogdo Gegen's summer palace, Ulan Bator.
Photo: Juha Janhunen, 2010.

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Preface

This grammar was written as a medium-length synchronic description of the Mongolian language. It is neither the first nor the last grammar of this language, but it differs from most of its predecessors, and probably also from many of its successors, by not being based on a specific dialect or standardized form of speech. Mongolian is a language spoken on a vast territory, written in two scripts and used orally in a large number of local forms. Although an exhaustive treatment of all the local forms would be impossible, a grammatical description will have to include at least some of the variation actually present in the language.

Following the objectives of the present series, this grammar is intended for both the general linguist and the specialized Mongolist. It has been a challenge to try to accommodate the expectations of these two very different readerships. Conventional Mongolian studies is a field where the established tradition often matters more than theoretical innovation and descriptive adequacy, while the theories of general linguistics are sometimes based on a surprisingly superficial familiarity with the reality of actual languages. The terminological traditions are also very different. Quite possibly, some readers will find this grammar hopelessly conventional, while to others it may appear disturbingly "modern" and innovative.

On the conventional side, this grammar places relatively much emphasis on phonology and morphology, while syntax and especially discourse (and anything beyond that) are given less attention. The description is focused on the qualitative analysis of the language in a rather strict form-to-function framework with no specific linguistic theory or quantitative corpus as a basis. The language material comes from published sources, personal observations, interviews with native speakers, data communicated by colleagues, and the internet. Also, diachrony is freely used as an explanatory tool, as it always should in a descriptive grammar.

Following the introduction (Chapter 1), the discussion is organized into seven chapters, which proceed in a cumulative order, but without strict borderlines, from phonology (Chapters 2–3) through morphology (Chapters 4–5) to syntax (Chapters 6–8). Morphophonology is discussed both in connection with morpheme structure and in the relevant sections of morphology, while morphosyntax is introduced in the chapters on morphology but illustrated in more detail, with sentence examples, in connection with the syntax. The interaction of the different parts of grammar is also illustrated by the sample text and the selection of sample paradigms.

While working on this project I have enjoyed the encouragement of Mongolist colleagues in many countries, including Ágnes Birtalan (Budapest), Benjamin Brosig (Stockholm), Robin Charpentier (Ulan Bator), Volker Rybatzki (Helsinki), Elena Skribnik (Munich), Jan-Olof Svantesson (Lund) and Mikael Thompson (Bloomington), to mention just a few. I have also had many chances to discuss specific issues concerning the language data with native-speaking scholars of different dialectal backgrounds, including Borjigin Buhchulu (Baarin), Dolgor Guntsetseg (Khalkha), Li Baowen (Mongoljin), Borjigin Sechenbaatar (Chakhar) and Wu Yingzhe (Khorchin). My sincere thanks are due to all of them.

A first version of this grammar was publicly discussed at a seminar kindly hosted by Eva Csató Johanson and Joakim Enwall (Uppsala). Three persons have read the whole manuscript: Borjigin Sechenbaatar as a native-speaking grammarian from Inner Mongolia, Benjamin Brosig as a scholar working at the interface of Mongolian studies and general linguistics, and Theodora Bynon as the editor of the series. All three have presented extremely valuable comments and corrections, which at places have resulted in substantial changes in the text. In addition, David Bennett from the editorial board has read and commented on the chapter on segmental phonology, while Matt Shibatani has increased my insights into syntactic topics. It goes without saying that any remaining mistakes are mine.

Finally, I would also like to acknowledge the smooth cooperation I have enjoyed with the publisher and its principal representative in this project, Isja Conen.

Helsinki, July 2012
Juha Janhunen

Figures and tables

Symbols and abbreviations

*_	reconstruction		<	diachronic derivation from
_*	hypothetical form		>	diachronic development to
(*)	archaic form		←	synchronic derivation from
√	synchronic root		→	synchronic development to
:	morphological relationship		↔	correlative relationship
#	word boundary		~	alternative form
+	phrasal compounding		/	unstable segment
.	segmental boundary		//	complex stem alternations
-	morpheme boundary		/_	phonological context
(-)	obscured morpheme boundary		/ /	phonemic representation
=	enclitic boundary		[ ]	phonetic representation
(=)	potential enclitic boundary		[ ]	syntactic entity
_	sandhi liaison		§	cross-reference

C	generic consonant		R	etymological obstruent
N	generic nasal		V	generic vowel

1P	first person		COND	conditional
2P	second person		CONF	confirmative
3P	third person		CONN	connegative
ABL	ablative		CONTEMP	contemporal
ABS	absolute		C(ONV)	converb
ABTEMP	abtemporal		COOP	cooperative
ACC	accusative		COP	copula
ADD	additive		CORR	corrogative
ADV	adverbial		COUNT	countable
AFF	affirmative		CX	case suffix
AG	agentive		DAT	dative
ALLIT	alliteration		DES	desiderative
AMB	ambivalent		DIM	diminutive
APPR	approximative		DIR	directive
ASS	assertive		DIST	distal
ATTR	attributive		DISTR	distributive
BEN	benedictive		DUB	dubitative
CAUS	causative		DUR	durative
COLL	collective		DX	derivational suffix
CONC	concessive		EMPH	emphatic
CONCOM	concomitant		EQU	equative

EXCL	exclusive		PCLE	particle
EXIST	existential		PERM	permissive
FEM	feminine		PL	plural
FIN	final		PLURIT	pluritative
FINIT	finite		POSS	possessive
FREQ	frequentative		POSTP	postpositional
FUT	futuritive		POT	potential
GEN	genitive		PREC	precative
HAB	habitive		PRECOND	preconditional
IMM	immediative		PRESCR	prescriptive
IMP	imperative		PRF	perfective
IMPRF	imperfective		PRIV	privative
INCID	incidental		PROF	professional
INCL	inclusive		PROGR	progressive
INSTR	instrumental		PROH	prohibitive
INT	intentional		PROL	prolative
INTENS	intensive		PROX	proximal
INTERJ	interjection		PRS	present
INTERR	interrogative		PRT	preterite
ITER	iterative		PX	possessive suffix
LAT	lative		QUANT	quantifier
LIM	limitative		QUOTE	quotative
MED	medial		RECIPR	reciprocal
MOD	modal		REDUPL	reduplication
MODER	moderative		RES	resultative
MOM	momentaneous		RHYME	rhyme
MULT	multiplicative		RX	reflexive suffix
NEC	necessitative		SER	serial
NEG	negative		SG	singular
NX	number suffix		SPEC	specificative
OBL	oblique		SPLZ	spatializer
ONOM	onomatopoetic		SUCC	successive
ORD	ordinal		TERM	terminative
P(ART)	participle		VOL	voluntative
PASS	passive			

Map

Legend
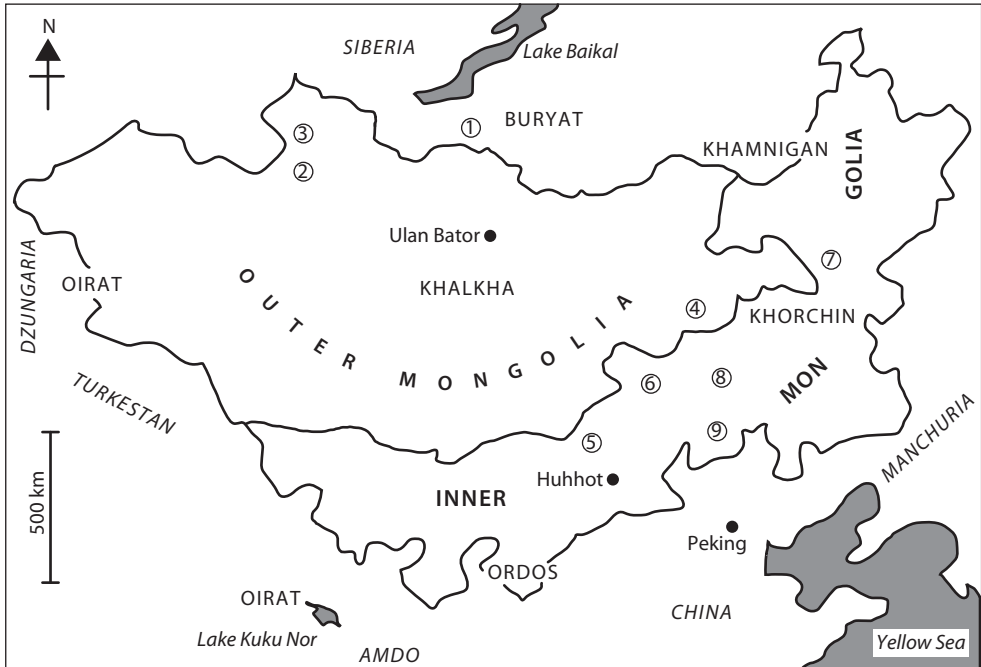
① Tsongol and Sartul
② Khotgoit
③ Darkhat
④ Dariganga
⑤ Ulan Tsab
⑥ Shilingol
⑦ Jerim
⑧ Juu Uda
⑨ Josotu

Introduction

1.1 The geographical context

Mongolian, or Mongol (*Monggel Xel* 'Mongolian language'), is the conventional English name of the ethnic language of the Mongols, or Mongolians, a population and ethnic group whose principal native territory is Mongolia (*Monggel Oren* 'Mongolian Country'). Mongolia is a macroscopic highland region, in physical geography also known as the Mongolian Plateau, located at the intersection of North, East and Central Asia. With an average altitude of about 1.5 kilometres above the sea level and with an area of more than 2 million square kilometres, Mongolia is dominated by a landscape of undulating tree-less steppes, traditionally ideal for pastoral nomadic life. The region is, however, large enough to comprise also a variety of other landscape types, including extensive mountain areas, such as the Altai-Sayan and Khangai (*Xanggai*) mountains, with glaciers and alpine forests.

In the north, Mongolia borders with the boreal forest zone of Siberia, while in the south it partly incorporates the Gobi Desert (*goby* 'desert'), one of the world's largest belts of arid sand dunes and gravel plains. The region lying immediately west of Mongolia is known as Dzungaria (or Jungaria), the historical center of the Western Mongols, while in the east there lies Manchuria, the land of the Manchu, which also has close historical connections with Mongolia. Hydrographically, most of Mongolia is drained by rivers ultimately flowing either towards the north (the Arctic Ocean) or towards the east (the Pacific). The principal river systems that have their sources on the Mongolian Plateau are the Selenga-Angara-Yenisei and the Kerulen-Onon-Argun-Amur. Along the margins of the region, these river systems comprise several large freshwater lakes, including Khövsgöl (*Xeubsgel Noor*) and Baikal (*Baigel Noor*) in the north, as well as Dalai (*Dalai Noor*) and Buir (*Boir Noor*) in the east. At the more local level, there are also many salt lakes and salty marshlands, the largest of which is Lake Uvs (*Oubs Noor*) in the northwest.

The dominance of open landscapes in Mongolia has traditionally favoured a nomadic cultural adaptation, which, in turn, has resulted in linguistic and political unity over large distances. The Gobi Desert is, however, a physical divider which also correlates with linguistic and political borders. Since 1636, Mongolia has been divided into Inner Mongolia (*Dotaod Monggel*) and Outer Mongolia (*Gadaad Monggel*), in Mongolian also

known as "Front/South Mongolia" (*Euber Monggel*) vs. "Back/North Mongolia" (*Ar Monggel*), separated by the Gobi. Both parts used to belong to the Manchu Empire of the Qing, but after the Chinese revolution in 1911, only Inner Mongolia remained politically in the context of China, while Outer Mongolia became an independent (initially autonomous) country, which, between 1924 and 1990, was known as the Mongolian People's Republic. Today, Inner Mongolia forms one of the five "autonomous regions" of the People's Republic of China, with the capital at Huhhot (*Xeux Xot* 'Blue City'), while Outer Mongolia forms the independent state of Mongolia (*Monggel Ouls*), with the capital at Ulan Bator (*Oulaan Baater* 'Red Hero'), formerly Urga (*Eurgeo* 'Palace') (cf. the Map).

1.2   The Mongolic language family

Mongolian is a member of a language family technically known as "Mongolic". Apart from Mongolian, or Mongol proper, the Mongolic language family comprises a dozen other languages, spoken mainly in regions adjacent to Mongolia. Historically, the Mongolic language family was formed as a result of the political expansion of the mediaeval, or "historical", Mongols under Chinggis Khan (*Cingges Xaan*) and his descendants in the 12th–13th centuries. During the initial period of the Mongol empire, the Mongols controlled, as a politically unified territory, the entire Central Asian belt from the Middle East to China. The subsequent Mongol dynasty of the Yuan (1279–1368) in the eastern part of the former Mongol empire, comprised China, Mongolia, Manchuria, Tibet and Eastern Turkestan.

The language of the historical Mongols was based on the local idiom once spoken in northeastern Mongolia, the native region of Chinggis Khan. With the consolidation of the political power, this idiom became the *koïné* of the expanding Mongols, who brought it to various parts of the empire. The language was widely used in civil and military administration, and through the Mongol garrisons it gained ground also among local non-Mongol populations. As a spoken medium, the language of the historical Mongols is known as Middle Mongol, or Middle Mongolian. Middle Mongol is documented in a variety of written sources using several different systems of script. With the course of time, and especially after the collapse of the Mongol empire Middle Mongol was diversified into several local varieties, from which the modern Mongolic languages have developed.

It is also possible to approach the Middle Mongol stage by the method of linguistic reconstruction, proceeding backwards from the modern Mongolic languages and considering their mutual similarities and differences. The reconstructed protoform of the extant Mongolic languages may be technically identified as Proto-Mongolic. A comparison of the Proto-Mongolic reconstruction with the surviving Middle Mongol
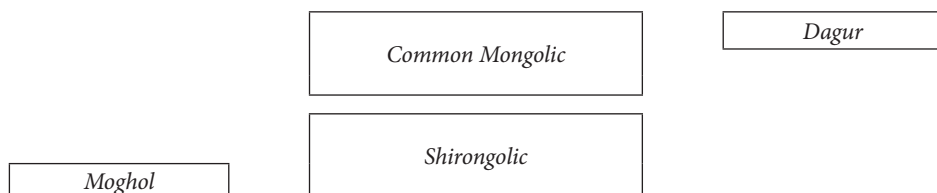
Figure 1. The Mongolic language family

documents reveals that the two linguistic stages are essentially identical, which means that they must represent the same time level. This also confirms that the maximum time distance between any two modern Mongolic idioms is on the range of 800 years. Against this background it is interesting to note that the actual differences between the Mongolic languages are considerable, to the extent that many forms of Mongolic are today mutually unintelligible. Even so, in the central areas, in and around Mongolia, the language has retained a considerable degree of uniformity.

The currently extant Mongolic languages are conveniently divided into four geographically and linguistically distinct branches: (1) Dagur, (2) Common Mongolic, (3) Shirongolic and (4) Moghol (cf. Figure 1).

1. the Dagur branch, located in the northeast (Manchuria) and comprising only the Dagur language (with several local varieties, including the Amur, Nonni and Hailar groups of dialects, as well as, since the 18th century, a diaspora group in the Yili region of Dzungaria); historically, the origins of this branch would seem to be connected with the earliest breakup of Proto-Mongolic;
2. the Common Mongolic branch, centered on the traditional homeland of the Mongols (Mongolia), but extending also to the north (Siberia), east (Manchuria), south (Ordos) and west (Dzungaria), and comprising a group of closely related forms of speech, which by the native speakers themselves are often understood as "dialects" of a single "Mongolian" language;
3. the Shirongolic branch, located in the Amdo or Kuku Nor (*Xeux Noor* 'Blue Lake') region of ethnic Tibet (the modern Gansu and Qinghai Provinces of China), and comprising a number of particularly idiosyncratic and mutually unintelligible languages spoken by several culturally diversified populations, including Shira Yughur (Mongolic Yellow Uighur), the Monguor group (Mongghul, Mongghuor, Mangghuer) and the Bonan group (Bonan, Kangjia, Santa);
4. the Moghol branch, located in Afghanistan and comprising only the Moghol language (with several local varieties, possibly extinct today).

From historical documents it is evident that the lineage represented by the language of the historical Mongols once had relatives, today technically identified as the Para-Mongolic languages, spoken until mediaeval times in parts of southwestern Manchuria.

The best known Para-Mongolic language is Khitan, the language of the Liao dynasty of Manchuria (907–1125), which survives in a large corpus of inscriptions written in two language-specific scripts known as the Khitan Large Script and the Khitan Small Script. Unfortunately, the decipherment of the Khitan scripts has not yet reached a level at which the lexical and grammatical structure of the Khitan language could be approached in full, although enough is known to confirm that the genetic relationship between Para-Mongolic and Proto-Mongolic was not particularly close and must have involved a considerable diachronic time depth. What is certain, however, is that the Para-Mongolic languages are today extinct and did not directly participate in the formation of the modern Mongolic languages. On the other hand, Para-Mongolic is of central importance when we try to locate the more distant geographical as well as, possibly, genetic, origins of Mongolic at remote time levels which may also be identified as Pre-Proto-Mongolic.

1.3   Common Mongolic

For the definition and delimitation of the Mongolian language, the branch of the most immediate relevance is Common Mongolic. Common Mongolic is probably best divided into six main entities, each of which is further divided into a number of local dialects and subdialects. The six main entities are (1) Khalkha, (2) Khorchin, (3) Ordos, (4) Khamnigan, (5) Buryat and (6) Oirat (Figure 2).

1. Khalkha (*Xalx*), or the Khalkha group of dialects, in the middle, corresponds roughly to the territory of Outer Mongolia, but comprises also some transitional dialects, notably Chakhar, on the Inner Mongolian side;
2. Khorchin (*Xorcen*), or the Khorchin group of dialects, in the east, is divided into a large number of local subdialects (historical tribal dialects) and corresponds to the eastern part of Inner Mongolia, extending also to the neighbouring provinces of Manchuria (Liaoning, Jilin and Heilongjiang);
3. Ordos (*Ordes*) in the south, corresponds to the Ordos region (between the Yellow River Bend and the Great Wall of China), today administered as the Ordos "City" (Chinese *Eerduosi Shi*) of Inner Mongolia;

Buryat	Khamnigan	
Oirat	Khalkha	Khorchin
	Ordos	
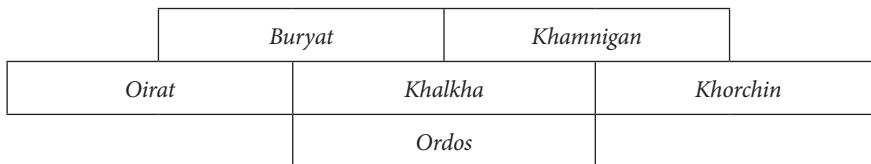
Figure 2. The Common Mongolic forms of speech

4.   Khamnigan (*Xamyenʹgen*), or Khamnigan Mongol, in the northeast, is centred on the Onon-Argun basins in the Amur source region (the original homeland of Chinggis Khan and the historical Mongols), a region today divided between the states of Russia (Transbaikalia), China (Hulun Buir) and Mongolia (Khentei Aimak);
5.   Buryat (*Bouryaad*) in the north, is spoken on both sides of Lake Baikal, including, in particular, the Republic of Buryatia to the east and south of the lake, but it extends also to the Chinese and Mongolian sides of the border and comprises the so-called Old and New Bargut dialects in the Barga (Bargu) region of Hulun Buir League (Chinese *Hulun Beier Meng*), Inner Mongolia;
6.   Oirat (*Oired*) in the west, is originally centred on Dzungaria, the northern part of "Chinese Turkestan" or Sinkiang (Chinese *Xinjiang*), but it extends also to the western part of Outer Mongolia (the Khovd region), the western part of Inner Mongolia (the Alashan region) and the northern part of Amdo (the Kuku Nor region of Qinghai Province, China); it also comprises diaspora populations in the Volga Region (Kalmuck) and Manchuria (Manchurian Oirat).

In the official ethnic administration of the People's Republic of China, almost all Common Mongolic speakers are classified as "ethnic" Mongols (Chinese *Mengguzu*), and their idioms are, by definition, understood as "dialects" of a single language. This conception of the linguistic taxonomy corresponds largely to the understanding of the ethnic Mongol layman, and it is also common among Mongolian scholars in both Inner and Outer Mongolia, while in Russian and Western scholarship there is a tendency to view at least Buryat and Oirat, but often also Ordos and Khamnigan, as separate languages. Ultimately, this is a matter of definition and terminology. In practice, all the Common Mongolic idioms are to some extent mutually intelligible, but the degree of mutual intelligibility varies considerably.

Considering the linguistic data, it may be said that Buryat, Khamnigan and Oirat differ in some substantial respects from Khalkha, Khorchin and Ordos. For instance, the former three have the category of personal marking on the finite verb (verbal personal endings), while the latter three do not have this category. On the other hand, personal marking may also be optional in some transitional dialects of Buryat and Oirat, making the boundary towards Khalkha fuzzy. By phonological isoglosses the two most distinct and most conservative Common Mongolic entities are Ordos and Khamnigan, but morphosyntactically Ordos is relatively close to Khalkha, while Khamnigan is close to Buryat. In the lexical respect, Khorchin is often considered to be the most aberrant form of Common Mongolic, but phonologically it in some respects (as in the case of the vowel system) resembles Oirat. It has to be concluded that Common Mongolic involves a complex network of isoglosses that allows several different taxonomic interpretations. For many purposes, Common Mongolic could also be described as a dialect chain, or a bundle of dialect chains, in which each individual can communicate with his or her

neighbour, while many idioms separated by a physical distance may not be mutually intelligible.

1.4   The literary languages

The problem concerning the delimitation of the Mongolian language is also connected with the history of writing among the Mongols. The earliest known written language for the historical Mongols was created in the 11th–12th centuries on the basis of a Semitic alphabet adopted via the Turkic-speaking Ancient Uighurs. The script, in its Mongolian form, has subsequently become known as the Mongol Script, while the language written in it is known as Written Mongol or Written Mongolian, or also Literary Mongol or Literary Mongolian. Written Mongol was reinforced by Chinggis Khan as a general medium of administration and literature, and in its early form it was essentially identical with contemporary spoken Middle Mongol, complicated only by certain orthographical conventions, some of which may actually reflect a stage preceding Middle Mongol and Proto-Mongolic.

Written Mongol has ever since remained in use as the principal literary language of the Mongols. Evolving successively through stages termed Pre-Classical (13th to 15th centuries), Classical (17th to 19th centuries) and Post-Classical (20th century) Written Mongol, the language, especially as far as its orthographical principles are concerned, still retains many of its original characteristics. This means that it remains largely unaffected by the innovations that have taken place in the spoken language and by the diversification of the latter into the extant modern Mongolic languages. This is particularly true of the phonological features reflected by the Written Mongol orthography. Written Mongol has, however, survived only among the speakers of the Common Mongolic idioms, and even of the latter, the speakers of Buryat and Khamnigan have used it only marginally.

The significance of Written Mongol as a unifying factor for almost all Common Mongolic speakers can hardly be exaggerated. Even so, its status has been gradually undermined by the creation of new literary languages, which today cover most of the Common Mongolic populations living outside of Inner Mongolia. These new literary languages include:

1. Written Oirat or the "Clear Script" (*Tod Biceg*), which was created on the basis of Written Mongol as early as 1648 for use by the Western Mongols of Dzungaria; this script is still in use among some of the Oirat groups in Sinkiang;
2. Romanized "Buryat", which was standardized around 1930 on the basis of what are actually the Sartul and Tsongol dialects of northern Khalkha, spoken on the Russian side of the border;

3. Cyrillic Buryat, based on the Khori dialect of actual (Eastern) Buryat, which replaced the earlier Romanized "Buryat" in 1937 and remains in use as the literary language for the Buryat living in the Russian Federation; the written standard is, however, not used by the Buryat speakers living in Mongolia and China;

4. Cyrillic Kalmuck, which was standardized in the early 1930s for use by the Volga Kalmuck, who represent an Oirat diaspora group that has been living under Russian rule since the 17th century;

5. Cyrillic Khalkha, based on the central dialects of the Khalkha group, which were developed as the national language of Outer Mongolia after independence, and which during the 1940s more or less fully replaced Written Mongol as the official standard language of the country.

After the introduction of Cyrillic Khalkha, the Mongol script is also known as the "Old Script" (*xoocen biceg*), while the Cyrillic script is known as the "New Script" (*shin' biceg*). As a result, the "Old Script" is today used mainly by the Mongols of Inner Mongolia, who speak a considerable variety of dialects, including idioms of both the Khalkha and the Khorchin type, while the "New Script" is used in Outer Mongolia. Cyrillic Buryat and Cyrillic Kalmuck may be seen as parallels and historical antecedents of the "New Script", though their orthographical principles are not exactly the same as those of Cyrillic Khalkha. The "Old Script" is today also used by the Khamnigan and Buryat (including Bargut) speakers living in northern Inner Mongolia (Hulun Buir), as well as by several Oirat groups in both Sinkiang (Dzungaria) and Amdo (Kuku Nor). After 1990, there have been attempts aiming at reviving Written Mongol in Outer Mongolia, while, on the other hand, many educated Mongols in Inner Mongolia are familiar with the principles of Cyrillic Khalkha. Today, the "Old Script" is used in Outer Mongolia mainly for decorative purposes, while the "New Script" is used in Inner Mongolia specifically for written communication with the Mongols of Outer Mongolia.

In spite of its archaic and essentially supradialectal orthography, Written Mongol conforms lexically and morphosyntactically with the dialects of the Khalkha and Khorchin types, spoken by the majority of all Mongols in both Inner and Outer Mongolia. Therefore, apart from the system of writing, the linguistic difference between Written Mongol and Cyrillic Khalkha is not great, and both written languages can be used to write down the same oral message. For many Mongols on both sides of the border, the parallel use of Written Mongol and Cyrillic Khalkha involves simply a situation of digraphia (two scripts for one language). Even so, in most matters concerning language planning and orthography, Inner Mongolia and Outer Mongolia have tended to go separate ways.

1.5   Dialectal division

It follows from the preceding that the Mongolian language is best defined as the complex of Common Mongolic dialects that morphosyntactically correspond to the principles underlying Written Mongol and/or Cyrillic Khalkha. In practice, this definition includes all dialects of the Khalkha and Khorchin types, as well as, more marginally, Ordos and certain transitional forms of Buryat and Oirat, including, in particular, the modern forms of the Buryat (and Bargut) dialects spoken in Inner Mongolia (Hulun Buir) as well as the Oirat dialects spoken in western Mongolia (the Khovd region). Typically, in both Mongolia and China, the speakers of all these forms of Common Mongolic are officially identified as ethnic Mongols, and they are not served in daily life by any other Mongolic literary language. The definition excludes, however, all those Buryat and Oirat speakers both in Russia and China who use their own ethnospecific literary languages.

It is important to note that the Mongolian language, thus defined, is not identical with any particular written language or uniform standard of speech. Rather, it is a complicated network of a diversity of oral idioms, which are in a dialectal relationship to each other. Written Mongol and Cyrillic Khalkha, as they are currently used, are best seen as artifacts whose function is to serve as the written mediums for all the underlying oral forms of speech. The differences between the individual dialects are present at all levels of linguistic structure, but they are particularly conspicuous in the phonology. Neither Written Mongol nor Cyrillic Khalkha should therefore be assumed to correspond to the phonological structure of any actual dialect or subdialect of Mongolian; rather, they are simply two conventionalized ways to convey oral messages in writing.

Due to historical reasons, the dialectal variation is considerably greater on the Inner Mongolian side than in Outer Mongolia. This reflects the fact that Inner Mongolia has always been more densely populated, with sizable communities of settled agriculturalists, while Outer Mongolia has until recently been dominated by pastoral nomadism. In general, the internal diversification of the Mongolian language may be seen as a confirmation of the well-known situation that dialectal diversification tends to proceed more rapidly among farming communities than among nomads. The settled agricultural way of life has particularly deep roots among speakers of the Khorchin group of dialects in the eastern parts of Inner Mongolia. Although all extant Mongolian dialects can be traced back to tribal idioms whose speakers were originally more or less mobile, many tribes have for centuries been confined to strictly limited tribal territories, a circumstance that has favoured their linguistic differentiation from each other.

Khalkha and Khorchin are here understood as general labels for two major dialectal groups, which both geographically and linguistically correspond to two extremities within the Mongolian language. Both groups comprise one "major" (by the number of speakers) type dialect, here termed Khalkha proper and Khorchin proper, respectively, and several "minor" dialects. It should be noted that the speakers of most tribal dialects

would not identify themselves as either "Khalkha" or "Khorchin", but, rather, simply as "Mongols". The total number of established tribal dialects within the Mongolian language is around 30.

In Outer Mongolia, the Khalkha group comprises, apart from Khalkha proper, the Khotgoit (*Xotgaid*) and Darkhat (*Darxed*) dialects in the north and the Dariganga (*Darygengg*) dialect in the southeast. This group also includes the Tsongol (*Tzonggel*) and Sartul (*Sartool*) dialects, officially classified as "Buryat", on the Russian side. On the Inner Mongolian side, the Khalkha group comprises the so-called Ulan Tsab (*Oulaan Tzab*) dialects, including Chakhar (*Tzaxer*), Urat (*Ourd*), Darkhan (*Darxen*), Muumingan (*Moo Minggen*), Dörben Huuhet (*Deurben Xuuxed*) and Keshigten (*Xeshegten*), as well as the so-called Shilingol (*Shiliin Gol*) dialects, including Udzumuchin (*Udzemcen*), Khuuchit (*Xooced*), Abaga (*Abegh*), Abaganar (*Abeghner*) and Sunit (*Seund*). Most of the dialects genetically belonging to the Khalkha group but areally spoken on the Inner Mongolian side are in some ways transitional, in that they incorporate secondary influences from dialects of the Khorchin type. Khalkha proper itself is also dialectally diversified and comprises, among others, two major groups of subdialects known as Northern Khalkha and Southern Khalkha. The modern Ulan Bator dialect of Khalkha, which for political reasons has a prestige status in Mongolia, has also developed into a distinct form of speech.

The Khorchin group is traditionally divided into three principal sections, known as the Jerim (*Jirem*), Juu Uda (*Dzoo Oud*) and Josotu (*Dzost*) dialects. Khorchin proper belongs to the Jerim section, which also comprises the Jasagtu (*Dzasegt*), Jarut (*Dzarood*), Jalait (*Dzalaid*), Dörbet (*Deurebd*) and Gorlos (*Gorels*) (sub)dialects, all spoken in the northern part of Inner Mongolia, as well as in the adjacent parts of the Heilongjiang and Jilin Provinces. The Juu Uda section comprises the Aru Khorchin (*Ar Xorcen*), Baarin (*Bairen*), Ongniut (*Ognyood*), Naiman (*Naimen*) and Aokhan (*Aoxen*) (sub)dialects, spoken in the middle part of Inner Mongolia, while the Josotu section comprises the Kharachin (*Xarcen*) and Tumet (*Tumd*) or Mongoljin (*Monggeljen*) (sub)dialects, spoken further to the southeast, mainly within the Hebei and Liaoning provinces of northern China and Manchuria.

1.6   The oral standards

It is a common misunderstanding that the Mongolian normative language is identical with the speech of Ulan Bator. It is also often mistakenly assumed that the Ulan Bator dialect forms the basis of the Cyrillic Khalkha written language. In reality, Cyrillic Khalkha, like Written Mongol, is an artificial written standard based on a broad variety of dialectal features, though, in principle, reflecting the northern subdialects of Khalkha proper. The current urban speech of Ulan Bator city also belongs to the same dialectal pool, but it

stands in some respects particularly far from the language represented by the Cyrillic Khalkha norm. It seems that Ulan Bator, as the only major Mongolian-speaking urban centre in the world, also functions as a major cradle of linguistic innovation, where the rapid population influx, dialect mixing and the generally young age structure constantly nourish the origination of new features in the language. By contrast, the sparsely inhabited Mongolian countryside seems to be characterized by linguistic conservatism.

It may be said, however, that Cyrillic Khalkha serves as a rough basis for what is supposed to be the standard national language of the Mongolian state also at the oral level. This language is coded in a number of normative grammars and dictionaries, though it has to be added that the norms of Mongolian are rather liberal and allow a considerable amount of variation as far as both the segmental structure and the morphosyntax are concerned. Moreover, Cyrillic Khalkha is up to the present day influenced by the morphosyntactic properties of Written Mongol, meaning that it incorporates archaic features that are best understood as "literary" and that are absent in the actual spoken language used in everyday interaction. Orthographically, Cyrillic Khalkha is often surprisingly unsystematic, and some of its orthographical solutions derive directly from Written Mongol.

The standardized oral language of Outer Mongolia, as far as it exists, is used in official communications, including educational work, public speeches, as well as radio and television broadcasting. This oral language is also generally intelligible to the speakers of the Mongolian dialects on the Inner Mongolian side. To diminish the gap of intelligibility in practical interaction, the Inner Mongolian linguistic authorities have introduced a similar oral norm, officially based on the Chakhar dialect. Chakhar, which belongs to the Khalkha group of dialects, is often characterized as forming a linguistic bridge between Inner and Outer Mongolia, and, in any case, it is one of the Inner Mongolian dialects closest to Khalkha proper. The differences between the Khalkha normative language of Outer Mongolia and the Chakhar oral norm of Inner Mongolia are mainly confined to phonetic and lexical details, with occasional differences also in the morphology and morphosyntax.

In practice, most Mongols, including even highly educated individuals, retain in their speech at least a trace of their dialectal background. Some of the most conspicuous non-standard "accents" are typically revealed by speakers of the northernmost and easternmost dialects of the Khorchin group, including, in particular, the subdialects of the Jerim and Josotu sections. Due to the presence of a greater degree of dialectal variation, the Mongols of Inner Mongolia are generally able to communicate with the speakers of a large variety of local forms of speech, while the Mongols of Outer Mongolia, who live in a more uniform Khalkha-dominated environment, have often difficulties in understanding some of the more outlying dialects spoken in Inner Mongolia and elsewhere in China. Understandably, among Khalkha speakers, the Ulan Bator "accent" today has a prestige position, which is starting to influence the more local dialectal forms of speech.

1.7   The demographic situation

On the global scale, Mongolian is a medium-large language with the number of speakers being slightly over 5 million. Of these, less than one-half live in the Mongolian state, which currently has a total population of close to 2.8 million (2010), while most of the rest live on the Chinese side of the border, where they are divided between Inner Mongolia and several adjacent provinces, including Heilongjiang, Jilin, Liaoning, Gansu and Qinghai, as well as Sinkiang. Small numbers of Mongolian speakers also live in the Russian Federation, mainly in Buryatia, where they are classified as ethnic "Buryat", but also in the neighbouring Republic of Tuva, which until 1921 was officially a part of Mongolia and then until 1944 a formally independent state (the Republic of Tannu-Tuva).

It goes without saying that the regional status of Mongolian is today considerably enhanced by the fact that it is the language of an independent state, with all the regular functions of a state language. The demographic contrast between Outer and Inner Mongolia is considerable, in that the Mongolian-speaking ethnic Mongols form an absolute majority in Outer Mongolia, while in Inner Mongolia they form a minority of less than 13 per cent of the total population, most of the rest being either ethnic Chinese (the so-called *Han* nationality) or Chinese-speaking Moslems (the so-called *Hui* nationality). The dominance of the non-Mongolian-speaking elements, most of them of a very recent origin, is overwhelming especially in all cities in Inner Mongolia, but also in many rural areas. Visible presence of the Mongolian ethnicity on the Chinese side is only observed in a few steppe regions, notably in the grasslands of Shilingol and Hulun Buir (Barga).

The influx of Chinese-speaking elements into the traditional Mongolian areas of Inner Mongolia and Manchuria has led to the linguistic assimilation of a large proportion of ethnic Mongols in China. The Sinicization of the Mongols was in progress already in the 19th century, when the Tumet Mongols around the city of Huhhot lost their language, though their descendants today are still registered as ethnic "Mongols". The situation grew especially unfavourable for the Mongols during the Cultural Revolution of China (1966–1976), when many even monoethnic Mongolian families, especially among the educated elite, started using Chinese as their home language. Today, China has officially over 5.8 million ethnic Mongols (2005), but at least one half of these have lost their ethnic language, and the assimilation process goes on. The children of inter-ethnic Chinese-Mongol marriages normally grow up with Chinese as their native language, but for reasons connected with the official minority policies they are registered as "Mongols".

Even so, it is important to realize that the number of Mongolian speakers is still for the time being larger on the Chinese side than in the state of Mongolia. It is also relevant to note that a majority of all Mongols in China speak dialects of the Khorchin group and especially the dialect of Khorchin proper, which today has close to 2 million speakers. This makes the Khorchin dialectal community more or less equal in size to the Khalkha-

speaking community on the Mongolian side. These two major dialects dominate the Mongolian linguistic map, leaving the other dialects, including such historically important ones as Kharachin and Chakhar, in the position of more locally restricted curiosities. The status of the Chakhar dialect, which today has perhaps only about 100,000 native speakers, is, however, raised by its position as the base of the Inner Mongolian oral standard.

In the context of the Mongolic language family, Mongolian, as defined here, is by far the most important entity as far as its demographic and political potential is concerned. It also serves as a point of reference for the other Common Mongolic languages, notably Buryat and Kalmuck, whose speakers, rapidly declining in numbers, look for support and models of survival from the state of Mongolia. It is, however, good to understand that Mongolian is ultimately only one Mongolic language, albeit the largest and best documented. The Mongolic language with the second-largest number of speakers is Santa (also known as *Dongxiang*) of the Shirongolic group. In spite of its 500,000 speakers, a compact population of pious Moslems in a distant corner of Gansu Province, Santa is in almost all respects the opposite of Mongolian: it is little documented, and it has no literary language, no oral standard and no official status. Moreover, it is structurally almost as different from Mongolian as is possible within the context of a single language family.

1.8   Interaction with other languages

The massive presence of ethnic Chinese and other Chinese-speaking groups in Inner Mongolia and the other Mongolian regions of China means that virtually all ethnic Mongols in China are today functionally bilingual (if not monolingual) in Chinese. In view of this, the Mongolian language as used on the Chinese side is surprisingly little influenced by Chinese, with most of the actual interference taking place by code switching. Chinese lexical influence is claimed to be relatively strong and apparently growing in the Khorchin dialect, while Chinese phonetic influence is traditionally assumed to be present in the Kharachin dialect. In spite of such local trends, the Mongolian language seems to retain its structural identity more or less intact. This is, without doubt, connected with the unifying influence of Written Mongol. Also, the Mongols of Inner Mongolia have never fully lost their connection with Outer Mongolia, where Chinese influence has always been minimal.

During the period of the Mongolian People's Republic (1924–1990), when the country was politically controlled by the Soviet Union, Outer Mongolia was, however, under a relatively heavy linguistic influence of Russian. During several decades, Russian was the principal foreign language studied by Mongols, and there were sizable Russian communities staying in Mongolia. The adoption of a Cyrillic-based literary language was also a move that was supposed to facilitate the progress of Russian among the Mongols.

Against this background, it is again surprising to note how shallow the knowledge of Russian turned out to be, for after the collapse of the Soviet Union it has more or less evaporated, with the young generation now turning to other international languages, notably English. Even so, Russian remains the source of most of the premodern technological vocabulary in Mongolian, and, importantly, much of this vocabulary is also used on the Inner Mongolian side.

At a more traditional level, the language of higher culture for the Mongols used to be Tibetan, which is the source of a large amount of religious terminology connected with Tibetan Buddhism, the principal religion of all Common Mongolic speakers. Tibetan is still being studied as a sacred language by Mongolian monks in both Inner and Outer Mongolia, though its linguistic impact remains confined to the specialist circles concerned. In the Tibeto-Mongolian borderland of the Kuku Nor region (Amdo), there are also Mongolian groups and individuals, mainly of an Oirat origin, though officially classified as ethnic Mongols, who are bilingual in local forms of Tibetan (Amdo Tibetan), or who have even changed their language to Tibetan. A case in point is formed by the so-called Henan Mongols in Qinghai Province, among whom the process of linguistic Tibetanization is about to be completed. In spite of this, the Henan Mongols are officially classified as ethnic Mongols, and they are offered public services in the Written Mongol language.

As a state language, Mongolian enjoys a safe and internationally secured position in Outer Mongolia. Thanks to relatively rapid population growth in the country the age structure of the speakers is also favourable from the point of view of the future of the language. To some extent, the existence of Mongolia as a separate state encourages also the Chinese government to support the language within its own territory. Education in Mongolian is available throughout the Mongolian regions of China and especially in Inner Mongolia, from primary school to high school and certain types of professional schooling. There are several publishing houses producing Mongolian material, including belletristics and popular science, though the language of publication is, of course, Written Mongol. As a result, the Mongols in China are among the best-educated ethnic groups in the country, considerably above the ethnic Chinese. Higher education is, however, offered mainly in Chinese, except in teacher-training programmes and in the field of Mongolian studies.

Finally, one should not forget the position which Mongolian inherently has as an international language between Outer and Inner Mongolia. Mongolian remains the only language in common for Mongols from the two sides of the border, and the contacts across the border have been increasing recently. Thanks to their bilingualism in Chinese, the Mongols of China have a crucial role in developing the economic and political ties between Mongolia and China. This situation has not remained unnoticed in Mongolia, where an interest towards learning Chinese has been growing. At the same time, Mongolia has been developing its traditional ties with Japan and Korea. Korean, in

particular, has emerged as an important second language for a considerable number of people from Mongolia, and South Korea is today a major target of Mongolian expatriate workers. Japan, on the other hand, is one the most important foreign countries for Mongols looking for specialized academic training and expatriate academic positions.

1.9   The languages of Outer Mongolia

In spite of its dominant position, Mongolian is not the only language spoken in Outer Mongolia. In fact, although many Mongols are not aware of it, the territory of what is today Outer Mongolia was until the rise of the historical Mongols predominantly occupied by Turkic-speaking populations, which established here the well-documented Ancient Turkic (552–630, 683–734) and Uighur (745–840) khaganates. The expansion of Mongolian (initially, Middle Mongol) in the region seems to have taken place mainly by way of language replacement, with the earlier Turkic speakers adopting Mongolian as their new language. There may also have been other languages and language families in the region, but they are not documented.

As a trace of the Turkic-speaking past of Mongolia, there are still Turkic idioms marginally spoken in the country. These include:

1.   Dukha (*Douxaa*), spoken by some dozen families in the mountain region west of Lake Khövsgöl; due to their reindeer husbandry, these people are also known to the Mongols as the Tsaatan (*Tzaaten* 'those with reindeer');
2.   Uighur Uriangkhai (*Wiiger Ouryaangxai*), today also occasionally referred to as Dukha (*Douxaa*), with only a dozen elderly speakers left, living in the steppe region east of Lake Khövsgöl;
3.   Altai Uriangkhai (*Altai Ouryaangxai*), with probably some thousands of speakers in the Mongolian Altai.

All these idioms, though poorly documented, are known to be mutually closely related members of the Sayan Turkic group, whose principal representative is Tuva or Tuvinian (the national language of the Tuva Republic). Altai Uriangkhai, whose area of distribution extends to the Chinese (Sinkiang) side of the border, is basically a regular Tuvinian diaspora dialect introduced from Tuva in the 19th century, while Dukha and Uighur Uriangkhai represent a separate (eastern) branch of Sayan Turkic. Currently, all these forms of speech are disappearing under the assimilative pressure of the Khalkha type of Mongolian dialects.

The largest, but least indigenous Turkic-speaking group in Mongolia is formed by the Kazakh, who at times have formed the main population in the westernmost part of the country (the Bayan-Ölgii Aimak), with colonies further east (in the Central Aimak,

not far from Ulan Bator). The maximum number of the Kazakh population in Mongolia has in a recent past risen to around 150,000 individuals. Historically, the Kazakh have been nomadizing on both sides of the modern Kazakhstan-Mongolian (previous Russo-Chinese) border, but more recently a large proportion of them has (re)moved to the Kazakhstan side. Many Mongolian Kazakh communities have traditionally not been fully fluent in Mongolian, but among those groups still remaining in the country, bilingualism is increasingly common.

Mongolia also has local populations which originally speak dialects of Oirat (in the west) and Buryat (in the east), as well as Khamnigan (in the northeast). For all these populations, Mongolian proper, in the form of Khalkha, has become the standard language, and it is unclear how well the non-Khalkha forms of speech are preserved. Probably, the situation varies locally somewhere between bilingualism, diglossia and complete language replacement. The same is true of some minor Russian peasant settlements in northern Mongolia, which have more or less become integrated into their Mongolian-speaking environment.

1.10   The languages of Inner Mongolia

Apart from Mongolian proper and the omnipresent Chinese language, Inner Mongolia also has several other, more local, languages, whose speakers are classified among the "minority nationalities" of China. Importantly, for some of these people Mongolian functions as a second or third language, which also serves as the language of school education. These groups, partly bilingual in Mongolian include:

1. the Dagur (*Dagoor*), especially in the Hailar region of Hulun Buir League; although Dagur itself is a Mongolic language, it is relatively distant from Mongolian and not immediately intelligible to speakers of the latter;
2. the Solon (*Solaon*), also especially in the Hailar region; officially classified as "Ewenki", the Solon normally speak specific dialects of Ewenki (Solon Ewenki) as their first and Dagur as their second language;
3. the Khamnigan (*Xamyen'gen*), especially in the Mergel region of Hulun Buir League; officially classified as "Ewenki" and historically known as the "Horse Tungus" or "Equestrian Tungus", the Khamnigan traditionally speak both Khamnigan (Khamnigan Mongol) and Ewenki (Khamnigan Ewenki) as their ethnic vernaculars, though the knowledge of both languages is declining among them.

Since all these groups live in the northern part of Inner Mongolia (Hulun Buir League), the use of Mongolian as a second language means for them in practice Khorchin (proper) at the oral level and Written Mongol as the literary medium. The multilingual situation

does not necessarily interfere with the preservation of the native languages, for the languages are traditionally organized in a functional hierarchy with Mongolian, the regional language, at the top. In this function, Mongolian has for some ethnic groups replaced Manchu, the former regional language in many parts of Manchuria and northern Inner Mongolia. However, as a language of school education Mongolian has today to compete increasingly often with Chinese, and the latter seems to be gaining in prestige, which means that a growing number of parents representing the local non-Mongol ethnic groups are enrolling their children in Chinese schools. This, in turn, is undermining the position of Mongolian as a second, third, or regional language for the populations concerned. There are indications that choosing the Chinese line of education may ultimately be speeding up the process of complete language replacement in favour of Chinese.

Mongolian has a more stable position among the Buryat (including Bargut) groups of northern Inner Mongolia, who are today replacing their original idioms with dialects of the Khorchin type. Thus, Mongolian, in the form of Khorchin, is still expanding its territory in the north at the expense of related Mongolic idioms, while further to the south it is losing its position to Chinese. Historically, also, Khorchin has been the most expansive Mongolian dialect on the Inner Mongolian side, while Khalkha has had a similar role in Outer Mongolia. The on-going processes of language shift and dialect change often involve generational differences, with the speech of the younger generation coming closer to Khorchin as well as, ultimately, the more standardized varieties of the language.

1.11   Sources on Mongolian

The earliest Western grammars of Mongolian (in German and Russian), notably those by Schmidt (1831) and Kowalewski (1835) were focused on Written Mongol, though it was well understood that the language could also be spoken. Even later, Written Mongol continued to dominate the conception of what Mongolian is, and Written Mongol grammars and textbooks have been published in a regular succession by, among others, Poppe (1937, English version 1954), Hambis (1945), Chingeltei (1952), Grønbech & Krueger (1955), Sanzheev (1964) and Sárközi (2004). These grammatical tools are accompanied by dictionaries, including those by Schmidt (1835), Kowalewski (1844–1849), Golstunskii (1893–1895) and, most importantly, Lessing (1960). Most of these sources approach Written Mongol as a classical language of ancient texts and a considerable native literature, as reviewed by Heissig (1972). It has to be recalled, however, that Written Mongol still remains the written language for the Mongolian speakers in China, and even modern grammars and dictionaries, both bilingual and monolingual, continue to be published in it. Practical bilingual dictionaries of Modern Written Mongol with

English as the other language include those of Haltod & al. (1949–1953) and Hangin (1986, originally published in 1970 in the Cyrillic script).

The first to study the actual spoken form of a Common Mongolic idiom was Castrén (1857), whose object was Buryat. He was followed by Ramstedt (1902, 1908), who initiated a genre, later continued by Vladimirtsov (1928), of systematically comparing Written Mongol with spoken Mongolian, especially the Khalkha variety. A modern version of this approach is the grammar of Kullman and Tserenpil (1996), which contains a grammatical description of Mongolian as written in both the "old" and the "new" script. An example of a more narrowly focused work of this type (on postpositions) is Buck (1955). In general, however, Western scholarship on Written Mongol vs. spoken Mongolian has gradually differentiated into two separate lines of research. The history of the different types of writing Mongolian is discussed by Kara (1972, English version 2005). The political background of the script reforms in the Common Mongolic context is analysed by Arai (2006).

The first Western grammar of a spoken idiom that morphosyntactically corresponds to the definition of Mongolian seems to have been that of Soulié (1903), who focuses on Ordos. Ordos and Khalkha are also the main idioms of reference in the very sketchy grammar of Whymant (1926), the first in the English language. There then followed the textbook (in Russian) and grammar (in German) of Poppe (1931, 1951), who later (1970) also authored a structuralist description of the language (in English). It should be noted that the language described by Poppe, although identified by him as "Khalkha", is actually a northern variety close to the Tsongol and Sartul dialects. Other textbooks, grammars and readers, with the focus on Cyrillic Khalkha, include those by Todaeva (1951), Sanzheev (1959, English version 1973), Austin & Hangin & Onon (1956), Street (1963), Bosson (1964), Hangin & Krueger (1968), Vietze (1969), Taube (1972), Beffa & Hamayon (1973) and Hangin (1975). Up-to-date tools for learning "colloquial" (Khalkha) Mongolian include Sanders & Bat-Ireedui (1999) and Lubsangdorji & Vacek (2004).

Mongolian, though mainly understood in the restricted sense of normative Khalkha, has also been the object of grammatical descriptions in the framework of more sophisticated linguistic theories. Two works along such lines are the Khalkha grammars by Bittigau (2003) and Krylov (2004). There are also linguistic descriptions devoted to specific sections of grammar. Ramstedt (1903) already published a study of the Khalkha verbal system, a topic later taken up by Binnick (1979b, 1990, 1991), who has also published a monograph on Khalkha transformational syntax (1979a). A more traditional syntax (in Russian) is that by Bertagaev (1964). The specialized phonological analysis of Khalkha was initiated by Stuart & Haltod (1957) and has been continued by, in particular, Svantesson (1985, 1990, 1994, 1995), who together with Tsendina & Mukhanova Karlsson & Franzén (2005) has authored the most up-to-date descriptive and comparative survey of Mongolian phonology. A related topic is concerned with the Romanized

notation used for the different types of written and oral Mongolian, an issue taken up by Balk and Janhunen (1999) and further discussed in Janhunen (2003a, 2006, 2010).

In the field of bilingual dictionaries the largest and most reliable one is the so-called "Academic" Mongolian-Russian dictionary published under the editorship of Luwsandendew & Tsedendamba (2001–2002). Mongolian-English dictionaries based on Cyrillic Khalkha include Hangin & al. (1986) and Bawden (1997), while the most up-to-date English-Mongolian dictionary is the one by Amarsanaa & al. (2006). Tsewel (1966) used to be the basic monolingual Cyrillic Khalkha dictionary for native-speaking users, though it has recently been replaced by the new considerably larger monolingual dictionary published under the editorship of Bold (2008). On the Inner Mongolian side, monolingual dictionaries are all published in Written Mongol, though the etymological dictionary of Sechenchogtu (1981), for instance, includes also a phonetic transcription of the spoken words. An *a tergo* dictionary of Cyrillic Khalkha based on Tsewel (1966) is Vietze & Zenker (1976). There is also a Mongolian encyclopaedia, published under the general editorship of Chadraa (2000). Especially on the Inner Mongolian side, several other major lexicographical works have been published in fields extending from biography to zoology. An encyclopaedia of Mongolian Studies was edited by Oyuunchimeg (2004).

Today, Mongolian is increasingly becoming an object of general linguists, including Mongolists trained in general linguistics. This is rapidly changing the focus of the field from traditional grammatical description, with an emphasis on phonology and morphology, to the more trendy topics favoured in cross-linguistic comparisons, including, typically, syntax and discourse. Examples of this new line of research are the unpublished dissertations of Song (1997) and Umetani (2008), as well as the on-going work of Brosig (forthcoming) and others. There is no doubt that these efforts will ultimately reveal important and previously unknown aspects of the Mongolian language, though, at the same time, they do not make work in the more traditional areas of language description any less relevant.

1.12   Sources on Mongolic

Although synchronic information on some of the less well investigated Mongolic languages continues to be scarce even today, a relatively good understanding of the earlier stages of Mongolian has long been possible on the basis of Middle Mongol and Written Mongol. The first actual comparative treatment of the Mongolic family was authored in Russian by Sanzheev (1953–1964), but it was immediately superceded by the English-language work of Poppe (1955), which is still a valid source. Later surveys, with synchronic descriptions of the individual languages, including the written forms, include those edited by Poppe (1964) and Janhunen (2003). Similar works, though of a less

comprehensive size and focused on the Mongolic languages of China have been published by Todaeva (1960ab). Tömörtogoo (1992) is a historical grammar with some comparative information. A comparative word list, with information from both Mongolian dialects and the various Mongolic languages, was published under the editorship of Sun Zhu (1990). A major up-to-date source on Shirongolic is Nugteren (2011). The diachrony of the expansion and differentiation of Mongolic is also discussed by Janhunen (2008). Many comparative works are only concerned with the Common Mongolic level: Trofimova (2009), for instance, offers a comparative analysis of Common Mongolic nominal morphology.

As far as the dialectology of actual Mongolian (proper) is concerned, monographic descriptions and specific papers are today available on several varieties of the language spoken in Inner Mongolia. Many of the relevant works published in China are either in Chinese or in Modern Written Mongol. These include the recent monographs by Chaganhada (1995) and Bayanchogtu (2002) on Khorchin, Bayarmend (1997) on Baarin, as well as Mungungerel (1998) on Naiman. The only major dialectological work available in English is Sechenbaatar (2003) on Chakhar. A general survey of the Inner Mongolian dialects was already initiated by Rudnev (1911), followed by Todaeva (1981–1985), both of whom wrote in Russian. On the Outer Mongolian side, dialectological works in Western languages include those by Róna-Tas (1960–1961) on Dariganga, Kara (1962–1963) on Udzumuchin, as well as Csaba (2006) on Darkhat. Tsongol and Sartul are covered in Russian by Budaev (1965) and Buraev (1965), respectively. Todaeva (1988) is a brief description of the modern form of Manchurian Oirat (Ölöt), while Janhunen (1988) deals with the modern forms of Old Bargut. Other occasional notes on Mongolian dialects in Western languages include Nomura (1957) on Kharachin, Chingeltei (1961) on Baarin, as well as Bosson & Unensechen (1962) on Khorchin. Kara (1970) contains folkloric text samples and dialectological notes on Urat.

A special position in the dialectological literature on Mongolian is occupied by Ordos. Although strictly speaking a distinct (sub-)branch of Common Mongolic, Ordos is both morphosyntactically and lexically very close to the Khalkha and Khorchin groups of dialects, though phonologically it lacks many of the innovations of the latter. It is not surprising, then, that Ordos is conventionally classified as a "Mongolian dialect", though linguistically this is questionable. The importance of Ordos for Mongolic studies is, however, mainly connected with the fact that it was so exceptionally competently and comprehensively documented by Mostaert. Mostaert initially dealt with Ordos in a number of general outlines (1926–1927, 1934), after which he published a large corpus of texts (1937) as well as a dictionary (1941–1944). The Ordos dictionary of Mostaert is, in particular, one of the cornerstones of modern Mongolian studies, and together with the "Kalmuck" (actually, Oirat) dictionary of Ramstedt (1935) it remains one of the two largest dialectological dictionaries of any kind of Mongolic. Later works on Ordos,

including Street (1966) and Georg (2003), are largely based on the materials of Mostaert. Fresh material on Ordos is, however, offered by Sechen & Baatar & Sengge (2002).

In general, it may be said that primary work on Mongolian dialectology is today dominated by native-speaking Mongolian scholars from Inner Mongolia, the region with the greatest diversity of Mongolian dialects. Inner Mongolian scholars have also been active collecting material on the other Mongolic languages spoken in China, while Outer Mongolian scholarship has been more narrowly focussed on Khalkha and, to some extent, Oirat. The Kalmuck and Buryat in the context of the Russian Federation have their own lines of national research, closely connected with the Russian tradition of scholarship. In a larger context, however, comparative work on Mongolic is today an international field represented in many countries, including also Korea, Japan, Europe and North America.

Segmental structure

2.1 Orthographical systems

Considering both phonology and morphology (with morphosyntax), Mongolian is best defined as a language comprising the Khalkha and Khorchin groups of Common Mongolic dialects (§1.5). If only morphology (and morphosyntax) were considered, Ordos could also also be classified as a more or less regular Mongolian dialect, but as far as phonology is concerned, Ordos is difficult to include in a single description with Khalkha and Khorchin. For centuries, the speakers of all these idioms were served by the Written Mongol literary language, which was also used by several other groups of Common Mongolic speakers. Since the 1940s, however, the literary tradition was split between those who continued using Written Mongol and those who adopted (or were forced to adopt) the new Cyrillic Khalkha standard (§1.4).

It is important to understand that neither Written Mongol nor Cyrillic Khalkha represents a phonemically adequate way of transmitting any modern dialect of Mongolian in written form. The Written Mongol orthography is mainly based on the pronunciation of the Mongolic *koïné* during the Mongol Empire in the 12th to 14th centuries and as such it is close to Middle Mongol, recorded also in a variety of other scripts. Middle Mongol, in turn, is best viewed as an idiom close to the ancestral form of all extant Mongolic languages, that is, Proto-Mongolic, which means that it is considerably more archaic than any modern Mongolic language or dialect. Cyrillic Khalkha, on the other hand, is supposed to reflect the speech of the Mongols in Ulan Bator and surrounding parts of Outer Mongolia in the early 20th century. However, even in this case the evolution of the language has already rendered the orthographical standard in some respects archaic and obsolete.

In practice, the Written Mongol orthography is complicated by a large number of inadequacies, inconsistencies and idiosyncrasies, as well as by many specific conventions connected with the earlier history of the script. There are particularly many cases of under-differentiation (non-observation of phonemically relevant oppositions), but also cases of over-differentiation (observation of phonetic details lacking phonemic relevance). These problems are, however, not substantially greater than in any other old alphabetic orthographical standard, such as those of English or Classical Arabic. An advantage of Written Mongol is that it is equally well suited for speakers of all types of Mongolian dialects and even of other Common Mongolic languages. For diachronic reasons, it is particularly

close to Khamnigan and Ordos, two forms of Common Mongolic that in many respects are exceptionally conservative and, therefore, still close to Middle Mongol.

The Cyrillic Khalkha orthography, which reflects a more restricted and considerably more modern dialectal base, has a more transparent relationship with the spoken language than Written Mongol, but from the phonemic point of view it is not without problems, some of which were inherited from Written Mongol. In fact, Cyrillic Khalkha inherently also functions as a supradialectal standard, since it has never been exactly identical with any specific dialect. Moreover, some of its orthographical solutions are based on an insufficient understanding of the underlying phonology, which means that it, too, involves cases of both under-differentiation and over-differentiation. It is, consequently, difficult to say whether the introduction of Cyrillic Khalkha involved any true progress in writing Mongolian.

Although both Written Mongol and Cyrillic Khalkha involve alphabetic systems of writing, from the point of view of modern communication technology they involve the problem of employing non-Roman letters. Written Mongol additionally remains the only extant writing system in official use that can only be written and read vertically (from top to bottom), which has rendered it a challenge to digital technology developers. On the other hand, the fact that the Mongol script, as used in Written Mongol, is a language-specific system of writing, has a considerable value for the historical and national identity of the Mongols. This is one reason why the use of Written Mongol has never been completely abolished in Outer Mongolia. Even today, Written Mongol serves as a symbolic link connecting all Mongolian speakers both with each other and with their cultural heritage.

2.2   Principles of notation

In the present treatment of Mongolian grammar, the language material will be presented in a uniform phonemic transcription using Roman basic letters only (in *italics*). The actual principles of the transcription are presented in connection with the relevant phonological details. As there are more distinct segments in Mongolian than there are basic letters in the Roman alphabet, some segments will have to be written by digraphs (fixed sequences of two letters). It should be noted that the system used here for phonemic notation is *not* a transliteration of either Written Mongol or Cyrillic Khalkha, nor is it a direct application of the principles of the one-time Romanized "Buryat" (actually, northern Khalkha) orthography. It is possible to write a Mongolian grammar on the basis of the Cyrillic Khalkha orthography, or also of Romanized Cyrillic Khalkha (as in Svantesson 2003), but such a grammar would not serve the purpose of fully describing the underlying language.

When necessary for the discussion, the Written Mongol and Cyrillic Khalkha orthographical representations of Mongolian words will also be quoted in Romanization (in **boldface**). Without going into the details, the Romanization used for Written Mongol in the present treatment follows the principle of mechanic transliteration (as discussed in Balk & Janhunen 1999, slightly revised in Janhunen 2003c), the only alternative available if we wish to avoid a confusion between letters and sounds (cf. also the Chart of Letters in this volume). Conventionally, several other systems have also been in use, all of which typically involve a mixture of transcriptional and transliterational principles. For Cyrillic Khalkha, a language-specific system of Romanization of Cyrillic, in some details different from the systems commonly used for Russian, will be applied (as also in Svantesson 2003). At this point, it is again relevant to recall that the orthography of Cyrillic Khalkha is relatively far from the phonemic representation, which means that it does not automatically correspond to the phonemic reality of either Khalkha or of any other actual dialect of modern Mongolian.

For practical purposes, as in electronic communication (email and text messages), Mongolian is today increasingly often used in Romanization both in Outer and Inner Mongolia. No systematic study has been made of the notational practices and principles applied in this context, but since there is no commonly accepted national or international system for Romanizing Mongolian it seems that the field is characterized by considerable and largely unsystematic variation. Even on the Inner Mongolian side, the notation often aims at conveying a Romanized image of Cyrillic Khalkha, though, in practice, the result always contains inconsistencies and misunderstandings. Thus, distinctions characteristic of the Cyrillic alphabet and lacking an immediate counterpart in the Roman script are often ignored, while other distinctions are rendered either mistakenly or imperfectly, or also, in the absence of suitable simple letters, with the help of special symbols.

There is also much variation in the Romanization of Mongolian proper names, including both personal and geographical names. In Outer Mongolia names are often Romanized with the Cyrillic Khalkha image as the basis, while in Inner Mongolia the Written Mongol orthographical representation is also considered. Dialectal features are frequently incorporated into the onomastic material, which means that a single name can occur in several different Romanized shapes. Additional confusion is created by the use of the Pinyin system of Romanization on the Chinese side. The Pinyin system is officially applied to geographical names of Mongolian origin on Chinese maps, and although relatively adequate from the phonemic point of view it uses several basic letters in a way different from most other systems of notation. Moreover, the Pinyin system can be applied in different ways, depending on how closely the rules of Chinese syllabification are followed.

All these problems could be avoided if there existed a phonemically adequate official system of Romanization for Mongolian. Every now and then, the possibility of introducing a new Roman-based practical orthography for Mongolian has been discussed,

especially in Outer Mongolia, where there is a certain resistance against the Cyrillic script and the cultural link it creates with Russia. It is not clear, however, whether a new practical orthography could easily solve some of the most intricate issues of phonemic representation. Many of the issues to be solved, like, for instance, the degree to which Pinyin values could be applied in the practical Romanization of Mongolian, have also a political dimension, leaving the field open to many alternative solutions (Janhunen 2006, 2010). It has to be stressed that the Romanized phonemic notation used in the present treatment is not supposed to solve the question of a practical orthography. Rather, it only aims at presenting the segmental structure of the language in a phonemically adequate and graphically simple way. As far as possible, the extant traditions of Mongolian studies will also be considered.

For phonetic transcription, the present treatment uses the International Phonetic Alphabet (IPA), which is today dominant in international Mongolic studies. It has to be noted, however, that in the Chinese tradition of scholarship this system has often been applied in a non-standard way, which is why the phonetic transcriptions contained in Chinese and Inner Mongolian works on spoken Mongolian, as well as on the other Mongolic languages, are occasionally misleading in the details. Also, in the earlier European tradition of Mongolic studies, including work on both Khalkha (starting with Ramstedt 1902, 1903) and Ordos (Mostaert 1926–1927, 1934, 1937, 1941–1944), the phonetic notation follows the principles of the so-called Finno-Ugrian Transcription System (FUT), which is based on rather different graphic principles. Some Mongolists (like Poppe 1951, 1970) have also used modified or simplified versions of the Finno-Ugrian Transcription System.

2.3   The phonological framework

All descriptions of Mongolian phonology and phonetics made so far are based on a limited dialectological corpus. Most commonly (as in Stuart & Haltod 1957), the object has been a generalized dialect close to normative Khalkha. Only recently have attempts been made at more detailed studies of the sound systems of the actual varieties of Khalkha, especially of the Ulan Bator dialect. Most other dialects are still insufficiently described. In the extant literature, the synchronic focus varies from phonetics (as in Svantesson & al. 2005) to morpheme structure and morphophonology (Krylov 2004). Many general descriptions of Mongolian, as well as most works on dialectology, also contain sections on phonology. In deviation from the tradition of focusing on a single variety of the language, the present treatment aims at a dialectally unbiased presentation of the Mongolian sound system, which means that the principal dialectal differences will also be covered.

Depending on the dialect, Mongolian has 6 to 10 phonemically distinct short vowel qualities (V) and some 19 to 35 consonant phonemes (C). The great variation in the

number of consonant phonemes is connected with the status of palatalization in the consonant system, as well as with the presence or absence of certain marginal phonemes, which mainly occur in recent and possibly not fully nativized loanwords. The variation in the number of vowel phonemes is likewise partly connected with the status of palatalization in the vowel system. The point is that some dialects have more palatal vowel phonemes and fewer palatalized consonant phonemes, while other dialects have fewer palatal vowel phonemes and more palatalized consonant phonemes. The difference correlates with the basic distinction between the Khalkha and Khorchin types of dialects. The actual paradigms of vowels and consonants will be presented in the relevant sections below.

Consonant clusters (CC) are not allowed in word-initial position, and clusters originally present in borrowed items are resolved by inserting an extra vowel, often anticipating the following vowel quality. The original cluster is, however, normally preserved in the orthographical representation, as in *taraaxter* 'tractor' = Cyrillic Khalkha **traktor** vs. Written Mongol **traktur** or **taraktur**, borrowed from Russian *tráktor* idem. The question as to whether there are consonant clusters, and what kind of clusters, in other than word-initial position depends on how the syllable structure is analysed. The crucial issue concerns the rules of syllabification, or, more exactly, the status of the qualitatively neutral vowel (*e*) in non-initial syllables. If the neutral vowel is analysed as equal to zero (Ø), Mongolian will turn out to have a large variety of complex consonant clusters with an, in principle, unlimited number of members and including geminates (sequences of two identical consonants). If, however, the actual syllabification present at least at the phonetic level, is taken as the basis, most of the clusters will be resolved into sequences of a consonant and a vowel. Finally, it is also possible to postulate the presence of a neutral vowel after every consonant segment that is otherwise not followed by a vowel. This analysis would yield only sequences of consonant + vowel (CV) in all positions.

The three alternative analyses of syllable structure may be illustrated by the Cyrillic Khalkha item **xereglel** 'necessity', which in the orthographical shape contains one internal cluster (**gl**) and a final consonant (**l**), as well as two interconsonantal neutral vowels (**e**) in the non-initial syllables. If these vowels are analysed as phonemically empty, the word will have to phonemized as /xergll/*. If, however, every non-initial consonant is assumed to be followed by a distinctive vowel, the phonemic shape will be /xeregelele/*. Arguments have been presented both in favour of the zero analysis of the neutral vowel, at least at what could be called the phonemic "deep level" of the language (Svantesson 1994, 1995; cf. also Rialland & Djamouri 1984: 337–339) and in favour of the postulation of a vowel segment after most non-initial consonants, at least in some dialects (Janhunen 1988). In the present treatment, it is assumed that the syllabification evident at the phonetic level is indicative of the actual phonemic structure, at least at the "surface level". The phonemic shape of the example word will then be [xərəgləl] = /xereglel/, which corresponds to the shape *xereglel* of the normalized Roman transcription as used here.

Related problems are connected with the analysis of vowel quantity. In the initial syllable Mongolian has an unambiguous contrast between phonetically short and phonetically long vowels. The long vowels can, in principle, be analysed as separate phonemes, as opposed to the short vowels, especially since the paradigms of the two types of vowel are not necessarily identical. On the other hand, the long vowels could also be analysed as syntagmatically complex vowels or double vowels (VV). The two components of a complex vowel can be identical, as in *xan* 'prince' vs. *xaan* 'emperor', but they can also be different, in which case the latter component may always be identified with the high front vowel *i*, as in *sain* 'good'. It is, correspondingly, possible to speak of monophthongoid and diphthongoid complex vowels in Mongolian. Both types can also occur in non-initial syllables, though their phonemic status is open to alternative analyses. In an analysis in which the neutral vowel (*e*) is treated as equal to zero in non-initial syllables, the complex vowels fill the role of single (or simple) vowels in this position. The present treatment takes a somewhat different approach, in which the short (or single) and long (or double) vowels are treated paradigmatically as separate entities.

2.4   Basic consonants

The basic consonants common to all forms of Mongolian (Table 1) may be classified in terms of four places of articulation (vertical columns) into labials (*m b p f w*), dentals (*n d t lh s l r*), palatals (*j c sh y*) and velars (*ng g k x*). By manner of articulation (horizontal rows), the consonants may be divided into nasals (*m n ng*), weak or basic stops (*b d j g*), strong stops (*p t c k*), fricatives (*f lh s sh x*), glides (*w y*) and liquids (*l r*). On the basis of their phonetic characteristics, the palatal stops (*j c*) may also be classified as affricates. The two liquids may be identified as a lateral (*l*) and a vibrant or a rhotic (*r*). The fricatives may be divided into sibilants (*s sh*) and non-sibilants (*f lh x*). Among the latter, the dental non-sibilant fricative (*lh*) may also be characterized as a fricolateral (lateral fricative).

Table 1. The basic consonant paradigm

m		*n*			*ng*
b		*d*		*j*	*g*
p		*t*		*c*	*k*
f	*lh*		*s*	*sh*	*x*
w				*y*	
		l			
		r			

The total number of segments in the paradigm is 20, but the number includes three marginal phonemes: the labial fricative (*f*), the strong velar stop (*k*) and the fricolateral (*lh*), all of which may be dialectally or idiolectally absent. The marginal phonemes typically occur in loanwords (from Chinese, Russian and Tibetan) and they are more likely to be present in the speech of educated and/or bilingual individuals. Since bilingualism is today particularly common among the Mongols in Inner Mongolia and elsewhere in China, it may occasionally also be manifested in the introduction of even other non-native (Chinese) phonological patterns into Mongolian speech, but such cases are best understood as examples of code switching, rather than structural interference. Historically, the labial strong stop (*p*) and the labial glide (*w*), though today nativized in all dialects, are also secondary phonemes introduced mainly via loanwords (especially from Chinese and Tibetan), a circumstance that is still visible in their relatively limited distribution. For *w* the issue is also connected with how its status with regard to *b* is analysed (§§2.5, 2.15).

With the exception of the velar nasal (*ng*) and the vibrant (*r*), all consonants can occur word-initially, in which position they always precede a vowel (#CV-). The contrasts between the regular consonant phonemes in this position may be illustrated by minimal pairs and triplets as follows: *moor* 'cat' vs. *noor* 'lake', *baraa* 'goods' vs. *daraa* 'then', *jar* 'sixty' vs. *gar* 'hand, arm', 2P PL DAT *tand* 'to you' vs. *cand* 'firm', *sar* 'moon, month' vs. *shar* 'yellow' vs. *xar* 'black', *lam* 'lama' vs. *yam* 'Yama' (the Buddhist God of Death). Examples of the secondary and marginal phonemes are: *pureb* 'Thursday' (from Tibetan **phur.bu**), *wang* 'prince' (from Chinese *wang*), *kaart* 'card' (from Russian *kárta*), *fen* 'fen' (Chinese unit of currency, from Chinese *fēn*), *lhageb* 'Wednesday' (from Tibetan **lhag.pa**). Orthographically, the segment *r* is also attested in word-initial position, as in Written Mongol **raqu** 'Rahu' (Buddhist demon), Cyrillic Khalkha **radio** 'radio', but in actual speech it is normally preceded by a prothetic vowel, yielding phonemic shapes like *araax*, *araaj*. In more thoroughly nativized items, the prothesis may also be evident in writing, as in Written Mongol **rasiyav** ~ **varasiyav** = Cyrillic Khalkha **rashaan** ~ **arshaan** for *arshaan* 'mineral spring' (ultimately from Sanskrit *raṣāyana*).

Most of the basic consonants can also occur in medial and final positions, including clusters. Examples from the medial syllable-initial position: PART FUT *nemex* 'to add', *teneg* 'stupid', *obao* 'obo' (ritual pile of stones), PART FUT *cadex* 'to be able', *xajoo* 'side', *egel* 'simple', PART FUT *tatex* 'to pull', *xiceel* 'lesson', *aser* 'building', *jishee* 'example', *uxer* 'cattle', *aleg* 'motley', *tayeg* 'walking stick', *areb* 'ten'. With the exception of the velar nasal (*ng*) and the fricolateral (*lh*), the secondary and marginal consonants are also attested medially, as in *yapaon* 'Japanese' (from Russian *yapón-*), *sangkoo* 'storehouse' (from Chinese *cāngkù*), PART FUT *tangfaax* 'to perm (the hair)' (from Chinese *tàngfà*). The status of the labial glide (*w*) in non-initial positions is open to alternative interpretations.

The initial syllable of a Mongolian word can also begin without an overt consonant segment, that is, with a zero consonant (Ø), as in *areb* 'ten'. All vowel qualities can occur

in this position. It remains a matter of interpretation how this zero consonant is analysed phonologically. Phonetically, there is normally no segmentable entity (such as a glottal stop) before initial vowels, which means that it is probably possible to analyse these cases as involving simply the absence of a consonant. There also seem to be no other phonological phenomena in Mongolian that could be explained by postulating a separate zero consonant phoneme. On the other hand, as in many other languages (including Chinese), the zero initial is in complementary distribution with the velar nasal (*ng*), a situation which might allow us to postulate a link between the two features. In the absence of any obvious advantage, this line of analysis will not be followed further here.

2.5   Consonant phonetics

There are several phonetic details about the Mongolian consonant system that are not immediately obvious from the paradigm. Also, the phonetic properties of several consonants show considerable dialectal variation. Irrespective of dialectal differences, however, the consonants can be divided into three principal classes, distinguished by voice and nasality: (i) oral obstruents, (ii) oral sonorants and (iii) nasal sonorants. Of these, the oral and nasal sonorants are primarily realized as voiced, though positionally (in an unvoiced environment) they may be partly or fully devoiced. The oral obstruents are primarily unvoiced, though some of them may positionally (in a voiced environment) become voiced.

The two series of oral stops are basically opposed to each other by the phonetic presence (in the strong series) or absence (in the weak series) of aspiration. In word-initial position, the aspiration follows the stop segment as a postaspiration, as in *boul* [pʊl] 'wheel' vs. *poul* [pʰʊl] 'splash' (onomatopoetic particle), *dal* [tal] 'seventy' vs. *tal* [tʰal] 'steppe', *gang* [kaŋ] 'steel' (from Chinese *gāng*) vs. *kang* [kʰaŋ] 'kang' (heated sleeping ground, from Chinese *kàng*). The same opposition is also present in the palatal stops, which are normally realized as palatal affricates, as in *jing* [tɕiŋ] 'freight' vs. *cing* [tɕʰiŋ] 'Qing' (dynasty). The pronunciation of the affricates varies dialectally, however. While the palatal pronunciation prevails in all dialects in the position before the high palatal vowel *i*, the realizations before other vowel qualities range from the alveopalatal [tʃ tʃʰ] to the retroflex [tʂ tʂʰ] (the latter especially in the Kharachin dialect).

The weak dental stop (*d*) retains its basic quality in all positions, including the position between vowels and sonorant consonants, as well as word-finally, as in PART FUT *yadex* [jatəx]] 'to be unable', *alder* [altər] 'fame', *deed* [tə:t] 'upper', *dound* [tʊnt] 'middle'. In the same positions, the corresponding strong segment (*t*) remains aspirated, but the aspiration may not only follow but also precede (preaspiration) or surround (circumaspiration) the stop segment, as in *baater* [pa:tʰər] ~ [pa:ʰtər] ~ [pa:ʰtʰər] 'hero'. The situation is similar for the other strong stops, of which, however, only the strong palatal

stop (*c*) occurs frequently, as in *xuc* [xutɕʰ] ~ [xuʰtɕ] ~ [xuʰtɕʰ] 'power'. In addition to the strong stops, the dental fricative (*s*), produced with sibilant noise, may also, at least in word-initial (postpausal) position be accompanied by a slight phase of laryngeal aspiration, as in *sanaa* [sʰana:] 'thought'. It is more difficult to observe any aspiration after the corresponding palatal segment, which is pronounced as a palatal or alveopalatal sibilant, as in *sheul* [ɕөl] ~ [ʃөl] 'soup'. The velar fricative (*x*), on the other hand, is itself often realized as a voiceless laryngeal spirant. There seem to be dialectal differences in the pronunciation of this segment, and there is probably a smooth areal transition from the fully velar realization [x] to the fully laryngeal pronunciation [h], with the former prevailing in the Khalkha group and the latter in the Khorchin group of dialects.

Unlike the weak dental stop (*d*), which remains voiceless in all positions, the other weak stops (*b j g*) tend to become voiced in a voiced (sonorant) environment. The voicing is less conspicuous and can even be absent in the palatal stop (*j*), as in *ajel* [atɕəl] ~ [adʑəl] 'work', while in the labial and velar stops it is regular and is, especially in intervocalic position, accompanied by a varying degree of spirantization. The weak labial stop (*b*) is, then, commonly pronounced as a voiced bilabial spirant [β], or also as a bilabial glide [w], as in PART FUT *abex* [aβəx] ~ [awəx] 'to take', while the weak velar stop can be pronounced as a voiced velar fricative, as in *neugeo* [nөɣө:] 'other'. Both segments can, however, also be pronounced as voiced stops, and in final (prepausal) position the voiceless stops are frequently observed, as in IMP *ab* [ap] ~ [ab] ~ [aβ] ~ [aw] 'to take', IMP *eug* [ʉk] ~ [ʉg] 'to give'. Due to dialectal differences it is possible that the voicing and spirantization developments are more common in Khalkha than in the Khorchin group of dialects. This has led to the claim that the voiced segments [w] and [g] (with other phonetic variants) in modern Ulan Bator Khalkha represent inherently voiced consonants, while the dental and palatal weak stops (*d j*), as well as the labial weak stop (*b*) in initial position, are inherently unvoiced (Svantesson & al. 2005:25). Although this interpretation might be justifiable for the dialect in question from the strictly phonetic point of view, it does not seem to correspond to the paradigmatic structure of Mongolian phonology as a whole. In the present treatment it will therefore be assumed that the weak stops (*b d j g*) form a synchronically uniform and coherent group of consonants, systematically opposed to the corresponding strong stops (*p t c k*).

A consequence of the analysis of the intervocalic labial spirant or glide as a positional variant of the corresponding weak stop (*b*) is that the occurrence of the actual labial glide phoneme (*w*) is restricted to the word-initial position. Its regular realization is a voiced bilabial glide (as in Chinese), as in *waar* [wa:r] 'tile' (from Chinese *wǎer*), while the dentilabial (labiodental) pronunciation [v] (as in Russian) is probably absent in all native forms of Mongolian. The corresponding voiceless fricative (*f*) is, however, in the dialects and idiolects that have it, normally realized as a dentilabial [f] (as also in both Chinese and Russian), although the bilabial pronunciation [ɸ] might also occur at the level of idiolects.

Of the two liquids, the vibrant (*r*) is normally realized as a dental (alveolar) trill with several vibrations, as in *araa* [ara:] 'molar tooth', *ar* [ar] 'rear'. In an unvoiced environment, such as before a strong (aspirated) stop, it can, however, be devoiced, in which case it can absorb the (pre)aspiration phase, as in *ert* [ə̥rt] 'early'. The lateral (*l*) is likewise normally voiced, as in *ool* [ʊ:l] 'mountain', but can be devoiced before a strong consonant, as in *alt* [ḁl̥t] 'gold'. A peculiarity of some dialects of the Khalkha group, notably modern Ulan Bator Khalkha, is that the lateral is in all positions pronounced with considerable fricative noise. This seems to be a recent (20th century) innovation not mentioned in the early descriptions of Khalkha phonology. The resulting fricolateral sound [ɮ] is still basically voiced, but it has a tendency to be devoiced, as in *oulaan* [ʊɮa:ŋ] ~ [ʊɬa:ŋ] 'red'. Insofar as the devoicing also affects the initial position, as is normally the case, the regular lateral (*l*) merges with the fricolateral (*lh*), resulting in the loss of this marginal phoneme. In those dialects, as on the Inner Mongolian side, in which the regular lateral continues to be pronounced as a sonorant, the marginal fricolateral is potentially distinguished by its lack of voicing, as in *lhaas* [ɬa:s] 'Lhasa' (from Tibetan **lha.sa**). In reality. the distinction is in most dialects and idiolects lost in favour of the voiced lateral, as in Khorchin *laas* [la:s] 'Lhasa' (cf. Chinese *lāsà*).

In this context, the synchronic status of the fricolateral (*lh*) may be examined once more. It is easy to see from the basic consonant paradigm (Table 1) that this is the segment that most seriously disturbs the symmetry of the system, since it involves an otherwise irrelevant distinction (sibilant vs. non-sibilant) in the class of dentals. In this respect, it differs from the other marginal phonemes (*f k*), which have a natural niche in the system. Moreover, the fricolateral is attested only in word-initial position and only in a limited corpus of loanwords (from Tibetan), to which no new items are added. Even so, in those dialects that possess this segment, it can only be analysed as a separate phoneme. Orthographically, it is expressed by a digraph (Written Mongol **l**+**h** vs. Cyrillic Khalkha **l**+**x**), but phonologically it cannot be analysed as a cluster for the simple reason that Mongolian has no initial clusters. Obviously, therefore, it has to be assumed to have become fully nativized in the speech of at least some educated individuals. It is possibly relevant to note that the items containing the fricolateral are relatively often encountered in personal names, such as *lhageb+sureng*, *lhaa+dorj*, *lham+jab* = Cyrillic Khalkha **Lxagwasüren**, **Lxadorj**, **Lxamjaw** = Written Mongol **Lhaqbasuiruvg**, **Lhadurzi**, **Lhamuzab**.

2.6   Basic vowels

Most forms of Mongolian have a set of seven historically primary basic vowels, which can occur as short segments in the initial syllable of a word. It is commonly assumed that these vowels were originally, as they still are in many forms of Oirat, organized into three

phonetically and functionally distinct classes: three back vowels (*u *o *a), three front vowels (*ü *ö *e, of which the last one is occasionally also written as *ä), and a single neutral vowel (*i). The back and front vowels form three harmonic pairs distinguished according to the height of the tongue articulation: one pair of high (close) vowels (*u vs. *ü), one pair of mid-high (mid-close) vowels (*o vs. *ö) and one pair of low (open) vowels (*a vs *e or *ä). The high and mid-high members of these pairs are rounded, while the low vowels are unrounded. The single neutral vowel (*i) is phonetically high and unrounded [i], although the slightly lowered quality [ɪ] is also commonly attested.

In most studies of Mongolian phonology, the distinction between the members of each pair is still synchronically assumed to lie in backness (velarity) vs. frontness (palatality), at least at the notational level, a solution which facilitates the comparative analysis of the language. In reality, however, the vowel qualities in all forms of Mongolian, as well as in virtually all other forms of Mongolic, have undergone significant changes. The impact of these changes in Mongolian (proper) is best explained by assuming a systematic process of vowel rotation, in which the original front vowels have been raised and the original back vowels lowered in relation to their harmonic counterparts. At the same time, the original front vowels have become increasingly velarized, while the original back vowels have been pharyngealized. In the new system, all vowels, with the exception of the original neutral vowel (*i), are pronounced in the velar zone, leaving tongue height and pharyngealization as the two properties by which the members of the original harmonic pairs are synchronically distinguished from each other. Pharyngealization in this context means that the vowels concerned are pronounced with a pharyngeal constriction which gives them a specific and auditively distinct acoustic quality.

The impact of vowel rotation is most clearly observable in the original pair of high rounded vowels (*u vs. *ü), in which the high front vowel (*ü) has undergone a transition from the fully palatal quality [y] through the centralized quality [ʉ] to the fully velarized quality [u], while the original high rounded back vowel (*u) has been lowered from its velar quality [u] to the higher mid-range quality [ʊ], or even to the mid-high quality [o], which can be additionally pharyngealized. The centralized quality [ʉ] is still observed dialectally, and in older descriptions of Mongolian it is quoted as corresponding to the regular pronunciation. The Cyrillic alphabet, as used in Khalkha, denotes the original high rounded front vowel with a special letter (here Romanized by the diacritically modified letter **ü**), while the corresponding back vowel is rendered by the "regular" letter denoting a high rounded vowel (**u**). The phonetic (IPA) notation [ʊ], on the other hand, though commonly used by Mongolists for the original high back rounded vowel, is inexact and misleading, since it does not indicate the possible presence of pharyngealization, and it also may give the false impression of phonetic "laxness", which is not a property of the Mongolian vowel in question. It has to be noted, however, that the degree of pharyngealization present in this vowel also varies dialectally and seems to be

stronger in Khalkha than in the Khorchin group of dialects, in which the principal pho-
netic distinction between the original high rounded vowels is one of tongue height.

The original pair of mid-high vowels (*o* vs. *ö*) has developed along similar lines, in
that the mid-high front quality [ø] has been centralized to [ɵ], a quality still present in
many dialects, and then further fully velarized to [o], while the mid-high back quality
[o] has been lowered to [ɔ] and, at least dialectally, pharyngealized. The pharyngealiza-
tion in this case is, however, less conspicuous than in the corresponding high vowel (*u*).
In this case, also, the Khalkha Cyrillic orthography employs a special letter for the origi-
nal front vowel (here Romanized as **ö**), while the corresponding back vowel is rendered
by the "regular" letter for a mid-high rounded back vowel (**o**). The development of the
original pair of low vowels (*a* vs. *e* or *ä*), finally, involves mainly the raising and cen-
tralizing of the original front quality [e] or [ɛ] into what may be described as a general
central vowel [ə], while the original back quality [a] (~ [ɑ]) remains more or less intact.
It cannot be ruled out that the low back quality [a] in Mongolian also involves some
pharyngealization, but in most dialects the pharyngeal impact seems to be phonetically
negligible.

Considering both the modern phonetic values of the vowels and their historical
sources, there are many possible ways to describe the internal organization of the para-
digm. Moreover, the organization need not be the same for all dialects. In the present
treatment it will be assumed that the vowel system (Table 2) is based on the triangle
formed by the low unrounded back vowel (*a*), the high unrounded front vowel (*i*) and
the high rounded back vowel (*u*), of which the last one is also originally a front vowel
(*ü*). This basic triangle is complemented by the two original rounded back vowels
(*u *o*), which synchronically have slightly lowered and pharyngealized values (*ou o*),
and the two remaining front vowels (*ö *e*), both of which have raised and centralized
or velarized values (*eu e*). For practical reasons of transcription, the modern reflexes
of the original high rounded back vowel (*u*) and the original mid-high rounded front
vowel (*ö*) are here written by digraphs (*ou* and *eu*), while the other vowel qualities are
rendered by single letters (*a e i o u*). It has to be emphasized that, phonologically, all the
entities in this paradigm are single segments of an equal quantitative and syntagmatic
standing.

The segments in the synchronic paradigm form several natural classes in terms of
both tongue height and roundedness, as well as, possibly, pharyngealization. Four seg-
ments (*u eu ou o*) are rounded, while three (*a i e*) are unrounded. Two segments are

Table 2. The basic vowel paradigm

u (< *ü*)	*ou* (< *u*)	*i* (< *i*)
eu (< *ö*)	*o* (< *o*)	*e* (< *e*)
	a (< *a*)	

back or central rounded vowels (*u eu*), while two are back and pharyngealized rounded vowels (*ou o*). In some forms of the language, the class of pharyngealized vowels possibly comprises three segments (*ou o a*), while the remaining four (*u eu i e*) are non-pharyngealized. From the universal point of view, the most peculiar thing about the Mongolian vowel paradigm is the unbalanced proportion between front and back vowels. Phonetically, only the high unrounded vowel (*i*) is pronounced as a front vowel, while the remaining six vowels (*a o ou u eu e*) are all more or less velar or velarized, although, depending on the dialect, three of them (*e eu u*) could also be described as centralized. Obviously, the more velarized the original rounded front vowels (*eu u*) are, the more lowered and pharyngealized the corresponding original rounded back vowels (*o ou*) will have to be.

Syntagmatically, the short occurrences of the basic vowels always have to be followed by a consonant, which either closes the syllable (CVC) or begins the following syllable (CVCV). Following are examples of all vowel qualities from monosyllables ending in a consonant: *xuj* 'incense', *meur* 'trace', *toug* 'flag', *gol* 'river', *nam* 'party', *tib* 'continent', *xed* 'how many'.

2.7   Vowel neutralizations

The two segments most liable to change in the Mongolian synchronic vowel paradigm are the centralized mid-high vowels, of which the one is rounded (*eu*) and the other unrounded (*e*). Both of these vowels have a rather large range of phonetic variation in the dialects, which potentially leads to the neutralization of the distinction between them, or between them and other vowels. Some of the neutralizations are absolute, resulting in the loss of one vowel in the paradigm, which, in turn, reduces the size of the vowel paradigm and potentially changes the relationships of the other vowels. By contrast, other neutralizations are combinatory, causing only the positional loss of a distinction, in which case the paradigm is not affected. Moreover, many of the dialectological details are not yet well understood.

In any case, it may be regarded as an established fact that the unrounded central vowel (*e*) has in the modern Ulan Bator subdialect of Khalkha merged with the unrounded high vowel (*i*). The result is phonetically a segment which more or less corresponds to the definition of the high unrounded front vowel [i], and which phonologically also must be identified with the high front corner of the vowel triangle. The neutralization must be very recent, since it is not yet reflected in early 20th century Khalkha materials. According to the earliest reliable phonetic description (Ramstedt 1902:36–37), the mid-high unrounded vowel (*e*) used to have the value of a moderately centralized front vowel, though in the position before original palatal vowels it could be slightly raised and fronted. This would imply phonetic (IPA) realizations something like *ger* [kər] 'yurt' :

Table 3. The Ulan Bator short vowels

u	ou	i
eu	o	
	a	

GEN *geriin* [kəri:ŋ]. In modern Ulan Bator Khalkha, the vowel has been systematically fronted and raised in all positions, and this innovation seems to be spreading today in Outer Mongolia. It is not attested on the Inner Mongolian side, however, and it is also absent in the Cyrillic orthography of Khalkha, as in Cyrillic Khalkha **xel** 'language' (< *kele) vs. **xil** 'border' (< *kili) = Ulan Bator Khalkha *xil* [xiɮ] for both.

Due to the loss of the mid-high unrounded vowel from the paradigm, Ulan Bator Khalkha has synchronically a paradigm of only six short vowel phonemes (Table 3). It may be presumed that, in the future, this could easily lead to the reorganization of the entire system. Most simply, the low vowel (*a*) could be grouped with the high unrounded vowel (*i*) to form a single class of unrounded vowels (*i a*), a development that would end the paradigmatic association of the low vowel (*a*) with the lowered and pharyngealized back vowels (*ou o*).

On the rounded side, the centralized mid-high vowel (*eu* < *ö) has still in many dialects realizations that correspond to the earliest professional description (Ramstedt 1902: 35), according to which this vowel used to have values lying between "high mixed-wide-round" and "mid mixed-narrow-round". Developing further from this position, a neutralization with the corresponding high vowel (*u*) is a natural step, and this is, in fact, what has happened in some Common Mongolic languages, notably Buryat and Khamnigan, as well as in Dagur. In Mongolian (proper), also, the frequency of this vowel (*eu*) has been reduced by a tendency to replace it by the corresponding high vowel (*u*) in many individual lexical items. The situation varies from dialect to dialect, however. In many forms of modern Khorchin (proper) the merger has been fully completed, leading to the reduction of the vowel paradigm, as illustrated by examples like Khorchin *uder* vs. Khalkha *euder* 'day' (< *ödör). This may be a recent innovation, as it is not yet consistently present in older sources on Khorchin (as in Todaeva 1981–1985).

A complete loss of the mid-high rounded vowel (*eu*) has also taken place in the Mongoljin dialect of the Liaoning Tumet (Table 4, based on Sulde 1992), where this segment is regularly represented by the corresponding high vowel (*u*), as in Mongoljin ATTR *durben* vs. Khalkha *deurben* 'four' (< *dörben). This high vowel (*u*) is, however, itself regularly represented as the mid-high unrounded vowel (*e*) after a labial consonant (*m b*), a representation that is valid both for the original high vowel (*ü), as in Mongoljin *beleg* vs. Khalkha *buleg* 'group' (< *bülüg), and the original mid-high rounded vowel (*ö), as in Mongoljin *men* vs. Khalkha *mön* 'the very same' (< *mön). In Mongoljin, it seems historically to be a question of a two-stage process, in which the already centralized mid-high

Table 4. The Mongoljin short vowels

u	ou	i
	o	e
	a	

rounded vowel was first raised in all positions (*ö* [ɵ] > *u*) and then delabialized when preceded by a labial consonant (*u > e*). Both stages involve a neutralization, first with regard to tongue height only (*ü & *ö > u*) and then with regard to both tongue height and rounding (*u & *e > e*). The fact that the resulting unrounded vowel is non-high (*e*) might imply that the vowel at an intermediate stage was dissolved into a labial and a non-labial component (*u > we*), a development that may also be identified as "labial breaking". However, no trace of breaking seems to be present after consonants other than the labials. In general, the history of the rounded vowels in Mongoljin is closely reminiscent of Manchu, a language formerly spoken in the same region.

Since the reduced vowel paradigms of local dialects such as Ulan Bator Khalkha and Mongoljin Tumet can be directly derived from the complete vowel paradigm (Table 2), which is still the reality in most dialects of Mongolian, the present treatment will systematically apply a normalized phonemic transcription in which no neutralizations between the basic vowels are indicated. The same applies to positional neutralizations in the various dialects.

2.8   Long monophthongs

Each short vowel of the basic paradigm has, in principle, a long monophthongoid counterpart, which, depending on the interpretation, could also be understood as a double vowel. In the present treatment, the long monophthongs are analysed as separate long vowel phonemes, and they are notationally expressed by digraphs which, for practical reasons, are in some cases not simple reduplications of the corresponding basic vowel letters. This notational convention is possible because there are no phenomena, such as morphological correlations, that would imply that the long vowels are actually composed of two identical basic vowels. Irrespective of this, the paradigm of long monophtongoids contains ideally seven entities arranged in the same way as the corresponding short vowels (Table 5).

Table 5. The paradigm of long monophthongs

uu	oo	ii
eo	ao	ee
	aa	

Like the corresponding short vowels, the long monophthongs are probably best understood as representing the vowel triangle (*uu aa ii*), complemented by two regular mid-high vowels, the one rounded (*eo*) and the other unrounded (*ee*), as well as two additional rounded vowels with lowered and/or pharyngealized values (*oo ao*). The phonetic qualities of the long vowels are generally slightly lower than those of the corresponding short segments, especially in the case of the three mid-high vowels (*eu e o* vs. *eo ee ao*), but the main difference is quantitative. In practice, as far as the initial syllable is concerned, the long vowels have a duration 2–3 times as long as that of the corresponding short vowels.

The long monophthongs may be conveniently illustrated by examples from monosyllabic items with no final consonant: *xuu* [xu:] 'son', *beo* [pɵ:] 'shaman', *moo* [mʊ:] 'bad', *tao* [tʰɔ:] 'number', *xaa* [xa:] 'where', *xii* [xi:] 'sky', IMP *nee* [nə:] 'to open'. It has to be noted, however, that the corresponding short segments cannot occur in this particular syllable type, since the short vowels always have to be followed by a consonant segment. Of course, the long monophthongs can contrast with the single vowels also before a syllable-final consonant, as in *xan* 'prince' vs. *xaan* 'emperor', *tos* 'oil' vs. *taos* 'dust'.

It should be noted that Ulan Bator Khalkha, where the distinction between the two non-low unrounded vowels (*e* vs. *i*) is neutralized, still retains the corresponding distinction (*ee* vs. *ii*) in the long vowels. In the Mongoljin dialect, however, in which the original mid-high rounded front vowel (**ö*) has merged with the corresponding high vowel (**ü*), the corresponding long vowel (**öö*) has also been lost by merger with its unrounded counterpart (**ee*), as in Mongoljin *eer* vs. Khalkha *eor* 'other' (< **öörö*), Mongoljin *beer* vs. Khalkha *beor* 'kidney' (< **böörö*). In addition, Mongoljin has neutralized the opposition between the corresponding long rounded vowels (**oo* & **uu* > *oo*), as in Mongoljin *too* = Khalkha *tao* 'number' (< **too*), Mongoljin *moo* vs. Khalkha *moo* 'bad' (< **muu*). As a result, Mongoljin has a synchronic paradigm of only five long monophthongs (Table 6).

Most forms of modern Khorchin (proper) seem to lie somewhere between Mongoljin and Khalkha, in that they have lost the distinction between the original long mid-high front vowels (**ee* vs. **öö* > *ee*), while they preserve the distinction between the original long rounded back vowels (**oo* > *ao* vs. **uu* > *oo*). Older sources on Khorchin (Todayeva 1981–1985) suggest the presence of a more complete paradigm, though the data are difficult to verify. On the other hand, it cannot be ruled out that in some local dialects the system may have been reduced even more dramatically. An extreme case would be a paradigm with only five primary short and long vowels (*u o a e i* vs. *uu oo aa ee ii*),

Table 6. The Mongoljin long monophthongs

uu		ii
	oo	ee
	aa	

as attested in some neighbouring Mongolic (Dagur) and non-Mongolic (Manchu) languages. In Khorchin, as elsewhere in Inner Mongolia, the system is, however, complicated by the presence of secondary palatal vowels (both short and long, as discussed in §§2.9, 2.12).

All long vowels are historically recent (being mainly of a contractive origin), which is why their graphic representations in Written Mongol still involves many complex and irregular features. In Cyrillic Khalkha they are, however, represented in a simple and systematic way by sequences of two identical vowel letters, as in **xüü** 'son', **böö** 'shaman', **muu** 'bad', **too** 'number', **xaa** 'where', **nee** 'open!'. As an exception, the long *ii* (following the Russian orthographical practice) is rendered by a sequence of the single vowel **i** and a special letter for the so-called "short i" (here also Romanized as **i**), as in **xii** 'sky'. The latter letter is also used as the final segment of the diphthongoid sequences (discussed below).

2.9   Diphthongs

All forms of Mongolian possess a set of what were originally diphthongoid sequences, or diphthongs, composed of the basic short vowels (**a *e *o *ö *u *ü *i*) in combination with a palatal element that may be identified with the high unrounded front vowel (**i*). Originally, all vowel qualities had a diphthongoid counterpart (**ai *ei *oi *öi *ui *üi*), with the exception that the diphthongoid counterpart of the high front vowel itself was from the beginning identical with the corresponding long monophthong (**ii > ii*). The diphthong corresponding to the mid-high unrounded front vowel (**ei*) also merged with the long high front monophthong (**ei > ii*). Of the others, the sequences containing the high rounded back vowel (**ui*) and the (in this context extremely rare) mid-high rounded front vowel (**öi*) were, at least in most dialects of the language, eliminated by restructuring them in various ways. This left ultimately only three primary diphthongs (**üi *oi *ai*), representing three levels of tongue height. The corresponding modern sequences (*ui oi ai*) are here written using the same conventions as for the corresponding short vowels.

The two non-high vowels (*a o*) occurring in the extant diphthongs are originally back vowels, and as short or long monophthongs they are still pronounced with a velar or even a pharyngealized quality. In the diphthongs (*ai oi*) they have, however, been palatalized to a varying extent, while the following final component of the sequence has become lowered and, positionally, rounded (in *oi*). The resulting sequences are still diphthongs in many dialects of the Khalkha group, including Chakhar, but in Khorchin they have become more or less fully monophtongized into what may be phonetically described as long front vowels with the qualities [ɛː] ~ [eː] and [œː] ~ [øː], respectively, as in Khalkha *ail* [æɛɟ] vs. Khorchin *ail* [ɛːl] 'camp', Chakhar *xoish* [xɔœʃ] vs. Khorchin [hœːʃ] 'northwards'.

The high vowel (*u*) occuring as the initial component of a diphthong (*ui*) is originally a front vowel (*ü), but as a short or long monophthong it has been centralized or velarized in all dialects of Mongolian. In the diphthong, however, it retains a more palatal quality, which may vary between a central [ʉ] and a fully palatal [y]. At the same time, the final component of the diphthong remains a high vowel, but it may become rounded under the impact of the preceding segment, in which case the entire diphthong is transformed into the long monophthongoid high rounded front vowel [y:]. The monophthongization is, again, regular in Khorchin, while in the Khalkha group, including Chakhar, diphthongoid realizations still prevail, as in Khalkha *uil* [ʉiɮ] vs. Khorchin *uil* [y:l] 'work'.

From the paradigmatic point of view, it is important to note that the diphthongs can no longer synchronically be analysed as sequences of two segments. This is so not only because they are in many dialects pronounced as monophthongs, but also because their system is incomplete. Most importantly, since Mongolian is a language that otherwise lacks front vowel qualities (except *i*), the diphthongs contribute three new front vowels (*ui oi ai*), which, in the paradigm, may be seen as the palatal counterparts of the long monophthongoid back or pharyngealized vowels (*oo ao aa*). This means that the diphthongs, like the long monophthongs, should synchronically be seen as integral members of the total system of long vowels, which, consequently, in the regular form of Mongolian, comprises not seven but ten entities (Table 7). In Mongoljin, which has only two rounded back vowels (*uu ao*), the total number of long vowel phonemes will be eight.

In the complete system of long vowels, there is a more or less equal balance between front vowels and back vowels. Assuming that the system is symmetrically organized (which need not be the case in all dialects), there are three unambiguous back vowels (*oo ao aa*), which may or may not involve additional pharyngealization, three corresponding front vowels (*ui oi ai*), two diachronically centralized but synchronically mostly fully velar rounded vowels (*uu eo*) and two diachronically palatal unrounded vowels (*ii ee*), of which, however, the non-high vowel is in most dialects centralized or velarized. In this organization, the system illustrates the universal tendency of having more distinctions in the high (*uu oo ui ii*) and mid-high (*eo ao oi ee*) series than in the low (*aa ai*) series. The proportion between rounded (*uu eo oo ao ui oi*) and unrounded (*aa ai ii ee*) vowels is six to four in favour of rounded vowels. In some of the eastern dialects, notably Mongoljin, which lacks the velarized rounded mid-high vowel (*eo*), the velarized

Table 7. The complete system of long vowels

uu	*oo*	*ui*	*ii*
eo	*ao*	*oi*	*ee*
	aa	*ai*	

reflex of the unrounded mid-high vowel (*ee*) can, however, be pronounced with some lip rounding.

One of the last traces of a more archaic system of diphthongs (with more members) is contained in the word *xeuiten* (< *köitön ~ *köitün) 'cold', attested in this shape in part of the Chakhar dialects (Sechenbaatar 2003: 13). The diphthong *eui* (< *öi) is clearly an anomaly in the synchronic system, and its presence in the language confuses the paradigmatic relationships between the other diphthongs based on rounded vowels (*ui oi*). Not surprisingly, *eui* in this word has been widely replaced by *ui*, as in Khalkha and Khorchin *xuiten* (< *küiten, Cyrillic Khalkha **xüiten**. On the Inner Mongolian side, in dialects of both the Chakhar and the Khorchin types, the shape *xiiten* (with *ii* < *öi) is also commonly attested.

The fact that the paradigm of long vowels has more entities (8 to 10 or 11) than that of the short vowels (6 to 7) is possibly indicative of a basic circumstance connected with the markedness relationships of the Mongolian vowels. Normally, in a language, a marked category has fewer distinctions than an unmarked (or less marked) category. If we apply this regularity to the analysis of the Mongolian vowel system, we have to conclude that the short vowels are synchronically more marked than the long vowels. In such a system we should actually speak not of "long" vs. "short" vowels, but of "full" or "regular" or "plain" vs. "reduced" vowels. This conclusion has consequences for the interpretation of the vowels of the non-initial syllables. It could also be incorporated into the phonemic notation, but, for practical reasons and also for reasons of convention, the present treatment will continue to mark the long vowels with digraphs (= graphically more marked) and the short vowels (with the exception of *ou eu*) with single letters (= graphically less marked).

2.10   Vowels of non-initial syllables

In the interpretation adopted in the present treatment, the imbalance of short (reduced) and long (full) vowels is even greater in non-initial syllables than it is in the initial syllable. In principle, all the entities in the paradigm of long vowels (Table 7) can also occur in non-initial syllables, though their distribution is contextually restricted by a number of interfering phenomena, of which vowel harmony (to be discussed in the context of morpheme structure, §3.10) is the most important. By contrast, the short vowels are represented in this position by a single neutralized segment, which is here identified with the unrounded mid-high vowel quality (*e*), but which could also be understood as a general reduced vowel, or schwa, phonetically [ə]. In practice, the reduction of this vowel in non-initial syllables is both qualitative and quantitative, and it can also qualitatively be influenced by neighbouring consonants, as well as by the vowel(s) of the preceding syllable(s).

The long vowels in non-initial syllables may be illustrated by examples like *iluu* 'more', *eoreo* 'by oneself', *galoo* 'goose', *borao* 'rain', *daraa* 'then', *noxai* 'dog', *eulgii* 'cradle', *xemjee* 'measure'. In general, long vowels are very common in non-initial syllables, and they can also be present in several consecutive syllables, as in *bai-* 'to be' : ᴄᴀᴜꜱ *baigool-* : ᴄᴀᴜꜱ ᴄᴏɴᴠ ᴘʀꜰ *baigoolaad*, *temee* 'camel' : ɪɴꜱᴛʀ *temeegeer* : ɪɴꜱᴛʀ ʀx *temeegeeree*. There are, however, two diphthongoid members of the long vowel paradigm that are synchronically not attested in non-initial syllables: *oi* and *ui*. In the case of *oi* this is partly a matter of analysis, for in the present treatment it is assumed (contrary to the conventional view) that no phonemic distinction exists between *oi* and *ai* in this position. In the case of *ui* we are dealing with a diachronic tendency that has eliminated this diphthong in the non-initial syllables by merging it with *ii*. The diphthongoid representation is still present in some conservative forms of Common Mongolic, notably Ordos and Khamnigan, as in Ordos *kedui ~ xedui* vs. Khalkha *xedii* 'how many?'.

In many forms of Mongolian proper, the long vowels in non-initial syllables are pronounced with a relatively short duration, making them quantitatively almost equal to the short vowels of the initial syllable. This is one the principal arguments presented (originally by Svantesson 1990) in favour of the interpretation of the long vowels in non-initial syllables as phonemically identical with the short vowels of the initial syllable. However, in this as in other cases, phonetic properties are not necessarily a sufficient basis for making claims about phonology. Information from native speakers suggests that the long vowels of non-initial syllables are still intuitively felt to be equal to the long vowels of the initial syllable. This is also suggested by the similarity of the qualitative paradigms in the two positions. The phonetic circumstance that the long vowels in non-initial syllables are pronounced relatively short is simply due to a universal tendency of reducing vowel quantities towards the end of the word. For this same reason, the single short or reduced vowel (*e*) in this position is often pronounced with a minimal duration, which automatically allows the long vowels also to be shortened.

The presence or absence of the reduced vowel (*e*) in non-initial syllables is governed by the rules of syllabification, which are intimately connected with consonant phonotactics. These rules also cause the reduced vowel to appear and disappear depending on the phonotactic environment (Svantesson 1994, 1995). For some forms of Common Mongolic, notably Oirat, it is possible to explain the reduced vowel in non-initial syllables as altogether non-lexical. This is not the case in normative Khalkha, however, for there are examples in which the reduced vowel is not predictable without lexical or morphological specifications. In such examples (discussed in more detail in the context of vowel reduction and consonant phonotactics, §§3.7, 3.9), the distinction between the reduced vowel and zero (Ø) is indicated in the Cyrillic Khalkha orthography, as in spoken Khalkha *irx* 'power' vs. ᴘᴀʀᴛ ꜰᴜᴛ *irex* 'to search' = Cyrillic Khalkha **erx** vs. **erex**.

It is important to note that the reduced vowel can never stand in word-final position in regular Mongolian. This means that all non-initial consonants are followed either by

zero (Ø), by another consonant, by a short vowel and a syllable-final consonant, or by a long vowel, as in *mod* 'tree, wood' : POSS *modtai* 'wooded' : ATTR *moden* 'wooden' : INSTR *modaor* 'with wood'. This is, incidentally, also true of the short or "reduced" vowels of the initial syllable, for they can only occur before a consonant. Historically and orthographically there are a few cases in which a short vowel of the initial syllable would seem to end the word, but such cases involve unstressed grammatical elements, such as personal pronouns. When pronounced in isolation, such elements end in a long vowel, as in 1P SG (in stressed position:) *bii* ~ (in unstressed position:) *bi* = Cyrillic Khalkha **bi**. It has to be noted that, in the Khalkha Cyrillic orthography, there are also several other both regular and irregular cases in which a written word would superficially seem to end in a short vowel (single vowel letter). All of these cases involve orthographical conventions not directly reflecting either the phonetic substance or the phonemic structure. In most cases, it is a question of misunderstandings in the phonemic analysis, or also of solutions necessitated by the insufficiency of the Cyrillic alphabet.

Historically, the exclusion of the reduced vowel from the word-final position involves a recent innovation in Mongolian. Originally, Mongolian had a distinction between monosyllables ending in a consonant (CVC) and bisyllables ending in a short vowel (CVCV or CVCCV). The final vowel was, however, deleted in a general process which also deleted most other short vowel segments in non-initial syllables. This led to the neutralization of the stem types concerned, as in *gal* 'fire' (< *gal) vs. *tal* 'steppe' (< *tala). In such cases, the original stem-final vowels are still preserved by several closely-related but more conservative Common Mongolic languages, notably Buryat and Khamnigan, but also Ordos. It has to be mentioned that the "Khalkha" idiom of some descriptions (Poppe 1951, 1970) deviates from regular Mongolian (proper) in that it still preserves word-final short vowels, as in (Poppe) *tala* 'steppe'. This detail seems to reflect an influence of the Romanized "Buryat" literary language, which, being mainly based on the Tsongol and Sartul dialects of northern Khalkha, also otherwise contains occasional features, both archaisms and innovations, transitional towards Buryat.

2.11   Consonant palatalization

In addition to the primary segmental features of both consonants and vowels, all forms of Mongolian have the secondary feature of palatalization, which, however, depending on the dialect, is manifested either in the consonantism or in the vocalism, or, in some cases, in both. Palatalization is historically connected with the impact of the high unrounded front vowel (*i) on other segments, either consonants or vowels. In the Khalkha group of dialects, this impact has resulted in the genesis of a set of distinct palatalized consonants, while in the Khorchin group there is, instead, a set of palatal (short) vowels. Due to this fundamental difference in the manifestation of palatalization, the overall

segmental paradigms of the two dialect groups are very different. Even so, phonetic levelling between the consonants and vowels in the sequence of segments reduces the effect of the paradigmatic difference, and the auditive impression of both types of dialect is often surprisingly similar.

In the Khalkha group of dialects, consonant palatalization is phonologically best understood as a secondary articulation that may accompany virtually all basic or non-palatalized consonant segments. In the present treatment, this feature is indicated by a postconsonantal palatal glide letter (*y*). Palatalized consonants can basically occur in three different syntagmatic positions: (i) syllable-finally before a pause or another consonant, (ii) syllable-initially before a short vowel of the initial syllable, (iii) syllable-initially before a long vowel. For each of these positions, the Cyrillic Khalkha orthography employs a different principle of notation: in the first position, the so-called "soft sign" (conventionally Romanized by the apostrophe but here Romanized as **y**), as in (Cyrillic Khalkha = spoken Khalkha) **amy** = *amy* 'life', **amyd** = *amyd* 'living', **amytan** = *amyten* 'animal'; in the second position, a set of so-called "iotated" vowel letters (here Romanized as **ya yë yu**), as in **nyarai** = *nyarai* 'new-born'; and in the third position, a sequence of the high unrounded front vowel letter followed by another vowel letter (here Romanized as **ia iu io**), as in **xiag** = *xyaag* 'couch grass', **yaria** = *yaryaa* 'conversation'.

It may be specially noted that consonant palatalization is also relevant before the high unrounded vowel *i*, but only in non-initial syllables. Since in non-initial syllables qualitative distinctions are possible only for the long vowels, distinctive palatalization occurs in practice only before the long *ii*. In Cyrillic Khalkha, the lack of palatalization before a long *ii* in non-initial syllables is indicated by using a special letter ("yerÿ", here Romanized as **ÿ**), while the "regular" sequence **ii** implies the presence of palatalization, as in **gar** = *gar* 'hand' : **garÿg** = ACC *gariig* vs. **mory** = *mory* 'horse' : ACC **moriig** = *moryiig*. Cyrillic Khalkha also makes ample use of the single letter **i** in non-initial syllables, but in this position it only indicates consonantal patalization in combination with the reduced vowel *e*.

Strictly speaking, consonant palatalization can phonetically be described as a secondary articulation only in the case of the palatalized labials (*my by py*), as in Khalkha *myangg* [mʲaŋk] 'thousand', *byaroo* [pʲarʊ:] 'one-year-old calf', *pyal* [pʰʲaɮ] 'plate', as well as, possibly, in the case of the palatalized liquids, as in Khalkha *xalyoo* [xaɮʲʊ:] 'otter', *xoryao* [xɔrʲɔ:] 'prohibition'. In the case of the dentals and velars, palatalization normally involves a movement of the primary articulation towards the palatal region. This is particularly clear in the palatalized nasal (*ny*), commonly realized as a simple palatal nasal, as in Khalkha *xony* [xɔŋ] 'sheep' : RX *xonyao* [xɔŋɔ:]. Even so, a distinction is made between the palatalized dental vs. velar stops (*dy ty* vs. *gy ky*), though in the case of the weak stops (*dy* vs. *gy*) it may also involve a voice opposition, as in *body* [pɔtʲ] 'bodhi' (Buddha's enlightenment, from Sanskrit) vs. *agy* [akʲ] ~ [agʲ] 'wormwood'. In practice, the palatalized dental and velar stops occur very rarely, and the palalized strong velar

stop (*ky*), like its non-palatalized counterpart (*k*), may even be classified as a marginal phoneme that only occurs in recent loanwords and can be replaced by the corresponding fricative (*xy*), as in *kyanoo* [kʰʲanʊ:] ~ *xyanoo* [xʲanʊ:] 'cinema' (from Russian *kinó*).

A special position is occupied by the sibilants. Mongolian originally has a set of three palatal sibilant sounds, of which one is a continuant (*sh*), while the other two are stops or affricates (*c j*). Only the continuant has originally a dental counterpart (*s*), a situation preserved in the Inner Mongolian dialects. In Khalkha, however, the sibilants have been embraced by consonant palatalization, which has led to the division of the palatal stops or affricates into two phonemically distinct series, one of which is still palatal (*j c*), while the other one is a set of two dental sibilant affricates [tsʰ ts], here written by digraphs (*tz dz*). This phonemic split follows relatively complicated and synchronically not fully transparent rules, which is why an original palatal stop can in Khalkha appear variously as either dental or palatal. The basic rule is that the palatal quality is present if the palatal affricate was originally followed by the high unrounded front vowel (**i*), while before other original vowel qualities the segments were dentalized in Khalkha, as in Khalkha *tzagaan* 'white' (< **cagaan*) vs. Chakhar *cagaan*, Khalkha *caner* = Chakhar *caner* 'quality' (< **cinar*), Khalkha *dzaan* vs. Chakhar *jaan* 'elephant' (< **jaan*), Khalkha *jourem* = Chakhar *jourem* 'order' (< **jirum*). From the paradigmatic point of view, the opposition between the dental and palatal sibilants in Khalkha must be understood as an integral part of the correlation based on consonant palatalization.

It has to be added that in the Jerim section of the Khorchin group of dialects (including Khorchin proper), the strong palatal stop (*)*c* has merged (before all original vowel qualities) with the palatal sibilant (*)*sh*, as in Khorchin *shas* 'snow' vs. Khalkha *tzas* (< **casu/n*), Khorchin *shadel* vs. Khalkha *cadel* 'ability' (< **cidal*). As a result, at least some subdialects of Khorchin lack the phoneme (*)*c*, although they do preserve the corresponding weak palatal stop (*)*j* as a distinct segment. The neutralization of (*)*c* and (*)*sh* is also observed in nativized Chinese elements, as in Khorchin *shongx* 'window' = Khalkha *tzongx* (from Chinese *chuānghu*), but the situation is likely to change in the context of increasing bilingualism in Chinese. The neutralization does not extend to the other sections of the Khorchin group, and it is also absent in the rest of the Inner Mongolian dialects. It may be noted that Chakhar, although in many respects a member of the Khalkha group, has a typically Inner Mongolian sibilant system, in that it has only one set of affricates, with no further distinction into a palatal vs. a dental series.

In spite of its important role in Khalkha, consonant palatalization has several paradigmatic and syntagmatic restrictions. A minor restriction is that it is, for diachronic reasons, not valid for the fricolateral marginal phoneme (*lh*), while the palatalized counterparts of the other marginal and secondary phonemes (*py ky fy*) are also very rare, or even, in the case of palatalized strong labial fricative (*fy*), unattested. More importantly, palatalization does not affect the two glide phonemes (*w y*), though their distinction itself involves palatalness (labial vs. palatal). Even more importantly, consonant

palatalization is normally combinable only with original back vowel qualities (*a o ou* and *aa ao oo ai oi*). Thus, words containing original front vowels, even if the latter may be synchronically centralized or velarized (*e i eu u* and *ee ii eo uu ui*), can only have regular non-palatalized consonants. Exceptionally, however, this restriction does not concern the palatal sibilants, which can freely occur also in words with original front vowels, as in Khalkha *xuc* 'power' (< **küci* < **kücü*), *jijeg* 'small' (< **jijig*), *shud* 'tooth' (< **sidü*). This serves to illustrate the fact that the palatal sibilants are historically different from the rest of the palatalized consonants. The former may still synchronically be said to involve primary or inherent palatalness, while the latter are secondarily palatalized.

2.12   Vowel palatalization

As an alternative to the Khalkha type of consonant palatalization, the Khorchin group of dialects has incorporated the impact of the high rounded front vowel (**i*) in the vowel system by introducing a set of new short palatal vowel phonemes. These phonemes may be seen as the short counterparts of the diphthongoid long vowels (*ai oi ui*) and are here, like the latter, written by digraphs. The system is not complete, however, for it seems that all the dialects concerned have only two short palatal vowel phonemes, corresponding to the two non-high diphthongoid vowels (*ai oi*). The two short vowels may paradigmatically be identified as a low unrounded front vowel (*ae*) and a mid-high rounded front vowel (*oe*). The reason why there is no high rounded front vowel in the system of short vowels is connected with the fact that the potentially underlying high rounded vowel (**ü*) was originally a front vowel, and palatalization, also in Khorchin, is not combinable with original front vowels. The corresponding high rounded back vowel, on the other hand, underwent a different development and did not yield a separate palatal vowel.

Structurally, the palatalization of consonants in Mongolian may be seen as an example of postsegmental palatalization (postpalatalization). The phonetic reality even in Khalkha is, however, that a palatalized consonant normally also involves a phase of presegmental palatalization (prepalatalization), which inevitably renders the preceding vowel a slightly palatalized quality. In Khorchin, this situation has led to the functional incorporation of the palatalization into the vowel, though phonetically some degree of palatalization can also be present in the following consonant. Thus, in both groups of dialects, palatalization phonetically tends to extend over two or more segments, a circumstance that might even allow this feature to be described as a suprasegmental, rather than a segmental, property. Even so, there are paradigmatic reasons to analyse palatalization as a feature of the consonant system in Khalkha and as a feature of the vowel system in Khorchin. This means that a virtually identical phonetic sequence, such as, for instance, [mœʲrʲ] 'horse', can be interpreted in two different ways, yielding *mory* in Khalkha and *moer* in Khorchin.

Table 8. The Khorchin short vowels

u	(*ou*)		*i*
(*eu*)	*o*	*oe*	*e*
	a	*ae*	

Due to the presence of the two extra front vowels, the total Khorchin system of short vowels comprises nine distinct entities (Table 8). This system, though attested in actual Khorchin subdialects, might also be identified as "Proto-Khorchin", since it can have secondarily lost two rounded vowels (*eu* > *u* and *ou* > *o*), though this possibility remains to be verified by a detailed dialectological analysis.

Like all short vowels (with the exception of the reduced vowel *e*), the palatalized short vowels in Khorchin occur only in the initial syllable. In these cases, the vowel of the initial syllable is always followed by a consonant, which, in turn, can be followed by another consonant, a vowel, or zero (word boundary). The low front vowel is historically the palatalized reflex of the low unrounded back vowel (**a*), as in Khorchin *taexaa* vs. Khalkha *taxyaa* 'poultry' (< **takia*), while the mid-high front vowel is the palatalized reflex of the mid-high rounded back vowel (**o*), as in Khorchin *xoen* vs. Khalkha *xony* 'sheep' (< **koni*). The mid-high front vowel can, however, also represent the original high rounded back vowel (**u*), as in Khorchin *xoeb* vs. Khalkha *xouby* 'share' (< **kubi*), which means that Khorchin has merged the palatalized reflexes of the two rounded back vowels into a single phoneme. In all these cases, the modern Khorchin representation is due to the regressive impact of an original second-syllable high unrounded front vowel (**i*). Terminologically, we might also speak of palatal metaphony, or umlaut, in Khorchin.

Historically, both metaphonic vowel fronting in Khorchin and consonant palatalization in Khalkha can also have been caused by a high unrounded front vowel (**i*) that was originally located in the third syllable, as in Khorchin *aedel* vs. Khalkha *adyel* 'similar' (< **adali*). In cases in which the original consonant between the first two syllables has been lost (**x* > Ø), the fronting has been transferred to the vowel, which, in turn, has resulted in the replacement of the long monophthongs by the corresponding diphthongs, as in PART FUT *toirex* 'to circle' (< **toiro- < *toori-*). This development has been completed in Khorchin, but in Khalkha the distinction is phonetically and phonemically retained in several items, all of which seem to be nominal stems, e.g. Khalkha *gooly* vs. Khorchin *goil* 'brass' (< **guuli < *gauli*), Khalkha *soory* vs. Khorchin *soir* 'seat' (< **suuri < *sauri*) (Svantesson & al. 2005:10–11). In a number of other examples, all of which seem to involve deverbal nouns, Khorchin can also lack any trace of the original palatalness, still preserved in Khalkha, as in Khalkha *sourgooly* vs. Khorchin *sourgaal* 'school' (< **surgauli*), Khalkha *baigely* vs. Khorchin *baigaal* 'nature' (< **baigaali*).

2.13   Palatal breaking

The secondary front vowels also occur in Khorchin in the cases in which Khalkha has a word-initial palatalized consonant, as in Khalkha *myangg* vs. Khorchin *maeng* 'thousand' (< *mingga). In these cases, it is historically a question of palatal breaking, which dissolved the high unrounded front vowel (*i) of the initial syllable into an non-syllabic (glide) component and a syllabic (vowel) component identical in quality with the vowel of the following syllable. In Khalkha, the palatal component developed into consonant palatalization, while in Khorchin it was merged with the following vowel to produce a palatal vowel segment. Palatal breaking was, in principle, active before all original back vowels of the second syllable (*a *u *o), as well as before the rounded front vowels (*ü *ö), but synchronically the cases of rounded vowels are almost exclusively restricted to items beginning with an inherently palatal (sibilant) consonant, as in *shouboo* 'bird' (< *sibuu < *sibau), *con'* 'wolf' (< *cino), *shud* 'tooth' (< *sidü). Palatal breaking, however, took also place in words with no initial consonant (Ø), in which case, the palatal component is in most dialects preserved as a segmental palatal glide, as in *yaroo* 'melodious' (< *iruu < *irau), PART FUT *yeureox* 'to bless' (< *iröö-kü < *irüe-kü).

    In the Chakhar dialect, which generally belongs to the Khalkha group but shows many transitional features towards Khorchin, the broken sequence (*)*ya* is pronounced as a short monophthong with the quality [ɪ], implying a slightly lowered and centralized high unrounded front vowel, as in (*imaa >) *yamaa* 'goat' = Khalkha [jamaː] vs. Chakhar [ɪmaː], (*kimda >) *xyamd* 'cheap' = Khalkha *xyamd* [xʲamt] vs. Chakhar [xɪmt]. It is possible to view this reflex as a separate new vowel phoneme (here still written as *ya*), which means that the Chakhar system of short vowels has possibly eight distinct entities (Table 9).

    Alternatively, under the influence of the other Inner Mongolian dialects, some forms of Chakhar might also possess the secondary patatal vowels of the Khorchin type (*ae oe*) (Sechenbaatar 2003: 12–14). The synchronic situation in Chakhar is, however, unstable because of the transitional status of this dialect. There may also be idiolectal variation within the dialect.

Table 9. The Chakhar short vowels

u	ou	ya	i
eu	o		e
	a		

2.14 The status of the palatal glide

The palatal glide (*y*) in Mongolian could phonetically be described as the non-syllabic counterpart of the high unrounded front vowel (*i*). In principle, this identification could be taken to the phonemic level, since there seem to be no occasions in which the palatal glide and the corresponding vowel would contrast with each other. Technically, an opposition could be postulated for the syllable-final position, where the palatal glide can contrast with the second component of a diphthong, as in IMP *xay* [xɑj] 'to throw' vs. IMP *xai* [xæɛ] 'to search'. Since, however, the diphthongs are better analysed as indivisible members of the paradigm of long vowels, the contrast is not relevant at the segmental level. Even so, in the present treatment, the palatal glide is assumed to represent an independent phoneme belonging to the consonant system. This solution not only offers notational advantages (in the present transcriptional framework), but also seems to correspond better to the overall phonotactic system of the language, in which consonants and vowels alternate in a regular succession (CVC), especially as far as the initial syllable of a word is concerned.

The separate phonemic identity of the palatal glide and the high unrounded front vowel is also suggested by the fact that they occur in the sequences *iy* and *yi*, as in *biy* 'body' : GEN *biyiin*. It has to be noted, however, that the sequence *yi* shows in word-initial position some irregular lability, in that there are several words exhibiting a dialectal (and possibly idiolectal) variation between *yi* and the simple vowel *i*. Historically, some of these items contain an original palatal glide, as in *yix ~ ix* 'big' (< **yeke*), *yis ~ is* (~ also: *yeus*) 'nine' (< **yösü*), *yir ~ ir* (~ also: *yer*) 'ninety' (< **yere*), but in at least *ir- ~ yir-* 'to come' (< **ire-*) the glide would seem to be secondary. The distribution of the variants with and without the glide is a dialectologically complex issue that has not been properly investigated. A further complication is that the Khalkha Cyrillic orthography does not make a distinction between initial *i* and *yi* (both being written **i**). Nevertheless, the distinction seems to be valid for most (possibly all) dialects (and idiolects), though there is variation in how it is applied to individual lexical items.

Another question concerns the status of palatalization. It would be tempting to analyse the palatalized consonants simply as sequences of a basic consonant (C) plus the palatal glide (*y*). This analysis would certainly be possible for the initial position, in which palatalization is the result of palatal breaking, as in *myangg* 'thousand'. In such cases, there could not possibly be any contrast between a palatalized consonant segment (Cy) and a sequence involving a consonant and the palatal glide (C+y). On the other hand, if the glides are assumed to be members of the regular consonant paradigm, the bisegmental analysis of palatalized consonants in initial position would violate the phonotactic rule that no word can begin with a consonant cluster (CC). Technically, the bisegmental analysis could also be extended to the position before a consonant (syllable-finally) or a pause (word-finally), as in *amy* 'life' : *amyten* 'living being', but here,

again, phonotactic complications would arise, in that the glide, if analysed as a separate segment indicating palatalization, would interfere with the system of final and medial consonant clusters.

An actual contrast between the palatal glide and the feature of palatalization is possible, though only in the dialects of the Khalkha type in the position before a second-syllable long vowel. Palatalized consonants are common in this position in the dialects concerned, and they occur both in synchronically indivisible stems and in inflected items. In inflected items, it is often a question of a stem-final palatalized consonant, which, depending on the morphological category, can be followed by a pause (no suffix), a consonant, or a vowel, as in *mory* 'horse' : POSS *morytai* : INSTR *moryaor.* In these cases, palatalization remains a non-segmental property of the stem-final consonant. A consonant can, however, also be followed by a segmental palatal glide. In such cases, the Cyrillic Khalkha orthography uses the so-called "hard sign" (here Romanized by the single apostrophe) before a "iotated" vowel letter (**ya yë yu**), though many sources, including standard dictionaries, tend to confuse the "hard sign" (') with the "soft sign" (here Romanized as **y**). In the present treatment, the postconsonantal syllable-initial occurrences of the palatal glide are indicated by a corresponding symbol of "separation" (*'y*), while the simple symbol of the palatal glide (*y*) indicates palatalization, as in Cyrillic Khalkha **gaw'yaa** = *gab'yaa* = *gab.yaa* 'achievement' vs. Cyrillic Khalkha **awia** = *abyaa* = *a.byaa* 'sound' (with the period mark here indicating the morpheme-internal syllable boundary).

Independent lexical items containing a segmental postconsonantal palatal glide are conspicuously rare in all dialects of Mongolian. The same type of sequence can, however, potentially also occur in the emphatic voluntative form from verbal stems ending in a consonant. The verbal marker in these cases is composed of a palatal glide followed by a postclitical harmonically alternating long vowel, though in the Cyrillic Khalkha orthography only a single (short) vowel is written, as in Cyrillic Khalkha **aw-** : **aw'ya** = *ab-* 'to take' : VOL EMPH *ab'yaa* = *ab-y=aa* . In this morphological form group, a palatal glide can also be preceded by a palatalized consonant, as in Cyrillic Khalkha **xary-** : **xaryya** = *xary-* 'to return' : VOL EMPH *xaryyaa* = *xary-y=aa* = Khorchin *xaer-y=aa* vs. Cyrillic Khalkha **xar-** : **xar'ya** = *xar-* 'to watch' : VOL EMPH *xar'yaa* = *xar-y=aa* = Khorchin *xar-y=aa.* However, the phonological relevance of the voluntative forms is reduced by the fact that the emphatic voluntative marker is, especially in the Khalkha group of dialects, commonly replaced by another variant which has the uniform shape *-ii.y*, with no synchronic final vowel, after all stem types, as in *xary-* 'to return' : VOL *xary-ii.y* vs. *xar-* 'to watch' : VOL *xar-ii.y.*

From the orthographical point of view it may be added that in the Khalkha Cyrillic orthography a syllable-final palatal glide (*y*) is normally indicated by using the "iotated" vowel letters for non-high vowels (**ya ye yë**). The orthographical image is in this case misleading, since no vowel is actually present synchronically, although diachronically

it is a question of vowel loss, as in Khalkha Cyrillic **aya** = *ay* 'aptness' (< *aya), **üye** = *uy* 'joint, generation, period' (< *üye). The orthographical convention is necessitated by the fact that the letter that would otherwise be available for indicating the palatal glide, the "short *i*" (**i**), is used to indicate the latter component of the diphthongs (*ai oi ui*), as well as of the long high unrounded front vowel (*ii*), as in Khalkha Cyrillic **oi** = *oi* 'forest' (< *oi), **xii** = *xii* 'air' (< *kei).

It may be concluded that the contrast between consonantal palatalization (a non-segmental feature of secondary articulation) and a postconsonantal glide (an independent consonant segment) has a very low functional load. The contrast is only present in the dialects of the Khalkha group, while the dialects of the Khorchin group, which have no palatalized consonants, only have cases of a postconsonantal palatal glide, as in Khorchin *ab(')yaas* = Khalkha *ab'yaas* 'talent' (from Sanskrit *abhyāsa*). In practice, this would mean that there is no need to distinguish the postconsonantal occurrences of the palatal glide by any special symbol (such as the digraph *'y*) in the Khorchin type of dialects, while the need for this distinction in the Khalkha type of dialects is also very limited.

2.15   The status of the labial glide

Like the palatal glide (*y*), the labial glide (*w*) could also be analysed as the non-syllabic manifestation of a vowel, in this case, of the high rounded back vowel (*u*). This identification will not be adopted here, however, for reasons of convention, consistency and graphic clarity. In other respects, also, the labial glide involves problems of interpretation analogous to those observed in connection with the palatal glide. A specific feature of the labial glide is, however, that it is primarily confined to the word-initial position, in which it represents a historically secondary marginal phoneme. Apart from loanwords, it occurs in a few interjections, as in *waa* (exclamation of surprise).

In Cyrillic Khalkha the letter denoting the labial glide (**w**) is also used both medially and finally to signal the voicing and spirantization of the weak labial stop (*b*), as in Cyrillic Khalkha **awax** : **aw** = PART FUT *abex* : IMP *ab* 'to take'. It has been suggested (Svantesson & al. 2005: 29) that this orthographical convention reflects the phonemic reality, meaning that the medial and final occurrences of the weak labial stop should actually be analysed as representing the labial glide. For several reasons, this analysis is not adopted here. The segment in question is still pronounced as a weak stop in the dialects of the Khorchin type. Even in Khalkha, the stop tends to remain both phonetically and orthographically intact in the position after a labial nasal (**m**), a lateral (**l**) and *b* (**w**) itself, as in Cyrillic Khalkha **awbal** = CONV COND *ab-bel*, **byamba** = *byamb* 'Saturday' (from Tibetan **spen.pa**). After a lateral, there is a theoretical contrast between the labial stop and glide segments, but this contrast is valid only in a model operating with no

reduced vowels in the non-initial syllables. Assuming that there is a contrast between a reduced vowel (*e*) and zero (Ø), the assumption of a contrast between the labial stop and glide becomes superfluous, as in *alb* [aɮp] 'tribute' vs. TERM *aleb* [aɮəw] 'to kill' = Cyrillic Khalkha **alba** vs. **alaw**. This is the interpretation preferred in the present treatment.

There are, however, also cases in which a non-syllabic labial element occurs in the position after a consonant. It is normally a question of a velar consonant (*x g*) before a low unrounded back vowel (*a aa*) or a corresponding diphthong (*ai*), and the labial element can at least tentatively be identified as the labial glide. The Cyrillic Khalkha orthography in these cases normally exhibits a sequence of two vowel letters (**ua**), while in Written Mongol an intervocalic consonant letter of varying quality can also be present, as in *xwaa* 'bay' (colour) = Written Mongol **quwa** ~ **quu e** ~ **quqh e** (with further variants) = Cyrillic Khalkha **xua**. The items concerned are often loanwords (especially from Chinese), like *gwandz* 'restaurant' (from Chinese *guǎnzi*), but there are also examples of native words, like *gwai* (polite term of address, abbreviated from *abgai* < **abugai*).

Since the consonant preceding the labial element is normally a velar, it would be possible to postulate for Mongolian simply two or three labiovelar consonant phonemes or labialized velars (*xw gw*, in some dialects also *kw*). The phenomenon of labialization itself could be seen as a parallel to the palatalization observed in the Khalkha group of dialects, though it has to be noted that the labialized consonants are also present in the Khorchin group. Against this interpretation it has been remarked (Svantesson & al. 2005: 59–61) that, at least in modern Ulan Bator Khalkha, the labial element is retained after the labial nasal (*m*) in generic rhymes, based on a partial reduplication of the nominal stem, as in *xwar* 'flower' (from Chinese *huār*) : *xwar mwar* [xʊɑr mʊɑr] 'flowers and such things'. This suggests that labialization is not necessarily confined to the velars. The repetition of the labial element in the reduplication process is paralleled by the analogous repetition of palatalization, as in *nyalx* 'infant' : *nyalx myalx* [nʲaɮx mʲaɮx] 'infants and the like'.

Concerning the phonological interpretation of the postconsonantal labial element there are, then, two possibilities: either Mongolian has a potentially complete set of labialized consonant phonemes, or the labial element has to be analysed as a labial glide segment (*w*). In the latter case, Mongolian will have initial clusters with the labial glide as the second component (C*w*). Such clusters are not a major problem for the synchronic description, however, as it is always possible to assume that the labial glide, due to its status as a glide, differs in its phonotactic behaviour from the other (non-glide) consonants. Against this background, the possibility of interpreting the palatalized consonants also as sequences of a consonant and a palatal glide (C*y*) will appear more attractive, though the examples of a medial postconsonantal palatal glide inevitably complicate the situation in dialects of the Khalkha type. In the case of the labial glide, the medial position has no relevance since the opposition between etymological glides (in loanwords) and the weak labial stop (*b*) has been lost, as in *nyarbaan* 'nirvana' (from Sanskrit *nirvāṇa*).

The status of the labial glide is also connected with the representation of the high rounded vowels (*u *ü) in the composition of diphthongs. In the initial syllable, only the diphthong with an original high rounded front vowel (*üi) yields a synchronic diphthong (ui), which, in turn, is realized as a palatal monophthong [y:] in the dialects of the Khorchin type. The corresponding velar sequence (*ui) has no place in the system of long vowels (Table 7) and has to be restructured. The sequence is preserved in the Khalkha Cyrillic orthography (**ui**), which is why it is often postulated at face value also for spoken Khalkha, but for paradigmatic reasons it has to be assumed that the phonemic representation in this case is different from the orthographical image. Irrespective of the phonetic realization, which may or may not be close to the original diphthongoid sequence, it is reasonable to assume that the components have changed syllabicity values, with the first component becoming a non-syllabic glide (*u > w) and with the second component becoming a syllabic long vowel (*i > ii). In fact, auditive information suggests that the syllabicity values are, at least, ambiguous, as in PART FUT *gwiix* [kʋix] ~ [kwi:x] 'to ask' (< *gui-) vs. PART FUT *guix* [kuix] ~ [ky:x] 'to run' (< *güi-).

The restructuring of the original diphthong with a high rounded back vowel (*ui > wii) may be assumed to be the general rule for all forms of Mongolian (proper). Since, however, the resulting sequence (wii) is originally alien to the language, occuring only in rare loanwords of the type *wiidz* 'visa' (from Russian *víza*), it has in many individual lexical items undergone further restructuring. This seems to be especially common in the Khorchin group of dialects. Often, the vowel following the labial glide has been lowered (wii > wai), as in Khorchin *wailex* [we:ləx] vs. Khalkha *wiilex* [ʋiɮəx] ~ [wi:ɮəx] 'to cry' (< *uila-). In other items, the sequence can be represented as the corresponding lower diphthong (oi), as in Khorchin *toil* [tʰœːl] vs. Khalkha *twiil* [tʰʋiɮ] ~ [tʰwi:ɮ] 'end, limit'. In still other items, more fundamental restructuring has taken place, as in modern Khorchin *beer* [pəːr] ~ [pɵːr] 'male (of certain animals)' (< *boir < *buir), also the hydronym of Lake Buir, pronounced identically with *beer* 'kidney' (< *beor < *böörö).

The restructured sequences with the labial glide as the first component (wii wai) are also attested in the non-initial syllables, as in *xarenggwii* ~ *xarenggwai* 'dark' (< *karanggui). The corresponding front-vocalic sequence has normally lost the labial component in this position, as in *tedii* 'so much' (< *tedüi). As a case of exception the privative noun (negative existential), in Cyrillic Khalkha written as **ügüi**, retains the diphthongoid sequence both in the absolute position, in derivatives and when used (without the initial vowel) as a enclitic marker of negation. The orthographical image should not be taken at face value, however, for the actual pronunciation of the negative existential suggests that we are, also in this case, dealing with a labial glide followed by a either a long high unrounded front vowel (wii) or, more commonly, a lowered diphthongoid vowel (wai), as in Khalkha Cyrillic **yawaxgüi** = PART FUT PRIV *yab-ex=gwai* [jawəxgwe:] 'will not go'.

2.16   Velars and postvelars

All velar consonants have two phonetically distinct allophones: a front allophone, produced between the palatal and velar regions, and a back allophone, produced between the velar and postvelar regions. The distribution of these allophones follows the original division of the vowels into a front (palatal) and a back (velar) series. In this division, the series of front vowels comprises four short (*e eu u i*) and five long vowels (*ee eo uu ii ui*), while the series of back vowels comprises three short (*a o ou*) and five long vowels (*aa ao oo ai oi*). Since, however, most of the original front vowels have today centralized or velarized qualities (*e eu u*), while the long vowels based on diphthongs (*ai oi ui*) are phonetically palatal, the phonetic conditions regulating the distribution of the velar allophones have changed. In practice, the front allophones are most distinct in the neighbourhood of the high unrounded front vowel (*i ii*), as in PART FUT *xiix* [xiːx] ~ [çiːç] 'to do', while the back allophones are most distinct in the neighbourhood of the pharyngealized back vowels (*a o ou*), as in PART FUT *xaax* [xaːx] ~ [χaːχ] 'to close'.

While the distinction between the palatal and velar allophones is generally nonphonemic, some subdialects of the Khalkha group, including the dialect underlying the Cyrillic Khalkha orthography, have actually two separate weak velar consonant phonemes. The contrast is possible only in original back-vocalic words. One of the consonants may be characterized as a regular weak velar obstruent (*g*), which is realized as a basic velar stop sound with a tendency of voicing in sonorant environment and spirantization between vowels. The other consonant may be characterized as a back velar sound, pronounced as a postvelar to uvular stop or spirant, also with a varying degree of voicing. This back velar sound is in the following written with a digraph (*gh*) in those, and only in those, positions in which a contrast is possible. This is the case in two positions:

1. Syllable-finally before a pause (zero) or another consonant. In this position, the back velar sound signals the former presence of a final or medial vowel, which, for practical reasons, is still present in the Khalkha Cyrillic orthography, although no vowel is present segmentally in the spoken language. The back velar itself is normally realized as a postvelar or uvular stop with or without voicing, as in Khalkha Cyrillic **baga** : **bagatai** = *bagh* [paq] ~ [paɢ] 'small' (< *baga) : POSS *baghtai* [paqtʰeː] ~ [paɢtʰeː] 'having little'. A regular velar obstruent in the same position is pronounced as a velar stop with a varying degree of voicing, as in Khalkha Cyrillic **bag** = *bag* [pak] ~ [paɡ] 'bundle' (< *bag).

2. Medially before a vowel. In this position, the back velar sound tends to be realized as a more or less voiced uvular continuant (spirant or fricative). Historically, it may be understood as the regular representative of a medial weak velar stop (*g) in a back-vocalic context, and in the Khalkha Cyrillic orthography it is written with the regular letter for the weak velar stop (**g**), as in Khalkha Cyrillic **agaar** = *aghaar*

[авɑ:r] 'air' (< *agaar). Before a long high unrounded front vowel (*ii*) the back velar is orthographically indicated by using the special vowel letter for non-palatalization ("yerÿ"), as in Khalkha Cyrillic **bagÿg** = *baghiig* = ACC *bagh-iig* 'small'. The corresponding non-uvular segment is in this position more rare and occurs mainly as a result of morphological analogy in the inflection of stems that end in a weak velar stop, as in Khalkha Cyrillic **bagiig** : **bagaar** = *bagiig* = ACC *bag-iig* : *bagaar* = INSTR *bag-aar* 'bundle'. The two kinds of velar sound may also contrast after a sonorant consonant, as in Khalkha Cyrillic **zurgaa** = *dzourghaa* [tsʊrʁɑ:] 'six' (< *jurgaa*) vs. *dzoureg* 'picture' : RX *dzourgaa* [tsʊrgɑ:] (< *jurug-aa*).

The fact that the back velar consonant can be distinctive in some forms of Mongolian means that these forms of the language have one additional member in the consonant system. It is not immediately clear, however, what the paradigmatic position of this extra segment is. In principle, it could be assumed to belong to a separate series of postvelar consonants. On the other hand, the absence of any other members in this series (such as, for instance, a back velar fricative) makes this analysis unlikely. It is also remarkable, though phonetically understandable, that the postvelar consonant has no palatalized counterpart. Considering further the fact that it is often realized as a continuant it is perhaps best placed in the series of glides. In this interpretation, glides form a special class of inherently voiced segments which do not have palatalized counterparts. The total maximal paradigm of consonants will then comprise as many as 35 members (Table 10).

In the present treatment, the distinction between the back velar consonant (*gh*) and the corresponding velar stop (*g*) is incorporated into the phonemic notation only selectively in the two positions in which it is also indicated in the Khalkha Cyrillic orthography, that is, syllable-finally and before the vowel *ii*, as in *bagh* 'small' : ACC *bagh-iig*. The relevance of the distinction before other vowels is more controversial even for those speakers who do have the back velar phoneme in their inventory. Also, it would be superfluous to indicate the distinction word-initially, since in this position the phonetic nature of the velar (*g*) is completely dependent on the quality of the following vowel, as in *ger* [kər] 'dwelling' vs. *gar* [qɑr] 'hand'. In any case, the majority of Mongolian dialects,

Table 10. The complete system of consonants

m my	n ny		ng
b by	d dy	dz j	g gy
p py	t ty	tz c	k ky
f fy	lh	s sh	x xy
w		y	gh
	l ly		
	r ry		

including not only the Khorchin group but also Chakhar of the Khalkha group, possess only one weak velar segment (*g*) irrespective of phonotactic or morphophonological factors. In these dialects, minimal pairs like *bag* 'bundle' vs. *bagh* 'small' are neutralized both in the absolute position (*bag*) and morphophonologically (ACC *bag-iig* : INSTR *bag-aar*).

It has been assumed above that the back velar consonant (*gh*) is inherently the more marked member of the opposition, and its selective incorporation into the phonemic notation will result in the morphophonological alternation *gh* : *g*. It might, however, also be possible to view the "regular" velar consonant (*g*) as the more marked member in those positions in which a contrast is possible, a solution that would yield a different morphophonological picture. The issue is potentially complex and open to a variety of alternative analyses. Fortunately, the problem is only relevant to those forms of the language that have the distinction.

2.17   Syllable-final nasals

Mongolian has three basic nasal consonants: a labial (*m*), a dental (*n*) and a velar (*ng*). Of these, only the labial and dental segments occur in all positions of the word and syllable (initial, medial, final), and they also have palatalized counterparts (*my ny*) in those dialects of the language that have this correlation. The velar nasal (*ng*) is phonotactically exceptional in that it only occurs in syllable-final position, except in those dialects in which the cluster *ngg* is, at least phonetically, realized as a medial velar nasal. It is also the only consonant, apart from the glides (*w y* and dialectally *gh*) and the marginal fricolateral (*lh*), that lacks a palatalized counterpart. These properties of the velar nasal have a historical explanation.

All nasal consonants, including the palatalized counterparts, can occur in syllable-final (including word-final) position, as in Khorchin *nom* 'book', *xan* 'prince', *wang* 'king', Khalkha *amy* 'life', *xony* 'sheep'. There are, however, dialectal differences as to how the non-palatalized dental and velar qualities are distributed. In addition to the types always realized as either a dental or a velar nasal in all dialects, there is a third type that is realized as a dental nasal in, at least, most of the dialects of the Khorchin group but as a velar nasal in most of the dialects of the Khalkha group, including Chakhar. To distinguish between the three types, the present treatment will employ three separate notations (*n' n ng*). These should be understood as supradialectal morphophonemes, of which two (either *n'* and *n* or *n* and *ng*) are always represented as a single phoneme, as opposed to the third one (either *n'* or *ng*). Even so, all dialects of Mongolian have the distinction between a dental and a velar nasal in syllable-final position. The background and distribution of the three morphophonemes is as follows:

1. The segment realized as a velar nasal in all dialects (*ng*) represents an original (Proto-Mongolic) velar nasal, as in *ang* [aŋ] 'hunting' (< *ang), *ameghleng* [aməɢlən] ~ *amegleng* [aməglən] 'peacefulness' (< *amugulang). The velar nasal is in these cases indicated by a digraph (**vg** = *n* + *g*) in Written Mongol, but in the Khalkha Cyrillic orthography it is written with the simple letter for the dental nasal (**n**), as in Written Mongol **vavg**, **vamuqhulavg** vs. Khalkha Cyrillic **an**, **amgalan**. Quite often, but not exclusively, the velar nasal occurs in loanwords from Chinese, as in *gang* 'steel' (from Chinese *gāng*). Synchronically, the velar nasal is distinctive only in word-final position, though as a phonetic sound it can also occur in medial clusters (*ngg ngx*) due to the phenomenon of nasal assimilation.

2. The segment realized as a dental nasal in all dialects (*n'*) represents an original dental nasal followed by a subsequently lost vowel. This morphophonemic entity is attested in both word-final and medial syllable-final position, as in *en'* [ən] 'this' (< *ene), PART FUT *an'gaax* [anga:x] 'to heal' (< **anagaa-*). In these cases, Written Mongol preserves the vowel in accordance with the diachronic situation, while the Khalkha Cyrillic orthography, against the synchronic situation, also writes a vowel (**na ne no nö**) in order to distinguish this segment from the velar nasal, as in Written Mongol **vna**, **vanaqhaqu** vs. Khalkha Cyrillic **ene**, **anagaax**. It is important to note that the vowel in these cases is synchronically a mere orthographical device and does not represent an actual phonetic segment.

3. The segment realized variously either as a dental (in Khorchin) or as a velar (in Khalkha and Chakhar) represents an original syllable-final dental nasal. Statistically, it this type of nasal (here written as *n*) that is most common in both independent lexemes and morphological markers, as in *sain* 'good' = Khorchin [sɛ:n] vs. Khalkha [sæɛŋ], *gar* 'hand' : GEN *gariin* = Khorchin [kari:n] vs. Khalkha [kari:ŋ]. In the written languages, this segment is rendered by the letters for a dental nasal, as in Written Mongol **sajiv**, **qhar uv** vs. Khalkha Cyrillic **sain**, **garÿn**.

The three types of final nasal have also morphophonological differences. For many reasons, the variable nasal (*n*) may be assumed to represent the least marked member of the nasal paradigm. In a different framework it could also be classified as a nasal archiphoneme, since it adapts to the place of articulation of a following obstruent or nasal (nasal assimilation), which potentially leads to the positional loss of the distinction with regard to the labial and velar nasals (*m ng*). Also, its segmental status is phonetically unstable, for it can be realized as a nasalized continuation of the preceding vowel, or simply as vowel nasalization, as in *xourden* 'rapid' = [xʊrtən] ~ [xʊrtəŋ] ~ [xʊrtə̃] ~ [xʊrtə̃]. In the Khalkha type of dialects, this pronunciation extends also to the morphophonemic velar nasal (*ng*), which has merged with the original syllable-final dental nasal (*n*). By contrast, the secondary dental nasal (*n'*) is normally pronounced as a clear dental nasal segment, which only in very rapid speech may start losing its segmental properties.

Morpheme structure

3.1   Typological orientation

In its entire grammatical orientation, Mongolian, like most other members of the Mongolic language family, may be characterized as a typical "Ural-Altaic" language, which means that it shares many of the transcontinental areal-typological features also present in the languages belonging to the Uralic, Turkic and Tungusic families, as well as in Korean (Koreanic) and Japanese (Japonic). As far as modern Mongolian is concerned, these features are inherited from Proto-Mongolic, which, in turn, must have obtained them in the course of prolonged contacts with the neighbouring language families. It should be stressed that the term "Ural-Altaic" does not imply any original genetic connection, but simply a secondary areal-typological similarity. To some extent, the "Ural-Altaic" typological orientation of Mongolian may also have been strengthened by language contacts during the post-Proto-Mongolic period. This conclusion is suggested by the fact that Proto-Mongolic still had features, such as traces of a morphologically expressed grammatical gender, which cannot be regarded as "Ural-Altaic", and which have been subsequently lost.

The most important "Ural-Altaic" features of Mongolian include a relatively simple segmental structure, a system of agglutinative morphology operated with suffixes, a nominative-accusative-based argument structure of the finite clause and a head-final (left-branching) word order at all levels of sentence structure. On the negative side, Mongolian is characterized by the absence of features such as, for instance, initial consonant clusters, tonal distinctions, grammatical gender and complicated paradigmatic stem alternations. In this connection, it should be noted that, within the "Ural-Altaic" belt of languages, there are a number of transitional properties that distinguish the eastern and western or southern and northern peripheries of the belt from each other. One such parameter is the strength of the bond between stem and suffix (Austerlitz 1970). In general, this bond, as manifested in the degree of complexity of the morphophonological phenomena at the morpheme boundary, tends to be stronger towards the west and north (Uralic, Turkic) and weaker towards the east and south (Korean, Japanese). In this, as well as in most other respects, Mongolian occupies an intermediate position, which corresponds to its central location within the "Ural-Altaic" belt.

While contacts with the "Ural-Altaic" Turkic and Tungusic languages have played a profound role in the history of Mongolian (Mongolic) in the past, the more recent interaction with Chinese and Russian has placed the language under potential influence of alien typology. In practice, the influence has almost solely concerned lexical borrowing, while structural changes due to language contact have remained minimal or are, at least, difficult to verify. Possible areas of interference are present especially in the morphosyntax of nouns (use of cases and number markers) and verbs (use of tense-aspect markers). The dialect most affected in this respect seems to be Khorchin, which has not only a large number of Chinese loanwords but also some borrowed Chinese grammatical and discourse elements (particles, enclitics). Even so, claims that the Khorchin dialect has been, or is being, "polluted" by Chinese influence (Kurebito 2008) are rather exaggerated.

3.2   Parts of speech

Word classes, or parts of speech, in Mongolian can be distinguished on the basis of several different parameters, each of which yields a different set. The principal division is normally done on the basis of inflectional morphology, which allows all unbound lexical elements in Mongolian to be divided into three principal categories: nominals, verbals and invariables. Nominals take markers for the nominal categories of inflectional morphology (number, case, personal and reflexive possession), while verbals, correspondingly, take markers for the verbal categories of inflectional morphology (mood, tense-aspect, nominalization, converbialization). Both nominals and verbals have also distinct patterns of non-inflectional (derivational) morphology. Invariables have, in principle, no morphology, though they often etymologically represent petrified nominal or verbal forms.

The division of inflectable words into nominals and verbals correlates with well-known semantic and syntactic properties. Verbals typically denote actions and function as predicates in the clause, while nominals denote actants and can function in any syntactic role, including those of subject and object, but also that of nominal predicate. Verbals can have both verbal and nominal modifiers (nominal objects, nominal and verbal adverbials), while nominals can only have nominal modifiers (attributives). The roles of nominal and verbal stems can, however, be changed by way of derivation (denominal verbs and deverbal nouns). Verbals also have specific forms (participles) which combine verbal syntax with nominal morphology; in these cases, we may speak of the "nominal representation" of verbs. Invariables, which typically comprise the classes of adverbs and particles, cannot function in any of the basic syntactic roles (subject, object, predicate), but they may provide circumstantial or pragmatic information that complements either the clause, in general, or the predicate, in particular. They may also fill various other auxiliary and/or marginal functions (conjunctions, postpositions, interjections).

The morphologically defined word classes can be divided into lower-level subgroups on both formal (morphological and syntactic) and semantic criteria. A principal division within the class of verbals is that between transitive and intransitive verbs, depending on whether the verbal can have an object or not. With some reservations, it is also possible to distinguish a class of ditransitive verbs, though the direct and the indirect object have always different marking in Mongolian. A potentially important morphological and syntactic property of transitive (and ditransitive) verbs is that they can be passivized, while the intransitive verbs cannot; however, morphological passivization is an option not particularly widely used in Mongolian grammar. Among intransitive verbs it is necessary to recognize certain semantically basic items as a separate subgroup of copula-existentials. Some of the latter have a morphologically defective paradigm, rendering them (or their remaining forms) close to the class of invariables.

Among nominals, pragmatic and semantic criteria allow a differentiation between regular nouns (proper), spatials (spatial nouns), adjectives (qualitative nouns), numerals (quantitative nouns) and pronouns. Spatials are nominals that express the spatial or temporal context of an action either as direct modifiers (adverbs) to a verb or in combination with a preceding nominal (as postpositions). Morphologically, many spatials are characterized by a defective nominal paradigm and/or atypical formal categories (specific spatial case forms). Adjectives and numerals are distinguished from regular nouns mainly by derivational properties, but also syntactically, in that they can, with some restrictions, modify a verb without explicit (case) marking. The greatest deviations from regular nominal morphology are shown by the pronouns, which on phonological, morphological and semantic criteria may be divided into several subclasses, including demonstrative, personal, interrogative and reflexive pronouns. Syntactically, pronouns could also be divided into the classes of substantival (subject/object-position) and adjectival (attributive) pronouns. Apart from nominal pronouns, Mongolian has both derived and underived pronominal verbs or pro-verbs (both demonstrative and interrogative).

It is important to stress that the morphological markers of nominals and verbals form two separate sets which, as a rule, cannot be interchanged. Thus, a verbal cannot take a nominal marker and vice versa, except in the specific cases when the word class is formally changed (as in the nominalization of verbals). Examples of a single phonological segment or sequence being used as an inflectional or derivational formative for both nominals and verbals are, thus, to be understood as cases of suffixal homonymy, as in *mal* 'cattle' : *mal-e.l-* 'to breed cattle' (denominal verb, formed by the denominal verbal derivational suffix *-l-*) vs. *xour-* 'to meet' : *xour-e.l* 'meeting' (deverbal noun, formed by the deverbal nominal derivational suffix *-l-*) (example taken from Svantensson 2003: 161).

The status of a stem as either a nominal or a verbal is an inherent lexical property and can normally only be altered by way of suffixal modification. There are, however, a few stems that can function both as nominals and as verbals (Kara 1992). Such stems may be identified either as an ambivalent class of *nomina-verba*, or also as examples

of *zero derivation*, though in the latter case it seems impossible to tell which of the two functions, nominal or verbal, should be regarded as lexically primary for each particular stem. In any case, the stems belonging to this type seem to represent a limited and historically inherited class of words, which is no longer productive in the modern language. Thus, the few extant examples go back to Proto-Mongolic and beyond, and they may historically contain petrified suffixal elements, as in *ategh* : *atg-* (Cyrillic **atga**) 'handful' vs. *ategh* : *atg-* (Cyrillic **atga-**) 'to grasp, to hold in one's hand' (< **adku-*), *ungx ~ umx* (Cyrillic **ümx**) 'bite, mouthful' : *ungx- ~ umx-* (Cyrillic **ümx-**) 'to bite, to hold in one's mouth' (< **emkü-*).

3.3   Types of segmental alternations

Throughout Mongolian morphology, the prevailing method is that of simple suffixal agglutination. All derived and inflected words consist of a primary stem plus a series of one or more derivational and/or inflectional suffixes, which follow each other in a morphologically determined order. Even so, there are several phenomena that involve morphophonological alternations between segments, or between a segment and zero (Ø), either in the stem or in the suffix, or also at the morpheme boundary. Depending on where and how they function, these segmental alternations can be divided into the following types:

1. Stem-final consonant alternations, implying changes in the phonemic identity of the final consonant of a stem. In modern Mongolian, these alternations are almost solely confined to the so-called nasal stems (§3.5), whose final nasal (*n ng*) can alternate with both zero (Ø) and with other nasals (*m n ng*) depending on both morphological and phonological conditions. The phenomenon is connected with nasal assimilation and involves also the positional neutralization of the nasal phonemes.

2. Suffix-initial consonant alternations, implying changes in the segmental identity of the initial consonant of a suffix. These alternations are historically connected with the original division of stems into obstruent stems (ending in an obstruent consonant) and non-obstruent stems (ending in a vowel or a sonorant consonant) (§3.4). In certain suffixes that after non-obstruent stems (and lexically) begin with a weak obstruent (synchronically only *d j*), the suffix-initial segment is replaced by the corresponding strong segment (*t c*) when following a stem-final obstruent, as in *ail* 'camp' (sonorant stem) vs. *jug* 'direction' (obstruent stem) : DAT *ail-d* vs. *jug-t*; *xar-* 'to watch' (sonorant stem) vs. *gar-* 'to exit' (obstruent stem) : CONV IMPRF *xar-j* vs. *gar-c*. In view of the limited number of suffixes and suffix-initial consonants participating in this alternation, the phenomenon cannot be regarded as productive in the modern language. Even so, it may synchronically be described as a process in which the weak

obstruents (lexical representation) are changed to the corresponding strong obstruents under certain phonological (or also morphological) conditions.

3. Vowel reduction, implying the alternation of the neutralized short vowel (*e*) with zero (Ø) in the non-initial syllables of both primary stems and derived and/or inflected words in cases when a following suffix changes the syllabic structure of the word and, hence, moves the syllable boundary. This alternation is directly connected with the rules of syllabification, which, in turn, depend on the types of medial and final consonant clusters that are phonotactically permitted (§3.8). In some cases it might also be possible to speak of a connective vowel (*.e*) (§3.12), which positionally alternates with zero (Ø).

4. The addition of a connective consonant (always *g*) at the morpheme boundary between two long vowel elements, the one at the end of the stem and the other at the beginning of the suffix (§3.11). Stems ending in a consonant are followed by a suffix-initial long vowel without a connective consonant, which is why it is also possible to speak of an alternation between zero (Ø) and a lexically empty consonant segment (*g*). A similar addition of a connective consonant (also *g*), though for another reason, takes place after stems ending lexically in a velar nasal (*ng*).

5. Vowel harmony, which as a morphophonological phenomenon affects the long monophthongs (but not diphthongs) of suffixes. These are divided into two principal harmonic series (*aa ao oo* vs. *ee eo uu*) depending on the lexically determined harmonic status of the stem (§3.10). Vowel harmony may be seen as a suprasegmental domain phenomenon, which binds the suffixal syllables together with the stem and helps delimit the word against neighbouring words. Vowel harmony is also active within stems, provided that they have non-initial syllables with long monophthongs. The synchronic role of vowel harmony is, however, diminished by the many restrictions it has in modern Mongolian.

All of the above-listed types of segmental alternation will be dealt with in more detail below. As will be shown, they are intimately connected with the general principles of Mongolian morpheme structure, including both consonant and vowel phonotactics as well as stem types.

3.4   Stem types

Apart from the different sets of derivational and inflectional suffixes they take, there is very little formal difference between nominal and verbal stems. Both nominals and verbals can also occur without suffixes, in which case the unmarked nominal stem functions as the basic (nominative singular or generic) case form of the nominal declension, while the unmarked verbal stem functions as the basic (second person) imperative form

of the verbal conjugation. In spite of the fact that plain verbal stems in Mongolian are fully formed words, all verbal stems, including derived verbal stems, are in the present treatment marked by a hyphen (-), while nominal stems are presented as such, as in *xar* 'black' (nominal) vs. *xar-* 'to watch' (verbal).

There is, however, an immediate connection between the segmental structure of the stem and some of the morphophonological phenomena listed above, in that the final segments of the stem condition the stem-final and suffix-initial consonant alternations, the addition of a connective consonant at the morpheme boundary and the syllabification of the morphologically marked word. The system of stem types has undergone some recent changes in Mongolian, and there are synchronic differences in this respect between the dialects, as well as between the modern Common Mongolic languages. For the type of idealized normative dialect that lies at the basis of the Khalkha literary language it is probably best to distinguish between four stem types which may technically be identified as (1) standard stems, (2) vowel stems, (3) obstruent stems and (4) nasal stems. With the exception of nasal stems, these types are valid for both nominals and verbals. To some extent, the differences between the stem types may be seen as conditioned by the lexical deep level, for they are not always distinguishable at the surface level of the phonological representation.

1. Standard stems correspond to the numerically largest group of nominal and verbal stems. At the synchronic surface level, the basic form of all of these stems ends in a consonant, or also in a consonant cluster. The synchronic final consonant can phonetically be a weak stop (*b d dz g*), a strong stop (*t tz*), a fricative (*s x*), a liquid (*l r*), a nasal (*m n' ng*), a palatal glide (*y*), or also any of the other possible palatal or palatalized consonants (*by dy j gy ty c sh xy ly ry my ny*), as in (examples from both nominals and verbals:) *yab-* 'to depart', *ug* 'word', *es-* (negation verb), *xair* 'love', *id-* 'to eat', *xot* 'town', *buj-* 'to dance', *xuc* 'power', *eush-* 'to hate', *xeux* 'blue', *nem-* 'to add', *xony* 'sheep', *al-* 'to kill', *gooly* 'brass', *oy-* 'to sew'. Although these stems superficially end in a consonant, they might also synchronically be analysed as stems ending in a qualitatively neutralized short vowel (*e*), which actually appears in their inflection before suffixes depending on the rules of syllabification, as in *id-* 'to eat' : CONV IMPRF *id.e.j.* Historically, it is a fact that many of these stems, though not all, have actually ended in a vowel, which was lost only recently in the history of Mongolian. The vowel is still present in the early data on Khalkha (Ramstedt 1902, 1903, 1908), in dialectally biased materials (Poppe 1951, 1970) and in several other Common Mongolic languages (Khamnigan, Buryat, Ordos). Synchronically it is, however, not immediately clear whether the vowel appearing at the morpheme boundary belongs to the stem or to the suffix; the issue is connected with the rules governing the occurrence of consonant clusters and the syllabification of sequences beyond the initial syllable.

2. Vowel stems are stems that in their synchronic surface-level basic form end in a vowel. This vowel can in modern Mongolian only be a long monophthong or diphthong, e.g. (monosyllabic nominal stems:) *jee* 'child of daughter or sister', *beo* 'shaman', *duu* 'younger sibling', *oi* 'anniversary', *xui* 'kinsfolk', (bisyllabic nominal stems:) *baraa* 'goods', *borao* 'rain', *galoo* 'goose', *dalai* 'sea', *jeugii* 'bee', (monosyllabic verbal stems:) *xaa-* 'to close', *tao-* 'to value', *oi-* 'to fall down', *gui-* 'to run', *xii-* 'to do', (bisyllabic verbal stems:) *inee-* 'to laugh', *yeureo-* 'to bless', *asoo-* 'to ask', *xarai-* 'to jump'. The common characteristic of these stems is that they require the connective consonant *g* before suffixes beginning with a vowel. However, many of the nominal stems in this group also have a secondary nasal stem, in which case the nasal fills the role of a connective consonant. Alternatively, we could say that all vowel stems have a morphophonologically conditioned consonant stem, which ends in either *g* or *n*. The details concerning the use of these connective consonants also depend on whether the stem ends in a long monophthong or a diphthong.

3. Obstruent stems are stems that at the lexical level, and historically, end in a segment belonging to a limited class of consonants that may be termed obstruents, though this class does not fully correspond to the regular phonetic definition of obstruent. The segments in question are the weak labial and velar stops (*b g*), the dental sibilant (*s*), as well as, importantly, the vibrant (*r*). Originally, the weak dental stop (*d*) was also included, but, for phonotactic reasons, not the weak palatal obstruent (*j*). Obstruent stems are characterized by their ability to condition a strong suffix-initial obstruent (*t c*, historically also **k*) in certain suffixes that after all other stem types begin with a weak obstruent (*d j,* historically also **g*). Obstruent stems are synchronically more diversified among verbs, as in *ab-* 'to take', *eug-* 'to give', *nis-* 'to fly', *gar-* 'to exit', while among nouns only stems ending in a velar stop (*g*) or a vibrant (*r*) are commonly attested, as in *jug* 'direction', *gadzer* 'place'. All of these segments can also occur in the position of the final consonant of standard stems, which means that the distinction between obstruent stems and standard stems is not immediately evident at the synchronic surface level. One option to explain the situation would be to postulate a deep-level phonological distinction between the two stem types. Alternatively, obstruent stems could simply be seen as a diachronic relict, which could synchronically be described as a lexicalized morphological class. Although present in both Written Mongol and Cyrillic Khalkha, they have tended to diminish in number and productivity in the oral language, and they have even been lost as a stem type in most dialects other than Khalkha.

4. Nasal stems are stems that at the lexical level, or also historically, end in a dental nasal (*n*), which morphophonologically functions as a nasal archiphoneme, as in *xaan* 'emperor'. Stems ending in other nasals (*m my n' ny ng*) behave in general like standard stems and can therefore, at least in theory, be followed by a short vowel (*e*)

if the phonotactic context requires the presence (addition) of a vowel segment. Nasal stems (proper) can, by contrast, only be followed by a consonant or a long vowel and never by a short vowel. Also, due to diachronic circumstances that were active prior to Proto-Mongolic, all nasal stems are nominals, a restriction which, incidentally, also applies to standard stems ending in the velar nasal (*ng*). In many cases, though probably not always, the final nasal (*n*) of nominal stems is originally a suffix, though synchronically it has lost any semantic content or grammatical function it may have had. Depending on the morphophonological behaviour of this nasal segment, nasal stems can be further divided into two subgroups: stable nasal stems, which preserve the nasal in all (or most) of their forms, and unstable nasal stems, which drop the nasal under certain conditions. Without the final nasal, nasal stems are formally indistinguishable from standard stems.

Although all separately pronounced words in Mongolian must end in either a consonant or a long vowel, there are some monosyllabic pronominal and auxiliary stems that actually end in a short vowel, as in *e-* (proximal stem) vs. *te-* (distal stem). Such stems are, however, always used with suffixes which effectively change their syllabic structure. Diachronic monosyllables with a short vowel that synchronically can occur in word-final position have undergone lengthening, as in *taa* 'you' (plural and honorific) (< *ta*), *xii-* 'to do' (< *ki-*). In general, both nominal and verbal stems can be either monosyllabic, ending in a long vowel ((C)VV) or a consonant ((C)V(V)C), or also in a cluster of two consonants ((C)V(V)CC), or bisyllabic, in which case the latter syllable is supported by either a long vowel (VV) or a short vowel (V) whose syllabic status is unstable. Underived bisyllabic stems can also end in a consonant ((C)V(V)(C)CV(V)C), which may or may not be followed by a lexical short vowel. Longer stems can normally be analysed as containing derivational suffixes, though in some cases these suffixes may have become non-productive and synchronically difficult to verify.

3.5   Nasal stems

A Mongolian inflectable word stem can end in any of the three non-palatalized nasal phonemes present in the language, that is, *m n ng*, as well as, in the Khalkha type of dialects, in either of the two patalized nasals *my ny*. In addition, the dental nasal *n* can be represented by the two supradialectal morphophonemes *n* and *n'*. Of all these stem-final nasal consonants only the basic dental nasal *n* defines the class of nasal stems (proper). However, since the dental nasal functions as a nasal archiphoneme, its distinction against the other nasal consonants, especially *m ng n'*, can be positionally neutralized, which is why it is necessary to view the morphophonological status of nasal stems in relation to the standard stems ending in a nasal consonant. Since all nasal stems (proper) are

nominals, they are best compared with nominal standard stems ending in the other nasal consonants.

In the Khalkha type of dialects, the surface-level distinction between stems ending in *n* and *ng* is neutralized in final position, as well as before suffixes beginning with a consonant (§2.17). In these positions, both stem types end in what would seem to be a basic (or unmarked) archiphonemic nasal (*N*), whose place of articulation is either velar (in final position) or homorganic with a following consonant, as in *xan* [xaŋ] 'prince' vs. *wang* [waŋ] 'king' : DAT *xan-d* [xant] vs. *wan-d* [want]. The distinction between the two stem types is, however, preserved both in Khalkha and in all other dialects before suffixes beginning with a vowel. In these cases, nasal stems (proper) show an intervocalic dental *n*, while stems ending in the velar nasal *ng* add the "connective" consonant *g*, yielding the intervocalic cluster *ngg* [ŋk] ~ [ŋg], as in ABL *xan-aas* [xana:s] 'prince' vs. *wang.g-aas* [waŋga:s] 'king'. In several Inner Mongolian dialects, including most (if not all) forms of modern Khorchin proper, the cluster *ngg* can be represented as an intervocalic velar nasal [ŋ], as in *wang-aas* [waŋa:s]. The exact dialectal distribution of this representation is unknown, but it seems to be a question of a secondary phonetic simplification, rather than of the preservation of an archaic original feature.

In the Khorchin type of dialects, the surface-level distinction between stems ending in *n* and *n'* is neutralized in final position, as in Khorchin *on* [ɔn] 'year' vs. *sun(')* [sʰun] 'night' = Khalkha *sheun'* [ɕөn] (exceptional correspondence of the initial consonant). In the position before suffixes beginning with a vowel this neutralization is observed in all dialects, as in ABL *on-oas* [ɔnɔ:s] vs. Khorchin *sun-ees* [sʰunə:s] = Khalkha *sheun-eos* [ɕөnө:s]. Before suffixes beginning with a consonant the situation varies but, in general, a lexical *n'* is always pronounced as a dental nasal, while a lexical *n* assumes the place of articulation of the following consonant. This means that, before a labial consonant, the distinction between *n* and *m* can also be neutralized, while *n'* retains its dental pronunciation, as in (examples from syntactic sandhi): *nom* 'book' : *nom_bain'* 'there is a book', *xan* 'prince' : *xam_bain'* 'there is a prince', *sheun'* 'night' : *sheun'_bain'* 'it is night'.

The representation of the two dental nasal morphophonemes *n* and *n'*, on the one hand, and the velar nasal *ng*, on the other, in the positions before a vowel (/_V), a consonant (/_C) and a pause (/_#) in the Khalkha type of dialects may be summarized as follows: *n* and *n'* are neutralized before a vowel, while *n* and *ng* are neutralized before a consonant or a pause (Table 11).

Table 11. The representation of stem-final nasals in Khalkha

	n'	*n*	*ng*
/_V	*n*		*ngg*
/_C	*n'*	*N*	
/_#	*n'*	*n*	

Table 12. The representation of stem-final nasals in Khorchin

	n'	*n*	*ng*
/_V	*n*		*ngg > ng*
/_C	*n*	*N*	
/_#	*n*		*ng*

In Khorchin, by contrast, *n* and *n'* are neutralized not only before a vowel, but also before a pause, while *n* and *ng* are neutralized before a consonant (Table 12).

Thus, in all positions, all dialects have only two contrasting nasals of this group, but the relation of the contrast to the three nasal morphophonemes (*n' n ng*) varies. In the preconsonantal position, a further neutralization with other nasals, especially the labial nasal *m*, is also possible, resulting in a truly unspecified nasal archiphoneme (*N*).

Nasal stems as a technical concept include, however, only the stems ending in the unmarked segment *n*. The only unambiguous morphological difference between these nasal stems (proper) and standard stems is that nasal stems require a special variant of the genitive case ending, which is Khalkha *-ii* or Khorchin *-ai*, as opposed to the ending *-ii.n*, as used in all dialects for all other stem types, as in *xaan* 'emperor' : GEN Khalkha *xaan-ii* = Khorchin *xaan-ai* vs. (all dialects:) *un'* 'price' : GEN *un-ii.n*, *wang* 'king' : *wang. g-ii.n.*

Dialectally, the system of the final nasals is affected by the loss of the stop component in the cluster (*)*ngg*. Although this development is likely to have started in intervocalic position, it can have spread to the word-final position, making stems ending in the original cluster (*)*ngg* synchronically indistinguishable from those ending in the original velar nasal (*)*ng*. This seems to be the case in many forms of modern Khorchin, as in *maeng* 'thousand' : INSTR *maeng-aar*, pronounced as [mɛŋ] : [mɛŋaːr] = Khalkha *myangg* : *myangg-aar* (< *mingga : *mingga-ar). In older Khorchin (as in Todaeva 1981–1985), the distinction is preserved, suggesting that the modern dialectological situation may also not be uniform.

3.6   The unstable nasal

A special group of nasal stems is formed by those nominals in which the nasal is only present in certain forms of the nominal paradigm. The nasal segment of these items is known variously as the "unstable", "fleeting" or "hidden", nasal. In the present treatment it is graphically distinguished from the corresponding "stable" or "fixed" stem-final nasal by a preceding slash (/), as in *joo/n* 'hundred' (unstable) vs. *xaan* 'emperor (stable). We might also say that the nominals ending in an unstable nasal have two stems: the one with and the other without the final nasal. The nasal segment is always segmentally

identical with the unmarked (archiphonemic) nasal *n* (*N*), whose phonetic representation depends on positional and dialectal factors (§3.5), but which paradigmatically may be identified as the dental nasal phoneme.

The stems ending in the unstable nasal offer several problems relevant to the synchronic description of Mongolian. For one thing, it is not immediately clear what the function of the unstable nasal is. Depending on the point of view taken it can be analysed either as an "empty" phonological segment or as a significant morphological constituent. In the first case, the unstable nasal may be understood basically as an element of stem extension appearing under certain morphologically and/or morphophonologically determined conditions. In the latter case, it is assumed to be able to alter the morphosyntactic or semantic status of the underlying nominal stem. If the latter point of view is correct, it also has to be determined whether the unstable nasal involves an inflectional or a derivational feature: both of these interpretations can be defended. Also, it is possible that the role of the nasal segment is not uniform but varies depending on the lexical item or the form in which it occurs. In any case, it must be understood as a feature of the lexical level, since it accompanies only certain nominals, while it is never present in others.

Finally, there are dialectal differences due to which the occurrence of the unstable nasal is not uniform over the Mongolian language area. Historically, the nasal used to be more widely present in the declension of the nominals concerned, as it still is in some conservative Common Mongolic languages (especially Khamnigan and Buryat). The principal loss of "domain" that the unstable nasal has suffered in modern Mongolian concerns its use in the absolute position (the nominative case, as used in the subject/object function). However, at the same time as its paradigmatic presence has been reduced, its lexical presence has increased in most dialects of the language. Due to this expansion, many nominals originally belonging to other stem types are today used with an unstable nasal.

Depending on the phonotactic context, the presence of the unstable nasal may be accompanied by other changes in the shape of the stem, connected with the cyclic addition and/or deletion of the reduced vowel *e.* Thus, when following a stem otherwise ending in a consonant, the unstable nasal may require the presence of an "epenthetic" vowel segment, which, on the other hand, can also be positionally absent, as in (basic stem:) *mod* 'tree, wood, forest' vs. (nasal stem:) *mod/e.n*(-) : *mod/n-*. Also, when a stem ends lexically in a consonant cluster, the latter may be "dissolved" or "restored" depending on the syllabic impact of the unstable nasal and any segments following it, as in (postulated lexical stem:) √*terg* 'cart' vs. (actual basic stem in absolute position:) *tereg* vs. (nasal stem variants:) *terge/n*(-) : *tereg/n-*. For such items, there is no commonly accepted simple notation that could express all the stem variants in a single lemma. In the present treatment, however, we will introduce the use of the double slash (//) to indicate the cases in which the presence of the unstable nasal is accompanied by other stem alternations, as in *mod//n = mod*(-) : *mod/n-* : *mod/e.n*(-), *terg//n = tereg* : *terg*(-) : *terg/e.n*(-) : *tereg/n*(-).

The morphological roles of the unstable nasal will be discussed in more detail in connection with the relevant morphological categories (§4.7). At this stage, it may be noted that this nasal can be relevant to the (1) lexical, (2) morphosyntactic and/or (3) pragmatic status of the underlying nominal word.

1. The lexical relevance of the unstable nasal may be illustrated by pairs like *sar* 'month' vs. *sar//n* 'moon', *dzax* 'border' vs. *dzax//n* 'collar'. In these cases, the nasal segment seems to function as a denominal derivational element that modifies the lexical meaning of the root. The two stems, in the forms in which they are distinguished from each other, constitute separate, though semantically related, lexical items that can be used in identical syntactic positions.

2. The morphosyntactic relevance of the unstable nasal is evident from the example *mod* 'tree, wood, forest' vs. *mod//n* 'wooden', in which the extended stem typically functions as an adnominal modifier (attribute), while the plain (non-extended) stem functions as an independent constituent (subject), or also as an adverbial modifier (object). Since the two stems here are not used in identical syntactic positions, the extended stem could technically also be analysed as a specific form of the nominal declension (attributive case form), but possibly also simply as a denominal derivative for a restricted class of nominals (adjectives).

3. The pragmatic relevance of the unstable nasal is synchronically more evasive, or at least less well understood, but it is suggested by examples in which a single case form can be based on both the plain stem and the nasal stem, as in *con//n* 'wolf' : GEN (plain stem:) *con-iin* vs. (nasal stem:) *con/n-ii* ~ *con/n-ai*. It seems that the nasal stem in such cases often indicates concreteness, specificness, definiteness and/or individuation, as opposed to the more generic meaning of the non-nasal stem (Thompson 2009). The non-nasal stem can also have a lexicalized meaning, as in *con-iin suul* (literally:) 'wolf's tail' > (lexicalized meaning:) 'wild garlic' vs. *con/n-ii suul* '(a certain) wolf's tail'. The opposition between the two stems is normally possible only in three case forms: genitive, dative and possessive. The issue is made more complicated by the fact that not all nouns seem to use the nasal stem in the same way: for some nouns, it seems to be more common in certain case forms than in others. There may also be nouns that have the nasal stem only in a single case form of the paradigm, most typically in the genitive. Such nouns might also be identified as having an "incomplete" or "defective" nasal stem.

From the formal point of view it is important to note that the unstable nasal can never be combined with a stable nasal. Diachronically, there are, however, some examples of confusion between stable nasal stems, unstable nasal stems and standard stems ending in a dental nasal, as in Khalkha (standard stem:) *teben'* '(large) needle' : GEN *tebn-ii.n* ~ (unstable nasal stem:) *tebn/e.n-* : GEN *teben/n-ii* ~ (stable nasal stem:) *teben-* : GEN *tebn-ii* (example from Thompson 2009).

3.7   The reduced vowel

As is already evident from the discussion concerning the segmental phonology, the non-initial syllables in Mongolian can phonologically only contain one short (single) vowel quality, which may be identified as the schwa, that is, the reduced vowel quality [ə], which, in turn, is probably best classified as representing the unrounded mid-high vowel *e* of the maximal paradigm of the initial syllable. When occuring in non-initial syllables, this vowel may also be understood as the combined neutralized or archiphonemic representation of all short vowel qualities. Depending on the phonetic environment, the reduced vowel can take allophonic shades of other vowel qualities, and some of these are incorporated into the Khalkha Cyrillic orthography. From the phonemic point of view, however, such allophonic shades have no distinctive significance. By contrast, long (double) vowels, including both monophthongs and diphthongs, exhibit a full range of phonemically relevant qualitative differences also in the non-initial syllables (§2.10).

Vowel reduction is also present after palatal and palatalized consonants, though the Khalkha Cyrillic orthography, for both phonetic and diachronic reasons, identifies the reduced vowel in these cases with the high unrounded front vowel *i*, as in (Cyrillic Khalkha = spoken Khalkha) **shashin** = *shashen* 'religion', **mory** = *mory* 'horse' : DAT **morind** = *moryend*. In the Khorchin type of dialects, in which palatalness is transferred to the vowel of the initial syllable, these cases are in no way different from any other postconsonantal occurrences of the reduced vowel, as in (Khorchin) *moer* 'horse' : DAT *moerend*.

The most important synchronic consequence of the phenomenon of vowel reduction is the paradigmatic alternation of the reduced vowel with zero (*e* : Ø). Since this alternation depends on the syllabic structure of the entire word, which, again, depends on any suffixal elements that may be added to the basic stem, it has also been called "cyclic syllabification" (Svantesson 1995). Ideally, the final part of any Mongolian word containing no long vowel elements may be seen as a string of consonants which is split into syllables by inserting the reduced vowel in certain positions depending on the rules of consonant phonotactics. The insertion process begins from the end of the word and proceeds backwards removing any otherwise unacceptable consonant clusters, as in *xerg-l-l-* = *xergll* → *xerglel* → *xereglel* 'usage'. The addition of a suffix containing a long vowel element can change the syllabic structure of the word, resulting in the "translocation" of the inserted reduced vowels, as in ABL *xerg-l-l-ees* = *xergllees* → *xergelees*. Thus, a considerable proportion of Mongolian nominal and verbal stems have two allomorphs distinguished by the location of one or more reduced vowel segments, as is exemplified by the derivative sequence (noun:) *xereg* : *xerg-* 'matter, necessity' : (denominal verb:) *xergel-* : *xeregl-* 'to use' : (deverbal noun:) *xereglel* : *xergell-* 'usage, necessity'.

As was also mentioned in connection with the segmental phonology (§2.10), it might be possible to describe some forms of modern Mongolian by assuming that the insertion

of the reduced vowel is a fully regular phonological process that remains non-distinctive and, hence, non-phonemic up to the surface level. A consequence of this solution would be that the long vowels of non-initial syllables could be analysed as "short" segments, though the paradigmatic facts would not seem to support this interpretation. The analysis of the schwa as non-phonemic is commonly used in the description of Kalmuck (Street 1962), and this is the point of view taken also by the Kalmuck Cyrillic orthography. In regular Mongolian (proper), however, the situation is ambiguous, and it is safest to assume that the reduced vowel is a phonemic segment even in the cases in which it alternates paradigmatically with zero. The two most compelling reasons for this analysis are the following:

1. The occurrence of the schwa is in some cases connected with morphological and/or lexical circumstances, which is why the schwa and zero can contrast under specific conditions. The most common example of a morphologically conditioned schwa is offered by the futuritive participle marker -*x*, which, at least in normative Khalkha, always requires a preceding schwa when following a stem-final consonant. Minimal and subminimal pairs with and without the schwa can arise between these forms and words ending in a final consonant cluster, as in the example Cyrillic Khalkha **erx** = spoken Khalkha *irx* 'power' vs. **erex** = PART FUT *irex* 'to search'. In practice, the chances of contrast are small, however, since there are very few final clusters ending in the consonant *x*. It may be noted that the occurrence of the schwa in the futuritive participle marker is not diachronically motivated, since this marker takes the schwa irrespective of whether the stem originally ended in a vowel or a consonant, as in PART FUT (original vowel stem) *xarex* 'to watch' (< *kara-ku) vs. (original obstruent stem) *garex* 'to exit' (< *gar-ku).

2. Perhaps even more interestingly, there are occasional examples of a contrast between the schwa and zero *within* lexical items. These examples seem to be diachronically motivated, in that they reflect the order of phonological developments in premodern Mongolian. Thus, it seems that some lexical items can have preserved a distinctive schwa at least dialectally and/or idiolectally due to diachronic reasons. Items of this type include *xages* 'half' and *genet* 'suddenly', and the probable reason for the preservation of the vowel in them is that it was originally located in a closed syllable (*kagas and *genedte). In corresponding items in which the vowel was originally located in an open syllable it seems to have been lost in all forms of the language, as in Khalkha *dzags* = Khorchin *jags* 'fish' (< *jagasu). This suggests that the short vowels were first lost in open syllables (a process also known as *Mittelsilbenschwund*) and only then in (some) closed syllables.

Unfortunately, the Khalkha Cyrillic orthography does not indicate the presence or absence of the schwa, as the use of orthographical vowels is based on other principles.

Therefore, items like **zagas** 'fish' vs. **xagas** 'half' both contain a vowel letter in Cyrillic Khalkha, but the actual function of the vowel letter seems to be to signal the postvelar quality of the velar consonant (*gh*). On the other hand, an item like **ugs** 'words' (< **üges*) is normally written without a vowel, while the item **gent** ~ **genet** is attested in two alternative shapes.

It has to be stressed that the above types of contrast between the schwa and zero are relatively marginal, and there certainly also exist dialects and/or idiolects lacking this contrast. There are indications that such dialects may be prevailing especially on the Inner Mongolian side, but the dialectological details remain to be investigated. Moreover, the contrast is only possible in what may be defined as a closed syllable (ending in a consonant followed by an other consonant or a pause), while the schwa is absent if a suffix beginning with a vowel follows, as in PART FUT *irex* 'to come' : PART FUT ACC *irxiig*, *xages* 'half' : ACC *xagsiig*.

The alternation between the schwa and zero in Mongolian has parallels in many languages with suffixal morphology, both within and outside of the "Ural-Altaic" typological realm. The descriptive problem posed by all these languages is basically the same: we have to decide whether the phenomenon is to be described in terms of a static alternation or a dynamic process. Also, if it is a question of a process, there are two alternatives: either we are dealing with vowel addition or with vowel deletion. Each of these approaches can be defended for Mongolian.

1. In a static surface-level description we can only list all the stem alternants for any given lexical item separately. This corresponds to the fact that the items concerned really have more than one (normally two) alternative stems, as in *xereg* : *xerg-*. The problem with this description is that it obscures the intuitive sameness of the alternating stems, as well as the relevance of the contextual circumstances governing the presence and absence of the reduced vowel.

2. In a dynamic process-oriented (generative) description only one of the stems is taken as the "basic" or "lexical" deep-level form, from which the other stems are derived by contextually determined rules. An orthodox application of this model requires that the form selected as the deep-level representation is the most "economic" one, which normally implies shortness. Altogether, this model corresponds to the principle of "cyclic syllabification", as discussed above, in which the surface-level reduced vowels of non-initial syllables are explained as being due to a process of cyclic vowel addition, as in *xerg* → *xereg*. The advantage of this approach is that it can also explain the cases in which a reduced vowel appears between a stem and a suffix, as in *id-* 'to eat' : CONV IMPRF *id-j* → *idej*.

3. A problem with the assumption of a process of cyclic vowel addition in Mongolian is, however, that the cases of a contrastive schwa remain difficult to explain. Examples of the types *xages* : *xagsiig* and *irex* : *irxiig* are better explained by assuming a process

of vowel deletion. The same analysis could, in principle, also be applied to cases like *xereg → xerg-*. In this approach only morphophonologically stable consonant clusters, whose members are never separated by a reduced vowel, are consonant clusters also at the lexical level, as in *dzags* 'fish'.

Obviously, the Mongolian data can be adequately explained only by a combination of approaches. A lexical vowel segment and a process governing its deletion under certain conditions are required by cases of the type *xages* and *irex*, while a process of vowel addition is probably the best way to explain the appearance of a reduced vowel segment at the morpheme boundary in cases like *id-* : *idej*. Alternations of the type *xereg* : *xerg-* can be explained either way.

The occurrences of the reduced vowel at the boundary between a stem and a suffix always involve closed syllables, that is, cases in which the suffix either begins with a consonant cluster (-CC-) or comprises only a single consonant followed by a pause (-C#), as in *id-* 'to eat' : PASS *idegd-* : PASS CONV IMPRF *idegdej*. Irrespective of whether the vowel is explained as primary (lexical) or secondary (added), the question arises as to which morpheme it belongs to. Historically, it is most often an actual morpheme-final vowel, as in *idegdej* < *ide-gde-ji, but when following an original consonant stem it can also represent a connective vowel, as in *gar-* 'to exit' : CONV MOD PRIV *garenggwai* < **gar-* : **gar-u.n+ügei*. The synchronic description has three alternatives: the vowel is either (a) an "empty" morpheme that belongs neither to the stem nor to the suffix, or (b) it belongs to the stem, thus indicating a positionally conditioned stem variant ending in a vowel, or (c) it belongs to the suffix, thus indicating a positionally conditioned suffix variant beginning with a vowel. In the present treatment preference is given to the third alternative. The unstable vowel is separated from the following consonant by a period mark (.), as in CONV MOD *id-e.j* : PASS CONV MOD *id-e.gd-e.j*. This notation allows a distinction to be made against suffixes containing a lexically non-optional short vowel, as in PART FUT *id-ex*. However, it has to be recalled that even the lexically non-optional short vowel can be deleted if the phonotactic environment requires deletion.

As is evident from the preceding discussion, the reduced vowel in modern Mongolian can only be present in closed syllables. This situation seems to be valid for all dialects of the language and may be taken as a feature that delimits Mongolian (proper) against its more conservative neighbours (Khamnigan, Buryat, Ordos). However, the Khalkha Cyrillic orthography conspicuously often breaks this phonotactic rule by writing a short (single) vowel in open non-initial syllables. In these cases, it does not seem to be a question of diachronic retention, or even of the influence of the conservative orthography of Written Mongol, but simply of a tendency towards achieving the iconic invariance of morphemes, including both independent stems and suffixes. For instance, the word *bayrellaa* 'thank you' is normally written **bayarlalaa**, which allows the form to be graphically associated with the basic form of the verb *bayerl-ex* = **bayarlax** 'to rejoice, to thank'.

Thus, the syllabic alternations due to the different location of the reduced vowel tend to be ignored in the orthographical representation.

Normative dictionaries using the Cyrillic Khalkha orthography contain entire series of items with an "incorrectly" placed reduced vowel, such as **mergejil** for *meregjel* 'profession', **mergeshil** for *meregshel* 'qualification' and even **merge** for *mereg* 'foretelling', all associated with **mergen** = *mergen* 'skilful, smart'. This means that rhyming words can be written differently, as in **xereglex** = *xereg-l-ex* 'to use' vs. **mergelex** = *mereg-l-ex* 'to foretell'. On the other hand, random variation involving a single word in two or more different orthographical shapes is also common, as in **mergec** ~ **meregc** for *meregc* 'foreteller'.

3.8   Stable consonant clusters

Due to the absence of initial clusters, all Mongolian words begin with a single consonant followed by a vowel (#CV-). Possible exceptions to this rule are only formed by sequences involving a postconsonantal glide, as discussed in connection with the segmental phonology (§§2.14, 2.15). A postconsonantal labial glide is present in all dialects in items of the type *xwaa* 'chestnut (colour)', while a postconsonantal palatal glide is attested in the Khorchin type of dialects, which lack the feature of consonant palatalization, in items like *pyao* [pʰʲɔ:] ~ [pɕɔ:] 'ticket' (from Chinese *piào*). Word-finally Mongolian can, however, have a wide range of different consonant clusters comprising up to three members (CCC), while medially sequences of even four consonants (CCCC) are possible. It is logical to assume that these are divided between syllables according to the same principle as is valid for the initial syllable, that is, that the last consonant in a cluster followed by a vowel is always preceded by a syllable boundary. This means that a Mongolian syllable can end in one (C), two (CC) or three (CCC) consonants, while any further sequence of a consonant and a vowel (CV) belongs to the following syllable.

In medial position between vowels there are very few restrictions as to how any two consonants can be combined into a sequence (-CC-). The extant restrictions concern mainly a small number of diachronically secondary and/or synchronically marginal segments, notably the strong labial and velar stops (*p k*), the strong (voiceless) labial and lateral fricatives (*f lh*), the postvelar (*gh*) and the velar nasal (*ng*). In final (coda) position, however, including both the word-final and word-internal syllable-final positions, only a relatively limited paradigm of combinations is allowed (as studied in detail by Svantesson & al. 2005: 65–68). Since these sequences are, most importantly, morphophonologically invariant, they may also be identified as "stable consonant clusters" (Table 13). We exclude for the time being the impact of palatalization and/or palatalness. Sequences involving the glides (*w y*) will also not be discussed here, since they are open to alternative analyses.

Table 13. The stable consonant clusters

	b	d	j	g	t	c	s	x
N	mb	nd	nj	ngg	nt	nc	ns	ngx
m		md	mj		mt	mc	ms	mx
b		bd	bj		bt	bc	bs	bx
g		gd	gj		gt	gc	gs	
l	lb	ld	lj		lt	lc	ls	lx
r		rd	rj		rt	rc	rs	rx
s					st	sc		
x					xt	xc		

As may be seen, all stable consonant clusters have an obstruent as the second component. This obstruent is either a weak stop (*b d j g*), a strong stop (*t c*) or a fricative (*s x*). On the other hand, the initial component is a nasal (*N m*), a weak stop (*b g*), a liquid (*l r*) or a fricative (*s x*). Of the 64 theoretically possible combinations, 42 are actually attested in syllable-final position.

More specifically, the nasal occurring as the initial component of the stable clusters is either an unmarked archiphonemic nasal (*N*), equivalent to the unmarked final nasal of nominal) stems (*n*) and realized as homorganic with the following obstruent (*m n ng*), or a distinctly labial nasal (*m*), always realized with the labial quality. When understood in this way, the unmarked nasal is the only segment that can be combined with all the possible alternatives occurring as the second component, yielding 8 different stable clusters (*mb nd nj ngg nt nc ns ngx*). By contrast, the distinctly labial nasal can only be combined with non-homorganic obstruents excluding the weak velar stop, yielding 6 clusters (*md mj mt mc ms mx*). There are similar restrictions concerning the clusters beginning with a non-nasal segment. The smallest range of combinations is available for the fricatives (*s x*), which can only be followed by a strong stop, yielding 4 possible clusters (*st sc xt xc*).

Looking at the system from the point of view of the second component, we can see that only the strong stops (*t c*) can be combined with all the possible alternatives occurring as the initial component, yielding altogether 16 clusters (*nt mt bt gt lt rt st xt* and *nc mc bc gc lc rc sc xc*). The smallest range of possibilities is available for the weak labial and velar stops (*b g*), which occur only in the homorganic clusters (*mb ngg*) as well as in the combination of a lateral with the weak labial stop (*lb*). It may be recalled that the weak labial stop is dialectally spirantized in a sonorant environment, but this development does not take place when this segment occurs at the second component of a stable cluster (*mb lb*).

The stable consonant clusters may be illustrated as follows: (archiphonemic nasal + obstruent:) *xamb* 'prior (of a monastery)', *xund* 'heavy', *manj* 'Manchu', *myangg* 'thousand', *xaant* 'imperial', *anc* 'hunter', *xuns* 'provisions', *engx* 'peace'; (*m* + non-homorganic obstruent:) *xyamd* 'cheap', IMP *xemj* 'to measure', *xamt* 'together', *emc* 'physician', *oims* 'stockings', *umx* 'bite'; (*b* + obstruent:) *teubd* 'Tibet', *gabj* (learned degree), *obt* 'shrewd', CONV IMPRF *abc* 'to take', *dabs* 'salt', *sabx* 'chopsticks'; (*g* + obstruent:) *bugd* 'all', *beugj* 'finger ring', *agt* 'gelding', *xaagc* 'official servant', *dzags* 'fish'; (*l* + obstruent:) *alb* 'official service', *suld* 'tutelary deity', CONV IMPRF *olj* 'to find', *alt* 'gold', *malc* 'herdsman', *ouls* 'state', *talx* 'bread'; (*r* + obstruent:) *ard* 'people', CONV IMPRF *irj* 'to come', *ert* 'early', IMP *arc* 'to wipe', *nuurs* 'coal', *erx* 'power'; (*s* or *x* + obstruent:) *oust* '(connected) with water', *usc* 'barber', *bext* '(connected) with ink', *tuuxc* 'historian'.

The same rules of combination apply irrespective of what the relationship of the segments in the cluster is to the secondary feature of palatalization. The initial component of a stable cluster can therefore also be represented by a palatalized consonant of the otherwise permitted types (*ny my by gy ly ry sh xy*), as in DAT *xonyd* 'sheep', *amyd* 'living', DAT *xoubyd* 'share', DAT *agyd* 'absinthe', *nalyx* 'pterygium', *moryt* '(connected) with a horse', DAT *xashd* 'jade', DAT *taxyd* 'wild horse'. The same is true of the second component, as in *anggy* 'class', *bansh* (type of dumpling), though some of the clusters concerned are only marginally attested. Also, instead of the inherently palatal stops or affricates (*c j*), the corresponding dental segments can occur as the second component, as in *oldz* 'find', *artz* 'juniper'; this is, of course, valid only for dialects of the Khalkha type that have these segments. For reasons connected with the history of palatalization, sequences of two palatalized consonants are normally not possible, except when at least one of them is inherently palatal, as in *mory* 'horse' : PROF *moryc* 'rider'.

The Khalkha Cyrillic orthography has some idiosyncratic, though basically systematic, deviations from the phonological representation of the stable consonant clusters. In particular, the clusters ending in a labial or velar stop (*b g ~ gh*) are written with a final vowel, as in **byamba** = *byamb* 'Saturday', **olbo** = *olb* 'flying squirrel', **myanga** = *myangg*(*h*) 'thousand'. A non-phonological vowel is also written in clusters containing a palatalized consonant followed by a velar fricative, as in **arxi** = *aryx* 'wine'. A similar vowel is, however, also written in a number of other cases which do not seem to involve stable clusters. For instance, the basic forms of words of the type **lhagwa** = *lhageb* 'Wednesday' and **arwi** = *aryeb* 'abundance' are probably best analysed as containing a reduced vowel before the final consonant, though in the case of **lhagwa** an analysis with a monophonemic labiovelar obstruent (*gw*) might also be possible, i.e. *lhagw** (Svantesson & al. 2005: 20).

Finally, those, and only those, stable consonant clusters that have a fricative (*s x*) as the second component can also be expanded by a third syllable-final consonant, which then is always a strong stop (*t c*). The resulting clusters may be called "expanded stable clusters", and the last segment in them is typically a derivational suffix, as in *dabs* 'salt' :

dabs-t 'salty', *nuurs* 'coal' : *nuurs-c* 'coal miner', *erx* 'power' : *erx-t* 'powerful, competent'. This also applies to those clusters in which one of the segments is palatalized, as in *aryx* 'wine' : *aryx-c* 'alcoholic'. Again, some of the theoretically possible clusters are only marginally attested.

3.9   Consonant phonotactics

Consonant combinations that do not qualify as stable clusters may be identified as "unstable". They typically occur in intervocalic position, and if they morphophonologically would come to stand in syllable-final position they are dissolved by an intervening reduced vowel, as *-rg-* : *-reg-* in *tereg* 'cart' : INSTR *terg-eer* : POSS *tereg-tai*. The category of unstable clusters also comprises geminates (sequences of two identical consonants), which are attested only intervocalically and which are morphophonologically dissolved in other positions, as *-ll-* : *-lel-* in *mal* 'cattle' → PART FUT *mal-l-ex* 'to breed cattle' : CONV IMPRF *mal-e.l-j.*

The reduced vowel dissolving unstable clusters is always predicted by the rules of syllabification, which is why the sequences with and without the vowel do not support any lexical contrasts. The stable clusters, on the other hand, can contrast with the corresponding sequences containing a lexically non-optional reduced vowel, as in *ent* 'broad' vs. *genet* 'suddenly'. The largest group of examples is produced by the futuritive participle marker *-ex*, which, when added to verbal stems ending in a labial or a liquid consonant (*m b l r*), yields sequences that contrast with the corresponding final clusters (*mx bx lx rx*), as in PART FUT *ab-ex* 'to take' vs. *sabx* 'chopsticks'. An analogous group is formed by terminatives in *-eb*, which yield a contrast with the final clusters ending in the weak labial stop (*mb lb*), as in TERM *al-eb* 'to kill' vs. *alb* 'official service'. In these cases, the presence or absence of the reduced vowel is not morphophonologically predictable.

There are also unstable three-consonant and four-consonant clusters. In these, the first two or three segments form a stable cluster to which a third or fourth consonant is added, often in connection with suffixation. The entire consonant sequence is then realized as a medial cluster if a vowel follows, as in *nuurs//n* 'coal' : GEN Khalkha *nuurs/n-ii* ~ Khorchin *nuurs/n-ai*. If, however, there follows a consonant or a pause, the cluster is resyllabified by inserting a reduced vowel before the last segment, as in *nuursc//n* 'coal miner' : GEN *nuurscn-ii* ~ *nuurscn-ai* : PL *nuursc-e.d* : PL GEN *nuursc-d-ii.n*. It may be concluded that four-consonant clusters are always inherently unstable, while two-consonant and three-consonant clusters can be either stable or unstable depending on their segmental composition.

Both stable and unstable consonant clusters are subject to a number of phonetic and phonemic processes that in some cases can lead to dialectal variation, or also to neutralizations between otherwise distinctive segments or clusters. The three most important

types of neutralization are connected with the velar nasal, on the one hand, and with the weak velar stop, on the other.

1. The archiphonemic nasal (*N*) occurring as the initial component of stable clusters seems previously to have had the velar quality [ŋ] not only before the velar obstruents *g x* (< *g *k) but also before the sibilants *s sh* (< *s). This quality is reflected in the Written Mongol orthography, which normally has **vg** = *ng in these cases, as in **qhavgsa** = *gangsa 'tobacco pipe', **vuvgsi-** = **ungshi-* 'to read'. Cyrillic Khalkha has, however, the archiphonemic letter **n** = *n*, as in **gans** and **unsh**-. However, there never seems to have existed an opposition between a dental and a velar nasal in this position, which means that the phonetically and orthographically observed velar nasal may be seen as an allophonic representative of the archiphonemic nasal (*N*). It is occasionally claimed that the velar pronunciation is still valid for Khalkha before the palatal sibilant *sh* (Svantesson & al. 2005:68), but the evidence for this is controversial, and in any case it would be a question of a non-phonemic phenomenon. In the word **ungshi-* 'to read', the cluster *ngsh has, in fact, been eliminated in most dialects on the Inner Mongolian side, yielding Khorchin *omsh-*, while the phonemic shape in Khalkha is best analysed as *ounsh-*.

2. In cases involving a lexical velar nasal (*ng*) in combination with a following dental nasal (*n*), which in suffixes normally represents an original lateral (*l), the resulting cluster *ngn (historically often: < *ng-l) is preserved dialectally, especially on the Inner Mongolian side and also in conservative Common Mongolic languages (Khamnigan), but in many dialects of modern Mongolian it tends to be replaced by *gn*, with the original velar nasal being represented as a weak velar stop (*g*). This change is also indicated by the Khalkha Cyrillic orthography, as in *ang* = Khalkha phonemic *an* 'game' = orthographical **an** : **ang-la-* > **ang-na-* > PART FUT *ag-n-ex* 'to hunt' = orthographical **agnax**. Since this is an unstable cluster, the fact of segmental change is confirmed by its dissolved variant *gen*, as in DUR EMPH *agen-n=aa* = orthographical **agnanaa**. In other words, the distinction between *ng* and *g* is neutralized in favour of *g* before a dental nasal, and the language has synchronically the morphophonological alternation *ng* (= *n*) : *g*.

3. In clusters originally composed of a syllable final dental obstruent (*s *d) and a syllable-initial strong velar obstruent (*k > *x*), many dialects exhibit a metathesis of the phonetic aspiration element, yielding sequences containing a weak velar obstruent (*g*) as the second component, that is, *dk [tkʰ] > *tg* [tʰk] and *sk [skʰ] > *sg* [sʰk]. This development is reflected by the Khalkha Cyrillic orthography, as in **otgon** = *otgen* 'youngest son' (< *odkon), **tosgon** = *tosgen* 'village' (< *toskon). Other dialects, especially on the Inner Mongolian side, preserve the historically less innovative shapes of the types *odxen* and *tosxen*. Even so, the distinction between clusters like *dx* vs. *tg* and *sx* vs. *sg* has probably been lost in most, if not all, dialects of modern Mongolian.

This development is connected with the general tendency of the weak velar stop *g* to be devoiced and fricativized in non-sonorant contexts, which may result in the loss of the distinction between the segments *g* and *x*. The same tendency is observed in the stable clusters *gs gsh*, which are often pronounced as [xs] and [xʃ], respectively, and could also phonologically be analysed as *xs xsh*, as in Khorchin *jags ~ jaxs* 'fish', *bagsh ~ baxsh* 'teacher'. Supposing that there is a complete positional neutralization between *g* and *x*, the phonemic analysis might nevertheless favour the choice *g*, which is probably the less marked of the two segments.

3.10   Vowel harmony

Vowel harmony is the most important morphophonological phenomenon that affects vowel qualities in Mongolian, and its synchronic status in the language is far from trivial (cf. e.g. Rialland & Djamouri 1984). Originally, Mongolian (Proto-Mongolic) had a vowel harmony of the progressive palato-velar type, which divided the vowels neatly into two vertically arranged sets, one of which comprised the three velar (back) vowels **u *o *a*, while the other comprised the three palatal (front) vowels **ü *ö *e*. In addition, there was the neutral vowel **i*, which once (in Pre-Proto-Mongolic) also had involved a palato-velar pair of two vowels, but which later came to be pronounced with an invariable palatal (front) quality. In the harmonic system, the vowel of the initial syllable determined whether the vowels of any non-initial syllables, including suffixal syllables, would be velar (back) or palatal (front). The neutral vowel of an initial syllable could originally be followed by both velar and palatal vowels, but ultimately it started functioning as a predominantly palatal vowel in accordance with its phonetic quality. Even so, all vowel qualities of the initial syllable could be combined with the neutral vowel **i* of a non-initial syllable.

The original patterns of vowel harmony are only partially preserved in the modern Common Mongolic languages, with some languages being more archaic than others in this respect. In Mongolian proper, several innovations have taken place that significantly affect the synchronic status and mechanism of the phenomenon. The four most important areas of innovation that have changed the harmonic patterns are: (1) the reduction and positional loss of all original short vowels in non-initial syllables, (2) the rotation of the vowel system, accompanied by the velarization of the original front vowels and the pharyngealization of the original back vowels, (3) the palatalization of all vowel qualities in the composition of diphthongs and (4) the neutralization of a number of distinctions in the system of diphthongs. The overall phonetic and phonological effects of these innovations have been discussed above in connection with the vowel system and the structure of the syllable. Their morphophonological impact is that it is no longer possible to speak of a palato-velar harmony in modern Mongolian. Instead, vowel harmony functions as

an abstract system governing the combinations of vowels in a word according to a set of rules which, especially from the phonetic point of view, are synchronically arbitrary.

Although it is obvious that the terms "velar" vs. "palatal" (or "back" vs. "front") are no longer synchronically suitable to describe the Mongolian vowel system and its harmonic behaviour, it has turned out to be difficult to find new equally practical labels for the harmonizing groups. Traditional terms used, in particular, in the description of Manchu (which has a similar vowel harmony), but also in that of the Manchu-influenced Mongolic language of Dagur (Tsumagari 2003: 134), are "masculine" vs. "feminine" vowels. On the other hand, since pharyngealization is today one of the features that characterize the original velar vowels especially in Khalkha, the harmonic pairs of vowels have also been called "pharyngealized" vs. "non-pharyngealized" (Svantesson & al. 2005: 46–48). Pharyngealization is, however, not phonetically conspicuous in many Inner Mongolian dialects, where the impact of rotation is more connected with an apertural distinction between historically lowered and non-lowered vowels (as also in Manchu and Dagur). In the present treatment we will therefore speak of a "lower" vs. an "upper" "key" of vowels. In this framework, the lower key comprises three short vowels (*a o ou*), three long monophthongs (*aa ao oo*) and two diphthongs (*ai oi*), while the upper key comprises three short vowels (*e eu u*), three long monophthongs (*ee eo uu*) and one diphthong (*ui*). Finally, the category of neutral vowels comprises one short (*i*) and one long (*ii*) vowel. The exact number of entities in each category depends, of course, on the actual vowel system in each dialect. Apart from the dialectal absence of certain short (*e eu*) and long (*eo ao*) vowels, the system is also complicated by the presence of the secondary palatal vowels (*ae oe*) in the Inner Mongolian dialects.

Early on in the history of Common Mongolic, the palato-velar harmony was complemented by the impact of labial harmony (also known as "labial attraction"), which divided all non-high vowels into two mutually non-combinable categories: the rounded vowels **o *ö* (> *o eu*) and the unrounded vowels **a *e* (> *a e*), including their long monophthongoid and diphthongoid counterparts. Both of these groups could be followed by the high rounded vowels **u *ü* (> *ou u*), but only the unrounded vowels **a *e* could also be preceded by the latter. At the same time, the phenomenon of palatal breaking restricted the combinations of all vowel qualities, including **o *ö*, with the neutral vowel **i* of the initial syllable. This is basically still the situation in modern Mongolian, though, again, additional dialectal innovations have affected the synchronic system of, in particular, labial harmony.

In an idealized form of modern Mongolian, which may here be understood as more or less identical with normative Khalkha, the synchronic system of vowel harmony reflects the impact of all the relevant diachronic processes on the original systems of palato-velar and labial harmony. In this system (Table 14), phonemically relevant harmonic alternations are only present in the long monophthongs of non-initial syllables. The non-high long vowels (*AA*) are represented by four different qualities, distributed

Table 14. The harmonic combinations of vowels

Initial syllable				Non-initial syllables				
V		VV	V*i*	*AA*	*UU*	*Ai*	*ii*	V
a	*ae*	*aa*	*ai*	*aa*	*oo*	*ai*	*ii*	*e*
ou	*oe*	*oo*						
o		*ao*	*oi*	*ao*				
u		*uu*	*ui*	*ee*	*uu*			
e		*ee*						
i		*ii*						
eu		*eo*		*eo*				

according to the distinctions between the lower and upper keys (*aa ao* vs. *ee eo*), on the one hand, and between the rounded and unrounded qualities (*ao eo* vs. *aa ee*), on the other. The high rounded vowels (*UU*) are distributed only according to the parameter of key (*oo* vs. *uu*), though their distinction is phonetically reduced in at least some dialects of the Khorchin group. The rest of the vowels occurring in non-initial syllables may be classified as harmonically neutral. In the modern language these comprise not only the long high unrounded palatal vowel *ii* [iː], but also the diphthong *ai* [ɛː] ~ [eː] and the reduced vowel *e* [ə]. The inclusion of the diphthong *ai* in the category of neutral vowels is a potentially controversial solution, since this diphthong can dialectally have two allophones, the one with a rounded and the other with an unrounded onset, i.e. [œeː] or [ᵋeː], depending on the quality of the vowel in the preceding syllable. The phonetic difference is, however, minimal and tends to be totally absent beyond the second syllable of a word.

Since vowel harmony is active both in plain roots and in suffixes, we may speak of a radical vs. a suffixal type of vowel harmony, though the phonological mechanism in both types is the same. Suffixal vowel harmony, in particular, may also be viewed as a process which specifies the unmarked (or archiphonemic) vowels in the lexical forms of suffixes according to the harmonic rules. The surface-level effect of vowel harmony in suffixally expanded word forms may be illustrated as follows: (short vowel + *AA*) CONV PRF *yab-aad* 'to depart', *oun-aad* 'to mount (a horse)', *or-aod* 'to enter', *udz-eed* 'to see', *xel-eed* 'to say', *ir-eed* 'to come', *eosg-eod* 'to breed'; (short vowel + *UU*) CAUS *yab-ool-* 'to send', *oun-ool-* 'to cause to mount (a horse)', *or-ool-* 'to cause to enter', *udz-uul-* 'to show', *xel-uul-* 'to cause to say', *ir-uul-* 'to cause to come', *eosg-uul-* 'to cause to breed'.

It may be noted that vowel harmony is only imperfectly indicated in the Written Mongol orthography, which in this respect is seriously under-differentiated. Cyrillic Khalkha, on the other hand, expresses vowel harmony also in cases where it is no longer synchronically present in the language. Thus, in Cyrillic Khalkha, the reduced vowel *e* is

written by the four harmonic orthographical qualities **a e o ö**, as in **amar** = *amer* 'peace', **tereg** = *tereg* 'cart', **olon** = *olen* 'many', **ödör** = *euder* 'day'. Also, the diphthong *ai* is written by the two orthographical qualities **ai oi**, as in **gaxai** = *gaxai* 'pig' vs. **noxoi** = *noxai* 'dog', with **ei** also being used in suffixal examples, as in **xentei** = POSS *xen-tai* 'with whom'. Perhaps most interestingly, Cyrillic Khalkha follows the rules of vowel harmony even when no vowel segment is phonemically present, as is the case with words ending in the consonants *n' y gh*, e.g. **ene** = *en'* 'this', **goyë** = *goy* 'beautiful', **baga** = *bagh* 'small'.

The harmonic alternations between the lower and upper keys of vowels are obligatory, which means that this aspect of vowel harmony might synchronically also be described as a lexically irrelevant surface-level phenomenon. The presence of neutral vowels (*ai ii e*) in non-initial syllables does not affect the harmonic status of a word, which is always determined by the vowel of the initial syllable, as in PART FUT DAT RX *yab-ex-d-aa/n* 'as s/he goes', *xel-ex-d-ee/n* 'as s/he speaks'. Occasional exceptions from the harmonic rules in Cyrillic Khalkha are due to orthographical compounding and/or cliticization, as in Cyrillic Khalkha CAUS **angasxiilgex** : CONV PRF **angasxiilgeed** 'to open (a little)' = *angges* 'open' + CONV PRF *xii-lg-eed* 'to make'. Labial harmony, on the other hand, seems to involve a lexicalized property of stems, as there are true exceptions from it in recently introduced foreign words like *yapaon* [japʰɔ:ŋ] 'Japanese' (borrowed from Russian *yapón-*). The harmonic behaviour of these words can be dialectally and/or idiolectally ambivalent, for the subsequent vowels in suffixes can follow either one of the mutually non-congruent vowels of the stem, as in INSTR *yapaon-aar ~ yapaon-aor* 'in Japanese'. Also, in those dialects which, like Mongoljin, have lost the distinction between the high and non-high long vowels of the lower key (*oo* vs. *ao*, originally *uu vs. *oo), the functioning of the harmonic rules may be even more seriously disturbed.

A systematic deviation from labial harmony is present in suffixes containing a low vowel (*AA*) after a non-initial syllable with a high rounded vowel (*UU*) in words which in the initial syllable contain a non-high rounded vowel (*o eu ao eo*). In these cases, the suffix vowel does not take the rounded quality otherwise required by the rules of labial harmony; instead, an unrounded vowel is used, as in *dzory-* 'to move in the direction of' : CAUS *dzory-ool-* 'to aim at' : DX *dzory-ool-e.lt* 'purpose' : INSTR *dzory-ool-e.lt-aar* 'for the purpose of', *beux* 'strong' : DX *beux-j-* 'to become strong(er)' : CAUS *beux-j-uul-* 'to make strong(er), to reinforce' : CONV PRF *beux-j-uul-eed* (examples from Thompson 2012).

In dialects of the Khorchin type, which have secondary short palatal vowels (*ae oe*), the latter function harmonically in accordance with their original status as velar vowels, as in Khorchin *xaer-* 'to return' : CONV PRF *xaer-aad*, *moer* 'horse' : INSTR *moer-aor*, a detail which illustrates how far vowel harmony has evolved from its original phonetic foundation. Dialectally, there are also examples of a regressive vowel harmony in which the palatal quality of a vowel in the initial syllable is due to the impact of a monophthongized diphthong in the second syllable, as in Khorchin *dalai* [talɛ:] ~ *daelai* [tɛlɛ:] 'sea' (< *dalai). It is a matter of interpretation whether such examples are assumed to

involve a phonetic or a phonemic change; in either case they involve a diachronically new combination of vowel qualities.

3.11   Connective consonants

In modern Mongolian, the components of a long vowel element (either monophthong or diphthong) are never separated from each other by a morpheme boundary. Therefore, a long vowel element occurring adjacent to a suffix boundary always belongs either to the stem or to the suffix, as in *dalai* 'sea' : GEN *dalai-n* (stem-final long vowel), *ger* 'dwelling' : ABL *ger-ees* (= suffix-initial long vowel). In rare cases, when a suffix begins with a lexical short vowel, as in the case of the futuritive participle marker *-ex*, it is possible to postulate sequences of three vowels, of which the last one would belong to the suffix. Such sequences, in as far as they are real at a deeper level, are simplified at the surface by deleting the last vowel segment, as in PART FUT √*xii-ex → xii-x* 'to do'. Alternatively, we might say that the suffixes concerned have two allomorphs, one of which (without a vowel) is used after vowel stems, while the other (with a vowel) is used after all other stem types.

There are, however, also cases in which a sequence of two long vowels would be formed at a suffix boundary. This happens when a vowel stem, which by definition ends in a long vowel, is followed by a suffix also beginning with a long vowel. In such cases, the connective consonant *g* is always added at the morpheme boundary, a process which synchronically could also be assumed to take place after the lexical level of representation, as in *dalai* 'sea' : ABL √*dalai-aas → dalaigaas.* Functionally, the connective consonant is a hiatus filler, and the fact that it involves a historically secondary and relatively recent (post-Proto-Mongolic) innovation is confirmed by the absence of any segmental reflex of it in the Written Mongol orthography. Cyrillic Khalkha does, of course, record it as a regular segment, as in *dalaigaas* = Written Mongol **talai vca** vs. Cyrillic Khalkha **dalaigaas**.

Synchronically, the adding of the connective consonant may be viewed as an automatic process, since a sequence of two long vowels would otherwise be phonotactically impossible and hence unpronounceable. The fact that the connective consonant has the segmental identity of *g* (weak velar stop, intervocalically often realized as a voiced velar continuant) is, however, not automatically predictable from the phonological system of the language. In fact, in some nominal word forms the role of *g* as a connective consonant can occasionally be taken over by the unstable */n*, as in *galoo/n* 'goose' : ABL *galoo/ n-aas ~ galoogaas*, though, in principle, the unstable */n* may also convey additional pragmatic notions. In any case, the parallelism with the unstable */n* raises the question as to where the connective consonant *g* belongs in the synchronic surface-level segmentation of morphemes. Obviously, *g* is not a "morpheme" in its own right, which means that it cannot be considered to form a morphological segment of its own. The question is, then,

whether it should be viewed as a part of the stem or of the suffix, that is, whether the correct segmentation is of the type *dalai.g-aas** or of the type *dalai-g.aas**. In the present treatment, the choice is made in favour of the latter option, which means that all suffixal morphemes beginning with a long vowel will be generalized in a shape that begins with the positionally conditioned connective consonant *g* (written *g.*).

Basically the same kind of connective consonant *g* is also used after stems ending in the velar nasal *ng*, as in *baisheng* 'building' : ABL *baishenggaas*. From the point of view of morphemic segmentation the situation is, however, not necessarily identical in the two cases. The reason why a connective consonant has to be added after a stem-final consonant is connected with the synchronic absence of intervocalic *ng* in most dialects of Mongolian. Historically, the intervocalic occurrences of *ng developed into homorganic clusters of a nasal and a weak stop, i.e. *ng > *ngg*, and the same diachronic process is still synchronically active whenever a stem ending in a velar nasal would come to stand before a vowel, i.e. *ng* → *ngg*. This means that the addition of *g* after stems ending in a velar nasal should probably be viewed as a case of stem-final, rather than suffix-initial, alternation. The correct segmentation of items like ABL *baishenggaas* would, then, have to be *baisheng.g-aas*.

An idiosyncratic connective consonant is taken by the interrogative particle =*UU*, which after words ending in a long vowel element has the shape =*y.UU*, as in *bai-* 'to be' : DUR *bai-n*' 'it is' : DUR INTERR *bai-n=oo* 'is it?' vs. PART IMPRF *bai-g.aa* (in predicative usage:) 'it is' : PART IMPRF INTERR *bai-g.aa=y.oo* 'is it?'. In this case, it has to be assumed that the interrogative particle has two phonologically conditioned lexical variants, the one with and the other without the initial consonant *y*.

3.12   Connective vowels

While the connective consonant *g* is an unambiguously relevant feature of Mongolian synchronic morphophonology, it is more difficult to determine whether the language also has connective vowels. Historically, a connective vowel (phonemically *U = *u *ü) was added between a stem ending in a consonant (*C) and a suffix either beginning with a consonant cluster (**-CCV*) or comprising a single consonant (**-C#*). This process is still synchronically valid, but the vowel added between the stem and the suffix may in the modern language be understood as an automatic consequence of the syllabification rules regulating the presence or absence of the reduced vowel, as in *ab-* 'to take' : CONV MOD PRIV *ab-e.ng=gwai* < **ab-* : **ab-u.n+ügei*. As has been pointed out earlier in connection with the behaviour of the reduced vowel (§3.7), it is a matter of interpretation whether the vowel segment in such cases is viewed as a part of the stem or of the suffix or as a separate semantically void element. Moreover, its occurrence is no longer synchronically connected with a specific class of consonant stems, since the basic form of

all stems that originally ended in either a consonant (*C) or a short vowel (*V) now ends in a consonant, as opposed to the synchronic vowel stems, which can only end in a long vowel (VV).

Modern Mongolian may, however, also have connective vowels of a different type, with less automatic rules of occurrence and with a more intimate linkage to the lexical forms of suffixal morphemes. These are suffix-initial long vowels that occur after certain stem types but are absent after other stem types. Typical examples are offered by the following three morphological categories:

1. Nominal plurals in *-d.* This is a partially lexicalized plural marker for nominals which in their basic form end in the unmarked nasal *n* (of either the stable or the unstable type), or, in rare examples of bisyllabic stems, in a liquid (*l r*). In all these cases, the plural marker replaces the final consonant, as in *xaan* 'emperor' : PL *xaa-d*, and, depending on how the morphological segmentation is done, it can in some cases also be thought to be preceded by the reduced vowel, added by the rules of syllabification, as in *neuxer* 'friend' : PL *neux-e.d.* However, the same plural marker can also be used after other stem types, including monosyllabic stems ending in a liquid. In these cases, the plural marker *d* is preceded by the harmonically varying long vowel element *UU* (= *oo uu*), as in *nom* 'book' : PL *nom-ood*, *ger* 'dwelling' : PL *ger-uud.* Historically, this vowel is a connective segment (originally the short vowel **U*), but its synchronic status is ambiguous. In a simple interpretation it could be analysed as an integral part of the lexicalized plural marker variant *-UUd*, but in a more complex analysis, considering the plain plural marker *-d*, it might also be understood as a connective vowel. In the latter case, this connective vowel has to be analysed as a lexically determined but semantically void part of the suffix, yielding segmentations of the type *nom-oo-d* or *nom-oo.d.* It is important to note that the paradigmatic quality of this vowel is not contextually predictable, which means that some degree of lexical specification has to be present.

2. In a somewhat similar way, the basic form of the regular genitive ending for nominals may be said to be *-n.* However, this form of the ending is synchronically used only after stems ending in a diphthong, as in *dalai* 'sea' : GEN *dalai-n.* After other stem types the ending incorporates the long vowel element *ii*, which, in turn, can trigger the presence of the connective consonant *g.* It is possible to analyse the *ii* in such cases synchronically as a connective vowel, as in *ger* 'dwelling' : GEN *ger-ii.n*, *baisheng* 'building' : GEN *baisheng.g-ii.n*, *oundaa* 'drink' : GEN *oundaa-g.ii.n.* This corresponds to the diachronic situation, though the quality of the connective vowel of the genitive ending was originally different (**U*, as in the case of the plural marker). Alternatively, the genitive ending may be understood as having two variants, *-n* and *-iin*, the distribution of which is determined by the phonological structure of the nominal stem. Since, however, the two suffix variants share the same consonant *n*,

their treatment as two completely unrelated elements would miss a relevant generalization, which is why the analysis in terms of a connective vowel is more adequate. The situation is complicated by the fact that nasal stems take a third variant of the genitive ending, with no final nasal segment. The ending nevertheless has a vowel element, which in Khalkha is also *ii*, as in *xaan* 'emperor' : GEN *xaan-ii*. The relationship between the variants *-ii* and *-ii.n* is synchronically obvious and may be described in a variety of ways that do not necessarily interfere with the analysis of the element *ii* as a connective vowel.

3. The third common example of a possible connective vowel is offered by the accusative ending for nominals, which in Khalkha has the shapes *-g* and *-iig.* The shorter form is used after vowel stems, as in *dalai* : ACC *dalai-g, galoo* 'goose' : ACC *galoo-g*, while the longer form, with the vowel *ii*, is used after all other stem types, as in *ger* 'dwelling' : ACC *ger-iig.* It is tempting to view the consonant *g* as the actual synchronic accusative marker, while the element *ii* would seem to function as a connective vowel in very much the same way as it does in the genitive marker *-ii.n.* In this case, however, the diachronic picture is different, for the consonant *g* is not the original accusative marker, but represents a secondary innovation. The consonant is absent in the Khorchin group of dialects, in which the accusative marker is simply *-ii* (< *-i* ~ *V-yi*), which, again, may be preceded by the connective consonant *g*. Even so, the dialectological picture also supports the segmentation of the Khalkha accusative marker *-ii.g* into the two elements *ii* and *g*.

It may be concluded that the examples of connective vowels in modern Mongolian are synchronically at the borderline between morphophonologically conditioned variation and lexical differentiation. However, even if the vowels *UU* and *ii* in the relevant examples were not analysed as connective vowels, they would have to be recognized as separate elements within the lexical composition of the markers concerned. In the synchronic language they may even be regarded as the main bearers of the semantic content of the suffixes concerned.

3.13   Types of bound morphemes

In spite of the presence of a small number of stem-final and suffix-initial segmental alternations, as well as of the harmonic alternations between certain sets of vowels in suffixes, the boundaries between the stem and any bound morphemes following it are relatively unambiguous in Mongolian, with little real "inflection" or "fusion" involved in the agglutinative process. The only potential problems in the morphological segmentation are connected with the status of the connective consonant (*g*) and the connective vowels (*UU ii*), as well as with the reduced vowel (*e*) alternating with zero at the suffix

boundary. In the present treatment, all these elements are assumed to belong to the composition of the suffix, rather than to that of the stem, though only the connective vowels seem to be lexically determined. The unstable nasal (/n/), by contrast, clearly belongs to the composition of the preceding nominal stem, though it might, at least in some cases, be interpreted as a separate morpheme with a semantic or grammatical (including pragmatic) content of its own.

The bound morphemes are attached to both nominal and verbal stems in a specific order, in which the morphemes involving the highest degree of lexicalization stand closest to the stem, followed by the markers expressing grammatical relations as well as, finally, by the elements connected with sentence types and congruence phenomena. This means that, normally, derivational suffixes, which form secondary nominal and verbal stems, often with a lexicalized meaning, precede grammatical markers for the inflectional categories of nominal and verbal morphology as required by the sentence structure. Most commonly, an inflected word takes only one suffix of each category, but there are some morphological categories (like nominal case or verbal voice) that can be represented by two or more consecutive suffixes (double declension or double conjugation). There is no absolute limit to the total number of bound morphemes that can be present in a word, but in practice long strings of bound morphemes tend to lead to communicative loss, which is why most words in regular speech contain only one to three separate bound morphemes.

A specific question concerns the possible presence of clitics in Mongolian. It is notoriously difficult to make an unambiguous distinction between regular affixes and clitics, though a common understanding is that the latter are both lexically and phonologically less dependent than affixes. In Mongolian, since all bound morphemes in the language are placed after the stem, it is a question of making a distinction between suffixes and what could also be called postclitics. The issue is not clear, however, and it would be possible to defend the view that all bound morphemes in Mongolian are technically suffixes, though some of them are possibly less dependent than others, or also express circumstances that in other languages are expressed by clitics. Even so, there are several candidates that might qualify as clitics in a descriptive framework that operates with this concept. These elements may be divided on formal grounds into two types, which may identified as (1) "enclitic particles" and (2) "harmonic switchers", as examined below.

1. Enclitic particles: This group comprises several invariable elements that typically occupy a final position in a word and would functionally seem to correspond to the general definition of "particle" as a part of speech. A common feature of these elements is that they can be attached to almost any constituent of the sentence, though statistically they may nevertheless have preferences as to how they are normally used. The fact that they are bound morphemes is often confirmed either by their syllabic structure (elements with a single consonant) or also by their subjection to the

rules of vowel harmony (elements with a long vowel). One group of enclitic particles is formed by those expressing addition, limitation, affirmation or likelihood ('even', 'only', 'indeed', 'probably'), as exemplified by *=c*, *=l*, *=dz*, *=dAA*, as in 1P SG *bii* : 1P SG ADD *bii=c* 'even I, me too', *eoreo* 'by (one)self' : LIM *eoreo=l* 'only by (one)self', DUR *med-e.n'* '(he) knows' : POT *med-e.n=dz* '(he) probably knows', IMP *ab* 'take!' : IMP AFF *ab=daa* 'take (it by all means)!'. These can also be combined with each other yielding sequences like LIM AFF *=l=dAA*, as in *asaa-* 'to put on the light' : IMP LIM AFF *asaa=l=daa* 'do put on the light indeed!'. Another group of enclitic particles is formed by the question markers INTERR *=UU* and CORR *=b*, which are normally used sentence-finally but can be added to any word occupying this position, as in INTERR *en=uu* '(do you mean) this (one)?', *yab-* 'to depart' : DUR INTERR *yab-n=oo* 'shall (we) go?', *adoo* 'horse' : CORR (*xenii*) *adoo=b* '(whose) horse (is it)?'.

Both in Written Mongol and in Cyrillic Khalkha all enclitic particles are written as separate graphic words, which is in accordance with their diachronic origin but should not be taken as a clue concerning their synchronic status. Particles synchronically consisting of a single consonant are in Cyrillic Khalkha written either without a vowel, as in **c** for ADD *=c* and **l** for LIM *=l*, or with an ad-hoc vowel, as in **we be** for CORR *=b*. In the actual phonemic string such particles follow the normal rules of syllabification, which may require the addition of a reduced vowel (*.e*) at the morpheme boundary, as in *yaa-* 'to do what?' : CONV IMPRF *yaa-j* 'how?' : CONV IMPRF ADD *yaa-j=e.c* 'somehow' = Cyrillic Khalkha **yaaj c**, *eug-* 'to give' : IMP LIM AFF *eug=e.l=deo* 'please do give it!' = Cyrillic Khalkha **ög l döö**.

2. Harmonic switchers: Some elements that otherwise would seem to behave like suffixes have the ability of influencing the harmonic behaviour of any long vowels following in the same word. This means that they can switch the harmonic status of the word with regard to palatal harmony, with the preceding part belonging to one harmonic class (upper or lower) and the following part to another (lower or upper). It may be noted that harmonic switchers are also best understood as enclitic elements, which makes them comparable to the enclitic particles (as discussed above). They are not particles, however, for they can take suffixes; in fact, it is their very ability of taking suffixes that allows them to function as harmonic switchers.

The most obvious example of a harmonic switcher is offered by the progressive construction of verbal conjugation, which is originally based on a combination of the imperfective converb of the lexical main verb with the independent auxiliary *bai-* 'to be, to stand'. The original analytic construction can still be used in the modern language, but it can also be replaced by a synthetic variant in which the auxiliary is represented by the bound morpheme *=ai-*, which, however, still retains its etymological (lower key) harmonic status and can regulate the quality of any following long vowels, as in *ir-* 'to come' : CONV

IMPRF DUR EMPH *ir-j bai-n=aa* > CONV IMPRF PROGR DUR EMPH *ir-j=ai-n=aa* 'is coming'. As a verbal element, *=ai-* can be inflected like any other verb.

A slightly different example is present in the historically observed transformation of the privative noun *ugwai* (< *ügüi*) '(there is) not, none' into the privative-negative bound morpheme PRIV *=gwai*, which still retains its etymological (upper-key) harmonic status. Actual examples of the latter as a harmonic switcher are rather marginal and may involve dialectal variation, but they are at least theoretically possible, as in *tagnai* 'palate' : *tagnaishool-* 'to palatalize' : PART HAB PRIV *tagnaishool-deg=gwai* : PART HAB PRIV INSTR RX *tagnaishool-deg=gwai-g.eer-ee* 'since it is usually not patatalized' (example from Luwsanwandan, quoted according to Svantesson & al. 2005: 53).

Although the issue cannot be regarded as concluded, the bound morphemes belonging to the categories of enclitic particles and harmonic switchers are in the present treatment analysed as (post)clitics, as opposed to "true" suffixes. The difference is also indicated in the notation, with the hyphen (-) being used for suffixes and the double hyphen (=) for clitics. It should be understood that the borderline between clitics and suffixes need not be sharp: it is possible that an element which basically functions as a clitic in some cases becomes a "true" suffix, or vice versa. It is also possible that all stages of the historical transition from independent morpheme to clitic to suffix can be synchronically present in the language.

In this context it has to be noted that compounding (+) is a phenomenon not typical of Mongolian, although isolated lexicalized examples can be found. A phrase composed of two or more independent morphemes can, of course, be pronounced with a stress pattern reminiscent of a single word, but the elements nevertheless retain a considerable degree of phonetic independence. Even so, due to an established orthographical convention, most nominal phrases used as proper names are written as compound words in both Written Mongol and Cyrillic Khalkha, as in Written Mongol **vUlaqhavbaqhadur** = Cyrillic Khalkha **Ulaanbaatar** = *Oulaan Baater* 'Red Hero' (Ulan Bator). In such graphic compounds, the components may freely belong to different harmonic classes, as in Written Mongol **Tamdivsuiruvg** = Cyrillic Khalkha **Damdinsüren** = *Damdyen Sureng*. The harmonic status of any suffixal vowels is in these cases determined by the latter component.

A special type of markers is formed by three elements which in the Khalkha Cyrillic orthography are written as suffixes containing a harmonically alternating short high rounded vowel (**u ü**) in a non-initial syllable. The three elements are: the ordinal marker -**dugaar** -**dügeer**, the optative marker -**sugai** -**sügei** and the concessive marker -**tugai** -**tügei**. Since non-initial syllables normally only can contain the reduced vowel *e* (realized with varying allophonic shades), these elements appear to go against the phonotactic rules of the language. Indeed, they are best understood not as suffixes, and not even as clitics, but as separate words which, for normative reasons, follow vowel harmony. Historically, these cases involve secondary reading pronunciations of items borrowed

from Written Mongol. For most forms of the language, the optative and concessive markers may be phonemized as *+tougai* and *+sougai*, respectively, with no harmonic variation, as in OPT *bol+sougai* 'may I be(come)!', CONC *ser+tougai* 'may it awaken!'. The ordinal marker is likewise often used in the invariant shape *+dougaar*, though it can also have the harmonic variant *+dugeer*, as in ORD *neg+dougaar ~ neg+dugeer* 'first'.

A fourth example of an element with a high rounded vowel in what would seem to be a non-initial syllable is offered by the benedictive marker, whose regular shape *-e.gten* is sometimes replaced by *-e.g+toun*, Cyrillic Khalkha **-gtun -gtün**, as in BEN *or-e.gten ~ or-e.g+toun* 'please be so kind as to enter!'. In this case, also, the exceptional shape containing a high rounded vowel is a secondary reading pronunciation based on Written Mongol, but since the marker begins with a consonant cluster it is probably best analysed as being composed of a true suffix (the permissive suffix *-g*) and an independent particle (*+toun*, probably with no phonemically relevant harmonic variation). It has to be noted that the benedictive, like the optative and concessive, are very rare forms in the modern language, being confined only to a few fully lexicalized phrases. From this point of view, only the ordinal marker has more potential relevance to synchronic phonology, but even its occurrences may well be understood as lexicalized phrases.

3.14 Prosody and juncture

Like most other languages of the "Ural-Altaic" type, but unlike its dominant modern neighbours in the north (Russian) and south (Chinese), Mongolian has no word-level distinctions based on suprasegmental phenomena, such as stress, pitch or tones. Duration is distinctive in the vowels, but it may synchronically be regarded as a paradigmatic property (short vs. long vowels), while historically it involves a syntagmatic phenomenon (single vs. double vowels). Importantly, long vowels may occur in any syllable of the word, and two or more syllables with long vowels can freely co-occur in a polysyllabic word with no restrictions. Phonetically, duration is connected with intensity, with the long vowels being pronounced more intensively than the short vowels. To some extent, the inherent duration and intensity of both short and long vowels are also conditioned by vowel quality, but the details seem to have little auditory or communicative significance.

Since there is no distinctive word stress in the language, opinions vary as to which syllable, if any, of a polysyllabic word is "stressed". Arguments have been presented in favour of both initial stress and final stress, but there is no conclusive answer, especially since very little experimental research has been done on Mongolian prosody. An argument in favour of initial stress would seem to be provided by the phenomenon of vowel harmony, which clearly demonstrates that the initial syllable is at least morphophonologically dominant over the following syllables. On the other hand, the changes that have

restructured the vowel system (rotation, umlaut, neutralizations) to a dialectally varying extent suggest that the significance of vowel harmony has been, or is being, reduced, perhaps in connection with changes in the phonetic stress patterns. Moreover, the term "stress" is misleading, since differences in the intensity flow are normally combined with variations in the pitch, which is why it is probably better to speak of "prominence". The question is whether it is possible to detect, apart from the impact of vowel duration, any systematic patterns governing the prominence of syllables in a polysyllabic word.

Auditive observations, which seem to be confirmed by experimental measurements made, in particular, from speakers of the Khorchin dialect (Huhe 2003), suggest that bisyllabic words containing a short vowel in the initial syllable place the prosodic prominence, in the following marked ['], on the second syllable irrespective of whether the latter contains a long or a short vowel, as in *uner* [u'nər] 'fragrance', INSTR *uneer* [u'nəːr] 'price'. Especially when the vowel of the second syllable is also short, the prominence is phonetically manifested as a combination of higher intensity with higher pitch. The same pattern prevails in longer words provided that the vowel of the initial syllable is short, as in *asoodel* [a'sʊːtəl] 'question', INSTR RX *gar-aar-aa* [ka'raːraː] 'hand'. The situation may be different, however, if the vowel of the initial syllable is long, in which case the prosodic balance between the syllables is more even, as in *boodel* ['pʊːtəl] 'hotel', *eoreo* ['ɵːrɵː] 'by (one)self'. Naturally, since prosodic differences are not distinctive, there is a lot of room for dialectal, idiolectal and situational variation.

Although prosodic differences are not distinctive, the fact that individual words follow a relatively clear and uniform prosodic pattern contributes to the delimitability of words within phrases. Other factors marking the domain of the word include consonantal phonotactics and vowel harmony. From this point of view, it is important that consonant clusters are possible only in non-initial position. Moreover, in word-final position only the stable consonant clusters are permitted. The principal phonological (or, possibly, phonetic) process taking place at the juncture of words is nasal assimilation (nasal sandhi), which adjusts the final unmarked nasal (*n*) of a word to the place of articulation of the initial consonant of the following word, as in *gourb//n* 'three' : *gourben_noxai* 'three dogs', *gourbem_mory* 'three horses', *gourbeng_xun* 'three people'. Another (strictly phonetic) phenomenon observed at word boundaries is the spirantization of the weak labial stop (*b*), as in DUR *bain'* [pɛːn] '(there) is' : *end_bain'* [ənt_wɛːn] '(it) is here'.

Prosodic differences as such are also not distinctive at the level of phrases, clauses and sentences. Even so, the internal coherence of a phrase is often signalled by a coherent prosodic pattern, which may or may not involve only one phrase-level focus of prominence. The prosodic patterns typical of several basic sentence types (declarative, interrogative, exclamative) also tend to be different from each other, although the distinction is normally never based on prosody alone. One of the most systematic correlations between prosody and sentence type is the tendency to a final rising intonation in polar questions, as opposed to the falling intonation of most declarative sentences. This means

that the interrogative particle =*UU*, which marks polar questions and normally occurs in the composition of the last word of the interrogative sentence, often has a high prominence due to both word-level and sentence-level prosodic patterning.

3.15   Phonological emphasis

The feature here termed "phonological emphasis" involves a combination of segmental and prosodic features, used to mark a word in the flow of speech for the purpose of emphasis. In Mongolian this is done by a conventionalized process which may be understood as basically phonological, but which also has properties belonging to the realms of lexicon, inflection and derivation. The process involves the adding of the harmonically alternating long non-high vowel element *AA* (= *aa ee ao eo*), in some cases also *ai* (with no harmonic alternation), either to the end of the phonological word or before the final consonant of the word, replacing a reduced vowel in the same position. The process of segmental addition is accompanied by a specific prosodic pattern, normally involving both a raised pitch and a stronger intensity. Depending on the extralinguistic circumstances conditioning the emphasis, the duration of the emphatic element *AA* can exceed that of an ordinary long vowel belonging to the lexical composition of the word.

The status of phonological emphasis as a phonological phenomenon, and not as a feature of morphology, is suggested by the fact that it can be used in several contexts and with several different parts of speech. The principal realms in which this phenomenon is attested are the following three:

1. Vocative nominals: When addressing a person by a kinship term, a title or a personal name, the phrase of address, which normally constitutes a separate clause, is almost always marked by phonological emphasis. In these cases, the element of emphasis is perhaps best analysed as a postclitic, and in Cyrillic Khalkha it is written as a separate "particle", as in *aab* 'father' : EMPH *aab=aa* 'father!' (address), *eej* 'mother' : EMPH *eej=ee* 'mother!' (address), *bat* 'Batu' (name) : EMPH *bat=aa* 'Batu!' (address) = Cyrillic Khalkha **aaw aa**, **eej ee**, **Bat aa**. Even so, this is clearly a bound element, as is shown both by its participation in vowel harmony and by the syllabification of the sequence, which may involve the loss of a reduced vowel, as in *baater* 'Baatur' (name) : EMPH *baatr=aa* 'Baatur!' (address) = Cyrillic Khalkha **Baatar aa**. After the palatal consonants *sh c j*, the long monophthong =*AA* can be replaced by the diphthong =*ai*, as in *bagsh* 'teacher' : EMPH *bagsh=ai* 'teacher!' (address), *dorj* 'Dorji' (name) : EMPH *dorj=ai* 'Dorji!' (address). In principle, the element =*AA* ~ =*ai* could also be identified as the ending of a "vocative case", but this line of analysis will not be followed here due to obvious differences with regard to the other members of the nominal case paradigm.

2. Emphatic adjectives: Phonological emphasis is frequently used to underline the intensity of the property expressed by an adjectival nominal, a function which can also be filled by reduplication (§4.11) and independent intensifying particles (§6.7). Most typically, this feature involves adjectival nominals in predicative usage, but it can be present in attributive (adnominal) usage as well. Again, the element *AA* is probably best identified as a postclitic, as in *ourt* 'long' : EMPH *ourt=aa* 'very long', *xol* 'far away' : EMPH *xol=ao* 'very far away'. However, in bisyllabic adjectival stems phonological emphasis can also be expressed by "lengthening" the reduced vowel in the final syllable of the stem, in which case we should possibly speak of an "inclitic", as in *eunder* 'high' : EMPH *eund=eo=r* 'very high'. It has to be added that the general position of "inclitics" in the Mongolian system of bound morphemes is unclear, and it is important to recall that phonological emphasis is also in these cases normally accompanied by prosodic prominence.

3. Emphatic finite forms: The finite forms of the indicative (§5.5) and imperative (§5.4) series are often stressed by adding an element of phonological emphasis. The most simple example is offered by the basic imperative, in which the element of emphasis is added directly to the verbal stem, as in *eug-* 'to give' : IMP *eug* 'give!' : IMP EMPH *eug=eo* 'do give!'. It is also possible to analyse the two alternative forms of the voluntative, marked by the endings *-iiy* vs. *-yAA*, in terms of phonological emphasis; in this category, the plain (non-emphatic) voluntative marker has the "irregular" shape *-ii.y*, which may be analysed as containing the connective vowel *ii*, while the emphatic variant has the "regular" shape *-y=AA*, with no connective vowel, as in *yab-* 'to depart' :   VOL *yab-ii.y* : VOL EMPH *yab-y=aa.* In the indicative range, the emphatic element is commonly used in the durative in *-n* : EMPH *-n=AA* and the terminative in *-eb* : EMPH *-b=AA*, e.g. *bai-* 'to be' : DUR *bai-n* : DUR EMPH *bai-n=aa*, *or-* 'to enter' : TERM *or-eb* : TERM EMPH *or-b=ao.* Of all occurrences of the emphatic element *=AA*, the emphatic finite forms are closest to regular morphology. Even so, the general framework of the phenomenon, including the prosodic factors involved, support the non-morphological analysis.

When used on nominals, phonological emphasis can occasionally also enhance the topic of the clause, though topicalization is more explicitly indicated by actual topic markers (§7.7). In all of its occurrences, the segment *AA* may be analysed as a clitic, albeit this analysis is open to potential reinterpretations especially as far the "inclitical" uses are concerned. The status of the emphatic clitic *=AA* as a lexical element is, however, problematic, especially because of its connection with specific prosodic patterns. In this respect, it resembles to some extent the interrogative clitic *=UU.* It may also be noted that the vowels *aa ee ao eo ai* are all attested as independent words functioning as interjections (with a variety of meanings), but these should not be synchronically confused

with the phenomenon of phonological emphasis, although there may be a diachronic connection.

When the emphatic element *=AA* is attached to words ending in a long monophthong, the vowel can be additionally lengthened and prosodically marked, but the segmental opposition against the corresponding regular long vowel can be difficult to verify, as in *doulmaa* 'Dulma' (name) : EMPH *doulmaa=aa*. After words ending in the diphthong *ai*, the emphatic element can also take the shape *=y.AA*, in which the hiatus-filling glide segment *y* may be viewed as a trace of the end component (*)*i* of the diphthong, as in *un'* 'price' : POSS *un-tai* 'expensive' : POSS EMPH *un-tai=ai ~ un-tai=y.ai*. The addition of the glide at the hiatus is reminiscent of, but neither synchronically nor diachronically fully identical with, the appearance of the similar segment in the interrogative postclitic *=UU ~ =y.UU*, in which the form with the glide is used after all long vowel elements.

It has to be added that in some grammatical forms and constructions the synchronic status of phonological emphasis is particularly ambiguous. Historically, Mongolian has a so-called "locative" case with the ending *-*A*, which is normally lost both phonologically (like all final single vowels) and as a distinct case form (except, with some reservations, in the spatials, §4.12), but which can be preserved in the emphatic shape *-AA* in certain petrified items, as in the pronominal form PL2P LOC *tan-aa* 'for you' (§4.15). Synchronically, such examples are probably best analysed as involving the emphatic clitic *=AA*, i.e. EMPH *tan=aa*. In some historical locatives, however, the synchronic form is normally understood as containing the homophonous reflexive possessor marker *-AA/n* (§4.17), as in NOM *gadzer* 'place' (< *gajar) ~ [LOC] 'at/to a place' (< *gajar-a) : [LOC] RX *gadzr-aa* idem, although formally this could equally well be a case of phonological emphasis, i.e. [LOC] EMPH *gadzr=aa* (at least in those dialects that do not have the final nasal in the reflexive marker). Certain complex forms, like the quasiconverb in *-snAA/n* (§5.8), may actually involve diachronic confusions between, or combinations of, the locative ending, the reflexive declension and phonological emphasis, though in the synchronic consciousness of the speakers today the reflexive function seems to dominate.

Nominal morphology

4.1 Categories of nominal morphology

The categories marked morphologically on nominals include number, case, personal possession and reflexive possession. Within each of these categories, the unmarked basic form of the nominal is opposed to one or more marked forms, the distribution of which is determined by the rules of morphosyntax. Most of the markers concerned are regular inflectional suffixes, or formatives, which may or may not have allomorphic variation conditioned by the differences between the stem types. The markers of the nominal categories may, consequently, be divided into number suffixes (NX), case suffixes or case endings (CX), possessive suffixes (PX) and reflexive suffixes (RX). For some categories, or for some individual forms, the borderline between inflectional and derivational morphology is not easy to draw, and some of the markers might be better analysed as derivational suffixes (DX) with a varying degree of lexicalization. For other categories, the borderline between suffixes and clitics is also relevant, and the possibility remains that some of the markers are actually postclitics.

The analysis of nominal markers as clitics has been particularly defended for the case endings, and in an extreme approach all case endings have been analysed as postclitics, rather than suffixes. This line of argumentation is based on the fact that case endings in Mongolian, as in many other languages of the "Ural-Altaic" type, can be attached not only to individual nominal stems, but also to the nominal headwords of entire phrases, including even nominal predicates. There seems to be no compelling reason to confuse this typological property with the definition of the category of clitics, however. In the present treatment, at least, case suffixes, like the markers of all the other categories of nominal morphology, are analysed primarily as suffixes. The possibility of cliticization will only be considered for those forms that fill a stricter definition of clitics, that is, for elements that function either as "enclitic particles" or as "harmonic switchers" (§3.13). At this point it has to be recalled that the difference between suffix and clitic involves only the technical status of the element. Even clitics can function as grammatical markers, and they belong to the same phonological word together with the preceding nominal stem.

It happens that, due to an ancient orthographical convention, Written Mongol renders virtually all nominal suffixes as separate graphic words or "particles", the only

systematic exceptions being formed by elements phonologically corresponding to a single non-syllabic consonant (-C). A closer look at this convention reveals, however, that in many cases the suffixal status of the separately written elements is nevertheless signalled by graphic details at the segmental level, which means that the orthographical image was never meant to imply that nominal suffixes should be understood linguistically as "particles". To some extent, the convention of separating nominal suffixes from the stem survives in Cyrillic Khalkha, which typically renders the possessive suffixes (PX) and some of the number suffixes (NX) as separate graphic words. The markers for case (CX) and reflexive possession (RX) are, however, normally not separated from the stem in Cyrillic Khalkha. It may be discussed how practical the convention of separating suffixes from the stem is, but irrespective of this it has no implications to the linguistic analysis.

With the exception of the categories of personal and reflexive possession, which are mutually exclusive, the nominal suffixes representing the different morphological categories can be accumulated to form suffixal chains. In such chains, the number markers are always placed immediately after the stem (-NX), followed by the case markers (-NX-CX) and, finally, by the markers of possession (-NX-CX-PX and -NX-CX-RX). Mongolian also allows, though only under limited circumstances, the accumulation of two (or more) number suffixes (-NX-NX) (§4.3), in which case, however, the combined suffix may be regarded as a lexicalized entity. Of greater importance is the phenomenon of double declension, by which is understood the occasional accumulation of two different case suffixes (-CX-CX) (§4.8).

In a morphologically complex nominal word, the grammatical markers are often preceded by one or more derivational suffixes. The basic difference between derivational and grammatical elements is that the former involve a lesser degree of regularity and productivity and a greater degree of arbitrariness and lexicalization than the latter. There are also differences in the morphosyntactic implications, in that derivational suffixes, unlike grammatical markers, do not alter the morphosyntactic status of the word, except when they change the part of speech (denominal verbs and deverbal nouns). The borderline between inflection and derivation is not sharp, however, and some morphological categories involve properties of both realms. Also, the morphology of certain specific classes of nominals (especially pronouns, but also spatials, adjectives and numerals) exhibits lexicalized idiosyncrasies that are inflectional in function but derivational in form.

4.2   Nominal derivation

By nominal derivation is here understood the derivation of nominals from nouns (denominal nouns) and verbs (deverbal nouns). In both cases, the result is a word that morphologically belongs to the class of nominals. In general, and especially if we disregard the categories relevant only to the specific subclasses of spatial, adjectival, numeral

or pronominal nominals, the types of denominal nouns are relatively few in number, while the types of deverbal nouns are both numerous and variegated. Also, deverbal nouns are often difficult to distinguish from participles (also known as "verbal nouns"), the main difference being that the latter preserve part of their morphosyntactic status as verbals and can, therefore, take verbal complements, while the former are morphosyntactically full nominals. Lexicalized transitions from the realm of participles to that of deverbal nouns are common.

Denominal nouns comprise both transparent (synchronically segmentable) and obscured (synchronically non-segmentable) groups of derivatives. Among the latter a diachronically important case is formed by the two classes of nouns, the "countables" in (-)*d//n* and the "uncountables" in (-)*s//n*, based on obscured monosyllabic roots (*(C)V-), and exemplified by (countables:) *eud//n* 'feather/s', *od//n* 'star/s', *mod//n* 'tree', *nud//n* 'eye/s', *sod//n* 'quill feather/s', *shud//n* 'tooth/teeth'; (uncountables:) *ous//n* 'water', *us//n* 'hair/s', *nous//n* 'mucus', *tos//n* 'oil', *tzas//n* 'snow', *tzous//n* 'blood'. The suffix *-s//n* (syllabified as *-e.s/e.n*) is also frequently attached to longer roots, in which position it is synchronically segmentable but does not have a clearly delimitable function, as in *balg-e.s* : *baleg-s/e.n-* 'city', *noug-e.s* : *noug-s/e.n-* 'duck'. The latter suffix is particularly common in names for animals and plants, as also in *geureo-s//n* 'game, antelope', *oulyaa-s//n* 'poplar'. Another example of a semantically obscured derivational element attested in terms pertaining to biological taxonomy is (-)*gen'*, as in *bat(-)gen'* 'fly, mosquito', *xoul(-)gen'* 'mouse, rat'.

Transparent and semantically more or less coherent groups of denominal nouns are formed by the suffixes *-t* for "possessives" ('having something'), e.g. *alb//n* 'official service' : POSS *alb-e.t* 'subordinate'; *-c* for "professionals" ('being professionally engaged in something'), e.g. *em* 'medicine' : PROF *em-c* 'physician'; *-bc* for "coverings" ('covering something'), e.g. *xudzuu//n* 'neck' : *xudzuu-bc* 'necklace'; *-xen* for "diminutives" ('small objects' or 'female beings'), e.g. *xuu* 'son, boy' : DIM *xuu-xen* 'girl'; and *-leg* for "collectives" ('accumulations of something'), e.g. *tzetzeg* 'flower' : *tzetzeg-leg* > *tzetzer-leg* 'garden'. All of these are synchronically non-productive but nevertheless frequent enough to allow the approximate meaning of the derived noun to be deduced from its morphological composition.

The suffixes for deverbal nominals may formally be divided into "simple" and "complex" ones. The simple suffixes contain synchronically a single consonant (-C, syllabified as *-e.*C), though diachronically it may have been followed by a vowel, which has been lost. Examples include (adapted mainly from Poppe 1951: 33–36): *-g*, as in *bic-* 'to write' : *bic-e.g* 'letter'; *-l*, as in *med-* 'to know' : *med-e.l* 'knowledge'; *-m*, as in *tox-* 'to cover' : *tox-e.m* 'saddle cover'; *-ng*, as in *xald-* 'to stick' : *xald-e.ng* 'dirt'; *-r*, as in *nem-* 'to add' : *nem-e.r* 'addition'; *-dz*, as in *ol-* 'to find' : *ol-dz* 'finding'; and *-tz*, as in *yab-* 'to depart, to go' : *yab-tz* 'tempo'. In some cases, if the suffix originally ended in the high unrounded palatal vowel (*-C*i*), the latter can still be reflected as consonant palatalization, yielding

suffixes like *-ly*, as in *saa-* 'to milk' : *saa-ly* 'milking'; (*)*my*, as in *oux-* 'to chisel' : *ouxy-e.m* < *oux-e.my* (< *uku-mi) 'chisel'; *-ry*, as in *soo-* 'to sit' : *soo-ry* 'seat'; and *-sh*, as in *id-* 'to eat' : *id-e.sh* 'food'. Also, the suffixal consonant can be preceded by a long vowel (*UU AA*), which may or may not be analysed as a connective vowel, as in *tagn-* 'to spy' : *tagn-oo.l* 'spy', *bary-* 'to grasp' : *bary-oo.l* 'handle', *tulx-* 'to push' : *tulx-uu.r* 'key', *agn-* 'to hunt' : *agn-oo.ry* 'hunting area', *sourg-* 'to teach' : Khalkha *sourg-oo.ly* ~ Khorchin *sourg-aa.l* 'school', *belc-* 'to graze' : *belc-ee.r* 'pasture'.

The complex suffixes for deverbal nouns normally contain two consonants (-CC, syllabified as either -*e*.CC or -C*e*C), which have diachronically always been accompanied by one or two medial and/or final vowels. In many cases, one or both of the consonants may be identified with those attested in the simple suffixes. Examples of complex suffixes include: *-lt*, as in *nem-* 'to add' : *nem-e.lt* 'addition'; *-mt*, as in *bao-* 'to block' : *bao-mt* 'barrier'; *-mj*, as in *ser-* 'to be awake' : *ser-e.mj* 'vigilance'; *-ber*, as in *uild-* 'to produce' : *uild-ber* 'factory'; *-meg*, as in *xoor-* 'to deceive' : *xoor-meg* 'deceit'; *-mer ~ -mel*, as in *xeudl-* 'to move' : *xeudel-mer* 'work', *bary-* 'to build' : *bary-mel* 'sculpture'; *-Del* (= *-del ~ -tel*), as in *bai-* 'to be' : *bai-del* 'circumstances', *sour-* 'to learn' : *sour-tel* 'doctrine'; *-dem ~ -d//n*, as in *inee-* 'to laugh' : *inee-dem ~ ineed//n* 'laughter'; *-lg(h)//n* , as in *ounsh-* 'to read' : *ounsh-legh* : *ounsh-e.lg.en-* 'reading'; and *-leng ~ -xleng*, as in *dzob-* 'to suffer' : *dzob-leng* 'suffering', *bayes-* 'to rejoice' : *bays-e.xleng* 'joy'. There are also a few deverbal derivatives formed by the suffix *-s//n*, e.g. *xeo-* 'to swell, to foam' : *xeo-s//n* 'foam', though this suffix is more common in denominal derivation.

Semantically, the deverbal nominals cover a multitude of functions, expressing, in particular, the process, result, place, performer, object or instrument of action. Some suffixes are semantically more narrowly focussed than others, but, in general, the semantic functions are synchronically not well delimited, and the exact meaning of the derived word is rarely predictable from its components. In this respect, the derivatives directly connected with the synchronically productive participle markers are more transparent. The most common source of lexicalized participles is the imperfective participle marker *-AA*, which in derivational usage is often expanded by the unstable /*n*/, as in *med-* 'to know' : PART IMPRF *med-ee* → *med-ee/n* 'information'. In some lexicalized items, this marker is preceded by the causative suffix *-g-*, as in *tzaxyel-* 'to flash' : CAUS *tzaxyel-g-* : CAUS PART IMPRF *tzaxyel-g-aa* → *tzaxyel-g-aa/n* 'lightening, electricity'. The imperfective participle is also the source of a number of lexicalized actor nouns with the complex suffix *-AA-c*, as in *bic-* 'to write' : PART IMPRF *bic-ee* → PART IMPRF PROF *bic-ee-c* 'scribe'. The regular actor noun suffix *-gc* is also transparently of a complex origin (= *-g-c* < **-g-ci*), but since it is fully productive and retains occasional verbal properties it may also be analysed as the marker of a true grammatical form, here termed the agentive participle.

4.3   Plural marking

The category of number is manifested in the opposition of an unmarked basic, or singular, and a marked plural form of nominals. The plural occupies, however, a special position among the categories of nominal morphology, in that (i) plural marking is normally not obligatory, (ii) plural can be marked by several lexically and phonologically determined suffixes, (iii) the meaning of the plural forms may involve a varying degree of lexicalization. In general, the plural forms indicate a plurality of specific and/or individualized actors, while a collective multitude of non-specific and non-individualized actors is normally indicated by the unmarked basic or singular form. Numerals and quantifiers, which have an inherent plural reference, are almost always combined with the unmarked basic form of the nominal, as in *ger* 'dwelling' : *xoyer ger* 'two dwellings' : *olen ger* 'many dwellings'.

The distribution of the different plural markers is based on a complex combination of semantic and structural factors, some of which are diachronically conditioned and, therefore, synchronically arbitrary. From the formal point of view, the plural markers may be divided into three types, here termed (1) primary, (2) secondary and (3) tertiary. The primary plural markers consist of a single consonant (*-d*, *-s*, *-n*), which may or may not replace one or more stem-final segments, and which may also be preceded by a connective vowel (*UU*). The secondary plural markers consist of an entire syllable (*-ner*, *-nUUd*, *-cUUd ~ -cUUl*), added to the stem by way of direct agglutination. The tertiary plural markers, finally, are combinations of the various primary and secondary plural markers.

1a.   The primary marker *-d* (syllabified as *-e.d*) is a common formative for plurals from nasal stems, including stems ending in the unstable nasal */n*. The plural marker replaces the final nasal, as in *xaan* 'emperor' : PL *xaa-d* 'emperors', *shouboo/n* 'bird' : PL *shouboo-d* 'birds'. In the opposition *n* : *d*, the final nasal of the basic form could, in principle, also be viewed as having the function of a singular marker, but this is unlikely to be synchronically relevant. Exceptionally, *-d* can be used on stems that have no nasal stem in the singular, as in *bous* 'other' : PL *bous-e.d* 'others'. In a few specific cases, the marker *-d* can replace an original stem-final liquid, as in *neuxer* (< *nöker) 'friend' : PL *neux-e.d* 'friends', *tushmel* (< *tüsimel) 'official' : PL *tushm-e.d* 'officials'. A more complex replacement takes place in several stems ending in the obscured suffix *-s//n* (< **-sU/n*), which is completely lost before the plural marker *-d*, as in *balges* (< **balga-su/n*) 'city' : PL *balg-e.d* (< *balga-d). In other cases, *-d* is attached to an original stem-final consonant by adding the connective vowel *UU*, as in *nom* (< *nom) 'book' : PL *nom-oo.d* 'books', *debter* (< *debter) 'volume' : PL *debtr-uu.d* 'volumes', *baisheng* (< *baising) 'building' : *baisheng.g-oo.d* 'buildings'. The complex suffix *-UU.d* is also used on some etymological vowel stems, as in *xan'*

'wall' (< *kana) : PL *xan-oo.d* 'walls'. The latter may also end in a palatalized consonant, as in *anggy* 'class' (< *anggi) : PL *anggy-oo.d* 'classes'. Examples of plurals in *-d* with a fully lexicalized meaning are not uncommon, as in DIM *xuu-xen* 'girl' : PL *xuu-x-e.d* 'child, children', *sain* 'good' : *sai-d* 'minister/s'. In some cases, the singular stem has even become obsolete in the modern language, as in *aren* (< *aran) 'commoner' : PL *ar-d → ard* (< *ara-d) 'common people'.

1b. The primary marker *-s* (syllabified as *-e.s*) forms plurals from original vowel stems, which synchronically belong to the class of standard stems, as in *ug* 'word' : PL *ug-s* 'words', *deed* 'ancestor' : PL *deed-e.s* 'ancestors'. Since the etymological distinction between vowel stems and consonant stems is not preserved at the segmental level, the method of plural formation is often synchronically unpredictable, as in *ner* (< *nere) 'name' : PL *ner-s* 'names' vs. *ger* (< *ger) 'dwelling' : PL *ger-uu.d* 'dwellings'. The marker *-s* is also used on a few stems ending in a diphthong, in which case the diphthong (originally only its second component) is lost, as in *gaxai* 'pig' : PL *gax-e.s* (< *gaka-s) 'pigs'. Some stems show an alternation between the markers *-s* and *-d*, as in *noxai* 'dog' : PL *nox-e.s* (< *noka-s) ~ *nox-e.d* (< *noka-d) 'dogs'. An idiosyncratic plural is involved in *xun* (< *küxün ~ *kümün) 'man, person, human being' : PL *xum-uu.s* (< *kümü-s) 'people', in which *-s* is preceded by what may synchronically be analysed as the connective vowel *UU*.

1c. The primary marker *-n* (syllabified as *-e.n*) is synchronically rare and is mainly used on denominal derivatives representing the categories of "possessives" in *-t* and "professionals" in *-c*, as in *mory* 'horse' : POSS *mory-t* 'equestrian, horseman' : POSS PL *mory-t-e.n* 'horsemen, cavalry', *el* 'ally' : PROF *el-c* 'ambassador' : PROF PL *el-c-e.n* 'ambassadors'. The suffix for "possessives" *-t* (< *-tU*) is connected with the fully productive marker of the possessive case *-tai* (< *-tAi*), and diachronically the plural form in *-t-e.n* (< *-tA-n*) may also be understood as the plural of the latter. Synchronically, both the singular "possessives" in *-t* and the plurals in *-t-e.n* are non-productive and often lexicalized in specific meanings. The plural forms can also have a singular or generic meaning, as in *amy//n* 'life' : POSS PL *amy-t-e.n* 'living being/s, animal/s'. Concerning the "professionals", it has to be noted that the element *-c* is often expanded by the unstable nasal /n/, in which case the plural is formed regularly by the suffix *-d*, as in *mal* 'cattle' : *mal-c//n* 'herdsman' : PL *mal-c-e.d* 'herdsmen'. A form like *el-c-e.n(-)* can, therefore, represent both the singular stem of PROF *el-c//n* and the plural form of PROF *el-c*. The element *-c* is also attested in the composition of the suffixes for the agentive participles in *-gc* and the lexicalized actor nouns in *-AA-c*, which form the plural by the suffix *-d*, as in *sour-* 'to learn' : PART AG *sour-e.gc* 'student' : PL *sour-e.gc-e.d* 'students'.

2a. The secondary plural marker *-ner* (desyllabified as *-nr-*) forms plurals of nouns denoting human beings (+human) or personified non-humans. In this usage it is relatively productive, but it can be attached only to stems originally ending in

a vowel (synchronic standard stems and vowel stems). Many of the items taking this suffix are kinship terms, e.g. *ax* 'elder brother' : PL *ax-ner* (< *aka-nar*), *duu* 'younger sibling' : PL *duu-ner* (< *dexü-ner*), but there are also examples of terms for professional groups, e.g. *bagsh* 'teacher' : PL *bagsh-ner*, *lam* 'monk' : PL *lam-ner*, *beo* 'shaman' : PL *beo-ner*, as well as for superhumans, e.g. *tengger* 'god' : PL *tengger-ner*. Semantically aberrant lexicalizations are rare, but an example is *ex* 'mother' : PL *ex-ner* 'mothers, women' > *exner* 'married woman, wife'. For historical reasons, but apparently against the synchronic reality, this suffix is in Cyrillic Khalkha written as a separate particle **nar** ~ **ner**, which can also have the invariant shape **nar** irrespective of the harmonic status of the stem, as in **düü nar** ~ **düü ner** 'younger brothers and sisters'. Another interpretation might be that the element *-ner* has in some idiolects been transformed into a clitic =*ner*(-), which, then, might function as a harmonic switcher, in which case the vowels following this element would belong to the lower-key class. This possibility remains, however, to be verified.

2b. The secondary plural marker *-nUUd* is transparently composed of the nasal segment *n*, the connective vowel *UU* and the plural suffix *-d*. The nasal has many potential origins, but in some items it may be identified with the unstable nasal /*n* of the stem, in which case there are two options for the morphological segmentation, as in *temee/n* 'camel' : PL *temeen-uu.d* ~ *temee-nuud.* The suffix *-nUUd* is, however, also used on stems that have no final nasal, but which in most cases end either in a long vowel or a liquid, as in *beo* 'shaman' : PL *beo-nuud*, *dalai* 'sea' : PL *dalai-nood*, *gol* 'river' : *gol-nood*, *gar* 'hand, arm' : PL *gar-nood.* Since it involves no semantic restrictions on the stem, it seems that *-nUUd* is an element that has the potential of becoming a more general plural marker for many stem types, should Mongolian start using a marked plural in a more regular way.

2c. The secondary plural markers *-cUUd* and *-cUUl* are also of a transparent composite origin, with the segment *c* possibly representing the derivational suffix for "professionals" *-c-*, though synchronically there is no close connection with this derivational category. The suffix *-cUUd*, which contains the primary plural marker *-d*, is in free variation with *-cUUl*, in which the final *l* can no longer be identified with the plural function. The variation *-cUUd* ~ *-cUUl* probably also involves differences in dialectal and idiolectal preferences. These markers are used almost solely on nominals with an adjectival meaning, including ethnic names, and the resulting form normally denotes a collective group of human beings, as in *dzaloo* 'young' : PL *dzaloo-cood* ~ *dzaloo-cool* 'the young ones', *bagh* 'small' : PL *bagh-cood* ~ *bagh-cool* 'children', *monggel* 'Mongol' : PL *monggel-cood* ~ *monggel-cool* 'Mongol people'. Other examples are lexicalized derivatives ending in the elements POSS *-tai* and PRIV =*gwai*, as in *er* 'man' : *ereg*(-)*tai* 'man' : PL *eregtai-cuud* ~ *eregtai-cuul* 'men', *bus* 'belt' : PRIV *bus=gwai* 'having no belt' > *bus*(-)*gwai* 'married woman, wife' : PL *busgwai-cuud* ~ *busgwai-cuul* 'women, wives'. Nasal stems lose the final nasal before

-cUUd ~ -cUUl, as in *sain* 'good' : PL *sai-cood ~ sai-cool* 'the good ones', *bayen* 'rich' : PL *bay-cood ~ bay-cool* 'the rich ones'.

3.   The tertiary plural markers may also be understood as "double plurals" (PL PL), since they contain two consecutive plural markers. The reason for this phenomenon lies in the fact that the primary plurals are often not synchronically unambiguous enough due to the phonological and semantic changes that have taken place. There are many ways in which the plural markers can be combined, but the final element is normally either *-UU.d* or *-ner.* Attested examples of tertiary plural markers include *-d-UU.d*, as in PL *xuux-e.d* : PL PL *xuux-d.uu.d* 'children'; *-s-UU.d*, as in PL *er-s* : PL PL *er-s-uu.d* 'men'; *-n-UU.d*, as in *oyoo/n* 'intellect' : POSS PL *oyoo-t-e.n* 'intellectuals' > 'student' : POSS PL PL *oyoo-t-n-oo.d* 'students'; *-nr-UU.d*, as in PL *lam-ner* : PL PL *lam-e.nr-oo.d* 'lamas'; and *-n-ner*, as in *ajel* 'work' : POSS PL *ajel-t-e.n* 'worker/s' : POSS PL PL *ajel-t-e.n-ner* 'workers'.

4.4   Generic rhymes

Due to the basic facultativeness of plural marking, many of the morphological plural forms are, unless they have been lexicalized in specific new meanings, rarely used in normal speech. Also, some of the less common plural forms tend to be associated with obsolete or literary style. The situation is very different with the phenomenon here termed "generic rhymes", also known as the "generic plural" or "repetitive generalization". This is a repetitive construction based on the partial reduplication of nominal stems and implying a notion of approximate similarity ('something like'), or also of an indefinite plurality of similar items ('and others of the same kind'). This construction is particularly typical of colloquial speech, and it seems to be productive in all dialects of the language. The stylistic implication is that of casuality and slight pejorativeness, which is why the construction is rare in writing.

Generic rhymes are formed by means of three phonologically conditioned formulas, depending on whether the nominal stem begins (1) with a vowel, (2) with a consonant other than *m*, or (3) with the consonant *m*.

1.   Nominals beginning with a vowel are followed by a rhyme beginning with the consonant *m*, e.g. *adoo/n* 'horse' : RHYME *adoo m.adoo/n* 'horses and the like', *iljeg//n* 'donkey' : RHYME *iljeg m.iljeg//n* 'donkeys and the like'.
2.   Nominals beginning with a consonant other than *m* are followed by a rhyme in which the initial consonant of the stem is replaced by *m*, e.g. *biceg* 'book' : RHYME *biceg m.iceg* 'books and the like', *talx//n* 'bread' : RHYME *talx m.alx//n* 'bread and other things like that', *goimeng* '(type of) noodles' : RHYME *goimeng m.oimeng* 'noodles and the like'. It may be noted that the nominals with an initial vowel (vocalic

anlaut) actually represent a special case, in which the consonantal slot is occupied by an "empty" or "zero" consonant (Ø), allowing examples like *iljeg m.iljeg//n* also to be analysed as *Øiljeg m.iljeg//n*, with the "zero" being replaced by *m* in the rhyme.

3. Nominals beginning with the consonant *m* are followed by a rhyme in which the initial *m* is replaced by *s* (in all dialects), e.g. *max//n* 'meat' : RHYME *max s.ax//n* 'meat and the like', *mogai* 'snake' : RHYME *mogai s.ogai* 'snakes and the like'. Dialectally, this *s* can also be replaced by *dz* (in Khalkha) or also, in some items, by *sh* (in Chakhar), as in *mal* 'cattle' : RHYME *mal s.al ~ mal dz.al* 'cattle and the like', *mod//n* 'tree, wood' : RHYME *mod s.od//n ~ mod sh.od//n* 'wood and the like'.

It happens that the formation of the generic rhymes shows some phonological curiosities, which allow conclusions to be drawn of the consonant system as a whole (as elaborated by Svantesson & al. 2005: 59–61). For instance, the palatalization of the initial consonant is generally carried over to the rhyme, as in *byasleg* '(type of) cheese' : RHYME *byasleg my.asleg.* On the other hand, the palatalization of an initial *m* (*my*) is not transferred to the rhyme, as in *myagmer* 'Tuesday' : RHYME *myagmer dz.agmer.* Also, the inherently palatal consonants *sh j c* are replaced by the non-palatalized *m*, as in *couloo/n* 'stone' : RHYME *couloo m.ouloo/n.* The palatal glide *y* exhibits an ambiguous behaviour, as it conditions a palatalized *my* before the vowel *a* and a non-palatalized *m* before other vowels, as in *yas//n* 'bone' : RHYME *yas my.as//n*, *yor* 'omen' : RHYME *yor m.or.* All of this seems to confirm the status of palatalization as a non-inherent feature, while the inherently palatal consonants *sh j c* are not palatalized in the strict sense of the term. By contrast, a postconsonantal labial glide seems to represent a separate segment, since it is systematically copied into the rhyme, as in *gwandz* 'restaurant' : RHYME *gwandz m.wandz.*

Syntactically, the generic rhymes may be understood as nominal phrases composed of two juxtaposed nominal words of equal status. Any endings, including the unstable nasal */n*, as required by the morphological or syntactic context, are attached to the second component of the phrase, that is, to the rhyme word. However, in as far as the construction follows the regular principles of formation, the rhyme word does not constitute a lexical entity in its own right. The situation is different if the rhyme word is formed irregularly. Irregular rhyme words are attested in all dialects, though the scope of the phenomenon remains unknown. In some cases, only the initial consonant of the rhyme is "incorrect", as in *nom* 'book' : RHYME *nom som ~ nom dzom*, *youm//n* 'thing' : RHYME *youm xoum//n*, *cimee/n* 'sound' : RHYME *cimee imee/n.* In other cases, the rhyme contrasts with the principal stem also in the vowels, as in (examples from Sechenbaatar 2003: 31) *eumd//n* 'trousers' : RHYME *eumd xamd//n*, *eree* 'politeness' : RHYME *eree joroo*, *uner* 'smell' : RHYME *uner tanyer*, *xuuxed* 'children' RHYME *xuuxed shooxed*, *xoulgai* 'thief' : RHYME *xoulgai jilgai.* In such cases, the rhyme word, or the entire construction, has to be regarded as a lexicalized entity, a conclusion that is confirmed by the fact that the meaning may also show some deviations from the meaning of the principal nominal,

as in *oor* 'vapour, weather' : RHYME *oor coor* 'daybreak', *amt* 'taste' : RHYME *amt shimt* 'taste and smell', *xemjee* 'measure' : RHYME *xemjee domjao* 'quantity'. It is also possible to replace the rhyme and/or the contrastive element altogether with a lexical word denoting roughly 'and the like'. The most common item used in this function is *xar* (originally: 'black'), as in *mal* 'cattle' : *mal xar* 'cattle and the like'.

Compared with the generic rhymes, the complete repetition of a nominal is a much less common phenomenon in Mongolian. Although repetition may in some cases be viewed as an expression of plurality, as in *xun* 'man, person' : *xun xun* 'many people', the normal implication is that of distributiveness, as in *ail* 'camp, family' : *ail ail* 'every individual family'. On the other hand, the reduplication of an adjectival nominal functioning as an attribute can convey the notion of plurality, as in *eunder ool//n* 'high mountain' : *eunder eunder ool//n* '(many) high mountains'.

4.5   The case system

As in many other languages of the "Ural-Altaic" type, it is difficult to tell how many cases, exactly, there are in the Mongolian system of nominal declension. The answer depends on what stand is taken with regard to the borderline between derivation and inflection, on the one hand, and suffixation and cliticization, on the other. Also, some case-like formations have a limited distribution, in that they are only attested with certain types of words, or only in certain dialects. In the present treatment, Mongolian is described as having seven physically marked cases and one unmarked case. Since Mongolian is a language with an unmarked actor (subject) and a marked patient (object), the unmarked case may be termed "nominative". The other cases are here termed, mainly in accordance with the extant tradition, "genitive", "accusative", "dative", "ablative", "instrumental", "possessive" and "privative".

There are many possible ways to classify the Mongolian cases into smaller groups. If we focus on the principal actants of the finite sentence, we might identify the nominative and the accusative as the "grammatical cases", since they denote the subject (nominative) vs. object (accusative) of the sentence. The dative and the ablative, on the other hand, could be identified as the "local" cases, since they can mark the local (and temporal) modifiers of the predicate. In the same way, the instrumental, the possessive and the privative could be identified as the "modal" cases, since they mark various types of modal modifiers. On the other hand, the local and modal cases can also have grammatical functions. For instance, the agent of passive and causative constructions stands in the dative or in the instrumental, while the dative also functions as the case of the indirect object. The genitive, which basically marks an attributive relationship in the nominal phrase, can function as the subject marker of non-finite clauses. Altogether, it has to be concluded that the Mongolian case system is characterized by systematic multifunctionality.

This is understandable since the relatively small number of cases is used to express a great variety of both grammatical and non-grammatical relations. Although Mongolian also has spatials and postpositions with case-like functions, the latter are rarely attested in other than concrete circumstantial (local and temporal) uses.

From the morphosyntactic point of view, the cases can be divided into three categories: adnominal, adverbal and ambivalent. The adnominal category comprises only the genitive, which invariably modifies a nominal headword (including nominalized verbal forms). The adverbal category comprises the accusative, the dative, the ablative and the instrumental, which always modify a verbal headword (finite or non-finite predicate), and which can never modify a nominal headword (excluding nominalized verbal forms). The ambivalent category, finally, comprises the possessive and the privative, which can modify both a nominal and a verbal headword. To this last category we may also add the nominative, which in its basic function of subject marker complements the verbal predicate, but which can also occur in attributive usage before a nominal headword.

From the formal point of view, the distinction between suffixal and postclitical marking also has to be considered. As was mentioned above (§4.1) all case markers, like most other suffixes of nominal morphology, are treated as separately written "particles" in the Written Mongol orthography. In a similar line of thinking, but in a more modern framework, it has been proposed that the Mongolian case markers should be analysed as (post)clitics since they are typically attached to phrases, that is, to the last word of a nominal phrase, rather than to the individual nominal word as such. Such a definition of "clitic" does not seem to be productive, however, which is why most case markers are in the present treatment analysed as regular suffixes, which occupy a slot between derivational and/or number suffixes and the suffixal markers of personal or reflexive possession. A possible exception is formed by the marker of the privative case, which may be analysed as a postclitic, the reason being that some of its occurrences fill the definition of "harmonic switcher" (§3.13). Even so, the privative case is an integral part of the case system.

Outside the framework of the eight basic cases (including the unmarked nominative) there are a number of additional phenomena, which to some extent complicate the system. For one thing, there are a few "marginal cases" with a restricted dialectal and/or lexical relevance; the two most important marginal cases may be identified by the labels "directive" and "equative". Also, there is the phenomenon of double declension, which potentially adds one case, a marked nominative, to the paradigm, though this depends on what approch is taken to the description of the phenomenon. Finally, the stems ending in the unstable nasal /n show several idiosyncracies which are connected with the alternation between the nasal stem and the plain stem not only in the absolute form but also before certain case endings. As a result, the nominals belonging to this stem type have a potentially more variegated case paradigm than those belonging to the other types.

In the context of areal typology, the Mongolian case system is rather typical of the eastern realm of the "Ural-Altaic" zone. The areally conditioned similarities extend also to the morphosyntactic use of the case forms. A particularly typical areal feature is the division of the local cases into only two separate case forms, the dative and the ablative. In this system, the dative (also termed dative-locative) expresses both location 'at' (locative) and movement 'to' (dative), while the ablative expresses movement 'from'. No formal distinction is made between internal and external local cases, though this distinction ('in' vs. 'on') can be expressed with the help of postpositionally used spatials. The local cases have also habitive functions, in that the dative can mark the possessor ('in whose possession?') and recipient ('to whom?'), while the ablative marks the source ('from whom?').

4.6   Case marking

The case markers (Table 15) may be divided into several phonological types, which group some case forms formally together. Thus, the genitive and accusative markers form a formal pair, in that they both contain a harmonically neutral long vowel (*ii* or *ai*), to which a following consonantal element (*n* or *g*) and a preceding connective consonant (*g*), if required by the phonotactic rules, can be added. The ablative and instrumental markers also form a pair, in that they contain a harmonically varying low vowel (*AA*), which is followed by a case-specific consonant (*s* or *r*), and which is preceded, when necessary, by a connective consonant (*g*). The possessive and privative markers consist of a fully developed invariant syllable with an initial consonant and a following long vowel (*ai*), while the dative marker alone contains a single consonant, which participates in a suffix-initial consonant alternation (*d* : *t*), and which can be syllabified by the addition of a reduced vowel.

Table 15. The regular case markers

		C-	R-	n-		VV-	V*i*-
				Khalkha	Khorchin		
(1)	GEN	-*ii.n*		-*ii*	-*ai*	-*g.ii.n*	-*n*
(2)	ACC	-*ii.g*				-*g.ii.g*	
(3)	DAT	-*e.d*	-*t*	-*d*			
(4)	ABL	-*AAs*				-*g.AAs*	
(5)	INSTR	-*AAr*				-*g.AAr*	
(6)	POSS	-*tai*					
(7)	PRIV	=*gwai*					

The morphophonological behaviour of the case suffixes reflects the distinction between standard stems (ending in a consonant: C), obstruent stems (ending in an etymological obstruent: R), nasal stems (ending in the dental nasal *n*) and vowel stems (ending in a long vowel: VV). For vowel stems, the distinction between monophthongs (VV) and diphthongs (V*i*) is also of relevance. The total number of allomorphs varies from one to five, as elaborated below:

1. Genitive: As is evident from the discussion concerning the connective vowels (§3.12), the primary genitive marker is probably best identified as *-n*. Synchronically, this *-n* is, however, attested only on stems ending in a diphthong, including, in this context, the long vowel *ii*, e.g. *dalai* 'sea' : GEN *dalai-n*, *delxii* 'world' : GEN *delxii-n*. Stem-final consonants (both primary and secondary), including etymological obstruents, are linked to the genitive suffix by the connective vowel *ii*, e.g. *sar* (< *sara) 'month' : GEN *sar-ii.n*, *ger* (< *ger) 'dwelling' : GEN *ger-ii.n*, and this same extended suffix is used after long monophthongs with the addition of the connective consonant *g*, e.g. *beo* 'shaman' : GEN *beo-g.ii.n*. Nasal stems have, however, no *n* in the genitive marker, but only the long vowel, which, then, is *ii* in Khalkha but *ai* in Khorchin, e.g. *xaan* 'emperor' : GEN Khalkha *xaan-ii* [xa:ni:] vs. Khorchin *xaan-ai* [ha:ne:]. This difference in the vowel of the genitive of nasal stems is one of the most characteristic shibboleths allowing a quick distinction to be made between Inner Mongolian and Outer Mongolian dialects. Diachronically, and possibly in a synchronic analysis incorporating a deep level, the lack of the nasal *n* in the genitive marker after nasal stems may be explained as a secondary dissimilatory loss (*n-V*i.n* > *n*-V*i.Ø*). This loss is no longer productive, however, for stems ending in the marked dental nasal *n'*, or also in any other nasal, use the normal suffix variant *-ii.n*, e.g. *xan'* (< *kana) 'wall' : GEN *xan-ii.n*, *nom* 'book' : GEN *nom-ii.n*.

2. Accusative: The accusative marker also shows a dialectal dichotomy, which reflects a restructuring that has taken place relatively recently in the Khalkha group of dialects (including in this case also Oirat). The primary accusative marker is *-ii*, in which the vowel does not represent a connective vowel but the suffixal substance itself. This *-ii* is still used as the regular accusative marker in the Khorchin group of dialects. It is added directly to all stems ending in a consonant, including obstruent stems and nasal stems, e.g. Khorchin *sar* 'month' : ACC *sar-ii*, *ger* 'dwelling' : ACC *ger-ii*, *xaan* 'emperor' : ACC *xaan-ii*. Vowel stems take the same suffix with the mediation of the connective consonant *g*, e.g. *dalai* 'sea' : ACC *dalai-g.ii*, *beo* 'shaman' : ACC *beo-g.ii*. As may be seen, the genitive and accusative of nasal stems differ in this system only by the quality of the suffixal vowel, as in ACC *xaan-ii* vs. GEN *xaan-ai*. Possibly in order to avoid the merger of the two cases in this stem type, Khalkha has added a secondary final *g* to the marker, yielding the shape *-ii.g*, in which the vowel *ii* may be synchronically viewed as a connective vowel. The variant *-ii.g* is used in Khalkha

for all stems ending in a consonant, e.g. *sar* 'month' : ACC *sar-ii.g*, *ger* 'dwelling' : ACC *ger-ii.g*, *xaan* 'emperor' : ACC *xaan-ii.g*. In this system, the secondary consonant *g* has become the actual accusative marker, and it is synchronically used as such on all vowel stems, as in Khalkha *beo* 'shaman' : ACC *beo-g*, *dalai* 'sea' : ACC *dalai-g*. Stems ending in the velar nasal are ambivalent and may take either *-g* or *-ii.g*, e.g. *deng* 'lamp' : ACC *deng-g* ~ *deng.g-ii.g*, with the shorter form prevailing in the normative language. The use of the accusatives in *-ii.g* and *-g* is also a regular feature of Chakhar, and due to the impact of the latter the phenomenon seems to be spreading today on the Inner Mongolian side, with various types of confusion and overlapping as a result.

3. Dative: The lexical form of the dative marker should perhaps be identified as an archiphonemic dental stop (*D*), which is represented as the strong dental stop *t* after obstruent stems and as the weak dental stop *d* after all other stem types. The adding of the strong suffix variant *-t* to an etymological obstruent always results in a stable consonant cluster (*bt gt st rt*), as in *sedeb* 'topic' : DAT *sedeb-t*, *dzug* 'direction' : DAT *dzug-t*, *etzes* 'end' : DAT *etzes-t*, *gar* 'hand' : DAT *gar-t*. The adding of the weak suffix variant *-d* also yields a number of stable clusters (*nd md bd gd lr rd* and *nyd myd byd gyd lyd ryd*), as in *xaan* 'emperor' : DAT *xaan-d*, *baisheng* 'building' : DAT *baishen-d*, *nom* 'book' : DAT *nom-d*, *aab* 'father' : DAT *aab-d*, *meog* 'mushroom' : DAT *meog-d*, *mal* 'cattle' : DAT *mal-d*, *sar* 'month' : DAT *sar-d*. If, however, the adding of the suffix would result in a non-stable cluster, the latter is dissolved by inserting a reduced vowel (*e*) at the suffix boundary, as in *naidz* 'friend' : DAT *naidz-e.d*, *bagsh* 'teacher' : DAT *bagsh-e.d*, *ax* 'elder brother' : DAT *ax-e.d*. As the distinction between obstruent stems and standard stems is not synchronically transparent, there are many transitions from the class of obstruent stems to that of standard stems, e.g. *tib* (< **tib*) 'continent' : DAT *tib-d*, *ouls* (< **ulus*) 'state' : DAT *ouls-e.d*. Many dialects on the Inner Mongolian side have almost completely eliminated the special dative form of obstruent stems, leaving only a few examples, which may also be analysed as lexicalized exceptions. Among the last surviving items is *ger* 'dwelling, house, home' : DAT *ger-t* 'at home, (to one's) home' but even this has become a standard stem in, for instance, Chakhar, which has DAT *ger-d*.

4. Ablative: The ablative marker is systematically *-AAs* (= *-aas -ees -aos -eos*) for all stems ending in a synchronic consonant, e.g. *xaan* 'emperor' : ABL *xaan-aas*, *tereg* 'cart' : ABL *terg-ees*, *gol* 'river' : ABL *gol-aos*, *euder* 'day' : ABL *eudr-eos*. Stems ending in a vowel require the connective consonant *g*, e.g. *dalai* 'sea' : ABL *dalai-g.aas*, *duu* 'younger sibling' : ABL *duu-g.ees*, *noxai* 'dog' : ABL *noxai-g.aos*, *beo* 'shaman' : ABL *beo-g.eos*.

5. Instrumental: The instrumental marker is *-AAr* (= *-aar -eer -aor -eor*), which behaves in parallel with the ablative marker, e.g. (stems ending in a consonant:) *xaan* 'emperor' : INSTR *xaan-aar*, *tereg* 'cart' : INSTR *terg-eer*, *gol* 'river' : INSTR *gol-aor*,

euder 'day' : INSTR *eudr-eor*; (stems ending in a vowel:) *dalai* 'sea' : INSTR *dalai-g.aar*, *duu* 'younger sibling' : INSTR *duu-g.eer*, *noxai* 'dog' : INSTR *noxai-g.aor*, *beo* 'shaman' : INSTR *beo-g.eor*.

6. Possessive: The possessive marker has the invariable shape *-tai* [-tʰe:] ~ [-ʰte:] for all stem types, e.g. *sar* 'month' : POSS *sar-tai*, *tereg* 'cart' : POSS *tereg-tai*, *noxai* 'dog' : POSS *noxai-tai*, *beo* 'shaman' : POSS *beo-tai*, *xaan* 'emperor' : POSS *xaan-tai*. Originally, the diphthong *ai* had four harmonic variants (**ai *ei *oi *öi*), three of which (**ai *ei/*öi *oi*) are still incorporated in the Khalkha Cyrillic orthography, as in **sar : sartai**, **tereg : teregtei**, **noxoi : noxoitoi**, **böö : böötei**, but the phonetic difference is today minimal and has no functional significance. The possessive marker is etymologically related to the derivational suffix forming the "possessives" in *-t*, which means that there are doublets like *gal* 'fire' : DX POSS *gal-t* 'fiery' vs. CX POSS *gal-tai* 'with fire'. The difference is that the derivational suffix is not productive and can only be used adnominally, as in *gal-t ool//n* 'fiery mountain' = 'volcano', while the case marker is productive and can be used also adverbally. Even so, many possessive case forms in *-tai* have been lexicalized, often in adjectival meanings, as in *amt* 'taste' : POSS *amt-tai* 'with taste' → 'tasty'. The possessive case is traditionally termed the "colloquial comitative", since it partly replaces the "literary comitative" (in *-lAA < *-lUxA*), which has been lost in the spoken language. It is, however, useful to keep the two terms distinct, not only because they correspond to different forms, but also because they involve functional and morphosyntactic differences.

7. Privative: The privative marker also has an invariable shape, which may be abstracted as *=gwai* [-kwe:] ~ [-gwe:] for most dialects, e.g. *sar* 'month' : PRIV *sar=gwai*, *tereg* 'cart' : PRIV *tereg=gwai*, *noxai* 'dog' : PRIV *noxai=gwai*, *beo* 'shaman' : PRIV *beo=gwai*, *xaan* 'emperor' : PRIV *xaang=gwai*. The element *=gwai* derives historically from the privative noun *ugwai* 'absence, absent, no/t', but synchronically there is a semantic difference between the two, as in *noxai ugwai* 'there is no dog' vs. *noxai=gwai* 'without a dog'. The principal reason why the privative marker is here analysed as a clitic is that it seems to function as a harmonic switcher in some of its uses. This criterion may not hold for all uses and all dialects, however, and its analysis as a regular suffix could also be defended. The phonetic shape of the element is also somewhat unstable, being *=gUU* in Chakhar and possibly *=gwii* in some other dialects. In Cyrillic Khalkha, the privative marker is invariably written as -**güi**, suggesting the phonetic shape *-gui** without harmonic variation, but this should not be taken at face value, since there is no other evidence of the diphthong *ui* [y:] in non-initial syllables and the absence of harmonic variation would in any case suggest a neutral vowel (either *ii* or *ai*).

The marginal directive and equative cases differ from the seven marked cases of the main paradigm in that they are seldom used and dialectally restricted, occuring only with a

limited number of nominals and having no grammatical functions. The role of the directive marker is filled by three different elements: *-rUU*, *-UUd* and *-jUU*, which derive from the three independent postpositional words *ouroo* 'downwards', *eod* 'upwards' and *jug* (*dzug*) '(in the) direction (of)', respectively. As separate words, these are attested in all dialects, but as suffixal markers they have a limited dialectal distribution, with *-jUU* being the least common (only in Udzumuchin) and *-rUU* the most widespread (also in Khalkha). The fact that these are bound morphemes is confirmed by the harmonic variation of the vowel, as well as, in the case of *-rUU*, by the dissimilatory change to *-lUU* after a stem-final *r*, as in *ger* 'dwelling' : DIR *ger-luu* 'towards the dwelling'. On the other hand, the recent origin of the forms is suggested by their meanings, which can still be close to those of the original lexemes, as in *ous* 'water' : DIR *ous-roo* 'down the water'.

The equative case is even less common in the dialects, but it occurs, at least subdialectally, in Khalkha. It is marked by the suffix *-tzAA* (= *-tzaa -tzee -tzao -tzeo*). This might also be analysed as a composite suffix, comprising the basic equative marker *-tz-* and the marker of reflexive possession *-AA/n*. The meaning of the equative (termed "Höhenkasus" in Poppe 1951: 65) is very specific and may be translated 'as high as', 'up to the height of', as in (examples adapted from Poppe) *ereg* '(high) bank' : EQU *ereg-tzee* 'up to the height of the bank', *eubdeg* 'knee' : EQU *eubdeg-tzeo* 'up to the height of the knees'.

4.7   Paradigms with the unstable nasal

Nominals incorporating the unstable nasal */n* (§3.6) take the regular case endings, but the case forms can be differentiated according to whether they are based on the plain stem or the nasal stem. In this respect, the Common Mongolic languages show considerable variation among themselves. In Mongolian proper, as reflected in writing by both Cyrillic Khalkha and Modern Written Mongol, the tendency has been to increase the morphological domain of the plain stem at the expense of the nasal stem. Even so, most case forms can, at least theoretically and under specific conditions, be based on both the plain stem and the nasal stem. The case endings added to the nasal stem follow the general pattern of nasal stems, while the plain stem takes the endings required by standard and vowel stems (Table 16).

The normal pattern in modern Mongolian (proper), including dialects in both Inner and Outer Mongolia, is that the plain stem is used in the nominative, accusative, instrumental, possessive and privative cases, while the nasal stem is used in the genitive, dative and ablative cases, e.g. *uud//n* 'door' : (plain stem:) NOM *uud* : ACC *uud-ii.g* : INSTR *uud-eer* : POSS *uud-tai* : PRIV *uud=gwai*, (nasal stem:) GEN (Khalkha) *uud/n-ii* ~ (Khorchin) *uud/n-ai* : DAT *uud/e.n-d* : ABL *uud/n-ees*. These combinations of stems and case endings may be understood as the basic, or unmarked, paradigm, while deviations from this

Table 16. The case markers with the unstable nasal

		Plain stem			Nasal stem	
		C-	VV-	V*i*-	Khalkha	Khorchin
(0)	NOM	-Ø				
	ATTR				/e.n	
(1)	GEN	-ii.n	-g.ii.n	-n	/n-ii	/n-ai
(2)	ACC	-ii.g	-g.ii.g		/n-ii.g*	
(3)	DAT	-e.d	-d		/e.n-d	
(4)	ABL	-AAs	-g.AAs		/n-AAs	
(5)	INSTR	-AAr	-g.AAr		/n-AAr	
(6)	POSS	-tai			/e.n-tai	
(7)	PRIV	=gwai				

pattern indicate specific lexical, morphosyntactic, pragmatic and/or dialectal circum-
stances. These are connected with the variety of roles that the unstable nasal can have.

In spite of their status as only one among several nominal stem types, the stems
ending in the unstable nasal are of a considerable synchronic importance, since they
comprise a large (and still expanding) number of basic and frequently used nominals,
including many names of plants and animals. A major exception is formed by proper
names and nominals denoting humans (+human), which do not seem to be represented
in this otherwise semantically diffuse class. Technically, the stems ending in the unstable
nasal offer an exceptionally difficult challenge for the grammarian, and a full under-
standing of the issue is not yet possible. Below is a summary of some of the main points,
as organized by the case form:

0. Nominative: The unmarked stem always lacks the nasal when the nominal is used
   as a subject or as an unmarked object (§6.10). When, however, the nominal is used
   adnominally, that is, as an attribute, the nasal stem appears. This might allow the
   nasal with no further case marking also to be identified as a special "attributive" case
   ending, e.g. *mory//n* 'horse' : NOM *mory* : ATTR *mory/e.n = mory-e.n*, as in *mory/e.n
   tereg* 'horse cart', *mory/e.n jil* 'year of the horse'. Alternatively, the nasal could be seen
   as a denominal derivational suffix forming adjectives from substantival nouns, an
   interpretation that would seem to be supported by examples like *nogaon* 'green' :
   nogao/n 'vegetable/s', in which the unstable nasal of the substantival noun corre-
   sponds to a stable nasal in the semantically related adjectival item. On the other
   hand, the fact that the attributivizing and adjectivizing nasal element can only occur
   with stems incorporating the unstable nasal in their lexical composition suggests
   that it is, after all, a question of an element of stem extension. Unlike other nominals,

the nominals with the unstable nasal possess the special quality of allowing a formal distinction between attributive and non-attributive uses.

1. Genitive: Examples like *con//n* 'wolf ' : (nasal stem:) *con/n-ii suul* 'wolf 's tail' vs. (plain stem:) *con-ii.n suul* 'wild garlic' suggest that the genitive formed from the nasal stem can convey the notion of concreteness, specificness, definiteness and/or individuation, while the genitive formed from the plain stem has a generic and/or lexicalized reference. The generic and/or lexicalized reference can also be indicated by the attributive form involving the nasal stem with no further marking, as in *iljeg//n* 'donkey' : GEN *iljeg/n-ii cix* 'donkey's ear' vs. ATTR *iljg/e.n cix* (literally:) 'donkey ear' = (lexicalized meaning:) 'date (fruit)'. For stems ending in a diphthong the genitive and attributive can formally merge, cf. (Khorchin) *toolai ~ toolai/n* 'hare' : GEN *toolai-n beer* = ATTR *toolai/n beer* (literally:) 'hare('s) kidney' = (lexicalized meaning:) 'chestnut', cf. also GEN *toolai/n-ai beer* 'hare's kidney'. On the other hand, in dialects of the Khorchin type, the genitive complex */n-ai* is widely used as a general genitive ending for all stem types, though it can alternate with the etymologically regular endings, as in *dalai* 'sea' : GEN *dalai-n ~ dalai/n-ai.* In such examples, the nasal segment might also be viewed as part of the suffix, though, on the other hand, it can also correlate with a non-etymological nasal elsewhere in the paradigm, as in *mal* 'cattle' : GEN *mal-ii.n ~ mal-nai* : ABL *mal-aas ~ mal/n-aas.* Altogether, the unstable nasal seems to be spreading to paradigms to which it does not historically belong. As a result, the morphophonological variation conditioned by the differences of the stem types is reduced in favour of the nasal-stem pattern.

2–7. Other case forms: There are indications that the notions of concreteness, specificness, definiteness and/or individuation can be expressed by the nasal stem also in some of the other case forms, especially in the dative and possessive cases. The opposition of the two stems in the possessive case, as in *mory//n* 'horse' : INSTR *mory/e.n-tai* 'with (a specific) horse' vs. *mory-tai* 'with (a) horse (in general)', is commonly attested in Buryat but almost unknown in modern Mongolian proper. On the other hand, there seem to be "defective" nasal stems which use the nasal only, or mainly, in the dative, e.g. *nom* 'book' : DAT *nom-d ~ nom/e.n-d*, *noxai* 'dog' : DAT *noxai-d ~ noxai/n-d*, suggesting that the complex */n-d* is might be undergoing restructuring into a new dative ending with the shape *-nd*, perhaps connected with a specific pragmatic function. In the instrumental, the nasal stem has occasionally a comitative function ('with'), while the plain stem indicates a prosecutive function ('through'), as in *outaa/n* 'smoke' : INSTR (nasal stem:) *outaa/n-aar* 'with the smoke' ~ (plain stem:) *outaa-g.aar* 'through the smoke'. A similar alternation, but without a confirmed functional difference, is observed in the ablative, especially in stems in which the unstable nasal is preceded by a long vowel, as in *adoo/n* 'horse' : ABL *adoo/n-aas ~ adoo-g.aas.* Examples of the nasal stem in the accusative and privative do not seem to be attested in the modern language.

4.8   Double declension

Although case endings normally take the final position in an inflected word, the phenomenon of double declension allows a case ending to be followed by another case ending (-CX-CX). Only a few of the theoretically possible combinations are permitted, however, and even their occurrence is governed by lexical and semantic restrictions. The endings of the seven suffixally marked cases occur in three types of combinations (the numbers below refer to Table 15):

1+3. Genitive+dative: Since the genitive is an adnominal case, it can be used elliptically to form new nominals in the meaning 'one's property' → 'one's place', e.g. *ax* 'elder brother' : GEN *ax-ii.n* 'elder brother's' → 'elder brother's place'. To a genitive form in this specific usage, the dative ending *-d* can be added in its regular dative-locative function, e.g. GEN DAT *ax-ii.n-d* 'to/at elder brother's (place)'. After nasal stems, the resulting complex ending can take the shape *-ai-d* even in some of those dialects that would normally form the genitive by the ending *-ii*, e.g. *xaan* 'emperor' : GEN (Khalkha) *xaan-ii* ~ (Khorchin) *xaan-ai* : GEN DAT (Khalkha) *xaan-ii-d* ~ (Khalkha and Khorchin) *xaan-ai-d*. Due to its specific meaning, the genitive-dative double case form is typically restricted to words denoting persons, including kinship terms and personal names. It is also noteworthy that apart from the dative no other cases can be directly combined with the genitive.

3+4. Dative+ablative: Excluding pronouns and spatials, only two regular nominals are attested with this combination of case endings. Both examples involve obstruent stems in *r*, after which the dative ending has the shape *-t*, to which the ablative ending *-AAs* is added. The dative form in both examples may be understood as a lexicalized expression, which itself functions very much like a spatial: *ger* 'dwelling, house, home' : DAT *ger-t* 'at home' : DAT ABL *ger-t-ees* 'from home', *gar* 'hand' : DAT *gar-t* 'in (the) hand (of)' > 'in the possession (of a person)' : (Khorchin) DAT ABL *gar-t-aas* 'from (the possession of a person)'. The corresponding simple ablatives would have a concrete, non-lexicalized meaning: *ger-ees* 'from (the) dwelling', *gar-aas* 'from (the) hand'. The fact that we are dealing with lexicalized expressions is also evident from the shape of the dative forms *ger-t* and *gar-t*, which tend to be preserved as such even in those dialects in which obstruent stems are no longer otherwise present. In Chakhar, where *ger-t* is normally replaced by *ger-d*, the dative-ablative double case form in the meaning 'from home' is replaced by the simple ablative *ger-ees*.

6/7+2–7. Possessive/privative + other cases. Since the possessive and the privative cases, like the genitive, can be used adnominally, they can also form new nominals with the meanings 'one who has' vs. 'one who has not', e.g. POSS *mory-tai* 'with a horse' → 'one who has a horse', PRIV *mory=gwai* 'without a horse' → 'one who has no horse'. In such usage, they can be further inflected by adding any other case ending, including, at

least theoretically, even the possessive and privative endings, e.g. POSS POSS *mory-tai-tai* 'together with one who has a horse', PRIV POSS *mory=gwai-tai* 'together with one who has no horse'. It is, however, obvious that for the possessive and privative cases, the borderline between inflectional and derivational morphology is particularly difficult to draw, and the markers of both cases could also be analysed as denominal derivational suffixes for substantivizable adjectival nominals. The reasons why it is probably correct to treat them as members of the case paradigm are, first, that they are fully productive, and, second, that they can also be used adverbally. In both of these respects they differ, for instance, from the derivational suffixes forming the "possessives" in SG *-t* : PL *-t-e.n.*

4.9   The marked nominative

Apart from the phenomenon of double declension, as conventionally understood, there is one additional element that can be combined with certain endings of the regular case paradigm. This element has the shape *-x*, and it can be added, in principle, to any genitive or dative form of a nominal. The resulting complex form functions as a new nominal stem, which can be used both independently (substantivally) and adnominally (adjectivally), and which can also take other case endings depending on the syntactic position. In view of its functions, the element *-x* may be identified as a "nominalizer", "adjectivizer", "substantivizer" or "relativizer". From the formal point of view, it is normally classified as a derivational suffix, though the term "case-bound suffix" (Kullman & Tserenpil 1996: 101–105) has also been used. In the present treatment it is, however, classified as the ending of what may be called the "marked nominative" case (Janhunen 2003b: 88–89). The reasons for analysing *-x* as a case marker are connected with both its positional and its functional properties:

1.   Unlike derivational suffixes, the element *-x* is not attached to the plain nominal stem, but to the inflected genitive and dative case forms (as well as to certain spatials). In this respect, it resembles other case endings, which can be combined with each other in the context of the phenomenon of double declension. The function of *-x* is to form new nominatives from genitives and datives.

2.   Also, unlike derivational suffixes, but like other case endings, the element *-x* is fully productive under the specific circumstances in which it is used. In this respect, it resembles the possessive and privative markers, whose status as case endings is also confirmed by their productivity. In fact, the possessive and privative markers are closer to the realm of derivation, since they sometimes yield unpredictable lexicalized meanings, while the element *-x* tends to retain its grammatical status with a very small, if any, amount of lexicalization.

It may be concluded that the combinations of the genitive and dative endings with the marked nominative ending -*x* are examples of double declension. It is also understandable that the nominative, which in the simple inflection is the unmarked case, has to be formally marked when it follows other marked cases. The forms and functions of the complex sequences with the marked nominative are predictable from their elements (the numbers below refer to Table 15):

1+0. Genitive+nominative: The sequence of the genitive and the marked nominative endings yields independent genitives with the meaning 'belonging to (somebody/something)', 'one's property', or also 'one's place', e.g. *xaan* 'emperor' : GEN *xaan-ii ~ xaan-ai* : GEN NOM *xaan-ii-x ~ xaan-ai-x* 'the emperor's (property/place)'. The final unmarked nasal *n* of the genitive ending, as used for all non-nasal stems, is phonetically assimilated to the velar consonant *x* of the nominative marker, e.g. *ax* 'elder brother' : GEN *ax-ii.n* : GEN NOM *ax-ii.ng-x* 'elder brother's (property/place)'. The new nominatives thus formed can be used as such in the roles of subject and nominal predicate. For additional syntactic roles, the marked nominatives can take further case endings, e.g. GEN NOM ACC *ax-ii.ng-x-ii/g* (object) : GEN NOM ABL *ax-ii.ng-x-aas* 'from elder brother's place' : GEN NOM DIR *ax-ii.ng-x-roo* 'in the direction of elder brother's place'. Importantly, however, the marked nominatives are not used as attributes, since this syntactic niche is filled by the plain genitive. Also, although the marked nominative ending can, at least theoretically, be combined with the dative ending, the restricted meaning of 'to/at one's place' is expressed by the genitive-dative double case form without the nominative marker, as in GEN DAT *ax-ii.n-d* 'to/at elder brother's place'. It could be speculated that the latter type of sequence contains a zero-marked nominative, i.e. GEN NOM DAT *ax-ii.n-Ø-d*, but there seems to be no compelling reason to adopt this descriptive complication.

3+0. Dative+nominative: The sequence of the dative and the marked nominative endings yields so-called "locative nouns", with the meaning 'located at (a place)'. It is important to note that the dative in this usage always seems to have its locative function ('at/in'). The resulting complex form has the ending -*d-e.x* or -*t-e.x* depending on the stem type, e.g. *xot//n* 'city' : DAT NOM *xote/n-d-e.x* 'located in the city', *gadzer* 'place' : DAT NOM *gadzer-t-e.x* 'located at the place'. The variant -*t-e.x*, specific to obstruent stems, is, however, increasingly often being replaced by the variant -*d-e.x* even in Khalkha, which otherwise retains some obstruent-stem datives in -*t*. Syntactically, the nominative marker allows the datives to function as attributes and nominal predicates, as well as, with further case marking, in the roles of other types of verbal modifiers, e.g. DAT NOM ACC *xote/n-d-x-ii/g* (object) : DAT NOM POSS *xote/n-d-e.x-tai* 'together with one located in the city'. Semantically, the dative-nominatives are most naturally formed from nominals denoting a place, but under specific circumstances the semantic range can be much broader.

When defining the grammatical status of the marked nominative case, it is particularly crucial to keep a strict distinction between form and function. The function of the element *-x* can be assessed by looking at how it affects the syntactic behaviour of the word: in some cases it "adjectivizes" the form, while in other cases it seems to "substantivize" it. In general, it "relativizes" the genitive and dative forms, and when translated into other languages it often corresponds to a relative clause of the types 'which belongs to somebody', 'which is located at some place'. It also reverses the syntactic status of the underlying form, in that it allows the genitives to be used adverbally and the datives to be used adnominally. All of this has, however, nothing to do with its morphological status. Morphologically, there seems to be no alternative to its being analysed as a case suffix, which, since it always occurs after another case suffix, belongs to the framework of double declension.

It may be asked why the marked nominative can only be combined with the genitive and dative, but not with the other cases. The explanation is, partly, that some of the other cases, notably the possessive and the privative, can be "nominalized" or "nominativized" without a specific marker. This is also true of the genitive in the specific meaning of 'one's place'. On the other hand, it also seems that some of the other cases, including, especially the accusative and the instrumental, are not likely to require the kind of syntactic operation that is performed by the nominative marker. The only other case that could theoretically be thought to be combinable with the marked nominative would be the ablative, but, unfortunately, this combination is not attested. This may be connected with the language-specific markedness relationships between the different members of the case system.

Since the element *-x* marks a nominative form, it is not surprising that there also exists a corresponding plural form. This is formed by the otherwise rare primary plural marker *-n*, yielding the complex nominative plural suffix *-x-e.n* : *-x-n-*, as in *xeudeo/n* 'countryside' : GEN *xeudeo/n-ii* : GEN NOM *xeudeo/n-ii-x* 'one related to the countryside' : GEN NOM PL *xeudeo/n-ii-x-e.n* 'those related to the countryside', *delxii* 'world' : DAT *delxii-d* : DAT NOM *delxii-d-e.x* 'one located in the world' : DAT NOM PL *delxii-d-x-e.n* 'those located the world' → 'the whole world'. The marked nominative plural has, in turn, a full case declension, which can theoretically result in several case suffixes being contained in a single inflected word.

It has to be noted that in the Khalkha Cyrillic orthography the nominative case ending *-x* is rendered in a variety of ways. When combined with the genitive, it is systematically written SG **-x** : PL **-xan -xen -xon -xön**, added without a space to the preceding word form, as in **xödöö** 'countryside' : **xödööniix** : **xödööniixön**. When combined with the dative, it is, however, due to the influence of Written Mongol, written together with the dative ending as a separate "particle" with (only) two harmonic variants: **daxy** vs. **dex**, as in **xot** 'city' : **xoton daxy**, **delxii** 'world' : **delxii dex**. The corresponding plural is also written as a separate "particle" with the invariant shape **daxin**, as in **delxii daxin**. The

orthographical shapes **daxy** and **daxin**, used after words containing a lower-key vocalism, would seem to suggest a patalized *xy*, reflecting the historical shape of the marker (**-ki* : **-ki-n*), but they should not be misunderstood as reflecting the phonemic reality of the modern language, in which the nominative marker is invariably *-x*.

4.10   Adjectival morphology

In the general taxonomy of the parts of speech in Mongolian, adjectives are clearly nominals, which take all the regular markers of nominal morphology, including plural suffixes and case endings. Apart from their semantic function as names of qualities (qualitative nouns), their principal characteristic is their syntactic preference for the adnominal (attributive) position. They can, however, also occur adverbally as well as independently (in subject position). Altogether, adjectives are distinguished by their syntactic and semantic versatility, which allows them to be used in a variety of positions and meanings. This versatility also obscures the distinction between adjectives and other nominals, for an adjective can normally always be substantivized, often even in two meanings, the one describing the quality as an abstract property and the other referring to an object or actor with that quality.

To some extent, then, adjectives in Mongolian are a fictive category, based on their translations into languages with a more clearcut adjectival part of speech. An adjectival nominal like *sain*, normally glossed as 'good', can therefore also be translated as both 'well' (in adverbal usage without a case suffix) and 'goodness' (in independent substantival usage as the name of a non-individualized property), or also as 'the good one' (in independent substantival usage with reference to an individualized object or actor possessing the property). On the other hand, non-adjectival (substantival) nominals can also have adjectival properties, especially in that they can be used adnominally without case marking, e.g. *em* 'woman, wife, female' : *em con//n* 'female wolf', often with a lexicalized meaning, as in *gar* 'hand' : *gar outes/n* (literally:) 'hand cable' = (lexicalized meaning:) 'mobile phone'. There is only one class of substantival nominals, that of the stems ending in the unstable nasal (§4.7), that regularly have a specific adnominal (attributive) form.

From the formal point of view, adjectives, in as far as they can be separated as a subclass of nominals, may be divided into simple and derived stems. The latter can, in turn, be divided into denominal and deverbal derivatives:

1. Adjectives with a simple (non-derived) stem often express basic qualities, such as colour or dimension, e.g. *xar* 'black', *ourt* 'long', or also relative positions, e.g. *juun* 'left; east' vs. *baroon* 'right; west'. A considerable proportion of simple adjectives is formed by stems ending in a stable nasal, cf. also e.g. *tzagaan* 'white', *xourden* 'quick'. Although the nasal in such items belongs to the stem, it can be dropped before

derivational suffixes, as in *sain* 'good' : DIM *sai-xen* 'beautiful'. It can also be changed to an unstable nasal if the adjective is substantivized, as in the example *nogaon* 'green' : *nogao/n* 'vegetables'.

2. Denominal adjectives are typically derived from non-adjectival nominals by a variety of suffixes, all of which are non-productive and, hence, present only in a limited number of lexicalized examples. Most often, it is a question of suffixes indicating the presence of the feature denoted by the basic nominal. Examples include: *-d*, as in *amy//n* 'life' : *amy-d* 'living, alive'; *-byex*, as in *ous//n* 'water' : *ous-byex* 'watery'; *-leg*, as in *yas//n* 'bone' : *yas-leg* 'bony'. Some of the "possessives" in *-t* also belong here, though they are easily substantivized and their plurals are always used as non-adjectival nominals, as in *erdem* 'virtue, learning' : *erdem-t* 'learned' → 'scholar' : PL *erdem-t-e.n* 'scholars'. The fully productive elements POSS *-tai* ('having something'), PRIV =*gwai* ('lacking something') and DAT NOM *-d-e.x* ('located somewhere') are often mentioned as elements deriving adjectives, but they are more correctly classified as elements of inflection.

3. Deverbal adjectives are close to the inflectional category of participles but differ from the latter in that they are formed by non-productive elements and normally involve some degree of lexicalization. Also, deverbal adjectives are syntactically full nominals with no verbal characteristics. Many derived adjectives contain suffixes that are also attested in non-adjectival nominals, e.g. *-g*, as in *beer-* 'to feel cold' : *beer-e.g* 'apt to feel cold'; *-ng*, as in *duur-* 'to be full' : *duur-e.ng* 'full'. A more typically adjectival suffix is *-UU*, more rarely *-UUn*, as in *sogt-* 'to get drunk' : *sogt-oo* 'drunken', *xal-* 'to be hot' : *xal-oon* 'hot'. Conspicuously many deverbal adjectival suffixes contain the element *-m-*, which itself may be identified as a suffix for deverbal nominals (also with grammaticalized functions). Examples include: *-mel*, as in *bic-* 'to write' : *bic-mel* 'written'; *-meg ~ -mgai*, as in *sour-* 'to learn' : *sour-meg ~ sour-e.mgai* 'experienced'; *-mtgai ~ -mxai*, as in *mart-* 'to forget' : *mart-e.mtgai ~ mart-e.mxai* 'forgetful'. In Khalkha, the diphthong *ai* (< **Ai*) in these suffixes can also be represented as *ii* (< **ei*) in words with an upper-key vocalism, as in *id-* 'to eat' : *id-e.mxii ~ id-e.mxai* 'voracious'. In some cases, deverbal adjectives are formed from denominal verbs, resulting in complex suffixes which could also be analysed as indivisible entities, as in *max//n* 'meat, flesh' : *max-s-* 'to want to eat meat' : *max-s(-)e.g ~ max-s(-)oo* 'meat-loving'; *yos//n* 'custom, rule' : *yos-e.rx-* 'to follow the rules' : *yos-e.rx(-)e.g ~ yos-e.rx(-)oo* 'formal, ceremonial'.

A feature specific to the semantics of many adjectival nominals, notably, the so-called "relative adjectives", is gradation. Mongolian has no actual forms of comparison ("comparative" and "superlative"), but gradational differences can be expressed by a variety of prosodic, segmental, morphological, syntactic and lexical means. Depending on whether it is a question of an increased or a decreased degree of the property expressed

by the adjective, we may speak of augmentative vs. moderative forms and constructions. Only moderative forms are, however, expressed by means of suffixal derivation in Mongolian.

Moderative adjectives are formed from nominals which themselves have an adjectival meaning by the suffix *-bter*, as in *xar* 'black' : MODER *xar-e.bter* 'blackish, rather black'. Nasal stems lose their final nasal before this suffix, as in *dzeolen* 'soft' : MODER *dzeol-e.bter* 'rather soft'. A very similar function can be expressed by the denominal diminutive suffix *-xen*, which also conditions the loss of the final nasal of nasal stems, as in *seruun* 'cool' : DIM *seruu-xen* 'rather cool', *amer* 'peace, peaceful' : DIM *amer-xen* 'rather peaceful'. The two suffixes can also occur in the combination *-bter-xen*, as in MODER DIM *dzeol-e.bter-xen* 'rather soft'. The suffixes expressing moderation are relatively productive, but they do have restrictions of occurrence, which means that they involve an element of lexicalization. A fully productive way of expressing moderation is, however, the use of the postclitical particle *=shUU*, as in *eunder* 'high' : *eunder=shuu* 'rather high'.

A typologically interesting, but synchronically marginal, feature of adjectival morphology is the phenomenon of suffixal gender distinction in colour terms, when used to denote animals. Although modern Mongolian generally has no grammatical gender (cf. Kalchofner 2007; Alimaa 2007), colour terms can take the feminine suffix *-gc ~ -gcen*, before which the final nasal of nasal stems is dropped. This suffix is regularly used with the five colour terms of the zodiac: *xeux* 'blue' : FEM *xeux.e.gcen*, *oulaan* 'red' : FEM *oulaa-gcen*, *shar* 'yellow' : FEM *shar-e.gcen*, *tzagaan* 'white' : FEM *tzagaa-gcen*, *xar* 'black' : FEM *xar-e.gcen*. The feminine forms are used attributively to indicate the natural gender of the animal, as in *xeux noxai* 'blue male dog' (zodiac sign of the eleventh year of the sixty-year cycle) vs. *xeux-e.gcen gaxai* 'blue female pig' (zodiac sign of the twelfth year of the sixty-year cycle) . The feminine suffix can also be attached to terms specifically denoting shades of animal colours, as in *xongger* 'fallow (horse)' : FEM *xongg-e.gcen* 'fallow female (horse)'. The same suffix is also attested in the idiosyncratic lexicalized item *eul-e.gcen* 'female (animal)', which has no synchronically surviving base word.

4.11   Alliterative particles

The function of adjectival augmentatives is mainly filled by phonological emphasis (§3.15), on the one hand, and separate intensifying particles, on the other. It is also possible to reduplicate the adjective, e.g. *eunder* 'high' : *eunder eunder* 'very high', though simple reduplication of this type normally expresses plurality rather than intensity. A more specific method of marking intensity is, however, the phenomenon of alliterative reduplication, widely attested in languages of the "Ural-Altaic" type. This is a feature somewhat reminiscent of the generic rhymes (§4.4), but the difference is that while the generic rhymes contain a repetition of the final part (rhyme) of the word, alliterative

reduplication involves the anticipation of the initial part (normally, the first syllable) of the word. While a generic rhyme follows the principal lexical nominal that it rhymes with, an element formed by alliterative reduplication precedes the adjectival nominal that it intensifies.

Alliterative reduplication is a very regular process formally that involves the adding of the weak labial obstruent *b*, phonetically [p] ~ [w], to the initial consonant-vowel sequence (#CV) of the adjectival root, e.g. *xeux* 'blue' : ALLIT *xeu.b xeux* 'bright blue', *nogaon* 'green' : ALLIT *no.b nogaon* 'bright green'. In cases of a vowel anlaut (#V), only the vowel is copied, as in *oulaan* 'red' : ALLIT *ou.b oulaan* 'bright red', which may also be taken to imply that an initial vowel is preceded by an "empty" (zero) consonant (ØV), i.e. (Ø)*ou.b* (Ø)*oulaan.* The phenomenon of alliterative reduplication is most often encountered with colour terms, but it is also common with adjectives denoting other simple qualities, cf. e.g. *doulaan* 'warm' : ALLIT *dou.b doulaan* 'quite warm', *say* 'recent/ly' : ALLIT *sa.b say* 'quite recent/ly', *toderxai* 'clear' : *to.b toderxai* 'very clear'.

The monosyllabic elements formed by alliterative reduplication function morphosyntactically as invariable particles, and in the present treatment they are, therefore, termed "alliterative particles". Unlike other intensifying particles, which are either general (used with any adjectival nominal) or item-specific (used only with certain items), alliterative particles have both phonological and lexical restrictions. Due to the lexical restrictions, they can be formed only from certain lexically specified items, leaving out a large number of adjectival nominals, especially those with a more complicated semantics. On the other hand, alliterative particles are not item-specific, for their occurrence is basically only governed by the requirement of phonological compatibility. Thus, for instance, the alliterative particle *xa.b* can be used with several adjectival roots beginning with the sequence *xa*, including *xaloon* 'hot', *xar* 'black', *xarenggwai* 'dark', *xatoo* 'hard' and others.

Alliterative reduplication is potentially a source of additional information concerning the structure of the vowel systems in the different Mongolian dialects. In most dialects, the systems of short and long vowels do not match, in that the number of distinct short vowels is generally smaller than that of long vowels, and there are also differences in the qualities. If an alliterative particle is formed from an adjectival root containing a long vowel in the initial syllable, the vowel has to be shortened, but the exact methods of shortening can vary from dialect to dialect (Svantesson & al. 2005: 58–59). As a rule, a long vowel is replaced by its paradigmatically closest counterpart in the system of short vowels, which often also corresponds to the phonetic reality, as in *beorengxii* 'round' : *beu.b beorengxii* 'perfectly round'. For diphthongs, however, the short vowel of the alliterative particle is normally chosen in accordance with the etymological quality of the initial component of the diphthong, although the phonetic difference may be considerable, as in DIM *oir-xen* 'close' : ALLIT *o.b oir-xen* [ɔw ɔerxəŋ] ~ [ɔw œːrxəŋ] 'very close'.

The situation is slightly different in some of the Inner Mongolian dialects that have palatal short vowels in their synchronic paradigms. In these dialects, the palatal short vowels can also be used in the alliterative particles, as in ALLIT *oe.b oir-xen* [œw œːrxən], suggesting that alliterative reduplication is a living process that can adapt to the changing phonetic reality of the language. An interesting case is observed in the alliterative particle which goes with *xuiten* 'cold'. The normal construction is *xu.b xuiten* [xuw xʉiʰtən], but marginally the shape *xue.b xuiten* [hyp hyːʰtən] (Khorchin) is also attested (Svantesson & al. 2005: 59). As may be noted, the alliterative particle [hyp] contains the short high rounded palatal vowel *ue* [y], which is normally not attested in lexical forms. However, its paradigmatic position marks a gap in the system (Table 8), and its use in alliterative reduplication is one of the first signs suggesting that it is becoming a regular member of the paradigm.

At least dialectally, but probably widely over the Mongolian language area, the alliterative particles can also be emphasized by lengthening the vowel, as in *shar* 'yellow' : ALLIT *sha.b shar* 'bright yellow' : ALLIT EMPH *sh=aa=b shar* 'extremely bright yellow'. The vowel lengthening here can hardly be seen as anything else but a manifestation of the phenomenon of phonological emphasis, which in this case is expressed by the "inclitic" use of the emphatic element.

4.12   Spatial morphology

Spatials are nominals that express the spatial or temporal context of an action either as direct modifiers (adverbs) to a verb or in combination with a preceding nominal (as postpositions). Functions similar to those of spatials can also be filled by regular nominals with a spatial or temporal meaning, but as a specific subclass of nominals spatials are characterized by a defective nominal paradigm and/or atypical stem alternations and formal categories, which include specific spatial case forms. From the diachronic perspective, spatials may be viewed as relicts which preserve certain otherwise lost morphological properties. As a lexical and morphological category, spatials are a closed group that no longer grows.

A fully inflected spatial form can consist of three parts: a root, an element of stem extension and a case suffix. The roots are not used as independent words (free forms), but the combination of a root and an element of stem extension functions as a spatial expression with a dative-locative meaning and is in the present treatment identified as the "locative" case form of the spatial. Historically, the situation is somewhat different, for the element of stem extension is originally not an actual case ending, though it was once followed by a case ending (the locative ending **-A*), which has been lost as an independent element. Other case forms of spatials are formed either from the locative or directly from the spatial root. Forms invariably based on the locative comprise the

Table 17. The spatial case markers

(1)	LOC	-e.n'	-e.r	-e.d	-AA
(2)	LOC NOM	-n-e.x	-r-e.x	-d-e.x	-AA-x
(3)	LOC ABL	-n-AAs	-r-AAs	-d-AAs	-AA/n-AAs
(4)	[LOC] LAT	-[e.n-]sh	-sh	-e.g-sh	
(5)	[LOC] PROL	-g.UUr		-d-UUr	-[AA-g.]UUr
(6)	PROL NOM	-g.UUr-e.x		-d-UUr-e.x	-[AA-g.]UUr-e.x

ablative (locative-ablative) and the marked nominative (locative-nominative), while two other cases, not attested in the declension of ordinary nominals and here termed the "lative" (also called "directive") and the "prolative" (also called "prosecutive"), can be based either on the locative or on the spatial root. The prolative can also serve as the basis for a new marked nominative. Thus, spatials can have up to six different local case forms (Table 17).

1. Locative: There are four mutually unrelated formatives that may synchronically be understood as marking the "basic" form, that is, the locative case, of spatials. The four elements are *-e.n'* (< *-n-A*) : *-n-*, as in *eum-e.n'* 'front, before, south', *xoi-n'* 'back, behind, after, north'; *-e.r* (< *-r-A*) : *-r-*, as in *dee-r* '(up)on, above', *dor ~ dao-r* 'under, below', *dzoo-r* 'between, halfway'; *-e.d* (< *-d-A*) : *-d-*, as in *oury-d* 'before' (of time) ~ *our-d* 'front, before' (of place), *derg-e.d* 'beside, by', *doun-d* 'middle, among'; and *-AA* (< *-x-A*) : *-AA-*, as in *dot-ao* 'inside', *gad-aa* 'outside'. The items with *-AA* can also take *-n'* and *-r* with no difference in the meaning but with dialectal variation as to what the preferred form is: *dot-ao ~ dot-e.n' ~ dot-e.r* 'inside, among', *gad-aa ~ gad-e.n' ~ gad-e.r* 'outside'.

It is important to stress that the four elements of stem extension on the spatials (*n*, *r*, *d*, *x*) are neither synchronically nor diachronically case markers as such, for their status as "locatives" derives from the actual locative ending (*-A*) that once followed them. For this reason, spatials of the type *doun-d* '(in the) middle' are also synchronically best identified as "locatives" and not as datives, although the element *-d* in them is superficially identical with the regular dative ending *-d*. In a diachronic framework, the synchronic dative ending *-d* (< *-dU/r* : *-d-A-*) is based on the element *-d* (< *-d*) of spatials, but the formal history of the dative involves also other elements, including the original locative ending (*-A*).

2. Locative-nominative: The marked nominative ending *-x* : *-e.x* transforms the spatials into new nominatives with the meaning 'located at/in', e.g. LOC NOM *eum-n-e.x* 'located in the front (of), in the south (of)', *dee-r-e.x* 'located on the top (of)', *doun-d-e.x* 'located in the middle (of)', *gad-aa-x* 'located outside (of)'.

3. Locative-ablative: As the locative form of spatials expresses either location 'at' or movement 'to', the corresponding expression for movement 'from' is expressed by the double-declension form incorporating the regular ablative ending *-AAs*, e.g. LOC ABL *xoi-n-aos* 'from the back (of), from the north (of)', *dot-r-aos* 'from the inside (of)', *dereg-d-ees* 'from the side (of)'. The spatials in *-AA*, which would require the connective consonant *g* before the ablative ending, are, however, normally extended with */n*, as in LOC ABL g*adaa/n-aas* 'from the outside (of)'. This might mean that the spatial marker *-AA* should actually synchronically be analysed as *-AA/n*.

4. Lative. The lative form of spatials has a function corresponding to the directive form(s) of regular nominals, that is, 'towards, in the direction (of)'. The lative ending is *-sh*, which behaves differently with the different spatial formatives. The spatial formative *-r*(-) is absent before the lative ending, as in LAT *dee-sh* 'towards the top (of)', *dao-sh* 'towards the bottom (of)'. The spatial formative *-n*(-) is either absent or present depending on the item, as in LAT *xoi-sh* 'towards the back (of)' vs. LOC LAT *eum-e.n-sh* 'towards the front (of)'. The spatials with the formative *-AA*(-) (< *-x-A- < *-g-A-*) have historically related latives in *-e.g-sh* (< *-g-si*), as in LOC LAT *dot-e.g-sh* 'towards the inside (of)', *gad-e.gsh* 'towards the outside (of)'. The complex ending *-e.g-sh* is also present in *our-e.g-sh* 'towards the front (of), forwards', which may be seen as the lative form corresponding to the spatial LOC *our-d* 'front, before'. From the spatials, the lative ending has spread to a few regular nouns, notably *juun* 'left, east(side)' : LAT *juun-sh* 'eastwards', *baroon* 'right, west(side)' : LAT *baroon-sh* 'westwards'. Upon the analogy of LOC *our-d* 'in the front (of) : LOC LAT *our-e.gsh* 'forewards', the regular nominal *ar* 'back (part)' : DAT *ar-d* 'in the back (of)' has also received the lative form LOC LAT *ar-e.g-sh* 'backwards', suggesting that the spatial LOC *our-d* is really synchronically (mis)understood as a dative.

5. Prolative. The prolative is marked by the ending *-g.UUr*, which expresses general approximate location ('around'), or also the route taken by a movement ('through, by way of'). In the declension of regular nominals these functions can be expressed by the instrumental in *-g.AAr*, suggesting that the prolative in some ways corresponds to the instrumental, which is otherwise absent in spatial morphology (Sechenbaatar 2003: 54–55). The spatial formatives *-n*(-) and *-r*(-) are absent before the prolative ending, as in PROL *xoi-g.oor* 'somewhere in the back, around the north', *dee-g.uur* 'somewhere above'. The spatial formative *-AA*(-) can be either absent or present, but unlike the ablative, the prolative is formed from the non-nasal stem, as in PROL *gad-oor* ~ LOC PROL *gad-AA-g.oor* 'somewhere outside'. The spatial formative *-d*(-), however, is always present before the prolative ending, as in LAT PROL *doun-d-oor* 'around the middle, among', *dereg-d-uur* 'somewhere beside'.

6. Prolative-nominative. Like the "basic" form or locative, the prolative of spatials can also be nominativized by the marked nominative ending *-x*, as in PROL NOM *xoi-g.oor-e.x* 'located somewhere in the back, in the north', LOC PROL NOM *doun-d-oor-e.x* 'located somewhere in the middle, among'. Due to their rather complicated semantic structure these double-declension forms are relatively rare.

Apart from the local case paradigm, comprising also the secondary marked nominatives based on the locative and prolative cases, the spatials can be combined with the regular genitive ending, as in LOC *gad-e.n* 'outside' : LOC GEN *gad-n-ii.n* 'of the outside'. In such usage, the "basic" form of the spatial functions as a new nominative. It has to be noted, however, that the "basic" form of the spatials is not attested alone in the principal syntactic functions of regular nouns (subject, object). In adnominal usage, apart from the marked nominatives, the spatials can take the "attributive" suffix *-d*, which yields partially lexicalized meanings and forms, as in LOC ATTR *dot-ao-d* ~ *dot-g.ao-d* 'internal' > 'domestic'. In substantival usage, the attributive forms can take all the regular case endings, as in LOC ATTR *gad-aa-d* 'external' > 'foreign countries' : LOC ATTR DAT *gad-aa-d-e.d* 'abroad'. Before the attributive suffix, the spatial formative *-r(-)* is absent, as in *dee-d* 'upper', *dao-d* 'lower'. In spite of its synchronic homophony with the spatial formative *-d* (< *-d-A*) the attributive suffix *-d* (< *-dU*) is a historically distinct element, though there is a tendency to confuse the two, as in LOC *oury-d* 'before' (< *uri-d-a*) = ATTR *oury-d* 'former' (< *uri-du*), LOC *doun-d* 'in the middle' (< *dum-d-a*) = ATTR *doun-d* ~ LOC ATTR *doun-d-e.d* 'central' (< *dum-d-a-du*).

For an unknown diachronic reason, the attributive form of the item LOC *xoi-n* 'in the back, in the north' is formed by the suffix *-t*, yielding ATTR *xoi-t* 'northern' (< *koi-tu*), as in *xoi-t dzug* 'northern direction' (with *dzug* 'direction'). By contrast, the item *eum-e.n* 'in the front, in the south' is used in the locative form also in the role of an adnominal modifier, as in *eum-e.n dzug* 'southern direction'. A similar item, but not attested as a general spatial, is *dor-e.n* 'in the east' > 'east, eastern', though the latter has also the regular attributive form *dor-n-e.d* 'eastern'. When referring to the points of the compass, the items *xoin* 'north', *eumen* 'south' and *doren* 'east', can possibly all be understood as secondary nominatives, but they lack a full nominal paradigm and can also occur as adverbal modifiers.

There are two other special suffixes frequently taken by spatials. The one of them is the denominal diminutive (also called "moderative") suffix *-xen* : *-xn-*, which expresses moderation of the basic meaning. This suffix can be added either after the fully inflected spatial form or before the lost locative ending (*-A*) of the spatial. The difference is evident from the synchronic final nasal, which is either *-n* (< *-n*) or *-n'* (< *-n-A*), as in LOC PROL DIM *our-d-oor-xen* 'a little south (of)' (< *uri-d-a-xur-kan*), DIM LOC *xoi-x-e.n* 'immediately north (of)' (< *koi-kan-a*). The complex suffix *-x-e.n* belongs synchronically to the spatials containing the formative *-n'* : *-n-*, with the diminutive (moderative)

function remaining to be expressed by the element *-x-*. To this complex suffix, other spatial case endings can also be added, as in DIM LOC *dee-x-e.n'* 'a little above' : DIM LOC PROL *dee-x-n-oor.*

The other special suffix taken by spatials is *-tai ~ -tAA*, an element that may also be called the "spatializer" (Sechenbaatar 2003: 83–84). This is a recently suffixalized reflex of the distal demonstrative stem *tee- ~ tii-* 'that (side)', as also attested in LAT *tee-sh ~ tii-sh* 'in that direction' : PROL *tee-g.uur* 'that way', *tee tee-g.uur* 'everywhere'. Depending on the item, the spatializer can be attached either to the spatial root, as in SPLZ *xoi-tai* 'in the north', or to the locative form, as in LOC SPLZ *eum-e.n-tai* 'in the south'. It also occurs dialectally after regular nominals, making them functionally similar to actual spatials, as in *xajoo* 'side' : SPLZ *xajoo-tai* 'on the side (of)'. It may be noted that the spatializer is homophonous with the possessive case ending *-tai*, but the two elements are diachronically distinct and probably remain so in the synchronic consciousness of the speakers.

4.13   Numeral morphology

Numerals in Mongolian are basically regular nouns with a full nominal paradigm. The reasons why they may nevertheless be seen as a special nominal subclass are, (i) first, their semantic function as quantifiers; (ii) second, their morphosyntactic properties, which distinguish them from prototypical nominals (nouns); and (iii) third, their derivational morphology, which exhibits several features characteristic only of numerals. Morphosyntactically, numerals are rather close to adjectives, in that, in their basic form, they can be used both adnominally (as attributes) and adverbally (as adverbal modifiers). As quantifiers, numerals are semantically comparable with nominals expressing quantity, amount or number, such as *olen* 'multitude, many' (with countables), *yix ~ ix* 'big, much' (with uncountables), *xeseg* 'part, some' (ambivalent). In absolute (substantival) usage (without a nominal headword), numerals, like adjectives, can take case endings as required by the syntactic context.

The numeral roots form a matrix in which the items for the digits (from 2 to 9) are connected with those for the decades (from 20 to 90) in a synchronically obvious but etymologically complex way (Table 18). Apart from the normal phonological variation between the dialects, some numeral stems show idiosyncratic variation, as in 9 *yeus//n ~ yis//n ~ is//n* (< **yösü/n*) and 90 *yer//n ~ yir//n ~ ir//n* (< **yere/n*). With the exception of the item 2 *xoyer*, all numeral stems incorporate the unstable nasal */n,* whose presence or absence conditions further changes in the syllabification of the stem. The distribution of the absolute form (the plain nominative) and the nasal stem (the attributive form) in the case declension follows the rules established for the regular nominals ending in the unstable nasal. The nasal stem is, therefore, always used before other nominals, as in ATTR *gourb-e.n xun* 'three people'. However, the item 1 *neg//n* (also: > 'a/an') is normally

Table 18. The basic digits and decades

	Digits				Decades		
		ABS	**ATTR**			**ABS**	**ATTR**
1	*neg//n*	*neg*	*negen*	10	*arb//n*	*areb*	*arben*
2	*xoyer*			20	*xory//n*	*xory*	*xoryen*
3	*gourb//n*	*goureb*	*gourben*	30	*gouc//n*	*gouc*	*goucen*
4	*deurb//n*	*deureb*	*deurben*	40	*deuc//n*	*deuc*	*deucen*
5	*tab//n*	*tab*	*taben*	50	*taby//n*	*taby*	*tabyen*
6	*dzourgaa/n*	*dzourgaa*	*dzourgaan*	60	*jar//n*	*jar*	*jaren*
7	*dolao/n*	*dolao*	*dolaon*	70	*dal//n*	*dal*	*dalen*
8	*naim//n*	*naim*	*naimen*	80	*nay//n*	*nay*	*nayen*
9	*yeus//n*	*yeus*	*yeusen*	90	*yer//n*	*yer*	*yeren*

used in the absolute form except when following an item for a decade, as in ABS *neg xun* 'one person' : ATTR *arben neg-e.n xun* 'eleven people'. When counting, all numerals occur with their plain stem, as in ABS *neg xoyer goureb deureb tab* 'one two three four five'.

For 0, the Tibetan loanword *teg ~ tig* 'zero' (also: 'dot, line') is used. The powers of 10 have lexically separate native roots for 10^2 *dzoo/n* 'hundred', 10^3 *myangg//n* 'thousand' and 10^4 *tum//n* 'ten thousand', all of which use the nasal stem in the attributive function. Multiples of these are expressed by the method of simple multiplication, with the numeral expressing the multiple being in the attributive form, as in 3×10^2 *gourben dzoo/n*, 4×10^3 *deurben myangg//n*, 5×10^4 *taben tum//n*. For the higher powers, there also exists a partially obsolete series of Tibetan borrowings: 10^5 *boum*, 10^6 *say*, 10^7 *jibaa ~ jabaa ~ jab*, 10^8 *dounshoor ~ dunshuur ~ duncuur*, which do not have a nasal stem. The system of counting varies, in that the base is in Inner Mongolia 10^4 (as in China), while in Outer Mongolia it is today 10^3 (as in Russia). This means that there are considerable differences as to which of the higher powers of 10 are in active use. The Outer Mongolian numeral 10^6 *say* 'million' is normally replaced by $10^2 \times 10^4$ *dzoon tum//n* in Inner Mongolia, while the Inner Mongolian numerals 10^4 *tum//n* and 10^8 *dounshoor ~ dunshuur ~ duncuur* are replaced by 10×10^3 *arben myangg//n* 'ten thousand' and $10^2 \times 10^6$ *dzoon say* 'hundred million' in Outer Mongolia. In Outer Mongolia, the Russian (European) loanwords 10^6 *millyaon* 'million' and 10^9 *millyaard* 'billion' are also used.

Complex numerals are expressed by a combination of multiplication and addition, and they are normally divided into phrases corresponding to the powers of 10, in which the nasal stem is used only in the attributive member of each phrase, as in 5,430 *taben myangg deurben dzoo gouc//n.* The nasal stem is also used to express the decades before the intermediate digits, as in 11 *arben neg//n*, 99 *yeren yeus//n.* Missing parts (empty slots) in complex numerals can be filled, especially in Inner Mongolia, by the conjunction

beugeod 'and' (in this function corresponding to Chinese *líng* 'zero'), as in 5,033 *taben myangg beugeod goucen gourb//n*, 5,003 *taben myangg beugeod beugeod gourb//n*.

The derivatives formed from the basic (cardinal) numerals may be classified according to their function into (1) ordinals, (2) collectives, (3) approximatives, (4) distributives and (5) multiplicatives:

1. Ordinals. The most common way of forming ordinals is by using the element +*dougaar*, Cyrillic Khalkha **dugaar**, which synchronically also functions as a nominal lexeme in the meaning 'number'. This element can be used after the plain stem of all numerals and has to be analysed as a separate word, e.g. *neg+dougaar* 'first', *xoyer+dougaar* 'second', *goureb+dougaar* 'third'. Historically these are, however, cases of a secondary reading pronunciation of a complex suffix with two harmonic variants, in Written Mongol rendered as **duqhar** vs. **dugar** (standing for the original shape **-dU-xAr*). The regular representation of this complex suffix would be *-dAAr**, as still attested in some other Mongolic languages (notably Dagur), but this has apparently been completely lost in modern Mongolian. Even so, the ordinal marker appears dialectally in the two harmonic shapes +*dougaar* vs. +*dugeer*, rendered in Cyrillic Khalkha as -**dugaar** vs. -**dügeer**, as in ORD *goureb+dougaar* 'third' vs. *deureb+dugeer* 'fourth'. Also, the numeral stems for 'six' and 'seven' can appear in a truncated shape before the ordinal marker: ORD *dzourgaa+dougaar ~ dzouregh+dougaar* 'sixth', *dolao+dougaar ~ dol+dougaar* 'seventh'. Such data might suggest that the element +*dougaar* could also be analysed as a special type of harmonically alternating clitic, that is, =*dougaar ~ =dugeer*. However this may be, it is certainly not a question of a regular suffix.

Another way of forming ordinals is by the suffixal complex *-d-e.x*, which may be identified as the regular dative-nominative double case form. This complex is always added to the regular (non-truncated) plain stem of the numeral, as in DAT NOM *neg-d-e.x* 'first', *xoyer-d-e.x* 'second', *goureb-d-e.x* 'third', *dzourgaa-d-e.x* 'sixth', *dolao-d-e.x* 'seventh'. In the Khalkha Cyrillic orthography, this complex is correctly treated as a suffix, which, moreover, is orthographically neutral with regard to labial harmony, as in **negdexy** 'first', **doloodaxy** 'seventh'. It may be recalled that the same suffixal complex, when following regular nouns, is rendered in Cyrillic Khalkha as the independent graphic words **daxy** : **dex** : PL **daxin** (§4.9).

The two ways of forming ordinals are basically interchangeable but they have dialectally and contextually varying preferences. For instance, the names of the months are normally expressed either by the ordinals in +*dougaar*, or also by the corresponding cardinals, as in *tab+dougaar sar* 'fifth month' = *taben sar* 'five-month' (for 'May'). The days of the week, by contrast, are expressed by the ordinals in *-d-e.x*, as in *tab-d-e.x euder* 'fifth day' (for 'Friday').

2. Collectives. Collective numerals express the number of joint actants ('together') and are formed by the suffix *-UUl//n = -UUl : -UUl/n- : -UUl/e.n-*, dialectally also *-UUl-e.ng.g-*. These are normally only formed from the numerals for the basic digits (2–9) and the corresponding decades (10–90), e.g. COLL *deurb-uul//n* 'four together', *jar-ool//n* 'sixty together'. Truncated stems are present in COLL *xoy-ool//n* 'two together', *dzourg-ool//n* 'six together' and *dol-ool//n* 'seven together'. In rare cases, collectives can also be formed from the numerals for the higher intermediate digits, in which case the form *neg//n* 'one' : COLL *neg-uul//n* is also possible', as in *arben neg-uul//n* 'eleven together'.

3. Approximatives. Approximatives express approximate numbers ('about') and are formed by the suffix *-g.AAd*, which is normally added to the numeral stems for the decades and the higher powers of ten, as in APPR *arb-aad* 'about ten', *deuc-eod* 'about forty', *dzoo-g.aad* 'about a hundred', *xoyer myangg-aad* 'about two thousand'. The same function can be expressed by the juxtaposition of two consecutive numerals of the same order, a method that can also be used for the digits, as in *xoyer gourb//n* 'two or three', *gouc deuc//n* 'thirty or forty'. Occasionally, approximatives are expanded by the ordinal and collective markers, as in APPR ORD *arb-aad dougaar* 'about tenth', APPR COLL *arb-aad-ool* 'about ten together'.

4. Distributives. Distributives express the number assigned to each actant and are formed by the same suffix as the approximatives: *-g.AAd*. The difference is that distributives are normally only formed from the numeral stems for the digits, as in DISTR *gourb-aad* 'three each', *deurb-eod* 'four each'. Special stem variants are present in DISTR *nej-eed ~ nij-eed* 'one each' and *xosh-ood* 'two each'. The form DISTR *arb-aad* 'ten each' is ambiguous, for it is identical with APPR *arb-aad* 'about ten', and it remains an open question whether distributives and approximatives should at all be classified as separate categories. In the distributive function, the suffix *-g.AAd* can be expanded by the instrumental case suffix with no change in the meaning, as in DISTR INSTR *gourb-aad-aar* 'three each'. Dialectally, as in Chakhar, the distributives are actually replaced by the instrumental forms of the numerals, normally accompanied by the reduplication of the stem, as in INSTR *tab tab-aar* 'five each'.

5. Multiplicatives. Multiplicatives express the number of repetitions ('times') and are formed by the suffix *-t*, added to the nasal stem of the numerals, as in MULT *gourben-t* 'three times'. With the exception of MULT *negen-t* 'once', which is also used in the secondary lexicalized meaning 'already', these forms are rare in the modern spoken language. In many dialects, analytic constructions based on words meaning 'time/s' are used. The most common of these words is *oudaa*, which, however, can in rapid speech also yield the secondary multiplicative postclitic *=daa*, as in ATTR *gourb-e.n oudaa ~* NOM *goureb oudaa* 'three times' > *goureb=daa*. On the other hand, the multiplicative function can most simply be expressed by the plain stem of the numerals themselves, as used in adverbal position (§6.11).

There are also several other suffixes taken by the numeral stems, especially in lexicalized items and sometimes with irregular stem alternations. Examples are: *-msAng*, as in *xoi-mseng* 'double', *gour-e.mseng* 'triple', and *-ljen*, as in *gourb-e.ljen* 'triangle', *deurb-e.ljen* 'quadrangle'. Also, some otherwise well-attested nominal derivational and inflectional suffixes have idiosyncratic functions when combined with numerals. For instance, the possessive case suffix *-tai* expresses age ('years old'), as in POSS *areb-tai* 'ten years old', while the instrumental form has a "maximative" function ('as many as'), as in INSTR *tab-aar* 'as many as five'. The denominal diminutive suffix *-xen* can be combined with both the plain cardinal stems and with the approximative forms in a "delimitative" function ('only'), as in DIM *areb-xen* 'only ten', APPR DIM *arb-aad-xen* 'only about ten'.

4.14 Non-personal pronouns

Pronouns in Mongolian form a diversified class of pro-words, which comprises not only pronominal counterparts of regular nouns (substantives), but also pronominal adjectives, spatials and numerals. There are also pronominal verbs (pro-verbs), which, however, may be analysed as secondary verbal derivatives or representations of primary nominal pronouns. Therefore, pronouns may be seen as a basically nominal subclass of words, and their status as nominals is also evident from the fact that they take the endings of nominal inflection.

In view of their reference, the Mongolian pronouns are conveniently divided into the traditional categories of personal, reflexive, demonstrative, interrogative and indefinite pronouns. Of these, the personal and reflexive pronouns are connected with the category of person, which has also other grammatical (including inflectional) manifestations in the language. The demonstrative pronouns express non-personal deixis on the proximal-distal axis. Interrogative pronouns are likewise differentiated according to the personal vs. non-personal distinction. The indefinite pronouns in the proper sense of the term are formally connected with the interrogatives. Due to the prevalent "Ural-Altaic" sentence structure there are no relative pronouns. There is, however, a heterogeneous group of "other" pronominal words, often also classified as "indefinite" pronouns but better treated under the names "collective", "distributive" and "selective" pronouns (Sechenbaatar 2003: 112–113).

The entire class of pronouns may be seen as a closed group, though especially the category of "other" pronouns is relatively open to innovations, as is evident from the presence of a considerable amount of dialectal variation in them. This group is, however, morphologically trivial, since it follows the pattern of regular nominals. By contrast, the demonstrative and interrogative pronouns show many idiosyncrasies connected with both inflectional and derivational morphology. These pronouns form two clearcut correlative series, one of which comprises the basic demonstratives *e-* 'this' vs. *te-* 'that' and

Table 19. The basic deictic pronouns

		PROX	DIST	INTERR
		e-	*te-*	*xe-*
NOM		*en'*	*ter*	*xen*
OBL		*en[-ee/n]-*	*ter[-ee/n]-*	*xen-*
		uu/n-	*tuu/n-*	
LOC		*en-d*	*ten-d*	
LOC ABL		*en-d-ees*	*ten-d-ees*	
LAT		*ee-sh ~ ii-sh*	*tee-sh ~ tii-sh*	
PROL		*en-uur*	*ter-uur ~ ten-uur*	
		en-ee-g.uur	*t[er-]ee-g.uur*	
PL		*e-d ~ e-d//n-*	*te-d ~ e-d//n-*	*xe-d*
		e-d-ner	*te-d-ner*	
		e-d-geer	*te-d-geer*	
QUANT	−COUNT	*eu-d-ii*	*teu-d-ii*	*xe-d-ii*
	+COUNT	*eud//n*	*teud//n*	*xe-d//n*
MOD	ATTR	*ii-m[-e.rxuu]*	*tii-m[-e.rxuu]*	
	ADV	*ii-n*	*tii-n*	

the corresponding interrogative *xe-* 'what?' (Table 19), while the other comprises the spatial demonstratives *naa-* 'this place' vs. *tzaa-* 'that place' and the corresponding interrogative *xaa-* 'what place?' (Table 20).

The basic demonstrative roots PROX *e-* vs. DIST *te-* are never used alone, the simplest free forms being the nominatives *en'* 'this' vs. *ter* 'that', which also occur as oblique stems either as such or with the extension *-ee/n-*. Apart from the regular case forms of the nominal paradigm, these stems, with dialectal variation in the preferences between them, also serve as the bases for the prolatives *en-[ee-g.]uur* 'by this way' vs. *ter-[ee-g.]uur* 'by that way'. Another set of oblique stems is *uu/n-* vs. *tuu/n-*, still used in dialectal or literary Khalkha but elsewhere almost obsolete. The special forms *en-d* 'here' vs. *te-n-d* 'there' have to be analysed as spatial locatives, from which also the double-declension locative-ablatives *en-d-ees* vs. *te-n-d-ees* are formed. The corresponding latives *ee-sh ~ ii-sh* vs. *tee-sh ~ tii-sh* (> spatializer *-tai ~ -tAA*) are based on a different stem, which is synchronically (though not diachronically) identical with that attested in the modal forms ATTR *ii-m ~ ii-m-e.rxuu* 'like this' vs. *tii-m ~ tii-m-e.rxuu* 'like that' and ADV *ii-n* 'like this' vs. *tii-n* 'like that'. The plural forms are *e-d* vs. *te-d*, in oblique stems normally *e-d//n-* vs. *te-d//n-*, and they can be expanded by the regular plural marker *-ner* (+human) as well as by the idiosyncratic element *-geer* (±human). Originally based on the plurals are also

the quantifiers *eu-d-ii* 'this much' > '(not) yet' vs. *teu-d-ii* 'that much' (for uncountables) and *eu-d//n* 'this many' vs. *teu-d//n* 'that many' (for countables). Further derivatives are *eu-cneen* 'this much' vs. *teu-cneen* 'that much', which incorporate a recently suffixalized trace of the regular nominal *cinee/n* 'strength, quantity'.

Only a few forms of the basic demonstrative pronouns have formal and functional parallels in the interrogative series based on the root *xe-* 'what?'. Strictly speaking, the only examples are offered by the quantifiers *xe-d-ii* : *xe-cneen* 'how much?' (for uncountables) and *xe-d//n* 'how many?' > 'some' (for countables), though a lexicalized parallel is present in *odao* 'now' (originally a pronominal spatial based on **e-*) vs. *xedzee* 'when?' : *xedzee/n* > 'long ago' (based on *xe-*). The item *xe-d-ii* is also attested in the nasal stem *xedii/n* 'former', which is the base of the petrified form (originally emphatic locative) *xedii/n-ee* 'formerly'. Another item from the root *xe-* is the isolated modal interrogative *xe-r* 'how?'. The stem *xen* : OBL *xen-* : PL *xe-d* 'who?' differs from the demonstratives in that it always refers to persons (+human) and functions, therefore, as the question word for the personal pronouns. Importantly, the interrogative *xe-d//n* 'how many?' functions as the question word for numerals and can therefore occur with numeral morphology, as in ORD *xed+dougaar* 'the how manieth?', COLL *xed-uul//n* 'how many together?'.

The parallelism between the spatial deictics is more perfect, a synchronic fact that, incidentally, reflects the relatively recent diachronic origin of this system. The only formal aberrance is that the interrogative spatial *xaa-* has two locative forms, the one with and the other without the spatial formative *-n'*, i.e. LOC *xaa ~ xaa-n'* 'where?'. It may be noted that the basic demonstrative roots *e-* vs. *te-* also yield the spatials LOC *en-d* 'here' vs. *ten-d* 'there' (with associated other case forms). The semantic difference of these with regard to LOC *naa-n'* vs. *tzaa-n'* is relatively small, but the latter are normally related to a reference point and can, therefore, be translated 'on this side (of), near here' vs. 'on that side (of), over there'. For this reason, they are often used postpositionally (with a preceding genitive), as in (GEN *gol-ii.n* 'river' :) *gol-ii.n naa-n'* 'on this side of the river', *gol-ii.n tzaa-n'* 'on the opposite side of the river'. The spatial roots *naa-* vs. *tzaa-* also have the attributive (adjectival) forms ATTR *naa-d* 'located here, close-by' vs. *tzaa-d* 'located there, far-away'. Although these are, in principle, nominatives, they can take the marked

Table 20. The spatial deictic pronouns

	PROX	DIST	INTERR
	naa-	*tzaa-*	*xaa-*
LOC	*naa-n'*	*tzaa-n'*	*xaa(-n')*
LOC ABL	*naa-n-aas*	*tzaa-n-aas*	*xaa-n-aas*
LAT	*naa-sh*	*tzaa-sh*	*xaa-sh*
PROL	*naa-g.oor*	*tzaa-g.oor*	*xaa-g.oor*
ATTR	*naa-d*	*tzaa-d*	

nominative ending *-x*, yielding ATTR NOM *naa-d-e.x* vs. *tzaa.d-e.x* with little change in the meaning but with a wider range of independent (substantival) uses. An analogous meaning is expressed by the nominativized locatives LOC NOM *naa-n-e.x* vs. *tzaa-n-e.x*, which also have the interrogative counterpart *xaa-n-e.x* 'located where?' ~ 'coming from where?' (when asking a person about his/her home region).

Outside of the systematic matrices there are several other demonstratives and interrogatives, including (demonstratives:) *meun* 'this (very same one)' (also used as a copula), *tous* 'this (said one)', (interrogatives) *yuu/n* 'what?' (independent) vs. *yamer* 'what kind of, how?' (adnominal and adverbal), *aly//n* 'which (one)?' (independent and adnominal). A marginal correlative series is present in the triplet *meun-eo* 'this (one)' ~ 'recently, now' (based on *meun*) vs. *eun*[*-*]*eo* 'this (one)' ~ 'recently, now' (historically associated with *e-* : *en*) vs. *neug*[*-*]*eo* 'that (one)' ~ 'the other one', as also used in the lexicalized compounds *euneo-der* 'today' vs. *neugeo-der* 'the day after tomorrow' (with *-der* < *euder* 'day'). The members of this triplet are normally used adnominally and/or adverbally. It happens that they are conspicuously reminiscent of spatials with the formative *-AA*, and the spatial connection seems to be confirmed by the fact that they can be secondarily nominativized by the ending *-x* (also *-t.e.x*). The resulting forms NOM *meun-eo-x* vs. *eun-eo-*(*t-e.*)*x* vs. *neug-eo-*(*t-e.*)*x* function as independent (substantival) demonstratives.

Both the demonstratives and the interrogatives can be verbalized. This is a historically secondary phenomenon, in that all of the attested pro-verbs are originally compounds containing an actual pronoun and a regular lexical verb. Even so, synchronically these cases may be seen as examples of idiosyncratic denominal derivation. There are two basic demonstrative verbs, *e-ng-g-* ~ *i-ng-g-* 'to do like this' (< **ei-n+ki-*) vs. *te-g-* 'to do like that' (< **tei-n+ki-*), which originally represent combinations of the adverbal forms *ii-n* vs. *tii-n* with the regular verb *xii-* 'to do' (< **ki-*). The same regular verb is originally present in the interrogative verbs *xer-x-* 'to do how?' (< *ke-r+ki-*) and *yaa-* 'to do what?' (*ya-xa+ki-*). More transparent cases of secondary pronominal verbs are present in *naa-sh-e.r-* : *naa-sh-r-* 'to come here' (< *naa-sh+ir-*) and *xaa-c-* ~ *xai-c-* 'to go where?' (< *xaa+oc-*), which represent combinations of the pronominal spatials LAT *naa-sh* 'hither' and *xaa* 'where? whither?' with the regular directional verbs *ir-* 'to come' and *oc-* 'to go'.

All interrogative pronouns, including their derivatives, can as such be used in an indefinite function, as in *yuu/n* 'what' → 'something' ~ 'whatever'. A special item, etymologically related to *yuu/n* and originally used as an indefinite pronoun is *youm//n* 'something', which today mainly functions as a generic noun in the meaning 'thing/s' (also used as a copula). To emphasize the indefinite function it is possible to complement the interrogative pronouns with the numeral *neg//n* 'one', as in *xen neg//n* 'someone' ~ 'whoever'. The most common set of indefinitive pronouns is, however, formed by adding the additive postclitic *=c* to the plain pronominal stem, as in ADD *yuu=c* 'whatever', *aly=c* 'whichever', *xen=c* 'whoever', *yamer=c* 'whatever kind of', *xaa=c* 'wherever', *xedii=c* 'however much'. There is no separate class of negative pronouns, but the interrogatives

expanded with ADD =*c* can also be used as what may be termed "connegative" pronouns, that is, pronouns used in combination with negative predicates, including the privative noun *ugwai* '(there is) not', as in *yuu=c ugwai* 'there is nothing'.

In the class of "other" pronouns the deictic identity of an object is related to other objects collectively ('all, whole'), distributively ('each, every') or selectively ('other, different'). The items used in these functions are of a variety of origins (often not pronominal), and there is a lot of semantic and functional overlapping involved. The preferences as to what the actual items used in each function are in any given form of speech show also dialectal variation.

1. Collective pronouns. This group includes items like *beugd ~ bugd*, *beux//n ~ bux//n*, *tzeum*, *xameg*, *xoo*, all of which occur in both independent (substantival) and adnominal (adjectival) usage. When used independently, they can be expanded by the regular suffixes of nominal morphology (including derivation). In the function of a verbal complement, for instance, they are often used in the instrumental form, as in INSTR *beugd-eor*, *beuxn-eor*, *ceum-eor* 'all (of them)'.
2. Distributive pronouns. It is often difficult to make a clearcut distinction between collective ('all') and distributive ('each, every') pronouns. Rather unambiguous examples of the latter are *beur ~ bur* and *bolgen* (used postnominally, §6.6), as in *xun bur ~ xun bolgen* 'every man' = 'everybody'. The item *bur* is also used independently (before a verbal headword) in the meaning 'wholly, completely'.
3. Selective pronouns. The selective pronouns ('other') comprise adnominal items like *eor, ondao*, used before another nominal, and (colloquial:) *bish ~* (literary:) *bous*, used after another nominal. Independent (substantival) plural forms like PL *bish-e.d ~ bous-e.d ~* PL PL *bish-d-uu.d ~ bous-d-oo.d* 'others, other people' are also used. The item *bish ~ bous* has a special status, in that it has fully grammaticalized functions as a general negative deictic ('not that one'), also used as a negation word (negative copula) for nominal predicates ('no') (§7.12).

4.15   Personal pronouns

The personal pronouns form a coherent group of pronominal items with both formal and functional idiosyncracies. Actual personal pronouns exist synchronically only for the first and second persons, with lexically separate stems for the singular and plural forms. For diachronic reasons, the basic stems, as attested in the nominative, show several irregularities in the inflected forms. In general, the number of stem variants is greater in the singular and in the first person than in the plural and in the second person (Table 21). An additional complication in the plural first person forms is that there are separate oblique stems for the inclusive ('you and me') and exclusive ('only we')

Table 21. The personal pronouns

		1P		2P
SG	NOM	√bi → bii		√ci → cii
	GEN	min-ii		cin-ii
	ACC	nam-ai.g	nad-ii.g	cam-ai.g
	DAT	nam-d	nad ~ nad-e.d	cam-d
	OBL	nam-	nad-	cam-
PL		INCL	EXCL	
	NOM	bid ~ byad		√ta → taa
	GEN	bid/n-ii ~ bid/n-ai ~ byad/n-ai	man-ai	tan-ai
	OBL	bid//n- ~ byad//n-	man-	tan-

functions. The case endings taken by the personal pronouns are basically the same as those taken by regular nominals.

1. Singular. The lexical forms of the singular personal pronouns may be abstracted as 1P √bi 'I' vs. 2P √ci 'thou'. These basic forms (CV) are phonetically possible only in unstressed position and in rapid speech, while otherwise the short vowel is replaced by its long counterpart (CVV#), yielding the regular free forms 1P bii vs. 2P cii. The short stem vowel is, however, present in the genitive forms, which incorporate the nasal extension *n*. In addition, the initial weak stop in 1P √bi is nasalized, yielding GEN 1P min-ii vs. 2P cin-ii. In the other cases, a stem extension in -m is used, with additional secondary changes in the segments, yielding OBL 1P nam- (< *na-ma- << *mi-ma-) vs. 2P cam- (< *ci-ma-). Moreover, the accusative has the exceptional ending -ai.g instead of the normal -ii.g, yielding ACC 1P nam-ai.g vs. 2P cam-ai.g. The first person dative form nam-d has the alternative shorter variant na-d = nad, which also functions as a secondary oblique stem, yielding not only the accusative nad-ii.g but also the "double" dative nad-e.d = na-d-e.d. In most dialects of modern Mongolian (proper), the stem nad- has become dominant, though the stem nam- is also used, especially in the accusative form nam-ai.g.

2. Plural. The singular genitival stems 1P min- (< *bin-) vs. 2P cin- (< *tin-) are in a systematic correspondence with the plural stems 1P man- vs. 2P tan-, as also used in the plural genitives 1P man-ai 'our' vs. 2P tan-ai 'your'. The corresponding nominative form is synchronically extant only for the second person, lexically √ta, normally realized as taa 'you', which can also be used honorifically with reference to a single person. The use of the first person stem man- is mainly confined to the exclusive function, while the corresponding inclusive stem is bid//n- ~ byad//n-. In the standard language, as represented by the Khalkha norm, the inclusive/exclusive distinction is not made in the nominative, which only uses the inclusive stem bid

(< *bi-de*) ~ *byad* (< *bi-da*). The form 1P PL *bid* = *bi-d* looks superficially like a plural in *-d* from 1P SG √*bi*, but the diachronic situation is more complicated, as also suggested by the presence of the nasal (*n*) in the other case forms.

The nasal extension *n*, as attested in the paradigms of the plural personal pronouns, as well as in the singular pronominal genitives, may historically be identified as a "pronominal nasal", an element also observed in the declension of several demonstrative and interrogative pronouns. Synchronically, this segment is in many respects reminiscent of the unstable /*n* of regular nominals, but unlike the latter, the pronouns use the nasal stem in all case forms, including even the possessive, as in POSS PL 1P INCL *biden-tai* vs. EXCL *man-tai* vs. 2P *tan-tai*. The nasal is also present in the directive forms DIR PL 1P EXCL *man-roo* vs. 2P *tan-roo*, but it can dialectally be absent in DIR PL 1P INCL *biden-ruu* ~ *bid-ruu*. The singular directive forms are based on the normal oblique stems: DIR SG 1P *nad-roo* vs. 2P *cam-roo*.

The category of number has a special status in the personal pronouns. In the oblique stems 1P SG *min-* : PL EXCL *man-* and 2P SG *cin-* : PL *tan-*, plural number is expressed by stem alternations, which means that the plural personal pronouns represent inherent (lexical), rather than explicit (morphological) plurals. Although the plural first person inclusive pronoun *bid* = *bi-d* may possibly synchronically be seen as an explicit plural form, analogous to the plural demonstratives PROX *e-d* vs. DIST *te-d*, it can, like the demonstratives, be extended by the actual plural suffix *-ner*, yielding 1P PL PL *bid-ner* 'we'. Analogous plurals can also be formed dialectally from the second person pronoun, yielding 2P PL *tad* = *ta-d* : PL *tad-ner* 'you', though the dominant form today is 2P PL PL *taa-ner*. In the dialects, the stems of the personal pronouns can also be combined with the plural markers *-UU.d* and *-UU.s*, yielding forms like 1P PL INCL PL *bid/n-uu.d* ~ *bid/n-uu.s* vs. 2P PL *tan-oo.d* ~ *tan-oo.s* ~ *tad/n-oo.s*. This allows also the exclusive stem *man-* to be used in the nominative forms 1P PL EXCL PL *man-oo.d* ~ *man-oo.s*. In several Inner Mongolian dialects, as in Khorchin, the nasal stems PL 1P *biden* vs. 2P *taden*, like also PL PROX *eden* vs. DIST *teden*, can also occur in the nominative function.

Due to the frequent honorific use of the plain second person pronoun *taa*, explicit plural forms like *taa-ner* are today considered normative in the actual plural function. Even so, the honorific connotation can be absent when the pronoun is followed by quantifiers like numerals or collective pronouns, as in *taa xoyer* 'you two', *taa bugd* ~ *taa buxen* 'all of you'. Of the oblique forms, the genitive *tanai* 'your' can be used both with a plural and with an honorific singular reference. In normative Khalkha, the two functions are, however, formally distinguished, in that *tanai*, orthographically **tanai**, is used in the plural function, while the honorific genitive has the form *tan-ii,* orthographically **tanÿ**, as in (addressing a single person:) HON *tan-ii ner* 'your name' vs. (addressing a group:) PL *tan-ai ger* 'your home'. This distinction is not possible in the Inner Mongolian dialects, which regularly form the genitive of all nasal stems by the ending *-ai*, and in which *-ii*

can function as the accusative marker, as in GEN *tan-ai* : ACC *tan-ii* ~ *tan-iig*. A special lexicalized form is EMPH *tan=aa* 'for you', originally a locative case form (**tan-a*), today used as an honorific term of address (as in letters) in the meaning 'Sir(s)'.

There is also some dialectal variation as to how widely and systematically the distinction between the inclusive and exclusive stems in the first person plural is used. Often, both *bid//n-* and *man-* can be used indifferently without respect to the inclusive/exclusive distinction, though there are dialectal and generational differences in the preferences for the one or the other stem. In most forms of speech, the genitive form *man-ai* 'our', however, tends to retain its exclusive function, as in *man-ai ger* 'our home (as opposed to yours)', *man-ai end* 'at our place' (literally: 'here of ours'). On the other hand, GEN *man-ai* is often used with reference to a singular actor, as in *man-ai abgai* 'my wife' (literally: 'our wife'), or also in a general deictic function, as in *man-ai xun* 'this person here' (literally: 'our man').

From all genitives of the personal pronouns it is possible to form a secondary marked nominative in *-x*. The resulting double-declension forms are often identified as "possessive pronouns", and they include: GEN NOM SG 1P *min-ii-x* 'mine', 2P *cin-ii-x* 'thine', PL 1P EXCL *man-ai-x* 'ours', 2P *tan-ai-x* 'yours', somewhat less commonly also PL 1P EXCL *bidn-ai-x* ~ *bidn-ii-x* 'ours' and (Khalkha) 2P HON *tan-ii-x* 'yours'. These forms are used as the independent (often predicative) counterparts to the simple (adnominal) pronominal genitives, as in *en' min-ii-x* 'this is mine'. They can also be further inflected in the different case forms. A plural can be formed by the complex ending *-x-e.n*, as in PL 1P GEN NOM PL *man-ai-x-e.n* 'those of ours, our people'. In accordance with the general rules of double declension (§4.8), the pronominal genitives can also directly take other case endings, especially the dative ending, as in PL 1P GEN DAT *man-ai-d* 'at our place'.

A gap in the pronominal system in Mongolian is formed by the absence of any synchronic pronouns for the third person. Reference to the third person is therefore normally made by using the demonstratives, especially the distal demonstrative *ter* : OBL *ter-* ~ *ter/n-* ~ *tuu/n-* 'that' > 'it/he/she', often in combination with a suitable regular nominal, especially *xun* 'person', yielding *ter xun* 'that person' = 'he/she' : PL *te-d-geer xum-uu.s* 'those people' = 'they'. In the plural, however, there is a tendency to use the forms PROX *e-d* : *e-d/n-* 'these' vs. DIST *te-d* : *te-d/n-* 'those', or also PL PL *e-d-ner* ~ *e-d/n-uu.d* ~ *e-d/n-uu.s* vs. *te-d-ner* ~ *te-d/n-uu.d* ~ *te-d/n-uu.s* in the functions of explicit personal pronouns in the meaning 'they' and with a reference to human beings only. In several dialects on the Inner Mongolian side, this has resulted in the formation of a complete and formally uniform set of plural personal pronouns of the types 1P PL *bi-d* ~ *bi-d-e.n* ~ *bi-d-ner* vs. 2P PL *ta-d* ~ *ta-d-e.n* ~ *ta-d-ner* vs. 3P PL *te-d* ~ *te-d-e.n* ~ *te-d-ner*.

4.16   Personal possessor marking

The genitives of the personal pronouns, as well as of the demonstrative pronouns with a third-person reference, are used adnominally to indicate the possessor of an object. In these cases, the pronominal genitive is always located before the head noun, as in *min-ii nom* 'my book'. As in the case of the genitive forms of regular nominals, the possessive relationship indicated by the pronominal genitives is often semantically diffuse and includes various types of non-possessive adherence, as in *min-ii sourgooly* 'my school', *min-ii bagsh* 'my teacher', *min-ii eej* 'my mother'. When the head noun is absent, as in elliptic or independent usage, the pronominal genitive is replaced by the corresponding "possessive pronoun", incorporating the ending of the marked nominative, as in GEN NOM *min-ii-x* 'mine'.

The genitives of the actual personal pronouns, but not of the demonstrative pronouns, can also be used after the head noun, in which case they appear in the reduced shapes GEN SG 1P *min'* vs. 2P *cin'*, PL 1P EXCL *man'* vs. 2P *tan'*. In so far as these forms retain their vocalic structure and harmonic invariance they have to be analysed as independent postnominal particles, as in *mory min'* 'my horse', *mory tan'* 'your horse'. In the plural, the forms PL 1P EXCL *maany* vs. 2P *taany*, containing a long vowel followed by a palatalized nasal (*ny*), are also attested in some dialects of both the Khalkha and the Khorchin types. In the Khalkha Cyrillic orthography the postnominal pronominal genitives are written **miny**, **ciny**, **maany**, **tany**, reflecting the influence of Modern Written Mongol, which has **mini**, **cini**, **mani**, **tani**. It may be noted that the item PL 1P INCL *bid/n-ii ~ bid/n-ai ~ byad/n-ai* is normally not used postnominally in the dialects of Mongolian (proper).

The postnominal position is typically connected with unstressed status and may be regarded as the first stage in the process of evolution from independent words to bound morphemes, which in Mongolian are typically suffixes. It is, in fact, unclear to what extent the postnominal pronominal genitives retain their independence in any current dialectal form of Mongolian. At least in most forms of the language, including the spoken norms following the Khalkha and Chakhar dialects, this process of suffixalization has been completed, resulting in a system of bound possessor markers, also known as "possessive suffixes" (Table 22). It remains a matter of interpretation whether these markers are analysed as true suffixes or as (post)clitics, that is, "enclitic pronouns". In the framework adopted in the present treatment the suffixal status appears a better descriptive option, since the possessor markers do not exhibit any property that would require them to be analysed specifically as clitics.

When compared with the independent pronominal genitives, the system of the possessive suffixes shows two important differences. First, the vocalic distinction between the first-person forms GEN 1P SG *min'* vs. PL EXCL *man'*, still recorded from, for instance, premodern Khalkha (Poppe 1951:69), is synchronically lost, which means that the first-person possessive suffix has, after all stem types and irrespective of the harmonic status

Table 22. The adnominal possessor markers

		GEN	POSTP	PX
1P	SG	*min-ii*	*min'*	*-men'*
	PL	*man-ai*	*man' ~ maany*	
2P	SG	*cin-ii*	*cin'*	*-cen'*
	PL	*tan-ai*	*tan' ~ taany*	*-ten'*
3P				*-e.n' ~ -ii.n'*

of the stem, the invariant shape PX 1P *-men'* [-mən], which is used in reference to both a singular and a plural possessor. A similar vocalic reduction takes place in the second person forms, yielding PX 2P SG *-cen'* vs. PL *-ten'*, but here the distinction between the two numbers is retained due to the difference in the initial consonants. Second, unlike the independent pronouns, the possessive suffixes have a separate form for the third person, also used for both a singular and a plural possessor. The third-person possessive suffix has the lexical shape PX 3P *-n'* [-n], representing the merger of the otherwise lost third-person singular and plural pronominal genitives (3P GEN SG *+in-U : PL *+an-u). In the Khalkha Cyrillic orthography, this element is written as an independent particle with the shape **ny**, but phonologically it is always an integral part of the preceding word, as in *adoo* 'horse' : PX 3P *adoo-n'* 'his/her/their horse' = Cyrillic Khalkha **aduu ny**.

There is a tendency in the modern dialects of Mongolian to use the possessive suffixes in their strictly possessive function only with reference to close and intimate (often, inalienable) relationships, as in connection with kinship terms, e.g. PX 1P SG *duu-men'* 'my younger brother', PX 2P SG *ax-cen'* 'your elder brother', PX 3P *egc-e.n'* 'his/her/their elder sister'. In most other contexts, the possessive suffixes fill the role of functionally complex deictic and discourse markers, which convey notions of definiteness, specificness and/or topicalization. They are therefore frequently used in dialogue and can be added to any nominal part of speech, including pronouns and spatials, as in 1P SG *bii* : PX 2P SG *bii-cen'* 'I (here, in your sphere); as for me', *deer* 'above' : PX 3P *deer-e.n'* 'above (it, there)'. To complete this trend, some dialects, notably Chakhar, have even totally eliminated the second-person plural possessive suffix *-ten'* (often used in the singular honorific function) from the system, leaving only the three markers PX 1P *-men'* vs. 2P *-cen'* vs. 3P *-n'*, which correspond to three deictic spheres ('this' – 'that' – 'it') with only a vague residual relation to the original personal pronouns (Sechenbaatar 2003: 46–49).

The possessive suffixes can be added both to the basic stem and the inflected case forms of a nominal (CX-PX), with the apparent exception of the privative form in =*gwai*. At the morpheme boundary, the possessive suffixes condition a number of additional morphological and morphophonological phenomena. These are mainly connected with the nominative, accusative and genitive cases:

1. Nominative. The possessive suffixes are added directly to the unmarked nominal stem. From stems ending in the unstable nasal */n*, the plain stem is used, as in *mory//n* 'horse': PX 1P *mory-men.* In the third person, the normal syllabification rules require the addition of the reduced vowel *e*, but dialectally, as in Khalkha, the connective vowel *ii* can also be used, as in *ger* 'home' : PX 3P *ger-e.n'* ~ *ger-ii.n'* = Cyrillic Khalkha **ger ny**. In these cases, the Khalkha Cyrillic orthography does not indicate the true segmental structure of the word.

2. Accusative. In those dialects, as in Khalkha, in which the accusative marker incorporates the (historically secondary) final consonant *.g*, the latter is "dropped" (or has never been present) before the possessive suffixes, which means that the accusative in the possessive declension is marked only by the vowel *-ii-* (which is the original accusative marker). The Khalkha Cyrillic orthography does not indicate this alternation, as in *mory* 'horse' : ACC *mory-ii.g* : ACC PX 1P *mory-ii-men'* = Cyrillic Khalkha **moriig miny**. Importantly, the absence of the consonant *.g* in the accusative can lead to the neutralization of the nominative and accusative forms for the third person in those dialects that use the connective vowel *ii* in the nominative, e.g. ACC *ger-ii-g* 'home' : NOM & ACC PX 3P *ger-ii-n'.*

3. Genitive. In the genitive, the consonant *-n* of the case marker can be lost before the first-person possessive suffix, though, again, this is not indicated by the Khalkha Cyrillic orthography. The absence of the segment is probably due to a simplification of the nasal cluster (geminate) at the morpheme boundary, since the nasal is present in the second person form(s), as in GEN *ger-iin* 'home' : GEN PX 1P *ger-ii-men'* = Cyrillic Khalkha **geriin miny** vs. GEN PX 2P *ger-ii.n-cen'* = Cyrillic Khalkha **geriin ciny**. It may be noted that the loss of the nasal can lead to the merger of the first-person genitive and accusative forms of the possessive declension.

4. Genitive-nominative. Apparently in order to avoid further neutralizations in the paradigm, the third-person possessive suffix is normally added to a preceding genitive form with the intermediation of the marked nominative ending *-x-*, as in GEN NOM PX 3P *ger-ii.ng-x-e.n'* 'of his/her/their home', GEN NOM PX 3P Khalkha *mory/n-ii-x-e.n'* ~ Khorchin *moer/n-ai-x-e.n'* 'of his/her/their horse'. As the nominative marker has no explicit function in the sequence, it has been described as an "empty morpheme" (Sechenbaatar 2003: 49), and in a generative approach it could perhaps be assumed to be absent at the "syntactic deep level". Even so, at the surface it is a phonemic and morphemic reality which cannot be incorporated into the allomorphy of either the genitive ending or of the third-person possessive suffix.

4.17   Reflexive possessor marking

When possessive reference has to be expressed in a nominal or nominalized word in coreference to the subject of the clause, the personal possessor markers are replaced by the reflexive possessor marker, also called the "reflexive suffix". The reflexive suffix has the shape *-AA/n* (after a stem-final consonant) ~ *-gAA/n* (after a stem-final vowel), used invariably in reference to both singular and plural possessors of all persons. The marker ends in an optional nasal, here written */n*, which is reminiscent of the unstable nasal of nominals (§3.6), but which differs from the latter in that it cannot be followed by additional inflectional elements. The presence or absence of the nasal in the reflexive suffix depends, therefore, mainly on dialectal factors. In general, the suffix is realized as *-g.AA* (without the final nasal) in Khalkha (and most other Outer Mongolian dialects), while in Chakhar and Khorchin (and most other Inner Mongolian dialects) the variant *-g.AA/n* (with the final nasal) is used.

Like the possessive suffixes, the reflexive suffix can be added both to the basic stem and to the inflected case forms of a nominal (CX-RX), with the apparent exception of the privative form in *=gwai*. Special morphosyntactic phenomena are connected with three forms of the case paradigm:

1. Nominative. In the basic form of the reflexive paradigm, the reflexive suffix is added directly to the nominal stem, as in *ger* 'home' : RX *ger-ee/n* 'one's home', *noxai* 'dog' : RX *noxai-g.ao/n* 'one's dog'. Nominals ending in the unstable nasal */n* use the plain stem, as in *mory//n* 'horse' : RX *mory-ao/n* 'one's horse'. Apart from regular nominals, the reflexive suffix is frequently attested on the formally unmarked spatial locatives, as in LOC *deer* 'above' : LOC RX *deer-ee/n.* It can also be used on collective numerals, as in *tab//n* 'five' : COLL *tab-ool//n* : COLL RX *tab-ool-aa/n* '(the) five of them'. In principle, the basic reflexive form incorporates the function of an object marker, which is why it is traditionally identified as an "accusative". From the formal point of view, however, it can only be identified as a "nominative", or, alternatively, as an "absolutive", since it contains no explicit case marker. This is connected with the circumstance that the reflexive suffix always refers to the subject and, therefore, cannot be used on nominals in subject position, leaving the unmarked form available for the object function. It may be noted that there are also other circumstances in Mongolian under which a direct object can be expressed by the basic unmarked nominal stem, that is, by the nominative case (§6.10).

2. Accusative. Only under exceptional circumstances is it possible to combine the reflexive suffix with an actual accusative case form. This happens, in particular, when reflexive marking is used on a personal pronoun in object position, as in 2P SG ACC RX *cam-ai.g-aa/n* ~ *cam-ai.g.aa/n* 'you (in the sphere of the subject)'. (Note that the status of the segment *g* here can vary dialectally: it can either represent a part of the

accusative ending, as in Khalkha, or a connective consonant in the composition of the case suffix, as in the Inner Mongolian dialects.)

3. Genitive-nominative. When combined with the genitive case, the reflexive suffix requires the presence of the additional marked nominative ending *-x-*, as in *naidz* 'friend' : GEN *naidz-ii.n* : GEN NOM *naidz-ii.ng-x-aa/n* 'of one's friend', *mory//n* 'horse' : GEN *mory/n-ai* : GEN NOM *mory/n-ai-x-ao/n* 'of one's horse'. In this respect, the reflexive paradigm is reminiscent of the third-person form of the possessive paradigm (§4.16), and the alternatives for the synchronic explanation are the same.

In the Khalkha Cyrillic orthography, the reflexive suffix is always written as an integral part of the preceding nominal word, as in **arxi** 'spirits' : RX **arxia** = *aryx-aa*, **ger** 'house' : GEN NOM RX **geriinxee** = *ger-ii.ng-x-ee*, **nöxör** 'husband' : DAT RX **nöxörtöö** = *neuxer-t-eo*, **egc** 'elder sister' : ABL RX **egceesee** = *egc-ees-ee*, **gar** 'hand' : INSTR RX **garaaraa** = *gar-aar-aa*, **düü** 'younger sibling' : POSS RX **düüteigee** = *duu-tai-g.ee*, **uragsh** 'foreward' : DIR RX **uragshaa** = *our-e.gsh-aa.* The fact that the reflexive suffix behaves orthographically differently from the possessive suffixes (written as separate graphic words) is due to its longer history as a suffixal element. Even so, in Written Mongol the reflexive suffix is rendered as a graphic particle, which has the shapes **bav** (after vowels) ~ **ijav** (after consonants), though it is also attested in a number of synthetic complexes with the case suffixes. It may be noted that the final nasal of the reflexive suffix is present as a segment (**v**) in Written Mongol, but absent in Cyrillic Khalkha.

Finally, the reflexive suffix is used on the reflexive pronoun *eor* '(one)self', dialectally also *eos*. The reflexive pronoun has, at least theoretically, a full reflexive paradigm, which includes the double genitive-nominative and the marked accusative forms: RX NOM *eor-eo/n* : GEN NOM *eor-ii.ng-x-eo/n* : ACC *eor-ii.g-eo/n* ~ *eor-ii-g.eo/n* : DAT *eor-t-eo/n* : ABL *eor-eos-eo/n* : INSTR *eor-eor-eo/n* : POSS *eor-tai-g.eo/n*, though some of these forms are rarely used in active speech. Here, the basic form RX NOM *eor-eo/n* normally functions as a modal complement in the meaning 'by oneself', though it can also be used in reduplicational constructions to reinforce a marked case form, as in ACC *eor-eo eor-ii-g.eo* : DAT *eor-eo eor-t-eo.* The genitive function in regular adnominal usage is normally expressed by the plain (non-reflexive) form GEN *eor-ii.n* 'one's own'. For clauses with a plural subject, the reflexive pronoun has also the dialectally varying plural forms (including double plurals) *eor-s-e.d* ~ *eor-uu.d* ~ *eos-e.d* ~ *eos-uu.d* ~ *eos-d-uu.d*, all of which can be inflected in cases both with and without the reflexive suffix.

The oblique forms of the reflexive pronoun can be replaced by the reflexive forms of the regular nominal *biy* 'body' > '(one)self', as in ACC RX *biy-ee/n* 'oneself' : DAT *biy-d-ee/n* 'to oneself' : ABL *biy-ees-ee/n* 'from oneself' : INSTR *biy-eer-ee/n* 'by oneself'. When reduplicated, this nominal can express reciprocality, as in RX *biy biy-ee/n* 'each other' : DAT RX *biy biy-d-ee/n* 'to each other'.

Verbal morphology

5.1   Categories of verbal morphology

The grammatical categories marked on verbals by means of inflectional morphology include tense-aspect, mood, nominalization and converbialization. The forms marked for tense-aspect or mood function in the sentence as finite predicates, while the forms marked for nominalization or converbialization, that is, participles and converbs, function as non-finite predicates of relativized and serialized clauses. Participles can, however, also take the role of finite predicates (with or without a copula), and in certain sentence types, especially in connection with negation, the finite tense-aspect forms are even regularly replaced by participles. Due to their nominal characteristics participles can additionally occur in all the syntactic positions normally taken by a nominal in the sentence (subject, object, attribute).

Throughout the system of verbal inflectional morphology, the basic status of the form as a verbal can be verified by its morphosyntactic ability to take adverbal modifiers, including direct and indirect object, as well as different types of adverbials. Again, in this respect, participles have an ambivalent status, in that they can also take (or be combined with) certain types of nominal modifiers. Participles (proper) as a verbal category should be kept distinct from their syntactically fully nominalized and semantically lexicalized manifestations, which function as regular deverbal nouns and cannot take adverbal modifiers. Lexicalization is also possible, though less common, in the realm of converbs, in which case the lexicalized converbs function as various types of auxiliary elements (particles, conjunctions).

All markers of verbal inflection are suffixes attached to the verbal stem, which itself can be either plain or derived (from nominals or other verbals). In addition, verbals can be marked suffixally for voice, but the voice markers are best understood as elements of derivational morphology, since they, in turn, can be followed by markers for all the inflectional categories. This difference is also visible from the circumstance that voice marking often involves lexically determined formal and functional idiosyncracies, while the inflectional markers are fully productive and can be added to any verbal without exceptions. Importantly, the voice markers can also be combined with each other, while the four basic categories of verbal inflection (tense-aspect, mood, nominalization, converbialization) are mutually exclusive. The plain verbal stem functions as a modal

form (basic imperative), though more rarely it can also have other functions (unmarked converbialization).

The markers for tense-aspect, mood and converbialization typically take the final position in the string of morphemes, though they can be followed by postclitics. Participles can, however, be further marked for the regular categories of nominal inflection, including, in particular, case, personal possession and reflexive possession, and they can also be followed by postclitics. Certain participles are frequently used in fixed combinations with local and modal case endings, yielding complex forms, also known as "quasiconverbs", which function as predicates in subordinate clauses in very much the same way as converbs (proper). Historically, transitions from quasiconverb to converb (proper) are not uncommon. In other respects, also, the boundaries between the categories of verbal inflection are diachronically fuzzy, and there are even occasional examples of synchronic ambivalence.

There is a general consensus that verbal inflectional markers in Mongolian are more tightly bound with the preceding stem than is the case with the markers of nominal inflection. This understanding is reflected in the orthographical fact that verbal markers are always, both in Written Mongol and in Cyrillic Khalkha, written together with the preceding stem, while many nominal markers are not. Typologically, the situation that nominal markers are more "loose" than verbal markers, is common in the "Ural-Altaic" sphere. Even so, at least in Mongolian, there is no reason to apply different descriptive solutions to nominal and verbal forms; in both realms, we are dealing with well-developed suffixal morphology, with similar types of morphophonological complications at the suffix boundary.

As a part of speech, verbals in Mongolian are in general more uniform than nominals, which show idiosyncratic systems of suffixes for several subclasses (adjectives, spatials, numerals, pronouns). On functional and semantic grounds it is, nevertheless, possible to distinguish a number of subclasses of verbals, including copulas, auxiliaries and pronominal verbs. There are also a few examples of defective verbs, that is, verbal stems (typically copulas and auxiliaries) that do not have a full verbal paradigm. Copulas, in particular, are a special category which not only lack most features of regular verbal morphology, but which also resemble predicativized nominals, with which they have diachronic connections. While some copulas are clearly verbal, others might also be classified as invariables.

In addition to the categories expressed by unambiguous sets of inflectional or derivational suffixes, the Mongolian verb has properties that are manifested at the levels of semantics and morphosyntax only. One such property is "valency", which allows a division to be made into the classes of intransitive, (mono)transitive and ditransitive verbs. To some extent these classes are connected with the system of voice suffixes, but the connection is diffuse, and it has to be concluded that valency has no simple morphological manifestation in the language. The same is true of "aspect" as a broad category.

Although the finite tense-aspect forms may be seen as complex markers for both tense and aspect, aspectual distinctions and related features (Aktionsart) are also expressed by other means, both morphological (synthetic) and syntactic (analytic) (Sechenbaatar 2003: 145–146; cf. also Dugarova 1991).

5.2   Verbal derivation

By verbal derivation is here understood the derivation of verbals from nominals (denominal verbs) and verbals (deverbal verbs). Apart from regular nouns, deverbal verbs are derived from all the nominal subclasses, including adjectives, spatials, numerals and (non-personal) pronouns. With the exception of the deverbal category of voice marking (discussed separately below), most derivative suffixes forming verbals are non-productive and involve various kinds of morphological and semantic idiosyncrasies. In general, denominal verb(al)s are more numerous, more variegated, and more transparent, than deverbal verb(al)s.

The two general suffixes for denominal verbs are *-l-* ~ (by assimilation after nasals:) *-n-* and *-d-*, both of which have a wide range of semantic functions, involving mainly the possession, acquisition or use of the object, property or status expressed by the nominal stem, as in *emeel-* 'saddle' : *emeel-l-* 'to saddle', *ger* 'dwelling' = 'yurt, house, home' : *ger-l-* 'to marry', *bagsh* 'teacher' : *bagsh-l-* 'to work as a teacher', *em* 'medicine' : *em-n-* 'to treat (with medicine)', *ang* 'game' : (*)*ang-n-* > *ag-n-* 'to hunt'; *outes//n* 'thread' > 'telephone line' : *outes-d-* 'to make a phone call'; *aregh* 'means, skill, shrewdness' : *aregh-d-* 'to persuade, to deceive'; *iluu* 'more, very much' : *iluu-d-* 'to be too much'. Often, both *-l-* and *-d-* can be used on the same nominal stem, sometimes in different meanings, cf. e.g. *alt//n* 'gold' : *alt-l-* ~ *alt-d-* 'to decorate with gold, to gild', *doo/n* 'sound' : *doo-d-* 'to make a sound, to call' vs. *doo/n* ~ *doo* 'song' : *doo-l-* 'to sing', *xoyer* 'two' : *xoyer-l-* 'to double' vs. *xoyer-d-* 'to be dual, to be two-faced'. Spatials can occasionally serve as bases in inflected forms, as in *dee-* 'upper side' : LAT *dee-sh* 'towards the top (of)' : *dee-sh-l-* 'to go upwards'. There are also verbs based on various types of denominal nouns, as in *ajel* 'work, job' : PRIV *ajel=gwai* 'jobless' : *ajel=gwai-d-* 'to be jobless', *ail* 'camp, family' : PROF *ail-c* 'visitor, guest' : *ail-c-l-* 'to visit'. The complex suffix *-c-l-* is in some cases probably best analysed as a single indivisible suffix *-cl-*, as in *monggel* 'Mongolian' : *monggel-c(-)l-* 'to translate into Mongolian'.

Most suffixes for denominal verbs convey an essive-translative meaning ('to be, to become'), often with an adjectival nominal as the base. Suffixes of this sphere include *-j-*, as in *bayen* 'rich' : *bay-j-* 'to become rich'; *-r-* ~ (by liquid dissimilation:) *-l-*, as in *xeux* 'blue' : *xuex-r-* 'to be(come) blue', *xar* 'black' : *xar-l-* 'to be(come) black'; *-s-*, as in *turgen* 'fast' : *tureg-s-* 'to become faster'; *-t-*, as in *ourt* 'long' : *ourt-t-* 'to become longer'; as well as (compound suffix:) *-j-r-*, as in *sain* 'good' : *sai-j-r-* 'to become better'. This group also

comprises -d-, as in *yix ~ ix* 'big' : *yix-d- ~ ix-d-* 'to become bigger / too big', *xaloon* 'hot' : *xaloo-d-* 'to become hotter / too hot'. It may be noted that the suffix *-d-* (< *-d- ~ *-dA-*) in the essive-translative function is diachronically distinct from the general denominal suffix *-d-* (< *-dA-*), though the two elements have become synchronically confused. There are also cases of lexically and/or dialectally conditioned alternation between the different essive-translative suffixes, as in *eurgen* 'wide' : *eureg-j- ~ eureg-s-* 'to become wider'; *bagh* 'small' : *bagh-s-* 'to become less, to diminish' ~ *bagh-d-* 'to be(come) too small'; *bouroo* 'wrong' : *bouroo-d- ~ bouroo-t-* 'to be wrong'.

Other types of denominal verbs include the "possessives" ('to have, to get') in *-sh-*, as in *ner* 'name' : *ner-sh-* 'to have a name, to be called', *gar* 'hand' : *gar-sh-* 'to have a hand at' = 'to be good at'; the "sensives" ('to regard as') in *-shAA-*, as in *jeub* 'correct' : *jeub-sheo-* 'to regard as correct, to accept', *sain* 'good' : *sai-shaa-* 'to regard as good, to praise'; and the "similatives" ('to be like') in *-rx-*, as in *naidz* 'friend' : *naidz-e.rx-* 'to behave like a friend', *bayen* 'rich' : *bay-e.rx-* 'to behave like a rich person'. There is also a small group of obscured "privative verbs" in *-s-*, as in *eul* 'food' : *eul-s-* 'to be without food' > 'to be hungry, to starve', *oumdaa ~ oundaa* 'drink' : *oumdaa-s- ~ oundaa-s-* 'to be without drink' > 'to be thirsty'. Still other types of denominal verbs are restricted to isolated examples, or also to correlative groups of verbs with no synchronically obvious bases.

The pronominal verbs (as also discussed in connection with the pronominal system, §4.14) are diachronically phrases in which the expanded root of a demonstrative or interrogative pronoun or a pronominal spatial is followed by a separate verbal stem, which can be the equivalent of *xii-* (< *ki-*) 'to do', *ir-* (< *ire-*) 'to come' or *oc-* (< *oci-*) 'to go'. Synchronically, we are dealing with partially obscured lexicalized items which do not form a coherent system in terms of derivative morphology. The two basic demonstrative verbs are (proximal) *e-ng-g- ~ i-ng-g-* 'to do like this' (< *ei-n+ki-*) vs. (distal) *te-g-* 'to do like that' (< *tei-n+ki-*), while the two basic interrogative verbs are (general) *yaa-* 'to do what?' (< *ya-xa+ki-*) and (modal) *xer-x-* 'to do how?' (< *ker+ki-*). In addition, there are the two spatial pronominal verbs (proximal) *naa-sh-r-* 'to come here' (< *naa-sh+ir-*) and (interrogative) *xaa-c- ~ xai-c-* 'to go where?' (< *xaa+oc-*). The latter can be replaced by the derivatives *naa-sh-l-* 'to come here' and *xaa-sh-l-* 'to go where?', based on the spatial latives *naa-sh* 'hither' vs. *xaa-sh* 'whither?'.

The deverbal verbs (with the exception of the voice forms) represent mainly the aspectual sphere of Aktionsart, a category that has no systematic morphological expression in Mongolian. Suffixes that belong here include *-l-* for "frequentatives", as in *tzoxy-* 'to strike' : FREQ *tzoxy-l-* 'to strike repeatedly'; *-ldz- ~ -g-e.ldz- ~ -b-e.ldz-* for "iteratives", as in *naig-* 'to sway' : ITER *naig-e.ldz-* 'to sway continuously', *any-* 'to close one's eyes' : ITER *any-b-e.ldz-* 'to blink repeatedly', *san-* 'to think' : ITER *san-g-e.ldz- = san'geldz-* 'to think seriously'; and *-dzn- ~ -dzaan-* for "diminutives", as in *soo-* 'to sit' : DIM *soo-dzn- ~ soo-dzaan-* 'to sit for a while' (examples adapted from Poppe 1951: 51–52). Most importantly, there is the very commonly used suffix *-cx-* for "intensives", expressing completed

(rapid, momentaneous) action, as in *id-* 'to eat' : INTENS *id-e.cx-* 'to eat completely'. On some stems, the simple variant *-c-* is also attested, as in *yab-* 'to depart' : INTENS *yab-c-* 'to go completely away'.

Finally, there is a small group of derived verbs based on descriptive particles and interjections, formally members of the general class of invariables. The suffixes attested in these items are basically the same as those forming denominal and deverbal verbs, notably *-d-*, *-c-*, *-l-* and *-r-*, as in *tas* (cracking sound, breaking off) : *tas-d-* 'to break in two' (transitive) : *tas-c-* 'to break rapidly in pieces' (transitive) : *tas-l-* 'to break apart' (transitive) : *tas-r-* 'to be broken off' (intransitive). Other suffixes attached specifically to onomatopoetic particles are *-xyr-* (> *-yxr-*), as in *xour* (sound of snorting) : *xour-xyr-* (> *xoury-xr-*) 'to snort'; and *-cegn-*, as in *tar* (tapping or rustling sound) : *tar-cegn-* 'to tap, to rustle'. In other cases, we only have correlative series of particles and verbs, as in *xanggy-e.r* (rattling or ringing sound) : *xanggy-r-* 'to rattle' : *xanggy-n-* 'to ring'.

5.3   Voice marking

The deverbal suffixes here classified as markers of voice (*genus verbi*) form the only truly productive part of (de)verbal derivation in Mongolian. Even so, there are dialectal differences in the use of these markers, and their morphology involves occasional irregularities that suggest lexicalized structures. Functionally, the category of voice is connected with the type and status of actants (arguments) and their functions in the clause. In the basic situation, corresponding to the "active voice", the actants (agent, patient, recipient) and their syntactic positions (subject, object, indirect object) are linked together by a predicate unmarked for voice. Any change of this situation requires the addition of a voice marker. Against this background, Mongolian has five marked voices, conventionally labelled (1) "passive", (2) "causative", (3) "reciprocal", (4) "cooperative" and (5) "pluritative".

The allomorphy exhibited by the voice markers (Table 23) reflects basically the normal division of verbal stems into standard stems (ending in a consonant: C), obstruent stems (ending in an etymological obstruent: R) and vowel stems (ending in a long vowel or a diphthong: VV V*i*). The passive and causative markers reflect, however, an additional diachronic division of the standard stems into those ending in an original vowel (*V) and those ending in an original (sonorant) consonant (*C), a distinction no longer synchronically made in inflectional morphology. The passive and causative forms based on stems ending in an original consonant have therefore synchronically the status of lexicalized exceptions, and their number is diminishing due to their gradual absorption into the class of standard stems. The actual situation varies, however, from dialect to dialect.

Table 23. The voice markers

| | | VV- | V*i*- | C- | | R- |
				*V	*C	
(1)	PASS	-gd-		-e.gd-	-d-	-t-
(2)	CAUS	-lg- : -leg(h)-		-AA- ~ -UUl-	-g-	
(3)	RECIPR	-ld-		-e.ld-		
(4)	COOP	-ltz-		-e.ltz-		
(5)	PLURIT	-tzgAA-				

1. Passive: The passive voice involves a reversal of the syntactic positions of the agent and patient. The basic form of the passive marker may be abstracted as *-gd-*, used after stems ending in a synchronic (long) vowel, as in *nee-* 'to open' : PASS *nee-gd-* 'to be opened'. After standard stems originally ending in a (short) vowel, the syllabified variant *-e.gd-* is used, as in *al-* (< **ala-*) 'to kill' : PASS *al-e.gd-* 'to be killed'. After stems originally ending in a consonant, the shorter variants *-d-* (after sonorants, secondarily also after **s*) : *-t-* (after obstruents, including **r*) are used. Only six examples are in common use: *ol-* (< **ol-*) 'to find': PASS *ol-d-* 'to be found', *diil-* (< **deil-*) 'to defeat, to cope with' : PASS *diil-d-* 'to be defeated', *ab-* 'to take' (< **ab-*) : PASS *ab-t-* 'to be taken', *eug-* 'to give' (< **ög-*) : PASS *eug-t-* 'to be given', *sons-* (< **sonos-*) 'to hear' : PASS *sons-t-* > *sons-d-* 'to be heard, to become famous', *xoor-* (< **kaxur-*) 'to cheat' : PASS *xoor-t-* 'to be cheated'. Some of these are already either obsolete or semantically differentiated from the corresponding base verbs. Colloquially and dialectally, they can be replaced by regular forms of the type *eug-* 'to give' : PASS *eug-e.gd-*, or also by "double passives" of the type *ab-* 'to take' : PASS PASS *ab-t-e.gd-* (Sechenbaatar 2003: 118–119).

Since passivization as a syntactic operation requires the presence of an object (which becomes the subject of the passivized clause, §7.10), passives can, in principle, only be formed from transitive verbs. Exceptions to this are formed by a few intransitive verbs that can be passivized in secondary lexicalized meanings; the two most common examples are: *yab-* 'to depart' > 'to proceed, to act' : PASS *yab-e.gd-* 'to be carried out', *gar-* 'to exit' > 'to excel, to surpass' : PASS *gar-t-* 'to be surpassed' (note that this is another obstruent stem, with *-t-* as the passive marker).

Semantically close to passives are the so-called "medial" verbs (Poppe 1951: 51), formed from transitive bases by the suffix *-r-*, as in *ebd-* 'to destroy, to break' : MED *ebd-r-* 'to deteriorate, to break down', *satz-* 'to sow, to scatter' : MED *satz-r-* 'to be sown, to be scattered'. These are clearly related to the intransitive verbs derived by the suffix *-r-* from particles, as in *tas* : *tas-r-* 'to be broken off'. Altogether, it is a question of a small and marginal group of fully lexicalized items which do not constitute a clearcut grammatical class.

2. Causative: The causative voice (which has also been called the "factitive voice") involves a hierarchy between two agents, of which the one (causer) causes the action of the other (causee). The construction may or may not also contain other actants (patient, recipient) (§7.11). While passives are, by definition, intransitive derivatives of transitive bases, causatives are almost always transitive, but they can be formed from both transitive and intransitive bases. Formally, the causative shows even more diversity than the passive, in that the markers synchronically used for the different stem types are not in a regular morphophonological relationship with each other. The single most productive causative suffix is *-UUl-*, normally added to standard stems originally ending in a (short) vowel, as in *or-* (< **oro-*) 'to enter' : CAUS *or-ool-* 'to cause to enter', *id-* (< **ide-*) 'to eat' : CAUS *id-uul-* 'to cause to eat', *bary-* (< * *bari-*) 'to hold, to grasp' : CAUS *bary-ool-* 'to cause to grasp, to offer'. This suffix can also be added to some stems originally ending in a consonant, as in *ab-* 'to take' (< **ab-*) : CAUS *ab-ool-* 'to cause to take', as well as, with the automatic addition of the connective consonant *g*, to some synchronic vowel stems, as in *bai-* 'to be' : CAUS *bai-g.ool-* 'to establish'. Normally, original consonant stems take the suffix *-g-* (< **-gA-*), as in *bol-* 'to be(come)' : CAUS *bol-g-* 'to cause to be(come)', *sour-* 'to learn' : CAUS *sour-g-* 'to teach', dialectally and positionally (after *d s*) also *-x-* (< **-kA-*), as in *cad-* 'to be(come) saturated' : CAUS *cad-x- ~ cat-g-* 'to satisfy', *bos-* 'to stand up' : CAUS *bos-x- ~ bos-g-* 'to erect'. Synchronic vowel stems, on the other hand, take the suffix *-lg-* : *-leg(h)-* , as in *soo-* 'to sit' : CAUS *soo-lg-* 'to cause to sit, to set' > (also:) 'to have diarrhoea', *ai-* 'to fear' : CAUS *ai-lg-* 'to frighten'.

More formal diversity is created by the additional causative suffix *-AA-* (< *V-*xA-*, a positional variant of **-gA- ~ *-kA-*) used on standard stems originally ending in a (short) vowel, as in *dzogs-* (< **jogso-*) 'to stand' : CAUS *dzogs-ao-* 'to stop', *ount-* (< **unta-*) 'to sleep' : MED *ount-r-* 'to be extinguished' : MED CAUS *ount-r-aa-* 'to extinguish'. Often, both *-AA-* and *-UUl-* can be used on the same stem with little or no difference in the meaning, as in *dzob-* (< **joba-*) 'to suffer' : CAUS *dzob-ao- ~ dzob-ool-* 'to cause to suffer, to torment'. In general, the suffix *-AA-* is restricted to a gradually diminishing number of lexicalized items, while *-UUl-* retains a considerably greater degree of synchronic productivity.

Causative constructions can be repeated, which is why causative suffixes can be accumulated upon each other. Secondary causatives based on partially lexicalized primary causatives are particularly common, as in *xur-* 'to reach' : CAUS *xur-g-* 'to send' : CAUS CAUS *xur-g-uul-* 'to have (someone) send (something)', but even tertiary causatives are possible, as in *shat-* 'to burn' (intransitive) : CAUS *shat-aa-* 'to burn' (transitive) : CAUS CAUS *shat-aa-lg-* 'to cause (someone) to burn (something)' : CAUS CAUS CAUS *shat-aa-lg-ool-* 'to make (someone) cause (someone else) to burn (something)' (Kullmann & Tserenpil 1996:117). In such examples, the causative suffixes involving a greater degree of lexicalization (*-g-*, *-AA-*) always precede the relatively more productive suffixes (*-lg-*,

-UUl-). Some items also contain idiosyncratic combinations, as in *oun-* (< **una-*) 'to fall, to drop' (intransitive) : CAUS CAUS *oun-g-aa-* = *oun'gaa-* 'to cause to fall, to drop' (transitive).

3. Reciprocal: The reciprocal voice (which has also been called the "adversative voice") involves, in principle, two or more agents (or groups of agents) that also function as patients of a mutual action. The implication is close to that of a reciprocal pronoun ('each other'). As is also the case with the other voices, the verbs marked for reciprocality have often developed secondary lexicalized meanings. Formally, reciprocals are a coherent class, for they are invariably marked by the suffix *-ld-* (syllabified as *-e.ld-*) for all stem types, as in (vowel stem:) *boulaa-* 'to seize' : RECIPR *boulaa-ld-* 'to seize each other' > 'to quarrel', (standard stem:) *bary-* 'to hold, to grasp' : RECIPR *bary-e.ld-* 'to hold each other' > 'to wrestle', (obstruent stem:) *ab-* 'to take' : RECIPR *ab-e.ld-* 'to take each other' > 'to stick together'.

Due to the inherent agent-patient relationship reciprocals are prototypically intransitive verbs formed from transitive bases. They can, however, also be formed from intransitive bases, implying joint participation in a mutually coordinated action, as in *bai-* 'to be' : RECIPR *bai-ld-* 'to fight, to go into battle', *yab-* 'to depart, to go, to act' : RECIPR *yab-e.ld-* 'to be involved in an intimate relationship'. Some fully lexicalized items have, however, almost completely lost the original reciprocal content, as in o*r-* 'to enter' : RECIPR *or-e.ld-* 'to be busy with, to try'.

4. Cooperative: The cooperative voice involves a joint action of several independent agents. Although close in function to the reciprocal voice, it lacks the reference to mutuality and stresses instead the collective effort ('all together'). It has therefore no impact on the transitivity of the base. Like the reciprocals, the cooperatives are a formally coherent class, with *-ltz-* (syllabified as *-e.ltz-*) as the marker for all stem types, as in (vowel stem:) *inee-* 'to laugh' : COOP *inee-ltz-* 'to laugh together', (standard stem:) *id-* 'to eat' : COOP *id-e.ltz-* 'to eat together', (obstruent stem:) *sour-* 'to learn' : COOP *sour-e.ltz-* 'to study together'. Many examples with this marker have lexicalized meanings, as in *or-* 'to enter' : COOP *or-e.ltz-* 'to participate'.

The functional borderline between cooperatives and reciprocals is fuzzy. From many bases both forms are possible with little difference in the meaning, as in *xel-* 'to talk' : RECIPR *xel-e.ld-* 'to discuss (with each other)' : COOP *xel-e.ltz-* 'to discuss (together)'. In other cases only a cooperative is used, though the meaning may be closer to that of a reciprocal, as in *tany-* 'to know' : COOP *tany-e.ltz-* 'to (learn to) know each other, to become acquainted'.

5. Pluritative: To compensate for the many lexicalizations present in the cooperative and reciprocal forms the pluritative voice functions as a mechanic device indicating

the involvement of many parallel individual agents ('many together'). The status of the pluritative as a "voice" could be disputed, and it has also been classified as representing the "aspect of collective action" (Kullmann & Tserenpil 1996: 134). Even so, its connection with the system of actants is obvious. Also, the pluritative may be seen as an indirect means to express the distinction between singular and plural agents (subjects), which in Mongolian are not always necessarily distinguished elsewhere in nominal or verbal morphology. The pluritative marker is in most dialects invariably *-tzgAA-* (syllabified as *-e.tzgAA-*) for all stem types, as in (vowel stem:) *oo-* 'to drink' : PLURIT *oo-tzgaa-* 'to drink together', (standard stem:) *ounsh-* 'to read' : PLURIT *ounsh-tzgaa-* 'to read together', (obstruent stem:) *eug-* 'to give' : PLURIT *eug-tzgeo-* 'to give together'. Dialectally, on the Inner Mongolian side, the suffix can, however, also have the alternants *-cgAA-* (after obstruent stems) : *-jgAA-* (after other stem types). The pluritative does not change the transitivity of the base, and it exhibits virtually no cases of lexicalized meanings.

5.4   Modal markers

The entire system of finite conjugation in Mongolian may be divided into two sets of forms. One of these sets involves distinctions made mainly in terms of tense and/or aspect, but without obvious modal connotations. These forms may be identified as representing the basic or "indicative mood", and their markers may be classified as tense-aspect markers. The other set is more clearly connected with expressions of modal distinctions, while its connections with tense and/or aspect are less obvious. These forms may be identified as representing a series of "moods", and their markers may be classified as modal markers. The two morphological spheres, tense-aspect and mood, are, therefore, mutually exclusive, which means that the forms marked for tense or aspect cannot be marked for mood, and vice versa. Even so, the functional borderline between the two spheres is occasionally obscured.

Although the modal markers stand, in principle, for the entire potential range of modal distinctions that a language can make, all modal markers in Mongolian are linked to different aspects of volition, such as decision (intention), command (request, demand, appeal) or permission (wish, hope), for which reason the modal forms are also known as "imperative forms". An important feature of the modal forms is that they can indirectly indicate the person (first, second or third) of the subject, a distinction not otherwise made in the finite conjugation of Mongolian (proper). It is, however, not a question of an actual personal conjugation, for the reference to the subject person is generally vague and does normally not indicate the subject number (singular vs. plural). We might rather say that the modal forms expressing a command ('shall, should') are prototypically interpreted as referring to the second person (2P), the forms expressing a decision ('will,

Table 24. The modal markers

		C-	R-	VV-	V*i*-	
(0)	IMP	-Ø				2P
	IMP EMPH	-Ø=AA				
(1)	PREC	-AA=c : -AA=t		-g.AA=c : -g.AA=t		
(2)	PRESCR	-AArai		-g.AArai		
(3)	BEN	-e.gten		-gten		
(4)	VOL	-ii.y > -ii		-y		1P
	VOL EMPH	-y=AA				
(5)	PERM	-e.g		-g		3P
(6)	DES	-AAsai		-g.AAsai		
(7)	DUB	-UUdzai ~ -UUj		-g.UUdzai ~ -g.UUj		

would') to the first person (1P) and the forms expressing a permission ('may, might') to the third person (3P).

The modal forms have conventional names (mainly from Poppe 1951: 76–78) which to some extent reflect their functions. The actual paradigm of forms in active use varies from dialect to dialect, but most varieties of modern Mongolian may be said to have one unmarked and seven marked modal forms, some of which have additional variants. In the second person range there is one unmarked form, (0) "imperative" (proper), as well as three marked forms, labelled (1) "precative", (2) "prescriptive" and (3) "benedictive", respectively. In the first-person range there is only one form, labelled (4) "voluntative". Finally, in the third-person range there are three forms, labelled (5) "permissive", (6) "desiderative" and (7) "dubitative". In addition, there are two marginal and structurally exceptional forms, labelled (8) "optative" and (9) "concessive", both of which represent synchronically non-productive borrowings from Written Mongol.

The synchronically productive (non-borrowed) modal forms (including the unmarked form) are morphophonologically simple (Table 24), involving only the use of a connective vowel (*ii*) or a connective consonant (*g*) in certain forms depending on the stem type, as well as the mechanic appearance of the reduced vowel (*e*) as required by the rules of syllabification.

0.   Imperative (proper): It is no accident that the plain verbal stem is used to indicate the most simple expression of modality, that is, a basic command directed at the second person (both singular and plural), as in *ir-* 'to come' : IMP *ir* 'come!', *soo-* 'to sit' : IMP *soo* 'sit down!'. The command can be stressed by adding the enclitic particle of phonological emphasis =*AA*, as in *eug-* 'to give' : IMP *eug* 'give!' : IMP EMPH *eug=eo* 'do give!'. The effect of emphasis can also be achieved by the simple reduplication of the unmarked verb, as in *soo soo* 'do sit down!'.

1. Precative: The analysis of the final long vowel in forms like IMP EMPH *eug=eo* 'do give!' as the element of phonological emphasis is potentially controversial, since the vowel could also be analysed as a specific suffix of the imperative series. The main reason for its treatment as a particle is that the emphatic imperative may be compared with the other emphatic forms of the finite conjugation, all of which seem to involve the particle (postclitic) =*AA*. This may be different in the form traditionally known as the precative, which also expresses a command (request) directed at the second person. For standard stems, the precative is, as it would seem, formed from the emphatic imperative by adding the element =*c*. However, vowel stems require the use of the connective consonant *g* in this form, as in *xaa-* 'to close' : PREC *xaa-g.aa=c* 'do close!' Since the particle =*AA* does not condition the use of the connective consonant it has to be concluded that the vowel in the precative is, at least synchronically, a true suffixal element. This must, then, also be true of the precatives formed from standard stems, as in *eug-* 'to give' : PREC *eug-eo=c* 'do give!'.

    The element =*c* in the precative is diachronically derived from the postclitic use of the second person pronoun √*ci* 'thou'; hence, this form normally refers to a singular subject. Since this is so, the element =*c* is actually a personal ending, though its synchronic status is problematic, since personal endings are otherwise not used in Mongolian (proper). Even so, dialectally, the corresponding plural form in =*t* < √*ta* 'you (many)' is also known, which means that the precative can have both a singular and a plural form, as in PREC SG *eug-eo=c* : PREC PL *eug-eo=t*. Additional diversity is caused by the alternation in the suffix vowel, which can also be -*ii*-, as in PREC SG *eug-ii=c* : PREC PL *eug-ii=t*. In most modern dialects, however, the precative plural seems to be absent. In such dialects, the element =*c* may actually have been reinterpreted as representing the regular enclitic particle ADD =*c* 'even, also'. It may be recalled that imperative forms can also be followed by other enclitic particles, including LIM =*l* and AFF =*dAA*, as in LIM AFF *eug=e.l=deo* 'please do give it!'. Altogether, the morphological status of the precative is a complex issue, and it is possible that there is no single descriptive solution that could cover all forms of the language.

2. Prescriptive: The prescriptive expresses a somewhat milder and/or more polite command ('please') than the unmarked imperative. At the same time, it is often more demanding, in the sense that the request expressed by the prescriptive is expected to be filled (Kullman & Tserenpil 1996: 179). This mood is marked by -*AArai* (= -*aarai* -*eerai* -*aorai* -*eorai*) for standard stems, as in *yary-* 'to talk' : PRESCR *yary-aarai* 'please talk!', *ir-* 'to come' : PRESCR *ir-eerai* 'please come!', *bolg-* 'to make' : PRESCR *bolg-aorai* 'please make!', *eug-* 'to give' : PRESCR *eug-eorai* 'please give!'. Vowel stems require the connective consonant *g*, as in *oo-* 'to drink' : PRESCR *oo-g.aarai* 'please drink!', *xii-* 'to do' : PRESCR *xii-g.eerai* 'please do!'.

3. Benedictive: The benedictive is an archaic mood expressing a very polite request directed at one or more persons ('please be so kind as to'). It correlates with the honorific use of the second person plural pronoun √*ta*, but is even more formal. This mood is marked by -*gten* (syllabified as -*e.gten*), occasionally reduced to -*ten*, as in *soo*- 'to sit' : BEN *soo-gten* ~ *soo-ten* 'please sit down!', *or*- 'to enter' : BEN *or-e.gten* 'please come in!' (examples from Poppe 1951: 77).

In the Khalkha Cyrillic orthography the benedictive marker is written etymologically as -**gtun** -**gtün**, adopted directly from Written Mongol -**qduv** -**gduv** (representing the original shape *-*gtUn*, also attested as *-*gtUi*). Since the form itself is rare and belongs to an elevated style, there is an increasing tendency today to pronounce the benedictive marker hypercorrectly with a high rounded vowel, following the orthographical image. The resulting marker does not conform with the rules of vowel phonotactics, which is why it cannot synchronically be analysed as a single suffix. Rather, it would seem to represent a combination of two elements, the permissive suffix -*e.g* (as discussed below) and the independent word (particle) +*toun* (probably with no phonemically relevant harmonic variation). Simple inherited forms like BEN *or-e.gten* (as recorded by Poppe) can therefore be replaced by complex borrowed (hypercorrect) forms like BEN *or-e.g+toun.*

4. Voluntative: The voluntative is the only productive modal form that refers to a first-person subject. The reference is normally to the collective decision (intention) of a plural actor ('let us!'). This mood often correlates with the first person plural inclusive pronoun *bid* ~ *byad*, though it can also refer to a plural exclusive or even a singular subject. The basic marker of the voluntative is -*y*, used after vowel stems, as in *soo*- 'to sit' : VOL *soo-y* 'let us/me sit down!'. Standard stems require the connective vowel *ii*, after which the element -*y* can be dropped, as in *yab*- 'to depart' : VOL *yab-ii.y* ~ *yab-ii* 'let us/me go'. The Khalkha Cyrillic orthography does not indicate the connective vowel in this form and uses only the harmonically alternating images -**'ya** -**'yë** -**yye**, as in **gar'ya** 'let us/me go out!', **or'yë** 'let us/me go in!', **tegyye** 'let us/me do so!', phonemically *gar*- 'to exit' : VOL *gar-ii.y* ~ *gar-ii*, *or*- 'to enter' : VOL *or-ii.y* ~ *or-ii*, *teg*- 'to do so' : VOL *teg-ii.y* ~ *teg-ii.*

The voluntative marker can be expanded by the element of phonological emphasis =*AA*, yielding the complex suffix -*y=AA* for all stem types, as in VOL EMPH *soo-y=aa* 'let us/me sit down!', VOL EMPH *teg-y=ee* 'let us/me do so!'. The Khalkha Cyrillic orthography does not differentiate these forms from the corresponding basic voluntatives, suggesting that the distinction is functionally negligible. It is, however, possible that dialectal factors are also involved.

5. Permissive: The permissive (also called "concessive" but formally different from the latter) expresses an indirect command (wish, permission) with reference to a third

person (singular or plural) subject ('let him/her/it/them!', 'may he/she/it/they!'). This mood is marked by *-g* (syllabified as *-e.g*), as in *bai-* 'to be' : PERM *bai-g* 'let it be!', *udz-* 'to see' : PERM *udz-e.g* 'may (s/he) see!'.

6. Desiderative: The desiderative expresses an irreal wish (desire), normally directed at a third person subject ('I wish that', 'if only it were so that!'). This mood is marked by *-AAsai* (= *-aasai -eesai -aosai -eosai*) for standard stems, as in *yab-* 'to depart' : DES *yab-aasai* 'if only (s/he) would go!', *ir-* 'to come' : DES *ir-eesai* 'if only (s/he) would come!', *bol-* 'to be(come)* : DES *bol-aosai* 'if only (it) would be(come)!', *eug-* 'to give' : DES *eug-eosai* 'if only (s/he) would give!'. Vowel stems require the connective consonant *g*, as in *bai-* 'to be' : DES *bai-g.aasai* 'if only (s/he) would be!', *xii-* 'to do' : DES *xii-g.eesai* 'if only (s/he) would do!'.

7. Dubitative: The dubitative is an exceptional mood in Mongolian, in that it involves an inherent negative or precautionary presupposition ('there is a danger that'), though the form itself is not marked as negative. The implication is often the opposite to that of the desiderative ('if only it were not so that!', 'let it not be that!'). The grammatical reference is mostly to the third person ('he/she/it/they should not'), but it can also be to the second person ('you should not'). The dubitative is marked by *-UUdzai* (= *-oodzai -uudzai*) ~ *UUj* (= *-ooj -uuj*) for standard stems, as in DUB *mart-oodzai* 'may s/he/you not forget!', *ux-* 'to die' : DUB *ux-uudzai* 'I wish s/he will not die!' (= 'there is a danger that s/he might die'). Vowel stems require the connective consonant *g*, as in *oo-* 'to drink' : DUB *oo-g.oodzai* 'I wish s/he will not drink'. In general, this form is rarely used in the modern spoken language.

The markers of the optative and concessive moods both contain a short high rounded vowel (*U*), which in the Khalkha Cyrillic orthography is written **u ü**, suggesting that it participates in vowel harmony. However, as is evident from the morphophonological analysis of the language (§2.10), Mongolian does not have distinctive short vowel qualities in non-initial syllables, which is why the markers in these cases are best analysed as separate words (+), as also in the case of the hypercorrect benedictive marker *-e.g+toun* (as discussed above). In any case, it has to be assumed that they are preceded by a special type of juncture.

8. Optative: The optative is marked by the element +*sougai*, Cyrillic Khalkha -**sugai** -**sügei**, which normally refers to the first person (singular and plural), though the reference can vary due to the rarity and literary style of the form. The element +*sougai* is added to the plain verbal stem, which in this case might also be understood as representing the unmarked imperative, as in *bol-* 'to be(come)' : OPT *bol+sougai* 'may I/we ~ it/they be(come)!'. The form +*sougai* (and its Cyrillic representation) is a reading pronunciation of Written Mongol -**suqhai** -**sugai**, which would regularly be represented as *-sai** (< *-sU-xAi*), an element that is actually present in the composition of the desiderative marker *-g.AA(-)sai* (< *-xA-sU-xAi*). To some extent,

the desiderative may be seen as the modern counterpart of the optative, though the function of the optative is also filled by the voluntative.

9. Concessive: The concessive is marked by the element +*tougai*, Cyrillic Khalkha -**tugai** -**tügei**, which normally refers to the third person (singular and plural). The functional reference is the same as that of the permissive, but the concessive is today used only in a few lexicalized expressions, notably in the items CONC *bol+tougai* 'may it be(come)!' and CONC *mand+tougai* 'may it prosper! long live! hurray!' (the latter from *mand-* 'to rise, to prosper'). The form +*tougai* (and its Cyrillic representation) is, again, a reading pronunciation of Written Mongol -**duqhai** -**dugai**, which would regularly be represented as -*e.tgai** ~ -*e.tgii**. In fact, an inherited concessive form is present in the lexicalized prohibition particle *bitgii* = *bi-tgii* 'do not! / may not!' = Cyrillic Khalkha **bitgii**. It may be noted that although the modern reading pronunciations +*sougai* and +*tougai* rhyme, the original forms did not, since they contained a different medial consonant (*-*sU-xAi* vs. *-*tUgAi*).

The moods in Mongolian do not constitute a closed system. Apart from the forms listed above, there are several other elements with a more restricted dialectal distribution that would qualify as modal markers in a more comprehensive framework. Additional modal forms are occasionally also borrowed from Written Mongol. In general, all of these forms belong to the functional sphere of "imperatives", though some forms may also have a connotation of possibility or probability. An example is offered by the so-called "potential mood", formed by -*mdz* = -*m=dz* (syllabified as -*e.mdz*), as in *ir-* 'to come' : POT *ir-e.mdz* 'he may/might come'. As a rule, such dialectally restricted formations are diachronically shallow combinations of various predicatively used verbal forms with final particles.

5.5   Tense-aspect markers

The modally unmarked (indicative) system of finite forms is normally assumed to involve a combination of temporal and aspectual distinctions (§7.8), though other functions may be relevant as well, including evidentiality (§7.9). In any case, it is convenient to divide these forms into two ranges of temporal reference: the present tense (PRS) range and the past tense or preterite (PRT) range. In conventional understanding, both ranges are further divided into two aspectually differentiated sections, corresponding to the imperfective and perfective aspects. We get, then, four finite forms, termed "praesens imperfecti", "praesens perfecti", "praeteritum imperfecti" and "praeteritum perfecti" (Poppe 1951: 79–81). In spite of the internal logic of this terminology it is, however, also convenient to use more simple labels for the forms concerned. In the absence of an established tradition, the terms "durative", "confirmative", "terminative" and "resultative" will be used here (as introduced in Janhunen 2003c: 23–25).

Table 25. The tense-aspect markers

		Simple	Long	Short		
(1)	DUR	*-n-*	*-n=AA*	*-e.nʼ*	PRS	IMPRF
(2)	CONF	*-l-*	*-lAA*			PRF
(3)	TERM	*-b-*	*-b=AA*	*-e.b ~ -eb*	PRT	IMPRF
(4)	RES	*-J-*	*-Jai*	*-e.j*		PRF

The temporal references of the four modally unmarked finite forms are not unambiguous. The confirmative ("praesens perfecti"), for instance, may technically be classified as belonging to the present tense range, but most of its occurrences have actually a past tense reference, while in some cases it can refer to the future. Since Mongolian has no specific future tense marker, a future reference can also be expressed by the durative ("praesens imperfecti"), whose basic reference is that of a generic present tense (Brosig 2009b). Most importantly, the finite forms marked for tense and aspect are not the only resources that Mongolian uses to express modally unmarked finite predicates, for the system of verbal predicates also comprises complex constructions (formed with auxiliaries) as well as predicatively used participles. There are some important differences between the Mongolian dialects as to which forms are preferred for each particular temporal and/or aspectual reference. Finally, it has to noted that negative and interrogative predicates show morphological patterns deviating from the forms used for affirmative predicates.

The tense-aspect markers (Table 25) are morphologically relatively simple, but they show some systematic complications in their behaviour. Basically, each marker consists of a single consonant, *-n-* for the durative, *-l-* for the confirmative, *-b-* for the terminative and *-J-* (= *-j- ~ -c-*) for the resultative. These most basic forms are, however, only used when the marker is followed by a postclitic, which is normally the interrogative particle *=UU*. These cases may be said to represent the "simple form" of the tense-aspect markers. Otherwise, when used in terminal position, as they most often are, these markers have two variants, one of which may be identified as the "long form" and the other as the "short form". The long form may imply emphasis, and it could be analysed as a combination of the tense-aspect marker and the enclitic element of phonological emphasis *=AA*. This is the approach preferred here for the long forms of the durative and terminative. The confirmative is, however, never and the resultative only rarely used in the short form, which is why these long forms may synchronically also be treated as indivisible allomorphs.

1. Durative: The durative marker is *-n-* in the simple form, *-nʼ* [n] (syllabified as *-e.nʼ*) in the short form and *-n=AA* in the long (emphatic) form, as in *bai-* 'to be' : DUR *bai-nʼ* : DUR EMPH *bai-n=aa* : DUR INTERR *bai-n=oo, udz-* 'to see' : DUR *udz-e.nʼ* : DUR EMPH *udz-n=ee* : DUR INTERR *udz-n=uu.*

2. Confirmative: The confirmative marker is *-l-* in the simple form and *-lAA* in the long form, as in *oc-* 'to go' : CONF *oc-lao* : CONF INTERR *oc-l=oo*, *ir-* 'to come' : CONF *ir-lee* : CONF INTERR *ir-l=uu*. The postvocalic allomorph *=y.UU* of the interrogative particle can, however, also be attached to the long form of the confirmative, yielding the complex suffix *-lAA=y.UU.* The interrogative based on the simple form has an unambiguous past tense reference, while the corresponding long form refers to an immediate future, as in *yab-* 'to depart, to go' : CONF INTERR *yab-l=oo* 'have (you/s/he/they) gone (already)' vs. *yab-laa=y.oo* 'is it time to go?' = 'shall we/you go (now)?' (cf. e.g. Sechenbaatar 2003: 139).

The synchronic status of the confirmative marker is complicated by its formal and functional resemblance to a series of final particles with the dialectally varying shape (=)*lAA* ~ (=)*laa* ~ (=)*lai*, some occurrences of which could be analysed as manifestations of an enclitic confirmative marker (§7.14), though there are also other sources and connections. The morphological difference between these enclitic particles and the actual confirmative (proper) is that the latter is marked directly on the verbal base, while the former are added to fully conjugated finite predicates, or also to predicatively used nominalized forms.

3. Terminative: The terminative marker is *-b-* in the simple form, *-b* in the short form and *-b=AA* in the long (emphatic) form, as in *asoo-* 'to ask' : TERM *asoo-b* : TERM EMPH *asoo-b=aa* : TERM INTERR *asoo-b=oo.* In normative Khalkha, and possibly in several actual dialects of the Khalkha type, the short form is, however, always accompanied by a lexically non-optional short (reduced) vowel, which means that the lexical shape of the suffix in such dialects is *-eb.* The vowel is manifested when the marker is added to stems ending in a consonant, as in *udz-* 'to see' : TERM *udz-eb* : TERM EMPH *udz-b=ee* : TERM INTERR *udz-b=uu.* The fact that this vowel is non-optional is evident from examples in which it supports a contrast with a final stable consonant cluster, as in *al-* 'to kill' : TERM *al-eb* [aɮəw] vs. *alb* [aɮp] 'official service'. This means that the alternation *-eb* : *-b* (= positional deletion of a lexical reduced vowel) in the terminative marker is different from that observed in, for instance, the durative marker *-n'* : *-e.n'* (= positional addition of a non-lexical reduced vowel), though the superficial effect is similar. The full picture concerning the dialectology of the terminative marker is, unfortunately, unknown.

In some dialects, notably Chakhar, the terminative has developed a secondary modal function, termed "precautionary" and corresponding to the dubitative mood, as in *ald-* 'to lose, to drop' : TERM EMPH *ald-b=aa* 'you (almost) dropped it' > 'be careful not to drop it!' (Sechenbaatar 2003: 142–143). This may be taken as an example of the interaction between the categories of tense-aspect and mood. Even so, the terminative remains primarily a form of the temporal-aspectual sphere.

4. Resultative: The resultative marker may be assumed to involve lexically the weak palatal stop *j*, which is "strengthened" after obstruent stems to the corresponding strong stop *c* (archiphonemically *J*). The simple form is therefore *-j- ~ -c-*, the short form *-j ~ -c* and the long form *-jai ~ -cai*, as in *xii-* 'to do' : RES *xii-j* : RES EMPH *xii-jai* : RES INTERR *xii-j=uu*, *ab-* 'to take' : RES *ab-c* : RES EMPH *ab-cai* : RES INTERR *ab-c-oo*. In many dialects, especially on the Inner Mongolian side, the obstruent stems have become lexicalized into standard stems, leaving only the "weak" allomorphs, as in *gar-* 'to exit' : RES EMPH *gar-cai > gar-jai*.

The short form of the resultative is rarely used in its finite function. This is probably because it is formally identical with the non-finite imperfective converb in *-J* (*-j ~ -c*), as in *ir-* 'to come' : RES *ir-j* = CONV IMPRF *ir-j*. Although it is originally a question of a single form, the spheres of finite and non-finite predicates are synchronically strictly separated, which is why there is a clear tendency to use only the long form *-Jai* in the finite function. Importantly, the vowel in the resultative marker is not the harmonically varying *AA*, as in the other finite markers, but the harmonically invariant *ai* [ɛː] ~ [eː], suggesting that it may synchronically be a different element. The Khalkha Cyrillic orthography renders the resultative marker somewhat misleadingly as **-jee** ~ **-cee**.

5.6 The nominalization of verbals

The nominalization of verbals, also known as the "nominal representation of verbs", is an operation that allows verbals to be used in nominal functions without affecting their basic verbal status. In the sentence, the nominalized verbal appears in the roles of a nominal (subject, object, attribute, nominal predicate), while, at the same time, it retains its original ability to govern the modifiers of the verb (object, adverbial). Sequences with a nominalized verbal as the predicate may be seen as equivalent to relative and refererative clauses in other languages, an understandable correlation as Mongolian has neither relative pronouns ('which', 'who') nor referative conjunctions ('that'). As far as morphology is concerned, the nominalized verbal can take the inflectional suffixes of a nominal, including case endings and the markers of personal and reflexive possession. Nominal derivation, including plural marking, is, however, normally not applicable to nominalized verbals.

The nominalized verbals in Mongolian are traditionally known as "participles". This term should be understood in a broad sense, for these forms can be used both as actor nouns ('who does something'), the prototypical function of participles, and as action nouns ('that something is done'), a function that could also be comprised by the term "infinitives". As action nouns, participles can convey a passive meaning even if no passive marker is present in the construction. Both as actor nouns and as action nouns,

Table 26. The participle markers

		C-	R-	VV-	V*i*-
(1)	FUT	-*ex* : -*x*-		-*x*	
(2)	HAB	-*deg* : -*dg*-			
(3)	PRF	-*sen* : -*sn*-			
(4)	IMPRF	-*AA*		-*g.AA*	
(5)	AG	-*e.gc*		-*gc*	

participles can be either independent (substantival) or adnominal (adjectival). There are considerable differences between the individual participial forms as to which functions and syntactic positions they prefer. There are also differences in the degree of "verbness" that the participles retain. Some participial forms can be fully nominalized, which means that they completely lose their verbal properties and may synchronically be classified as deverbal nominals.

Participles are formed by suffixes, which in addition to their nominalizing function incorporate temporal-aspectual distinctions similar to those of the finite (indicative) forms. Due to this connection with tense and aspect, participles, when used as nominal predicates, overlap functionally with finite forms (proper). At the same time, they complement the resources of the finite paradigm, creating a more complex total system of verbal predicates. The basic system of participles comprises five forms (Table 26), which may be termed the "futuritive", "habitive", "perfective", "imperfective" and "agentive" participles.

1. Futuritive: The futuritive participle (also known as the "nomen futuri") is the most common type of nominalized verbal. In spite of its name, it has a rather ambivalent temporal reference. Although it does refer to the future in some contexts (especially as an actor noun), it more often functions as a general atemporal (aorist) form of the verb with no specific temporal reference (especially as an action noun). For this reason it is also widely used as the "dictionary form" of verbals. The futuritive participle is formed by the suffix -*ex* : -*x*-, which after vowel stems is represented as -*x* (: -*x*-), as in *id*- 'to eat' : PART FUT *id-ex*, *asoo*- 'to ask' : *asoo-x*. It is important to note that the suffix after all stems ending in a consonant contains a lexically non-optional short (reduced) vowel, which can support a contrast with regard to final clusters, as in *shar*- 'to fry' : PART FUT *shar-ex* vs. *sharx* 'wound'. The lexical vowel can, however, be dialectally absent, especially on the Inner Mongolian side. In such dialects, the futuritive participle marker is realized as -*x* or -*e.x* depending on the phonotactic rules valid for each given variety of speech.

The futuritive participle always retains its verbality and never serves as a basis for fully nominalized derivatives. Etymologically, however, the futuritive participle marker has

the longer variant *-xwai* (< *-kui*) ~ *-xii* (< *-küi*), which is attested in lexicalized items such as *axwai* 'life, living' < 'existence, existent' (< *a-kui* 'being') and *buxii* 'everything' (< *bü-küi* 'being'). In some dialects, as in Khalkha, the element *-xwai-* is also present in the combination *-xwaitz*, orthographically **-xuitz -xüitz**, in the function of a poten- tial participle, as in *med-* 'to know' : PART POT *med-xwaitz* 'who can know; that can be known', orthographically **medexüitz**. Formally, the element *-tz-* in *-xwaitz* is identical with the equative suffix of nominal inflection, but the functional relationship is syn- chronically distant. Altogether, the potential participle seems to be a marginal category unknown to a large part of the modern Mongolian dialects.

2. Habitive: The habitive participle (also known as the "nomen usus") expresses an action that takes place habitually within the temporal sphere of a general indefinite present. This participle is most often used as an actor noun, in which function it comes close in meaning to the durative form of the finite paradigm. It is formed by the suffix *-deg* : *-dg-*, as in *ir-* 'to come' : PART HAB *ir-deg*. It may be noted that the suf- fix-initial *d* in this formative does not undergo the "strengthening" to *t* after obstru- ent stems even in those dialects that retain the etymological category of distinctive obstruent stems, as in Khalkha *ab-* 'to take' : PART HAB *ab-deg*.

Like the futuritive participle, the habitive participle does not normally have fully nomi- nalized derivatives. A rare lexicalization is the quotative element PART HAB *ge-deg* 'called', from *g(e)-* 'to say, to call'.

3. Perfective: The perfective participle (also known as the "nomen perfecti") refers to an action completed in the past. As a nominal predicate it can function as a past tense form, often interchangeable with the confirmative, terminative and/or resulta- tive forms of the finite paradigm. The perfective participle is formed by the suffix *-sen* : *-sn-*, as in *ounsh-* 'to read' : PART PRF *ounsh-sen*. The final nasal in the suffix is of the stable type, but the nasal is absent in the etymologically related suffix of the abtemporal converb *-sAAr* < *-s-AAr*, originally a quasiconverb based on the instru- mental form of the perfective participle. Dialectally, the nasal can also be absent in certain other contexts, as before the cliticized copula *=iim* (< *+youm*), as in *bai-* 'to be' : PART PRF *bai-sen* : PART PRF COP *bai-s=iim*.

The perfective participle does not form fully nominalized derivatives, but it can occa- sionally, especially in adnominal (attributive) usage, undergo some degree of lexical- ization, as in *bol-* 'to be(come)' > 'to become ready, to ripen' : PART PRF *bol-sen* 'ready, cooked, ripe'.

4. Imperfective: The imperfective participle (also known as the "nomen imperfecti") refers to an action initiated in the past but continuing into the present. As a nominal predicate it can function as a general present tense form, interchangeable with the

durative of the finite paradigm. It is also attested in adnominal (attributive) usage. In modern Mongolian (proper), the imperfective participle is relatively rare in its basic (affirmative) usage, though it is very common in several other Common Mongolic idioms. It is also widely used as a element in the system of negative predicates (discussed separately below, §5.13). The marker of the imperfective participle is *-AA*, after vowel stems *-g.AA*, as in *yab-* 'to depart' : PART IMPRF *yab-aa*, *ir-* 'to come' : PART IMPRF *ir-ee*, *soo-* 'to sit' : PART IMPRF *soo-g.aa*. The single most commonly attested example of this form (in affirmative usage) is the copula-existential *bai-g.aa* 'is', from *bai-* 'to be'.

The imperfective participle is a very common source of fully lexicalized nominals. Unlike the verbal form itself, the lexicalized nominals normally incorporate the unstable */n*, as in *id-* 'to eat' : PART IMPRF *id-ee* → *id-ee/n* 'food'. There are also examples of derivatives with a stable *n*, as in *xoubyelg-* 'to transform' : PART IMPRF *xoubyelg-aa* → *xoubyelg-aan* 'incarnation'.

5.   Agentive: The agentive participle (also known as the "nomen actoris") always encodes the performer of an action. Although all other participles can also have this function, the agentive participle is the actor noun *par excellence*, and it is never attested as an action noun. Moreover, it often loses its verbal properties to the extent that it functions as a regular deverbal nominal. The reason why it nevertheless may be classified (and is normally classified) as a participial form is, first, that it can still, at least in some dialects, including Khalkha, have occasional modifiers typical of a verb (object, adverbial), and, second, that it is fully productive. The agentive participle is formed by the suffix *-gc* (syllabified as *-e.gc*), as in *asoo-* 'to ask' : PART AG *asoo-gc*, *med-* 'to know' : PART AG *med-e.gc*.

The fact that the agentive participle is close to a deverbal nominal is evident from the fully lexicalized meanings it often has, as in *yeurengxiil-* 'to generalize, to manage' : PART AG *yeurengxiil-e.gc* 'manager' → 'president'. Such lexicalized items can form a plural by the suffix *-d* (*-e.d*), as in *sour-* 'to learn' : PART AG *sour-e.gc* 'student' : PL *sour-e.gc-e.d* 'students'. It may be noted that the suffix *-gc* is formally (and etymologically) a combination of two primary elements: *-g* for deverbal nominals and *-c* for denominal "professionals". The latter element can also be added to the imperfective participle marker *-AA*, yielding the complex suffix *-AA-c*, which functions as a synonym of *-g-c* in a number of lexicalized items, as in *bic-* 'to write' : PART IMPRF *bic-ee* → PART IMPRF PROF *bic-ee-c* 'scribe'.

5.7   The converbialization of verbals

The converbialization of verbals is an operation that allows verbals to be chained into strings of two or more interconnected predicates within a single complex sentence. In such a sentence, only the last verbal stands in a finite form or in a participial form functioning as a finite predicate, while the other verbals are in special forms known as "converbs" (or also, "gerunds"). A converb may, consequently, be defined as a non-finite verbal form that modifies a following verbal in the capacity of an adverbial. Complex sentences with converbs are polypredicative constructions, and the different types of relationship between the predicates in them are expressed by the type of converb used in each particular case.

Converbialization in Mongolian, as elsewhere in the "Ural-Altaic" typological sphere, may be seen as a manifestation of the phenomenon of "serialization", also known as "verb chaining", which is attested also in a number of other languages in the region. In some languages, serialized verbs are morphologically unmarked and operate entirely in the syntactic dimension, while converbs involve morphologically marked forms. The difference is, however, of no functional consequence, since it is directly connected with the general status of morphology in the language. Moreover, a system of converbs can also comprise an unmarked form (zero-marked converb), a feature marginally present also in Mongolian.

Another comparison is often made between converbs and conjunctions. Since Mongolian has almost no interclausal conjunctions, converb markers fill a roughly equivalent function. This parallelism has led to the assumption that converbial markers can be classified along lines similar to conjunctions in conventional grammar, that is, in terms of "coordination" vs. "subordination". This is, however, difficult to justify for a language like Mongolian, for, in principle, all converbs involve a relationship of grammatical subordination, in which one form functions as the modifier of another. It is potentially more relevant to classify converbs according to their morphological and morphosyntactic properties, including, in particular, their ability or inability to share arguments with their verbal headword.

A crucial morphosyntactic parameter of converbs is whether they can have a separate subject: the subject of some converbs is coreferential with that of the following verb, while the subject of others is not. We may call the first (same-subject) type "conjunct" and the second (different-subject) type "disjunct" converbs. The subject of disjunct converbs can be expressed by a separate nominal (often in the accusative case), or also (more rarely) by a marker of personal possession. Disjunct converbs can, however, be made conjunct by adding the marker of reflexive possession (RX), which then functions as a coreference to the subject of the verbal headword. Otherwise, the converbial markers are normally terminal elements in the inflected word. They can, however, be followed

Table 27. The converb markers

	Form				Extensions		
conjunct		(1)	IMPRF	*-e.J*			
		(2)	PRF	*-g.AAd*			
		(3)	MOD	*-e.n : -e.ng-*	DIM		
		(4)	MOM	*-e.s*			
		(5)	SER	*-Ø*			
	INSTR	(6)	ABTEMP	*-sAAr*			
		(7)	FIN	*-xAAr*			
	RX	(8)		*-xAA/n*			
		(9)	INCID	*-e.nggAA/n*			
		(10)	PRECOND	*-mAA/n ~ -mAA/n-jen*			
disjunct	TERM	(11)	COND	*-bel*			
		(12)	CONC	*-e.bc > -UUc*			
		(13)	TERM	*-tel : -e.tl- ~ -ter : -e.tr-*		CX	RX
		(14)	IMM	*-megtz ~ -e.mc*			
		(15)	CONCOM	*-g.UUt ~ -e.nggUUt*			
	INSTR	(16)	SUCC	*-e.xlAAr ~ -e.xnAAr*			
		(17)	CONTEMP	*-e.msAAr*			

by certain postclitics, and in a few rare cases they can take a derivative suffix or a case marker (CX).

From the formal point of view, converbs are a heterogeneous group of forms, which also involve some degree of dialectal variation. Only relatively few converb markers are "primary" in the sense that they do not seem to contain synchronically identifiable morphological constituents. Others are "secondary" and contain more or less transparent derivational and inflectional elements. Ultimately, it is a matter of synchronic analysis as to which converb markers are regarded as morphologically indivisible entities. Following the established tradition, but considering also the formal properties of the markers, it is possible to distinguish for Mongolian at least 17 relatively commonly attested converbs (Table 27), most of which have conventional, though not always well-chosen, names. The terminology used below contains both conventional and some innovative features.

1–2. Imperfective and perfective: These are the two basic and most commonly used converbs of the conjunct type. The imperfective converb is formed by the suffix *-j*, which can dialectally, as in normative Khalkha, be strengthened to *-c* after obstruent stems, while the perfective converb is formed by the suffix *-AAd*, after vowel stems

-g.AAd, as in (standard stem:) *yab-* 'to depart' : CONV IMPRF *yab-j* : CONV PRF *yab-aad*, (obstruent stem:) *ab-* 'to take' : CONV IMPRF *ab-c* ~ *ab-j* : CONV PRF *ab-aad*, (vowel stem:) *inee-* 'to laugh' : CONV IMPRF *inee-j* : CONV PRF *inee-g.eed*. In principle, these two converbs indicate two different temporal-aspectual relationships with regard to the verbal headword, the imperfective converb indicating simultaneous ('while', 'at the same time as') and the perfective converb anterior ('after') action. In practice, the distinction is not always strict, and in some contexts the two forms are even interchangeable. There are, however, many fixed constructions in which only the one or the other form is permitted. Both forms are commonly used in combination with auxiliaries, but often in slightly different functions.

It may be noted that the imperfective converb marker is formally identical with the short form of the finite resultative marker (with which it is diachronically related). Since Mongolian normally keeps a strict distinction between converbs and finite forms, this formal similarity is synchronically best understood as a case of morphological homonymy; moreover, the short form of the resultative marker is conspicuously rarely used (§5.5). A similar case of homonymy arises in the perfective converb marker, which is attested dialectally (in Urat, and also in Ordos) in the shorter form *-g.AA*, making it identical with the imperfective participle.

3. Modal: The modal converb is marked by the suffix *-n* (syllabified as *-e.n*), as in *nee-* 'to open' : CONV MOD *nee-n*, *id-* 'to eat' : CONV MOD *id-e.n*. Of all converbs, this one has the least degree of morphosyntactic independence, in that it often lacks any arguments of its own. In principle, it indicates simultaneous action or the mode of action ('by doing'), very much like the imperfective converb, with which it is occasionally interchangeable. Often, however, the modal converb is used in fixed combinations with other verbs, as in CONV MOD *or-e.n* 'to enter' + *gar-* 'to exit' = *or-e.n gar-* 'to go in and out'. Such combinations can have lexicalized meanings, as in CONV MOD *xulee-n* 'to wait' + *ab-* 'to take' = *xulee-n ab-* 'to receive'. The reduplication of the modal converb is used as a means to express repetitive or pluritative action, as in CONV MOD *gui-n* 'to run' + *ir-* 'to come' = *gui-n ir-* 'to come running' → *gui-n gui-n ir-* 'to come running (many persons, all the time)'.

Rarely, with no change in the function, the marker of the modal converb can be extended by the diminutive suffix *-xen*, yielding the complex suffix *-ng-xen*. The complex form is apparently only attested in archaic folkloric texts, as in *edzel-* 'to be the master' : CONV MOD DIM *edzl-e.ng-xen* (Poppe 1951: 86). This seems to be the only case in which a converb marker takes a derivative suffix, and it cannot be ruled out that the construction should be analysed differently.

4. Momentaneous: The momentaneous converb ("converbum momentanei") is marked by the suffix *-s* (syllabified as *-e.s*). This form has a restricted distribution in that it always occurs in combination with the two auxiliaries *g(e)-* 'to say' (quotative) and *xii-* 'to do' (factitive). With both auxiliaries, it expresses momentaneous (rapid, abrupt) action, as in *xulee-* 'to wait' : CONV MOM *xulee-s xii-* 'to wait for a short while', *tat-* 'to pull' : CONV MOM *tat-e.s xii-* 'to pull abruptly'. There seem to be dialectal preferences in the choice of auxiliary, with *xii-* being common in normative Khalkha. Since the combinations are fixed, the sequences *-s+xii-* and *-s+g(e)-* have also been analysed as indivisible deverbal derivative suffixes, that is, *-sxii-* and *-sg-*, for what has been called the "immediative aspect" (Sechenbaatar 2003: 147–148). A problem is, however, that both "suffixes" would condition the use of upper-key vowels in any following syllables, which would make them harmonic switchers, a status normally characteristic not of suffixes but of postclitics.

5. Serial: The converb here termed "serial" has no overt marker, which means that it involves a zero-marked form. This is a rare feature in Mongolian, though it is attested more widely in several other Mongolic languages, but examples are known from, at least, the Chakhar dialect. In the latter, the imperfective converb in *-j* can be replaced by the zero-marked stem of the verb in combination with the modal auxiliary *yad-* 'to be unable to', as in CONV SER *sal-Ø* 'to part (from each other)' : *sal-Ø yad-* 'to be unable to part (from each other)' (Sechenbaatar 2003: 156). This construction might, of course, also be open to alternative analyses.

6–7. Abtemporal and final: These are two frequently used "secondary" converbs whose markers incorporate the instrumental case ending *-AAr*. In the final converb, marked by the suffix *-xAAr*, the case ending is preceded by *-x-*, which is simply the futuritive participle marker *-x*, while in the abtemporal converb, marked by the suffix *-sAAr*, the preceding element is *-s-*, corresponding to an otherwise rarely used non-nasal stem of the perfective participle in *-sen* : *-sn-*. The final converb functions as a supine and expresses the goal of the main action ('in order to'), while the abtemporal converb expresses an action that has started before the main action but is still going on ('after having been active'), as in *sour-* 'to study' : CONV FIN *sour-xaar* 'in order to study' : CONV ABT *sour-saar* 'after having been studying'.

Dialectally, the abtemporal converb is also attested as a finite predicate, often in combination with emphatic elements (phonological emphasis and postclitics), as in Khorchin *soo-* 'to sit, to live' : CONV ABT EMPH AFF *soo-saar=aa=daa* '(I am) still living (here)' (Todaeva 1985: 52). Such usage is apparently secondary and is likely to be due to the elliptic omission of an actual copula.

8–10. Final, incidental, preconditional: The markers of these three converbs end in the shared element *-AA/n*, which may be identified with the reflexive possessor marker. This identification is confirmed by the fact that the final */n* follows the pattern of the

reflexive possessor marker, being present in some dialects (as in Chakhar) and absent in others (as in Khalkha). The elements preceding the reflexive possessor marker are the futuritive participle marker *-x* in the final converb, the deverbal nominal suffix *-ng* (: *-ng.g-*) in the incidental converb and the deverbal nominal suffix *-m* in the preconditional converb. In all cases, the presence of the reflexive possessor marker gives the converbs an inherently conjunct reference, which means that they can only be used in same-subject constructions.

It may be noted that the final converb in *-xAA/n* duplicates the function (and name) of the final converb in *-xAAr*. The two forms can be used interchangeably, as in *id-* 'to eat' : CONV FIN *id-xeer ~ id-xee/n* 'in order to eat'. The dialectal preferences vary, however, and in Khalkha the form in *-xAAr* is the norm. The suffix *-xAA/n* has also other dialectal shapes, some of which, like *-xwai* (Khorchin and Kharachin), reflect a different diachronic background.

The other two converbs in this group are somewhat less common and/or dialectally restricted. The incidental converb in *-e.nggAA/n* expresses an action connected with the main action by coincidence ('as it happens that'), as in *yab-* 'to depart' : CONV INCID *yab-e.nggaa/n* 'as (it happens that one) goes'. The preconditional converb in *-mAA/n* expresses a delimitative condition ('only in the case that'), as in *sour-* 'to study' : CONV PRECOND *sour-maa/n* 'only if (you) study'. The marker of this converb can also have the extended shapes *-mAAn-jen ~ -mAA-jen*, or also *-mAAn-cen*, incorporating the second person possessive suffix *-cen*.

11–12. Conditional and concessive: These are the two most frequently used disjunct converbs, though they can also be used in same-subject constructions. The conditional converb, marked by *-bel*, expresses a condition ('if'), while the concessive converb, marked by *-e.bc*, expresses a concession ('although'), as in *or-* 'to enter' : CONV COND *or-bel* 'if (one) enters' : CONV CONC *or-e.bc* 'although (one) enters'. The two markers are related, both containing the terminative marker *-b* (*-e.b*) of the finite paradigm, followed by the emphatic postclitics LIM *=l* or ADD *=c*. There would be no formal obstacle to applying the sequential analysis *-bel = -b=e.l* and *-e.bc = -e.b=c* also synchronically, except that the other finite forms do not yield similarly stable constructions. The conditional converb marker is, however, also attested in the dialectal shape *-UUc* (in Baarin), which suggests a monomorphemic entity. In archaic style, *-bAAs*, a reading pronunciation of Written Mongol *-basu* (a diachronically different construction), is also attested in the conditional function.

13. Terminative: The terminative converb is marked by the suffix *-tel*, dialectally also *-ter*. This form expresses basically the temporal limit of an action ('until'), but it also has more general uses, as in *or-* 'to enter' : CONV TERM *or-tel* 'until (one) enters', 'when (one) enters', 'as soon as (one) enters'.

In conjunct usage, the terminative converb can take the reflexive possessor marker, yielding the complex suffix *-e.tl-AA/n* ~ *-e.tr-AA/n*, as in *yader-* 'to become tired' : CONV TERM RX *yader-tl-aa/n* 'until (one) becomes tired'. It can also take certain case suffixes, including those of the ablative and instrumental. The resulting complex suffixes have specific meanings, as in *bai-* 'to be' : CONV TERM *bai-tel* 'until (it) is' : CONV TERM ABL *bai-tl-aas* 'although (it) is' : CONV TERM INSTR *bai-tl-aar* 'because (it) is' (Poppe 1951: 87). The reason why the terminative converb marker can take case suffixes is that it is historically a case form itself (a locative in *-A*), which means that we are actually dealing with double declension.

14. Immediative: The immediative converb (also termed "contemporal") is marked by the suffix *-megtz*, in the Inner Mongolian dialects *-megc* or also (as in Chakhar) *-e.mc*. This converb expresses an action immediately preceding the main action ('as soon as', 'immediately after'), as in *bol-* 'to be(come)' : CONV IMM *bol-megtz* ~ *bol-megc* ~ *bol-e.mc* 'as soon as (it) becomes'. In conjunct usage, this form also takes the reflexive possessor marker, yielding the complex suffix *-megtz-AA/n* ~ *-megc-AA/n* ~ *-e.mc-AA/n*, as in Chakhar *uj-* 'to see' : CONV IMM *uj-e.mc* : CONV IMM RX *uj-e.mc-een* 'as soon as (it) saw' (Sechenbaatar 2003: 132).

15. Concomitant: The concomitant converb is closely related to the incidental converb and might even be viewed as the disjunct counterpart of the latter. By adding the reflexive possessor marker to the concomitant converb the two forms become more or less synonymous, as in *yab-* 'to depart' : CONV CONCOM *yab-e.nggoot* : CONV CONCOM RX *yab-e.nggoot-aa/n* = CONV INCID *yab-e.nggaa/n* 'as (it happens that one) goes'. The degree of synonymy may, however, vary dialectally, and the concomitant converb is functionally also close to the immediative converb, with which it is often interchangeable. Of the two, the immediative converb seems to be more common in the modern language.

In Khalkha, the concomitant converb can also be marked by the shorter suffix variant *-g.UUt*, as in *ir-* 'to come' : CONV CONCOM *ir-uut* 'as soon as (s/he) comes', *soo-* 'to sit' : CONV CONCOM *soo-g.oot* 'as soon as (s/he) sits down'. In most of the Inner Mongolian dialects, this variant is only present in lexicalized items, as in *dair-* 'to pass by' : CONV CONCOM *dair-oot* 'in passing'.

16–17. Successive and contemporal: These two converbs share the instrumental case ending *-AAr*, which, in conjunct usage, can be followed by the reflexive possessor marker *-AA/n*. The successive converb in *-xlAAr*, dialectally *-xnAAr* (Chakhar), or also *-xlAA* (Khorchin), expresses an action that serves as a presupposition for the main action ('after'), as in *dab-* 'to pass (over)' : CONV SUCC *dab-e.xlaar* 'after passing (over)'. The contemporal converb in *-msAAr* is functionally close to the immediative converb, but tends to be combined with a past tense reference, *ir-* 'to come' : CONV

CONTEMP *ir-e.mseer* 'as soon as (s/he) had come'. The contemporal converb (Poppe
1951: 89) seems to be a northern form (attested also in Buryat), and it is apparently
absent in most dialects of modern Mongolian (proper).

It is evident from the above that the converbial system in Mongolian is much more elabo-
rate than the system of finite forms. There is considerable overlapping in the functions of
the converbs, and not all converbs are used in all dialects. This also allows some converbs
to have multiple functions, varying from dialect to dialect. The full range of converbial
forms in Mongolian is not exhausted by the above list. Other, more marginal, converbs
are present in many dialects and include forms such as those in *-nAArAAn* (Khorchin,
equivalent of the immediative converb in conjunct usage), *-bAA* (Chakhar, equivalent
of the conditional converb), *-yAA* (Chakhar, equivalent of the concessive converb) and
others. On the other hand, the converbial system is also complemented by the quasicon-
verbs, as surveyed below.

5.8   Quasiconverbs

Quasiconverbs may be defined as complex verbal forms with a converbial function and
a morphologically transparent structure. Formally, quasiconverbs are case forms of par-
ticiples used as action nouns. Although participles can be inflected in all cases, only the
adverbial case forms qualify as quasiconverbs, since only they can have verb-chaining
functions of the same type as actual converbs. In the complex sentence, quasiconverbs
have normally a role basically identical with that of disjunct converbs, linking verbs with
different subjects. Like the disjunct converbs they can, however, be rendered conjunct
by adding the reflexive possessor marker, which then allows them to be used in same-
subject constructions.

Quasiconverbs can be formed from all participles except the agentive, a restriction
due to the fact that the agentive participle is never used as an action noun. The three case
forms normally occurring in quasiconverbs are the dative, ablative and instrumental. In
the quasiconverbial constructions, these case forms have somewhat more specialized
functions than with regular nominals. Thus, the quasiconverbs in the dative case have
normally a temporal function (time: 'when?'), those in the ablative case a causal func-
tion (reason: 'why?') and those in the instrumental case various types of modal functions
(manner: 'how?'). It is, consequently, possible to divide quasiconverbs into three func-
tional classes: temporal, causal and modal, formally distinguished by the case markers
they contain.

The total system of quasiconverbs comprises potentially 12 different forms, all of
which can be extended by the reflexive possessor marker (Table 28). Not all forms are
equally frequent, however. In general, the temporal quasiconverbs tend to be more

Table 28. The system of quasiconverbs

	PART	CX		RX	Function
(1)	FUT	DAT	*-x-e.d*	*-e.x-d-AA/n*	temporal
(2)	HAB		*-deg-t*	*-deg-t-AA/n*	
(3)	PRF		*-sen-d*	*-sen-d-AA/n*	
(4)	IMPRF		*-g.AA-d*	*-g.AA-d-AA/n*	
(5)	FUT	ABL	*-x-AAs*	*-x-AAs-AA/n*	causal
(6)	HAB		*-e.dg-AAs*	*-e.dg-AAs-AA/n*	
(7)	PRF		*-e.sn-AAs*	*-e.sn-AAs-AA/n*	
(8)	IMPRF		*-g.AA-g.AAs*	*-g.AA-g.AAs-AA/n*	
(9)	FUT	INSTR	*-x-AAr*	*-x-AAr-AA/n*	modal
(10)	HAB		*-e.dg-AAr*	*-e.dg-AAr-AA/n*	
(11)	PRF		*-e.sn-AAr*	*-e.sn-AAr-AA/n*	
(12)	IMPRF		*-g.AA-g.AAr*	*-g.AA-g.AAr-AA/n*	

common than the causal and modal forms. Also, the quasiconverbs based on the habitive and, in particular, the imperfective participle are much less common than those based on the futuritive and perfective participles.

1–4. Temporal: The temporal quasiconverbs are formed by adding the dative ending *-e.d* to the participle markers, as in *ir-* 'to come' : PART FUT DAT *ir-x-e.d* 'when (s/he) comes' : PART HAB DAT *ir-deg-t* 'when (s/he always) comes', PART FUT DAT *ir-sen-d* 'when (s/he) had come'. The form based on the imperfective participle is only theoretical, since it would be formally (though not functionally) identical with the perfective converb in *-g.AAd*.

5–8. Causal: The causal quasiconverbs are formed by adding the ablative ending *-g.AAs* to the participle markers, as in *ai-* 'to fear' : PART FUT ABL *ai-x-aas* 'because (s/he) fears' : PART HAB ABL *ai-dg-aas* 'because (s/he) always fears' : PART PRF ABL *ai-sn-aas* 'because (s/he) feared'. The imperfective participle is most often attested in *bai-* 'to be' : PART IMPRF ABL *bai-g.aa-g.aas* 'because (it) is'.

9–12. Modal: The modal quasiconverbs are formed by adding the instrumental ending *-g.AAr* to the participle markers, as in *bic-* 'to write' : PART FUT INSTR *bic-x-eer* 'by (way of) writing' : PART HAB INSTR *bic-e.dg-eer* 'by (way of) always writing' : PART PRF INSTR *bic-e.sn-eer* 'by (way of) having written'. Again, the imperfective participle is most often attested in *bai-* 'to be' : PART IMPRF INSTR *bai-g.aa-g.aar* 'by (way of) being'.

It is evident that the borderline between quasiconverbs and converbs (proper) is not strict. Some converbs, notably the terminative converb in *-tel ~ -ter*, can also take case suffixes, while others contain case suffixes in their regular composition. The distinction is particularly difficult to make for the form involving the instrumental case of the futuritive participle. The sequence PART FUT INSTR *-x-AAr* is basically a quasiconverbial suffix ('by way of'), but it also functions as the marker of the final converb ('in order to'), in which function it is conventionally listed as an actual converbial marker of the conjunct type. Moreover, this same suffixal complex is used as the marker of what has been called the "selective converb" (Sechenbaatar 2003: 135), or also, the "comparative converb" (Poppe 1951: 88). In the latter function, the form indicates a dismissed alternative ('instead of', 'rather than'). Since the formal substance is the same, it is a matter of an arbitrary decision whether the different functions are understood in terms of homonymy or polysemy. (The situation might look different in a more semantically oriented grammatical framework, operating with preconceived meanings and universal functions.)

It should be noted that the participial case forms attested in the quasiconverbial constructions can also occur in other contexts, as when required by the verb itself (verbal rection). In such contexts, participles can take also other adverbial case endings, including those of the possessive and directive. Syntactically, however, it is useful to distinguish the quasiconverbial uses from the other occurrences of participial case forms which do not serve the purpose of verb chaining.

A synchronically idiosyncratic quasiconverbial structure is present in the form in *-snAA/n* (syllabified as *-e.snAA/n*). This can be used in the function of a conjunct converb indicating an action that is not yet completed before the following action begins (Brosig, p.c.). Information from native speakers from both Outer Mongolia (Guntsetseg, p.c.) and Inner Mongolia (Sechenbaatar, p.c.) confirms that the suffix is composed of the perfective participle marker (*-sen* : *-sn-*) in combination with the reflexive possessor marker (*-AA/n*), as in *xar-* 'to watch' : PART PRF RX *xar-sn-aa* 'while watching'. Although this analysis reflects the synchronic reality, the absence of an adverbial case marker in the suffix is remarkable in view of the basically temporal function of the form. It is therefore likely that the sequence *-sn-AA/n* originally contained a case marker, which would have been the subsequently lost locative ending (*-A*). The original locative form (*-gsAn-A*, well attested in Classical Written Mongol) would, then, have undergone restructuring into a reflexive form, possibly under influence of the phenomenon of phonological emphasis (§3.15). Synchronically, the suffix *-sn-AA/n* is comparable with the reflexive "zero locatives" of certain nominals, notably *gadzer* 'place' : [LOC] RX *gadzr-aa* 'at/to a place'. A parallel example is offered by the final converb in *-x(-)AA/n* (§5.7), which synchronically contains the reflexive possessor marker, but which historically represents a reanalysis of the locative case form of the futuritive participle (*-kU/i-A*).

Table 29. The ambivalent non-finite markers

		CX		Extensions	Function
(1)	INT	INSTR	*-m-AAr*	CX	modal
(2)	NEC	POSS	*-e.l-tai*		
(3)			*-e.sh-tai*		
(4)			*-g.UU.sh-tai*		

5.9   Ambivalent non-finite forms

In addition to the relatively strictly delimited classes of participles and converbs there are a few non-finite verbal forms that can be used both adnominally like the participles and adverbally like the converbs. All of these forms convey a modal meaning of intention ('will'), volition ('would'), possibility ('could') or necessity ('should'). Another common feature is that they involve, like the quasiconverbs, morphologically transparent structures containing a set of nominalizing elements combined with case endings. The difference with regard to the quasiconverbs is that the nominalizing elements in these forms are not regular participle markers but other suffixes for deverbal nominals. For this reason, the borderline between the ambivalent non-finite forms and derivational morphology is rather fuzzy. The status of these forms also depends on how productive they are in each given dialect. For the purposes of a general description of Mongolian, two semantic spheres, intentional and necessitative, and four forms may be distinguished (Table 29).

1. Intentional: This form, which has the suffix *-m-AAr*, is transparently composed of the deverbal nominalizing suffix *-m* and the instrumental ending *-AAr.* Exceptionally, as in certain fixed expressions and in poetic language, the element *-m* alone, normally classified as a derivative suffix, can also have similar functions. There is also a formal relationship with the marker of the "potential mood" in *-m*(=)*dz.* However, although occasionally called the "potential participle" (Sechenbaatar 2003: 126), the form in *-m-AAr* normally expresses intention ('going to'), wish ('willing to') or suitability ('good for'). This is the only frequently used ambivalent non-finite form, and in connection with the auxiliary *bai-* 'to be' it yields the most common expression conveying the meaning of 'to want, to wish', as in *ab-* 'to take' : INT INSTR *ab-m-aar bai-* 'to want to take'. On the other hand, in spite of the presence of the instrumental ending, *-m-AAr* can be used adnominally, as in *soo-* 'to sit, to dwell, to live' : *soo-m-aar* 'willing to live' : *soo-m-aar ger* 'a house where one would like to live' (with *ger* 'dwelling, house'). Moreover, *-m-AAr* can also be used independently (as a substantival noun), in which function it can take additional case suffixes, as in *taar-* 'to be suitable' : INT INSTR *taar-m-aar* '(something that is) suitable' : INT INSTR ABL *taar-m-aar-aas* 'from among those that are suitable'. Dialectally, *-m-AAr* can be replaced by *-x-AAr*,

another complex suffix that is otherwise attested as the marker of the final converb and also as a quasiconverbial formative.

2–4. Necessitative: This general label is here used for the forms ending in *-e.l-tai*, *-e.sh-tai* or *-g.UU.sh-tai.* All of these suffixes contain the possessive case ending *-tai*, which explains their functional ambivalence, since the possessive case itself can be used both adnominally and adverbally. The elements *-l-* and *-sh-* are both attested as deverbal nominalizing suffixes. The three forms listed here all indicate necessity or suitability, as in *ab-* 'to take' : NEC POSS *ab-e.l-tai* 'that should be taken / is worth taking', *oo-* 'to drink' : NEC POSS *oo-sh-tai* 'that is suitable for drinking', *sour-* 'to learn' : NEC POSS *sour-oo.sh-tai* 'that has to be learned'. In fully lexicalized items the case ending *-tai* can be replaced by the shorter (derivational) variant *-t*, as in *oo-sh-t* 'drinkable'. The element *UU* in the suffix *-g.UU.sh-tai* may possibly be viewed as a connective vowel, though its occurrence is synchronically not connected with phonological factors. Altogether, all of the necessitative suffixes are relatively rare, and their distribution in the different dialects may vary.

5.10   Auxiliaries

Auxiliaries in Mongolian may be defined as a grammaticalized class of verbals that prototypically occur together with other verbs whose meaning they modify by adding various modal, aspectual or directional connotations. Due to the rules of sentence structure, the auxiliary normally comes after the lexical main verb and bears the markers required by the syntactic context, while the lexical main verb stands in an invariant converbial form, most often in the form of the imperfective converb. This means that, syntactically speaking, the auxiliary functions as the head of the construction, while the preceding non-auxiliary verb provides the actual semantic content. Most auxiliaries can, however, also be used as independent predicates without a preceding non-auxiliary verb. The verbs used as auxiliaries are semantically heterogeneous and comprise both transitive and intransitive items. The distinction between auxiliaries and non-auxiliaries is not always clearcut, as the degree of grammaticalization of the individual verbs varies.

Morphologically, almost all auxiliaries are full verbs that can take any suffixes of the regular verbal conjugation, including those of nominalization and converbialization. Some auxiliary constructions can, however, yield secondary periphrastic forms that synchronically lie on the boundary between syntax and morphology. The following is a list of the most important auxiliaries, as arranged according to their basic functions (mainly after Sechenbaatar 2003: 154–156):

1.   Modal auxiliaries: *bol-* 'to be, to become' > 'to be possible / allowed' (possibility of action), *med-* 'to know, to find out' > 'to be possible' (possibility of action), *cad-* 'to be

able to' (capability of action), *diil-* 'to win, to overcome' > 'to be able to' (capability of action), *yad-* 'to be unable to' (lexical negation of capability of action), *udz-* 'to see' > 'to try' (attempt of action). All of these are normally combined with the imperfective converb of the lexical main verb, though dialectally the auxiliary *yad-* is also attested with the unmarked serial converb.

2. Aspectual auxiliaries: *bai-* 'to be' (copula-existential) > 'to be engaged in doing something' (progressive action), *soo-* 'to sit, to dwell, to live' > 'to do something continuously' (continuity of action), *yab-* 'to depart, to act' > 'to continue doing something' (continuity of action), *exl-* 'to begin' (beginning of action), *bar-* 'to finish' (end of action), *guitz-* 'to come to an end' (end of action), *oryx-* 'to throw' > 'to do something completely' (completion of action), *xay-* 'to throw (away)' > 'to do something rapidly and completely' (completion of action). Most of these auxiliaries are combined with the imperfective converb of the lexical main verb, though the perfective converb also occurs. The auxiliary *bai-* has a variety of uses, both aspectual and modal, including the combinations with the abtemporal converb in *-sAAr* (continuity of progressive action), the intentional in *-m-AAr* (intention of action) and the futuritive participle in *-ex* (expected action). A more strictly aspectual function is filled by the verbs *xii-* 'to do' and *ge-* (: *g-*) 'to say' when used in combination with the momentaneous converb in *-s* (momentaneous action).

3. Directional auxiliaries: *ir-* 'to come' (movement towards a point of reference), *oc-* 'to go' (movement away from a point of reference), *or-* 'to enter' (movement inwards), *gar-* 'to exit' (movement outwards). These are used, often with little difference in the meaning, in combination with both the imperfective and the perfective converb of the lexical main verb. A subclass of directional auxiliaries is formed by *eug-* 'to give' > 'to act in favour of somebody' and *ab-* 'to take' > 'to act in favour of oneself', which are used in combination with the imperfective converb of the lexical main verb to express benefaction.

In a broader definition, the class of auxiliaries will also comprise several other types of verbs, including, in particular, all copula-existentials. The two basic copula-existentials in Mongolian are *bai-* 'to be' (static) and *bol-* 'to be, to become' (dynamic), both of which are full verbs that can be used as modal and/or aspectual auxiliaries (as listed above). Unlike all other modal and aspectual auxiliaries they can, however, also be combined with nominal predicates. Apart from these two full verbs, the function of copula-existentials is filled by a number of defective verbs and lexicalized forms (discussed separately below, §§5.11, 7.4).

Another item that may be listed as an auxiliary is *ge-* (: *g-*) 'to say', which is the general quotative verb (§8.11, also mentioned above in an aspectual function). This is a full verb, but some of its forms, including, in particular, PART HAB *ge-deg* and CONV IMPRF *g-e.j*, are used in an almost lexicalized function as what could also be analysed as

quotative particles. The stem *g(e)-* is phonologically exceptional in that it is monosyllabic (or even monosegmental) and ends in a short (single) vowel (CV-), a stem type otherwise only attested among pronouns. Due to functional constrictions, the plain stem of *ge**, which would be the form of the basic imperative, is not used alone, meaning that the paradigm of this verb is for this detail defective.

5.11 Defective verbs

Defective verbs (proper) are here defined as verbals that have only a very limited number of forms, which, moreover, do not always follow the rules of regular verbal morphology. Speaking of "paradigms" for these verbs is justified only diachronically, as all of the synchronic forms may be regarded as separate lexicalized items. The two most obvious defective verbs are the copula-existentials *a-* and √*bi-*. These are relict verbs that in certain cases can still be used instead of the full verbs *bai-* and *bol-*. It has to be noted that Mongolian originally does not make a distinction between copulas (used in equative sentences) and existentials (used in existential sentences). Although an incipient secondary functional differentiation is present in the modern language, all the verbal copula-existentials, including also the defective verbs *a-* and √*bi-*, can be used in both copular and existential functions.

The copula-existential *a-* (< **a-*) 'to be' is another example of a monosyllabic verbal stem ending in a short (single) vowel (V-). This verb as such is hardly used in any living dialect, but it occurs in archaic expressions and literary borrowings. Forms still listed in standard dictionaries include the resultatives (short vs. long) RES *a-j* : *a-jai* 'was', the converbs CONV IMPRF *a-j* 'being' and CONV PRF *a-g.aad* 'having been', as well as the participle PART PRF *a-sen* '(that) has been'. An archaic futuritive participle is present in *a-xwai* 'being', Cyrillic Khalkha **axui**, lexicalized in the meaning 'life, existence' and also used in the term *a-j+a-xwai* 'economy'. Most importantly, the stem *a-* has served as the source for periphrastic constructions in which its stem itself is represented as zero (as discussed below, §5.12).

The copula-existential √*bi-* is an abstraction from two synchronic forms: *bii* 'is, being', Cyrillic Khalkha **bii ~ wii**, of the present tense range and CONF *bi-lai ~ bi-lee* 'was' of the past tense range. The former is also used in the literary shape (*)*bwii ~ bwai ~ bai*, Cyrillic Khalkha **bui**, and is an obsolete form ("deductive") in (*)-*i* of the stem **bi-* (< **bu- ~ *bü-*). Related words in lexicalized meanings are *buxii* 'being' = PART FUT *bu-xii*, from Written Mongol **buigui** (for **bü-kü.i*); *beugeod* 'and' = CONV PRF *beu-g.eod*, from Written Mongol **buigat** (for CONV PRF **bü-xed*); and *bouyoo* 'is it?' > 'or' = INTERR *bou=y.oo* (originally from **bui=uu*). Another irregular form is POT *bi=dz ~ bii=dz* '(is) probably' (from **bui=ja* 'it is certainly so', with the emphatic particle **=ja*). The forms *bii* and *bilai ~ bilee*, as well as *bidz ~ biidz*, are used as copulas after nominal predicates,

as existentials after adverbials of static location and as auxiliaries and/or particles after verbal predicates.

In this connection, it has to be mentioned that modern Mongolian also has two other copular words, *meun* (> dialectally *mun ~ men*) and *youm ~ yim ~ im > =iim ~ =iin*. These are both of pronominal origin, *meun* being identical with the demonstrative *meun* 'this (very same one)', while *youm* (= *youm//n*) is a generic noun meaning 'thing, something, anything' and is related to the interrogative stem *yuu-* 'what?'. The use of the copula *meun* is restricted to the position after nouns, while *youm* is normally used after participles. Both can, in principle, be replaced by the verbal copula *bii*, or also by the temporal-aspectual forms of the full verb *bai-* 'to be'. The actual rules governing the use of the different copular words are a matter of clausal syntax (§7.4), and they may also vary between the dialects.

Apart from the copula-existentials, there are very few defective verbs in Mongolian, and the extant examples are all either obsolete or dialectally restricted. The two items normally mentioned in this context are *ais-* 'to come, to arrive, to approach' and *aly-* 'to give'. From the stem *ais-* only the archaic present tense ("deductive") form *aiswai* '(s/he) comes' (< *ais.u-i*), Cyrillic Khalkha **aisui**, is still occasionally used in poetry and elevated language. The stem *aly-* is more widespread also in some colloquial dialects, but it is normally only attested in the two forms IMP *aly* 'give (it to me)!' and DUR INTERR *aly-n=oo* 'will you give (it to me)?'. These forms can also replace the corresponding forms of the full verb *eug-* 'to give', as used as an auxiliary to express benefaction. Additionally, the synthetic periphrastic form CONV IMPRF PROGR IMP *aly-j=ai* 'please give (it to me)!' is attested in some dialects, as in Chakhar (Sechenbaatar 2003: 157–158).

One further item that may be classified as a defective verb is the negation verb *es-* 'not'. As the stem *es* (< *ese*) can be used as an archaic invariable negation particle before certain conjugated verbal forms, the verbality of this stem may be questioned. However, it can also follow a conjugated verb, in which case it copies the latter's morphological properties and expresses its negative alternative ('or not'), as in PART FUT *ir-ex es-ex* 'to come or not to come' (with *ir-* 'to come'). Some of the actually attested forms of the negation verb include TERM *es-eb* '(did) not', PART PRF *es-sen* 'having not (done)', CONV COND *es-bel* 'if not' > 'or'. Even so, these are relatively rare, and most forms of the regular verbal paradigm are not attested at all.

5.12   Synthetic periphrastic forms

Some of the grammaticalized constructions involving a lexical main verb and an auxiliary can be transformed into lexically and/or morphologically more coherent structures. Two diachronically relevant but also synchronically transparent cases of lexicalization are present in *abcer-* : *abcr-* 'to bring' and *abaac-* 'to take away', derived from converbial

forms of the lexical main verb *ab-* 'to take' in combination with the directional auxiliaries *ir-* 'to come' and *oc-* 'to go', respectively, that is, from CONV IMPRF *ab-c + ir-* and CONV PRF *ab-aad + oc-*. Structurally, these are comparable to the secondary pronominal verbs *naa-sh-e.r-* : *naa-sh-r-* 'to come here' (< *naa-sh+ir-*) and *xaa-c- ~ xai-c-* 'to go where?' (< *xaa+oc-*).

In the cases in which the auxiliary stem systematically loses its status as a separate word we may speak of synthetic periphrastic forms. Since, however, the way from free form to suffix goes via cliticization it is generally difficult to determine for a particular construction the stage it has reached along the evolutionary path. The most obvious candidates for synthetic periphrastic forms in Mongolian are those involving what may be termed the progressive and momentaneous constructions:

1. The progressive construction: This is the construction combining the imperfective converb of the lexical main verb with the copula-existential *bai-* 'to be' used as an auxiliary, as in *ir-* 'to come' : CONV IMPRF *ir-j* : PROGR *ir-j bai-* 'to be coming'. In this construction the independent auxiliary stem +*bai-* can be replaced by the bound form =*ai-*, which due to its functioning as a harmonic switcher (§3.13) is probably best analysed as a clitic. The sequence -*J=ai-*, as in PROGR *ir-j=ai-* 'to be coming', is therefore a new secondary marker containing the periphrastically used copula-existential =*ai-*. It might also be possible to analyse -*J=ai-* as a single element, that is, =*Jai-* or -*Jai-*, depending on what stance is taken with regard to the borderline between clitics and suffixes. Whatever stance is taken on this issue, the progressive marker is a fully productive element of verbal morphology that is closer to derivation than to inflection, since it can, at least theoretically, be followed by all other suffixes of verbal inflection.

2. The momentaneous construction: This construction involves the combination of the momentaneous converb of the lexical main verb with the auxiliaries *xii-* 'to do' and *g(e)-* 'to say', as in *tat-* 'to pull' : CONV MOM *tat-e.s xii- ~ tat-e.s g(e)-* 'to pull abruptly'. It has already been mentioned in connection with converbs (§5.7) that some grammarians prefer to analyse the sequences -*s+xii-* and -*s+g(e)-* as indivisible aspectual suffixes, that is, -*sxii-* and -*sg-* (immediative aspect). It is, however, equally possible to analyse them as containing the cliticized forms of the stems *xii-* and *ge-*, that is, -*s=xii-* and -*s=g-*. The clitical interpretation is supported by the fact that =*xii-* and =*g-*, like =*ai-*, also function as harmonic switchers, in that they control the harmonic quality of any long vowels following later in the word irrespective of the vocalism of the base verb, as in CONV MOM CONV PRF *tat-e.s xii-g.eed > tat-e.s=xii-g.eed.* On a diachronic note it may be added that the relationship between the two auxiliaries *xii-* and *g(e)-*, as used in the momentaneous construction, is somewhat opaque. Although synchronically two different verbs with separate meanings ('to do' vs. 'to say'), in this particular construction they might actually both represent the etymon

xii- (< *ki-*), which would simply have been reduced to =*g-* in the cliticized position after -*s* (*-*s+ki-* > -*s=ki-* > *-*s=ge-*). A similar reduction has taken place in the demonstrative verbs (proximal) *e-ng-g-* ~ *i-ng-g-* 'to do like this' (< *ei-n+ki-*) vs. (distal) *te-g-* 'to do like that' (< *tei-n+ki-*).

It may be concluded that the progressive and momentaneous constructions have evolved, via grammaticalization and compression, from auxiliary constructions which still coexist with them synchronically. Since the complexes -*J=ai-* and -*s=xii-* ~ -*s=g-* form new secondary stems that can freely be followed by any further suffixes of verbal inflection we might even speak of a progressive and a momentaneous conjugation of the Mongolian verb.

A more restricted set of synthetic periphrastic forms is produced by the cliticization of the copular form PART PRF *a-sen* '(that) has been' to nominalized verbs used as finite predicates. In the cliticization process the copular stem itself is lost (+*a-* > =*a-* > =Ø-), which means that the element attached to the preceding verb is superficially only -*sen*, identical with the plain perfective participle marker. Several alternative descriptive solutions could be applied to this situation, but it is difficult to avoid the conclusion that we have here even synchronically a periphrastic copular construction, in which, moreover, the copular stem is represented by a "zero morpheme" (Ø-). In practice, there are four possible periphrastic forms in this set, based on the futuritive, imperfective, perfective and habitive participles, respectively (Table 30). These four forms are conventionally interpreted as a secondary perfective series of the past tense range (Poppe 1951: 83–84).

1. Futuritive + perfective: This combination ("perfectum futuri") yields the complex marker -*ex*=[Ø-]*sen*, which denotes a past irrealis necessitative ('should have'), as in *xii-* 'to do' : PART FUT PRF *xii-x*=[Ø-]*sen* '(s/he) should have done (so)'.
2. Imperfective + perfective: This combination ("perfectum imperfecti") yields the complex marker -*g.AA*=[Ø-]*sen*, which denotes an imperfective (uncompleted) action in the past, as in *yab-* 'to depart, to go' : PART IMPRF PRF *yab-aa*=[Ø-]*sen* '(s/he) was going (at that time)'.
3. Perfective + perfective: This combination ("plusquamperfectum") yields the complex marker -*sen*=[Ø-]*sen*, formally a "double" perfective (pluperfect), which denotes

Table 30. The periphrasis of the zero copula

	PART		COP	PART PRF	Complex form
(1)	FUT	-*ex*-	=Ø-	-*sen*	-*ex*=[Ø-]*sen*
(2)	IMPRF	-*g-AA*-			-*g.AA*=[Ø-]*sen*
(3)	PRF	-*sen*-			-*sen*=[Ø-]*sen*
(4)	HAB	-*deg*-			-*deg*=[Ø-]*sen*

a perfective (completed) action in the past, as in *bol-* 'to become' : PART PRF PRF *bol-sen*=[Ø-]*sen* '(it) had become (by that time)'.

4. Habitive + perfective: This combination ("perfectum usus") yields the complex marker *-deg*=[Ø-]*sen*, which denotes a habitual (frequent) action in the past, as in *bai-* 'to be' : PART HAB PRF *bai-deg*=[Ø-]*sen* '(it) used to be'.

The periphrastic zero copula forms seem to be relatively rare, or even absent, in many varieties of the modern language, though in some dialects they have become more regular parts of the verbal conjugation. In Sartul, for instance, a dialect areally close to Buryat (and sharing some morphological properties with the latter), the form in *-g.AA*=[Ø-]*sen*, based on the imperfective participle, is used as a general past tense form, possibly with some evidential connotation (Buraev 1965: 141).

It is important to note that the periphrastic marker =[Ø-]*sen* normally follows participial forms of the lexical main verb, while it cannot be attached to regular nouns used as predicates. It can, however, be combined with the (pro)nominal copula *youm* > =*iim* (~ =*iin*) '(it) is', yielding the complex forms *youm*=[Ø-]*sen* ~ =*iim*=[Ø-]*sen* '(it) was'. These can be further extended by the enclitically used resultatives RES *a-j* : *a-jai* > =[Ø-]*j* : =[Ø-]*jai*, yielding the complex sequences *youm*=[Ø-]*sen*=[Ø-]*j*(*ai*) ~ =*iim*=[Ø-]*sen*=[Ø-]*j*(*ai*) '(it) had been'.

It may be asked whether PART PRF *a-sen* > =[Ø-]*sen* is the only form of the copula *a-* that can be attached as a clitic to nominalized verbal forms. Synchronically this seems, indeed, to be so, for there is no other element that would yield a similarly coherent secondary paradigm. Historically, however, PART PRF *a-sen* > =[Ø-]*sen* has a parallel in PART HAB (*)*a-dag* > =[Ø-]*deg* > =*deg*, which is used as a modal particle in the rough meaning of 'likely, apparently' after different types of verbal predicates (Kullman & Tserenpil 1996: 340). The difference between =[Ø-]*sen* and =*deg* is that the latter seems to have completely lost the zero copular element, a development that allows it to be used also after finite temporal-aspectual forms, as in *ir-* 'to come' : DUR *ir-e.n* : DUR HAB *ir-e.n*=*deg* '(he) is likely to come'. Synchronically, then, =*deg* is no longer a copular form but simply an enclitic (final) particle.

In this context, we also have to (re)consider the particles (=)*lAA* ~ (=)*laa* ~ (=)*lai*, which look like confirmative forms based on an enclitically used zero copula. Indeed, at least some of the uses of these particles derive from the confirmative form of the defective copula √*bi-* (but not *a-*), as is also confirmed by synchronic alternations like (*bai-* 'to be' :) DUR *bai-n' bi-lai* ~ *bai-n'*=*lai* '(it) was'. Again, in these cases it is no longer synchronically a question of a zero copula, since the enclitic element can be added to an actual finite form. The enclitic set (=)*lAA* ~ (=)*laa* ~ (=)*lai* has also other functions (after a negated predicate), which may be of a different origin (as discussed later on in the context of final particles, §7.14).

5.13   Negation marking on verbals

The negation of verbals in Mongolian is expressed by a variety of devices combining the resources of the lexicon (lexical negation), syntax (negation particles and the negation verb) and morphology (negation markers). As far as morphology is concerned, negation is normally marked by the postclitical element *=gwai*, dialectally *=gUU* and possibly *=gwii*, which is identical with the privative case marker of the nominal declension, derived from the privative noun *ugwai* '(there is) not, none'. This element is attached to a large number of verbal forms which, then, constitute the negative counterparts of the corresponding affirmative forms. The correspondences are not one-to-one, however, for in regular Mongolian (proper) the element *=gwai* can only be added to non-finite verbal forms, while it is never combined with the forms of the actual finite conjugation. Due to its origin, *=gwai* is identified in the present treatment as the "privative" marker (PRIV) of verbal forms.

Since *=gwai* is basically a nominal case marker it is most naturally attached to the nominalized forms of the verb. The privative marker is therefore used after each of the four participles that have a fully verbal morphosyntactic profile, that is, the (1) futuritive, (2) imperfective, (3) perfective and (4) habitive participles (Table 31). The resulting complex forms can be used both in finite and non-finite functions. When used as finite predicates, the negated participles also correspond to the affirmative forms expressed by the modally unmarked finite paradigm. In this usage, the negated futuritive participle refers to the present tense range, while the negated imperfective and perfective participles refer to the past tense range (with a difference in the aspectual reference), as in *yab-* 'to depart' : PART FUT PRIV *yab-ex=gwai* '(s/he) will not go' : PART IMPRF PRIV *yab-aa=gwai* '(s/he) has not gone (yet)', PART PRF PRIV *yab-seng=gwai* '(s/he) did not go (and will not go)'. The negated habitive participle retains its basic aspectual and temporal (general indefinite present) reference, as in PART HAB PRIV *yab-deg=gwai* '(s/he) does not normally go'.

There is some dialectal variation in the realization of the complex negative forms based on the participles. The sequence PART FUT PRIV *-(e)x=gwai* [-xkwe:] can in rapid speech be reduced to [-kʰwe:], which dialectally, as in Chakhar, can yield the phonemic shape *=kwai*, as in *med-* 'to know' : PART FUT PRIV *med-ex=gwai > med-kwai* '(I) don't

Table 31. Negation marking on participles

	PART	AFF	PRIV	Complex form		
(1)	FUT	*-ex*	*=gwai*	*-ex=gwai*	PRS	
(2)	IMPRF	*-g.AA*		*-g.AA=gwai*	PRT	IMPRF
(3)	PRF	*-sen*		*-seng=gwai*		PRF
(4)	HAB	*-deg*		*-deg=gwai*		

know'. Similarly, the sequence PART HAB PRIV *-deg=gwai* can be reduced to *-e.d=gwai*, as in *gar-* 'to exit' : PART HAB PRIV *gar-d=gwai* '(s/he) doesn't normally come out'. In some subdialects of Chakhar, the sequence PART IMPRF PRIV *-g.AA=gwai* is replaced by *-g.AAd=gwai* ~ *-g.AAd=gUU*, perhaps under the influence of the perfective converb marker *-g.AAd*, as in *udz-* 'to see' : PART IMPRF PRIV *udz-eed=gwai* '(s/he) did not see (yet)'.

More importantly, after the imperfective participle, negation can also be expressed by the marker *=dwai* 'not yet', as in *ir-* 'to come' : PART IMPRF *ir-ee=dwai* '(it) has not come (yet)' > lexicalized as *ireedwai* 'future'. The semantic difference between *=gwai* and *=dwai* is minimal, since the regular marker *=gwai* also often conveys the connotation of 'yet'. This probably explains why *=dwai* is not actively used in most forms of the modern language. Etymologically, *=dwai* is related to the independent particle *eudii* 'not yet, (there is) still a long time (till)', which itself is identical with the pronominal quantifier *eudii = eu-d-ii* 'this much'. As a particle, *eudii* can occur also after other finitely used participles, as in PART FUT *ir-ex eudii* '(there is) still a long time till (s/he) comes'. In the Khorchin group of dialects, the sequence *-g.AA=dwai* is represented by the synthetic shape *-g.uudai*, which should probably be understood as a separate negative participle marker, as in *id-* 'to eat' : *id-uudai* '(I) have not yet eaten' (Bayanchogtu 2002:291).

Since the privative marker *=gwai* can be attached to participles, it can, in principle, also be combined with the quasiconverbs based on participles. In such cases, the privative marker immediately follows the participle marker, while the case ending comes only last and follows the (upper-key) harmonic status of the privative marker, as in *bai-* 'to be' (affirmative) PART FUT INSTR *bai-x-aar* 'by (way of) being' : (negative) PART FUT PRIV INSTR *bai-x=gwai-g.eer* 'by (way of) not being, without being'. In practice, most quasiconverbial constructions are rarely negated due to logical and pragmatic constrictions.

Another complex construction involving the privative marker in combination with participle markers arises when forms with the periphrastic zero copula are negated. In such cases, the privative marker takes the position immediately after the first participle marker, while the periphrastic participle marker comes last, as in *xur-* 'to arrive' : PART PRF *xur-sen* '(s/he) arrived' : PART PRF PRF *xur-sen=sen* '(s/he) had arrived' : PART PRF PRIV PRF *xur-seng=gwai=sen* '(s/he) had not arrived'. As it seems, the periphrastic participle marker itself cannot be negated.

Apart from participles, the privative marker *=gwai* can be attached to other nominalized forms of the verb and deverbal nominals. Some of the resulting complex markers may be regarded as expressions of grammaticalized forms. These include the negative counterparts of the ambivalent non-finite forms (Table 32). The (1) negative intentional is marked by *-m-aar=gwai*, which is formally exceptional in that it incorporates a sequence of the instrumental and privative case endings, as in *yary-* 'to talk' : INT INSTR PRIV *yary-m-aar=gwai* '(I) do not want to talk'. In lexicalized items, the more expectable short form in *-e.m=gwai* is also attested, as in *ol-* 'to find' : PASS *ol-d-* 'to be found' : PASS NEC PRIV

Table 32.   Negation marking on ambivalent non-finite forms

		CX	AFF	CX	NEG
(1)	INT	INSTR	*-m-AAr*	PRIV	*-m[-AAr]=gwai*
(2)	NEC	POSS	*-e.l-tai*		*-e.lt=gwai*
(3)			*-e.sh-tai*		*-e.sh-gwai*
(4)					*-leg(h)=gwai*

ol-d-e.m=gwai 'that cannot be found (again)'. The function of the (2–3) negative necessitatives ('should not') is filled by the forms in *-e.lt=gwai* and *-e.sh-gwai*, as in *id-* 'to eat' : NEC PRIV *id-e.lt-gwai* '(one) should not eat (it)', *oo-* 'to drink' : NEC PRIV *oo-sh=gwai* 'undrinkable'. A third complex marker, also analysed as a "prohibitive" ('do not!') (Sechenbaatar 2003: 143) is *-leg(h)=gwai*, as in *yab-* 'to depart' : NEC PRIV *yab-e.lt=gwai* ~ PROH PRIV *yab-leg(h)=gwai* '(one) should not go', '(it is) impossible to go', 'do not go!'.

It may be noted that the affirmative vs. negative necessatives in *-e.l-tai* vs. *-e.lt=gwai* are based on two different suffixes for deverbal nominals, *-e.l-* (simple) vs. *-e.lt-* (complex). The structural background of this difference is unclear: possibly, the *t* in *-e.lt-* represents a secondary generalization from the *t* of the possessive case ending of the corresponding affirmative form. On the other hand, the sequence *-e.l-tai* in the affirmative marker could also be due to a distortion of *-e.lt-tai**. It is not impossible that the latter is actually the phonemically correct shape of the element in some dialects. The sequence *-l=gwai* is also present in the language, but it functions as a negative converb ('without doing'), as is elaborated below.

In general, most converbs express relationships that are pragmatically unlikely to be negated. Depending on the circumstances, some converbs can be negated by using negation particles, while others can be negated periphrastically by using the corresponding converbial form of the auxiliaries *bai-* 'to be' and *bol-* 'to become' in combination with the negated futuritive participle of the lexical main verb, as in *gar-* 'to exit, to come out' : CONV PRF *gar-aad* 'after having come out' : *gar-e.x=gwai bai-g.aad* 'after having not come out', CONV COND *gar-bel* 'if (s/he) comes out' : *gar-e.x=gwai bol-bel* 'if (s/he) does not come out'.

The only converb that can take the postclitical negation marker *=gwai* is the modal converb in *-n*. The negative form is *-ng=gwai*, as in *yab-* 'to depart' : CONV MOD *yab-e.n* 'by going' : CONV MOD PRIV *yab-e.ng=gwai* 'without going'. In many modern varieties of the language, however, the converbial marker *-ng-* in this sequence is replaced by *-l-*, yielding the complex marker *-l=gwai*, as in *med-* 'to know' : *med-e.l=gwai* 'without knowing'. The element *-l(-)* is otherwise well known as a suffix deriving deverbal nominals, and it is also present in the necessitative marker *-l-tai* (unless the latter is actually *-lt-tai**). Many forms in *-l=gwai* are to some extent lexicalized, and they might also be viewed as being based on the deverbal nominals in *-l*, as in *oud-* 'to last, to be delayed' :

oud-e.l 'delay' : *oud-e.l=gwai* 'without delay' = 'soon'. On the other hand, in some dialects, as in Chakhar, the sequence *-l=gwai*, often in combination with modal particles such as *=dAA*, yields a secondary finite form with the modal function of a "presumptive", as in *med-e.l=gwai=dee* '(s/he) will surely know' (Sechenbaatar 2003: 140–141).

5.14   Interrogation marking on verbals

Questions in Mongolian are marked by the two enclitic (postclitic) particles *=UU,* after vowels *=y.UU*, and *=b* (syllabified as *-e.b*), of which the former indicates actual interrogation (polar questions) and the latter corrogation (non-polar questions containing other interrogative words). In Cyrillic Khalkha, both particles are written as separate graphic words: **uu üü yuu yuü** (with the indication of vowel harmony and positional variation) and **we be** (with the indication of the phonetic alternation between [w] and [b p]), while the corresponding Written Mongol shapes are **uu** and **bui**. Dialectally, the interrogative particle can appear in the shape *=ii* (~ *=y.ii*), while the corrogative particle can have the more complete shape (=)*bwai* ~ (=)*bai*, which is etymologically identical with the copula *bii* (< **bui*). Both question particles are normally attached to the last word of the finite sentence, which, due to the verb-final word order of the language, is most often a finite verb. The function of a finite verb can, however, also be filled by participles. There are, consequently, relatively many verbal forms that can take the question particles.

In general, the verbal forms carrying the interrogative and corrogative particles retain their normal meaning, as in *yab-* 'to depart, to go' : PART PRF *yab-sen* '(s/he) went' : PART PRF INTERR *yab-sn=oo* 'did (s/he) go?' : PART PRF CORR *xejee yab-sem=b* 'when

Although basically a matter of syntax, interrogation and corrogation are also morphological phenomena, since the interrogative and corrogative particles influence the shape of the preceding verbal marker. The finite tense-aspect markers, for instance, are normally used in their short forms before the interrogative and corrogative particles. Moreover, for pragmatic reasons, not all finitely used forms, especially of the modal ("imperative") paradigm, can occur in interrogative sentences. There are also restrictions as to which forms can be combined with both the interrogative and the corrogative particle; some forms occur only with the former. Altogether, there are nine verbal forms that are commonly combined with the interrogative particle, while only six of these are attested in combination with the corrogative particle (Table 33). The nine interrogative forms comprise the four temporal-aspectual forms of the finite paradigm, that is, the (1) durative, (2) confirmative, (3) terminative and (4) resultative; only one form, the (5) voluntative, of the modal paradigm; and the four participial forms that retain their verbal morphosyntactic profile, that is, the (6) futuritive, (7) imperfective, (8) perfective and (9) habitive participles. The three forms that are normally not attested in combination with the corrogative particle are the confirmative, resultative and voluntative.

Table 33. Interrogation marking on verbs

				INTERR	CORR
(1)	finite	DUR		*-n=UU*	*-n=e.b*
(2)		CONF		*-l=UU*	
(3)		TERM		*-b=UU*	*-b=e.b*
(4)		RES		*-J=UU*	
(5)		VOL		*-y=UU*	
(6)	non-finite	PART	FUT	*-x=UU*	*-x=e.b*
(7)			HAB	*-e.dg=UU*	*-e.dg=e.b*
(8)			PRF	*-e.sn=UU*	*-sem=b*
(9)			IMPRF	*-g.AA=y.UU*	*-g.AA=b*

did (s/he) go?' (with *xejee* 'when?'). Some forms can, however, receive additional modal and/or evidential connotations especially when combined with the interrogative particle =*UU*. These connotations are often vague and they may also vary from dialect to dialect. For instance, the interrogative form based on the resultative can be used, especially in Khalkha, in an evidential function implying a request of confirmation, as in RES INTERR *yab-j=oo* 'did s/he go? (as I assume s/he did)' (for a more comprehensive discussion of evidentiality, see §7.9). In the Inner Mongolian dialects, especially in Khorchin, this same form is used as a general interrogative past tense. Also, the interrogative form based on the futuritive participle is often used in a modal function implying willingness or intention with reference to the second person, as in PART FUT INTERR *yab-x=oo* 'will you go?'. It may be noted that the futuritive participle is otherwise rarely used in a finite function (except when negated). The interrogative form based on the voluntative has dialectally a similar modal function with reference to the first person, as in VOL INTERR *yab-y=oo* 'shall (we) go?'. On the other hand, the interrogative form based on the durative, can be used instead of the imperative as a polite command, as in *or-* 'to enter' : DUR INTERR *or-n=oo* 'will you enter?' = 'please be so kind as to enter!'.

The interrogative particle, but normally not the corrogative particle, can also be added to the various types of copulas and existentials, yielding forms like *bii=y.uu* 'is there?', *meun=uu* 'is it the one?', *youm=oo* 'is it so that?'. It can likewise occur with the periphrastic zero copula structure in =*sen*, as in *yab-* 'to depart' : PART PRF PRF INTERR *yab-sen=sn=oo* 'had (s/he) gone?'. Most importantly, it can be combined with the privative noun *ugwai* and, consequently, with all the negated verbal forms based on participles, as in PART FUT PRIV INTERR *yab-e.x=gwai=y.uu* 'will (you) not go?', PART PRF PRIV INTERR *yab-seng=gwai=y.uu* 'did (you) not go?'.

Phrasal syntax

6.1 Types of phrases

The syntactic structures in Mongolian may be conveniently classified in terms of the scope of their domain into phrase-level, clause-level and sentence-level phenomena. The level of the phrase in this context is to be understood as corresponding to structures that involve only one type of principal argument as the headword at a time. The level of the clause involves the interrelationship of two arguments (subject and predicate, agent and action, or topic and comment) as well as, possibly, their modifiers. Finally, the level of the sentence involves two or more connected clauses bound together by a single (finite) predicate.

In a phrase-level syntactic sequence the headword is either a verb (predicate) or a noun (subject, object), or also another type of nominal word (numeral, spatial, adjective or pronoun). If the phrase consists of only two words, the other word is normally a modifier to the headword. Phrases of more than two words can involve hierarchic constructions, in which a modifier can also have a phrase-level headword. Only the last headword in such a hierarchic construction takes the markers required by the clause-level context. The presence or absence of morphological marking within the phrase depends on the rules of phrasal syntax.

The borderline between a phrase, a clause and a sentence is not always easy to draw. In the present treatment, the category of phrase is considered to comprise the following principal types of structures:

1. A nominal headword with one or more nominal modifiers. The headword is most typically a substantival nominal (noun), but it can be a substantivally used adjective, or also a spatial, numeral or pronoun. The modifier can be morphologically either unmarked or it can stand in one of the adnominal case forms.
2. A nominal headword with another word, either nominal or non-nominal, that is not its modifier. In these cases, it is normally a question of appositional structures, or also of various types of diffuse postpositional constructions.
3. A verbal headword with a nominal modifier functioning as an object. The modifier, which is normally represented by a substantival nominal, can be morphologically either marked or unmarked depending on the rules of object marking.

4. A verbal headword with a nominal modifier functioning as a local, temporal or modal adverbial, or also as an indirect object. In these structures, the nominal modifier normally bears adverbial case endings, but in some structures it can also be unmarked. It can also contain a spatial or a postposition.

5. A verbal headword with a verbal modifier in a converbialized form. These structures belong to the phrase level only under special conditions: the converb must be of the conjunct type, and it cannot have any arguments of its own. Also, it cannot be replaced by a quasiconverbial form.

Of these structures, those containing a converbialized verb (5) as a modifier could, in a different framework, also be understood as involving complex sentences, though with a deleted subject. It might be theoretically justified to treat also certain types of nominal modifiers, especially adjectives in adnominal position, as separate (relativized) clauses with a deleted subject. However, in the present treatment only sequences that contain two or more verbal predicates with separate arguments are considered to qualify as complex sentences.

Another point where theoretical differences of opinion would be possible concerns the identification of the elements defined as the headword and the modifier. In the present treatment, the identification is made on the basis of syntax alone. This means that in sequences involving a modifier-headword relationship, the status of headword is assigned to the element that bears the morphological marking linking the phrase with the larger context of the clause. In practice, due to the rules of word order in Mongolian, the headword of a phrase comes after its modifier(s). Very often, as in nominal phrases with spatials or in verbal phrases with auxiliaries, the syntactic positions do not correspond to the semantic roles of the elements. In such cases, the modifier functions as the "semantic headword", while the headword acts as the "semantic modifier". Even so, the syntactic roles remain unchanged.

In this context it may be mentioned that Mongolian, in general, is a language that operates consistently with dependent marking, rather than with head marking. This applies to all levels of syntax. For instance, in all phrase-level entities involving marking between the constituents of the phrase, morphological markers, if at all used, are attached to the modifier. On the other hand, the markers required by the larger syntactic context are attached to the headword of the phrase, which itself is in a dependent position with regard to a higher-level headword.

6.2   The basic nominal phrase

The basic nominal phrase may be defined as a phrase in which both the headword and the modifier are nominals. In the most simple case, the headword is a substantival

nominal (noun), while the modifier is another noun [1], an adjective [2], a numeral [3] or a pronoun [4] without case marking. The meaning of the phrase may or may not be lexically specialized. Case markers required by the clausal context are added to the head-word, which can also take other suffixes, including number markers.

[1] *uxer   tereg*   :   *uxer   terg-eer*
     ox   cart   ox   cart-INSTR
     'ox cart'   'with an ox cart'

[2] *shin'   baisheng*   :   *shin'   baisheng.g-oo.d*
     new   building   new   building-PL
     'new building'   'new buildings'

[3] *xoyer   xuu*   :   *xoyer   xuu-tai*
     two   son   two   son-POSS
     'two sons'   'with two sons'

[4] *tiim   oucer*   :   *tiim   oucr-aas*
     like.that matter   like.that matter-ABL
     'such a matter'   'for such a reason' = 'therefore'

The modifier can also be in any of the inflected adnominal case forms, that is, the genitive, possessive and privative. Nominals in the possessive and privative cases are syntactically comparable to any adjectival nominals, as used in adnominal (attributive) position [5]. By contrast, nominals in the genitive case form a distinct syntactic class (genitival attribute), as is evident from the fact that genitives (G) normally precede adjectives (A) in the sequence that ends with the headword (N). The basic word order of the nominal phrase (GAN) is complicated by the possibility of inserting a pronominal and/or a numeral modifier between the genitive and the adjective, resulting in a sequence of up to four positionally distinct classes of nominal modifiers [6]. In view of this ordering of the constituents, such sequences could also be analysed as containing several hierarchically organized nominal phrases, linearly arranged in a left-branching order.

[5] *tereg-tai xun*   :   *tereg=gwai xun*
     cart-POSS person   cart=PRIV   person
     'a man with a cart'   'a man without a cart'

[6] *min-ii   ter   xoyer shin'   nom*
     [SG1P-GEN [that [two [new   book]]]]
     'those two new books of mine'

Due to reasons connected with contextual logic there can also be other rules governing the order of the adnominal modifiers. For instance, terms denoting colour and material normally stand immediately before the nominal headnoun, while other (including other adjectival) modifiers precede them [7–8]. In such cases, the terms for colour and

material often form fixed concepts together with the headnoun. Again, it would be possible to postulate a structure involving two separate hierarchical levels (examples from Poppe 1951: 108–109).

[7] *xeer*   *mory*   :   *xourden*   *xeer*   *mory*
     bay   horse   fast   [bay   horse]
     'bay horse'   'a fast bay horse'

[8] *teumer*   *jad*   :   *ourt*   *teumer* *jad*
     iron   spear   long   [iron   spear]
     'iron spear'   'a long iron spear'

Nominal stems ending in the unstable nasal */n* always use the nasal stem, that is, the "attributive" case form, in the adnominal position [9]. The same applies to the numerals ending in the unstable nasal, except the numeral 1 *neg//n* [10], which can also function as a semi-grammaticalized indefinite article.

[9] *mory//n*   :   *mory-e.n*   *tereg*
     horse   horse-ATTR   cart
     'horse'   'horse cart'

[10] *neg*   *xun*   :   *gourb-e.n* *xun*
     one   person   three-ATTR   person
     'one person' > 'a person'   'three people'

There is basically no agreement within the nominal phrase, meaning that there is no repetition of grammatical elements. A minor exception to this rule is formed by the possibility of combining a possessive suffix (attached to the headword) with the corresponding pronominal genitive (preceding the headword), though even in this case the repetition is not complete, since the possessive suffixes of the first and third persons (in contrast to the second person) synchronically indicate only the person, but not the number, of the possessor(s) [11].

[11] *min-ii*   *eej*   :   (*min-ii*)   *eej-men'*
     SG1P-GEN   mother   SG1P-GEN   mother-PX1P
     'my mother'   'my mother'

Another example of partial agreement is offered by the cases in which a pronominal modifier can be used in a plural form, while the headnoun is either in the unmarked singular (generic) form or also in a marked plural form [12]. However, both the pronominal plurals, in these structures normally PROX *edgeer* (*e-d-geer*) 'these' vs. DIST *tedgeer* (*te-d-geer*) 'those', and many of the plural forms used in the headnoun position, may be regarded as lexicalized items, which means that number agreement is present only at the

diachronic and semantic levels, but not as a productive morphosyntactic property of the language.

[12] *edgeer   asoodel*   :   *edgeer   xum-uu.s*
      these   question   these   people-PL
      'these questions'   'these people'

Strictly speaking, any suffixes attached to the headword of a nominal phrase pertain to the whole phrase and not only to the headword. Therefore, the phrase as a whole functions as the base for the morphological construction. This may also be seen as implying a hierarchical structure, but arranged in a right-branching order, in that the suffixes are added to the right side (to the end) of the sequence [13]. The whole inflected sequence, on the other hand, can function as a modifier in a higher-level nominal phrase with a separate headword [14].

[13] *teumer   dzam*   :   *teumer   dzam-cen*
      iron   road   [iron   road]-PROF
      'railroad'   'railroad worker'

[14] *gourb-e.n   mory-tai   dzaloo   xun*
      [[three-ATTR   horse]-POSS] [young   person]
      'a young man with three horses'

The structural analysis of nominal phrases is also connected with the issue of compounding. Sequences such as *teumer dzam* 'iron' + 'road' function very much like compounds, and they might even be recognized as compounds in the syntactic and semantic sense. However, from the point of view of prosody, segmental phonology and morphophonology, they are not compounds, and compounding, in the technical sense of the term, is a feature synchronically alien to Mongolian.

6.3   Binomes and appositions

A specific subclass of nominal phrases, which in some respects is also reminiscent of compounding, though, again, only in the syntactic and semantic sense, is formed by the so-called binomial structures or "binomes". The basic type of binome involves a structure that contains two nominal words, normally substantival nominals (nouns), that have an equal syntactic status and either similar or interrelated semantic profiles. Binomes are a common feature of Chinese, where they may be seen as a means of expanding the lexical resources and avoiding potential confusions caused by homonymy. Due to their widespread use in Chinese, the binomes in Mongolian may to some extent be seen as a borrowed feature supported by the Sino-Mongolian language contact, especially in the

bilingual context of today's Inner Mongolia. However, both synchronic and diachronic information suggests that binomes also have an indigenous background in Mongolian.

A binome is typically a copulative construction that combines two nominals in a fixed order, and with no intervening conjunction, into a new phrase-level entity with a varying degree of semantic lexicalization. The components of a binome can be semantically complementary, in which case the meaning represents their sum, as in *ax duu* 'elder brother' + 'younger brother' = 'brothers', or they can be synonyms (or close to synonyms), in which case the meaning represents their shared mean value, as in *ner alder* 'name' + 'fame' = 'name' (honorific). Many binomes have an exact analogy in Chinese, as in *aab eej* 'father' + 'mother' = 'parents' (Chinese *fù+mǔ*), *useg biceg* 'letters' + 'writing' = 'letters, writing, literary culture' (Chinese *wén+zì*), *oi mod//n* 'forest' + 'wood(s)' = 'forest' (Chinese *sēn+lín*), *xun am//n ~ xun am* 'person' + 'mouth' = 'population' (Chinese *rén+kǒu*).

Although phonologically composed of two distinct words, binomes behave morphosyntactically like single lexical items, which means that modifiers always precede the first component and suffixes follow the second component, while no element can be inserted between the two components [15–16]. Within the binominal structure there is no modifier-headword relationship; rather, the sequence of the two components functions as a single headword.

[15] *min-ii   aab   eej-men'*
      SG1P-GEN [[father   mother]-PX1P]
      'my parents'

[16] *monggel ouls-ii.n   xun   am-ii.n   tao*
      [Mongol   state]-GEN [[person   mouth]-GEN   number]
      'the population size of the Mongolian state'

Another subclass of nominal phrases, reminiscent of binomes, but distinct from the latter, is formed by appositional constructions. Like binomes, appositional constructions normally involve a sequence of two substantival nominals (nouns) which morphosyntactically function together as a single entity that can take modifiers (placed before the first component) and suffixes (attached to the second component) as required by the context. Although there is no modifier-headword relationship in this construction, the two components are not equal. Instead, their relationship could be viewed as a specific case of (nominal) relativization (§8.7) involving a subject part and a predicate part. Even so, there is no non-arbitrary way to determine how these roles are divided between the two components.

In practice, the second component in a Mongolian appositional construction normally expresses a generic category to which the specific denotion of the first component belongs, as in *garyd shouboo* 'garuda bird', *xas couloo* 'jade stone'. The first component can

also be a proper name, in which case the second component expresses a taxonomic class, often a title, as in *cingges xaan* 'Chinggis Khan', *baigel noor* 'Lake Baikal'. Often, it is difficult to determine whether we are dealing with an appositional construction or with a regular modifier-headword sequence, for both interpretations could be defended, as in *monggel ouls* (apposition:) 'the country [of] Mongolia' ~ (modifier-headword:) 'the Mongolian country', cf. (modifier-headword:) *dounded ouls* 'the Middle Kingdom' = 'China'.

As a case of exception, the ordering of the components in an appositional construction can occasionally be changed, especially in sequences involving a title and a personal name, as in *xategtai oyoon cimeg* 'Mrs. Oyunchimeg'. Such usage has to be seen as being due to the secondary influence of Russian (and other Western languages), and in most cases the traditional ordering is retained, as in *cinggeltai bagsh* 'Professor Chingeltei'. If the generic component itself is composed of two words, they can either follow or surround the specific component, as in *niislel xot* 'capital city' : *oulaan baater niislel xot* ~ *niislel oulaan baater xot* 'the capital city [of] Ulan Bator'. On the other hand, the separation of two generic elements can also signal their belonging to two separate nominal phrases, one of which (normally the first one) represents a parenthetical addition [17].

[17] *monggel   ouls-ii.n   niislel   oulaan baater xot*
      [[Mongol   state]-GEN   capital]   [[red   hero]   city]
      'Ulan Bator city, the capital of Mongolia'

It may be concluded that binomes and appositional constructions differ from modifier-headword structures mainly by their internal logic, rather than by their external formal properties. A formal difference between the two types of structure is, however, observed in nominals ending in the unstable nasal */n*, which use the plain stem (nominative) in appositional constructions vs. the nasal stem (attributive) in modifier-headword structures, as in *nars//n* 'pine' : (apposition:) *nars mod//n* 'pine tree' vs. (modifier-headword:) *narsen oi* 'pine forest'. This confirms that the first component in an appositional construction is not a regular adnominal modifier but a basically independent element equivalent to the latter component.

6.4   Phrases with numeral headwords

As has been mentioned in the context of numeral morphology (§4.13), numerals can be syntactically combined to form phrases denoting the intermediate digits (addition) and the higher powers of ten (multiplication), as in 33 *goucen gourb//n*, 30,000 *goucen myangg//n*. In these structures, when preceding another numeral, the numerals ending in the unstable nasal */n* always use the nasal stem. By this formal criterion, the first component in complex numerals could also be analysed as a modifier to the latter component, which, then, would function as a headword. In any case, when used independently,

inflected forms of complex numerals always contain suffixes only on the last component of the sequence [18].

[18]　*gourb-e.n*　　*dzoo*　　*gouc-e.n*　　*gourb-aas*
　　　[[three-ATTR　hundred]　[thirty-ATTR　three]]-ABL
　　　'out of three hundred and thirty three'

Numerals are used as independent headwords in several types of phrases, often in combination with other numerals. The repetition of a numeral stem, either with or without the instrumental case ending on the latter component, functions as a means of expressing distributiveness [19]. The juxtaposition of two consecutive numerals of the same order expresses approximateness, occasionally in combination with the actual approximative marker [20]. Both of these structures could also be analysed as "numeral binomes", since they do not involve a clear division of roles between a modifier and a headword, as is also visible from the fact that the first component is always in the plain (non-nasal) stem form.

[19]　*neg*　*neg//n*　　　:　　*neg*　*neg-eer-e.n*'
　　　one　one　　　　　　　one　one-INSTR-PX3P
　　　'one each'　　　　　　　'one by one'

[20]　*gouc*　*deuc//n*　　:　　*gouc*　*deuc-eod*
　　　thirty　forty　　　　　thirty　forty-APPR
　　　'about thirty to forty'　　　'about thirty to forty'

Fractionals are expressed by sequences in which the numeral denoting the denominator is the headword, while the numeral denoting the numerator functions as a modifier and bears the genitive ending. This sequence is an elliptic abbreviation from a more complete construction containing also the nominal headword *xouby* 'part, fraction' [21]. The same construction is used to express percentages [22].

[21]　*deureb/n-ii*　*gourb//n*　　←　　*deureb/n-ii*　*gourb-e.n*　　*xouby*
　　　four-GEN　　　three　　　　　　four-GEN　　[three-ATTR　part]
　　　'three fourths'　　　　　　　'three parts of four'

[22]　*dzoo/n-ii*　*nay//n*　　←　　*dzoo/n-ii*　*nay-e.n*　　*xouby*
　　　hundred-GEN　eighty　　　　hundred-GEN　[eighty-ATTR　part]
　　　'eighty per cent'　　　　　'eighty parts of a hundred'

An important function of numerals is to bind together sequences of two or more juxtaposed nominals (nouns). In these constructions, the numeral always follows the sequence of nominals and plays the role of a copulative conjunction ('and'), although no actual conjunction is present. The juxtaposed nominals can involve a binome, in which case the addition of the numeral 'two' should probably be seen as a means of enhancing

the independence of the components as individualized elements [23]. Numerals can, however, also be added to non-binomial pairs and random sequences of juxtaposed nominals [24].

[23] *aab*   *eej*   :   *aab*   *eej*   *xoyer*
      father   mother   [father mother] two
      'parents'   'father and mother'

[24] *uneg*   *con'*   *bar*   *goureb*
      [fox   wolf   tiger]   three
      'the fox, the wolf and the tiger'

Constructions of the above type are probably best understood as involving an appositional relationship between the sequence of nominals and the numeral. The nominals form a list of a group of actants which the numeral summarizes and links to the wider clausal context. Especially with longer lists, the presence of the numeral is an essential device for indicating the location of the juncture between the list and the rest of the clause. As in other appositional constructions, morphological marking required by the context is attached to the last word, that is, to the numeral.

In this context, it has to be mentioned that although numerals normally precede the nominals they modify, the order between a numeral and a nominal can on the surface be reversed. This is probably always a sign of a difference in the syntactic structure: a numeral following a nominal actually modifies the following verb rather than the nominal itself [25–26]. The same applies to other quantifiers, such as, for instance, *olen* 'many', *yix ~ ix* 'much'.

[25] *en'*   *ail-d*   *xoyer*   *mory*   *bai-n'*
      this   camp-DAT   [[two   horse]   be-DUR]
      'in this camp there are two horses'

[26] *en'*   *ail-d*   *mory*   *xoyer*   *bai-n'*
      this   camp-DAT   [horse   [two   be-DUR]]
      'in this camp there are two horses'

Word order can also be reversed when a simple numeral modifier is replaced by the combination of a numeral and a classifier. Classifiers as a distinct word class are not a typical feature of Mongolian, and numerals can always be used without a classifier. Even so, for some semantic classes of nominals, classifiers, or "counters", are available, as exemplified by *debter* 'volume' (classifier for books). Thus, instead of saying *gourben nom* 'three books', it is possible to say *gourben debter nom* 'three volumes of books', which can also be reversed to *nom gourben debter* 'books, three volumes [of them]'. In such sequences, we are apparently again dealing with appositional constructions, in which

the nominal (noun) and the numeral-classifier sequence stand in apposition with regard to each other.

Classifiers should be distinguished from measure words, which are regular nominals expressing units of measurement, and which therefore typically occur as headwords for numeral modifiers. The combinations of measure words with other nominals follow the normal rules of modifier-headword constructions. Dialectally, however, there can be occasional idiosyncrasies. For instance, the measure word *gadzer ~ gajer* [the equivalent of Chinese *li*, from the basic meaning: 'place, land, territory'] can in Chakhar be combined with a numeral modifier in either the nominative/attributive or the genitive case, as in ATTR *tab-e.n gajer ~* GEN *tab/n-ai gajer* 'five *gadzer*' (Sechenbaatar 2003: 78–79).

6.5   Phrases with spatial headwords

Although commonly confused with "adverbs" and "postpositions" (cf. e.g. Buck 1955: 59–76), spatials are, in principal, a distinct group of nominal words that have not only a nominal morphology (with some idiosyncracies) but also a nominal syntax. However, because spatials do not have an unmarked basic (nominative) form they cannot as such function in the syntactic positions normally occupied by unmarked nominals (subject, adnominal modifier). Moreover, since they also lack an accusative form, they cannot occur in the syntactic position typically marked by this case (object). This means that spatials are mainly attested in the sentence as adverbial modifiers (adverbials) to indicate spatial (local and temporal) relations.

However, like other nominals, spatials can function as headwords in nominal phrases. In such constructions, the spatial is preceded by another nominal, which functions as its modifier. The modifier is normally in the genitive case, but with many spatials the nominative can also be used [27]. Instead of the nominative, the nominals ending in the unstable nasal */n* use the nasal stem, which may also be analysed as the attributive case form [28]. Although the choice of the case form does not seem to be connected with any major semantic distinction, it is apparent that, at least dialectally, the genitive implies a greater degree of specificness, which is why it would be the more likely choice in sequences containing also other specifiers, such as pronouns (like 'that'), before the modifier.

[27]   *ger*   *dot-e.r*   :   *ter*   *ger-ii.n*   *dot-e.r*
     house   inside-LOC   [that   house]-GEN   inside-LOC
     'inside (the house)'   'inside that house'

[28]   *shiree-n*   *dee-r*   :   *ter*   *shiree/n-ii*   *dee-r*
     table-ATTR   above-LOC   [that   table]-GEN   above-LOC
     'on the table'   'on that table'

With several spatials, it is also possible to use the ablative case, often as an alternative to the genitive [29]. Such sequences involve a comparative construction in which the ablative indicates the point of comparison (ablative-comparative), very much as it can also do in phrases with an adjectival headword (§6.7).

[29] *noor-ii.n   tzaa-n'*   :   *noor-aas   xoi-g.oor*
      lake-GEN   beyond-LOC   lake-ABL   back-PROL
      'on the other side of the lake'   'to the north of the lake'

An important property of spatials is that they can also take personal pronouns as modifiers, normally in the genitive [30]. The pronominal modifiers can, however, also be expressed by possessive suffixes placed after the spatial. In such sequences, the possessive suffix often refers to the "possessor" of the semantic main noun [31], though it can also refer to the main noun itself [32]. This would seem to imply that spatials are in some respects reminiscent of case endings, even if there is no reason to analyse them as either suffixes or clitics.

[30] *en-d*   :   *man-ai*   *en-d*
      here-LOC   PL1P.EXCL-GEN   here-LOC
      'here'   'at our place'

[31] *shiree-n   dee-r*   :   *shiree-n   dee-r-cen'*
      table-ATTR above-LOC   [table-ATTR   above-LOC]-PXSG2P
      'on the table'   'on your table'

[32] *xoyer   ool-ii.n   doun-d-oor-e.n'*
      [[two   mountain]-GEN   middle-LOC-PROL]-PX3P
      'in the middle of (the) two mountains'

Although spatials do not have a basic (nominative) form, they can secondarily be "nominativized" either by using derivative suffixes, as in LOC *doun-d* '(in the) middle' : LOC DX ATTR *doun-d-e.d* '(located in the) middle', or, more importantly, by using the marked nominative ending *-x*, as in LOC *dee-r* 'above' : LOC NOM *dee-r-e.x* 'located above'. The marked nominatives can be used in all the functions characteristic of nominals, both substantival (subject, object) and adjectival (adnominal modifier). In the resulting structures, the nominative ending is best viewed as belonging to the entire spatial phrase [33].

[33] *monggel   soyl-ii.n   dot-r-e.x   neg-e.n   bagtz   tzetzeg*
      [[Mongol   culture]-GEN   inside]-LOC-NOM   one-ATTR   bunch   flower
      'a bunch of flowers in Mongolian culture'

Finally, it should be mentioned that spatials, like other nominals, can be grouped to form binomial structures whose meaning represents the sum of the components, as in *end tend*

'here' + 'there' = 'here and there', *naan' tzaan'* 'on this side' + 'on that side' = 'both here and over there'. A difference with regard to regular nominals is that the spatials in these sequences are actually marked forms (normally "locatives"), while in ordinary binomes the first component is always unmarked. This difference is, of course, connected with the fact that spatials do not have an unmarked form, while their marked forms involve a considerable degree of lexicalization.

6.6   Phrases with pronominal headwords

Although pronouns are frequently used as modifiers to other nominals, they rarely occur as headwords in combination with non-pronominal nominals. A seeming exception is formed by a small number of pronominal words that are typically used after other nominals. These pronouns could also be called "postpositional pronouns" or "pronominal postpositions" (Sechenbaatar 2003: 181–182), but it has to be stressed that they do not otherwise fill the definition of a "postposition". Rather, they are true (pro)nominals, and since they end the nominal phrase, they take any morphological marking required by the clausal context.

There is, strictly speaking, only one subclass of pronominal words that are always used postpositionally. These are the distributive pronouns ('every, each'), a small group that occasionally merges with the category of collective ('all') pronouns. The basic distributive pronoun is *beur ~ bur* [34], but as a synonym to it, the item *bolgen* can be used. Moreover, the collective pronoun *beuxen ~ buxen* can also occur postpositionally in a distributive meaning [35].

[34] *jil   bur-ii.n   tab-e.n   sar-d*
      [year   every]-GEN   five-ATTR   month-DAT
      'each year in May'

[35] *xun   buxen-d tuu/n-ii   ajl-ii.n   xir-eer*
      [person   all]-DAT   that-GEN   work-GEN   measure-INSTR
      'To each according to his work.'

It is not immediately clear why, exactly, the distributive pronouns are used postpositionally, while all other pronouns, including a majority of the collective pronouns, always precede the nominal headword. One factor behind this idiosyncrasy may simply be the etymology of the distributive pronouns, all of which seem to be of a verbal origin. This is most obvious in the case of *bolgen*, which is a lexicalized converbial form (= CONV MOD *bolg-e.n* of CAUS *bol-g-* of *bol-* 'to become'), but historically *beuxen ~ buxen* is likewise a verbal form (= PART FUT PL **bü-kü-n* of **bü-* 'to be'), with which also *beur ~ bur* is possibly related. In fact, there are other, even more transparent, verbal forms that are used in a

similar way, an example being CONV MOD *doos-e.n* 'all, whole', from *doos-* 'to finish'. In the latter case, the result could synchronically also be classified as an invariable postposition; it is not a pronoun since it cannot take the markers of the nominal declension [36].

[36] *sheun'*   *doos-e.n*   *noir=gwai*   *soo-b*
      [night   finish-C.MOD]   sleep=PRIV   sit-TERM
      'The whole night I sat awake.'

Another question concerns the syntactic status of the postpositionally used distributive pronouns. Although the pronoun may be regarded as the headword in the nominal phrase, the preceding nominal (noun) is not its modifier. Rather, this is another example of an appositional construction, reminiscent of the sequences with a postnominal numeral (§6.4). It is also relevant to note that the distributive pronoun can be transformed into an adverbal modifier (unmarked pronominal adverbial) without a substantial change in the general meaning, in which case the case marking is transferred to the preceding nominal [37–38].

[37] *nom*   *bur-ii.g*   *ounsh-sen*
      [book   every-ACC]   read-P.PRF
      'I read all the books.' ~ 'I read every single book.'

[38] *nom-ii.g*   *bur*   *ounsh-sen*
      book-ACC   [every   read-P.PRF]
      'I read all the books.' ~ 'I read the books completely.'

In this context it has to be mentioned that the selective pronoun *bish* 'other' > 'other than' > 'not the one' is also always used postpositionally after another nominal, as in *ter bish* 'not that one', *nom bish* 'not a book'. In the present treatment, this use of *bish* is understood as a manifestation of a negative copular function (§7.12). Synchronically, this function is probably best seen as distinct from the pronominal origin of the word. Moreover, unlike the distributive pronouns, the postpositionally used *bish* cannot take the markers of the nominal declension.

6.7   Phrases with adjectival headwords

In spite of their morphological status as nominal words, adjectives (adjectival nominals) are in some respects the most aberrant subclass of nominals. Syntactically, adjectives share some properties with verbs, notably, the preference to form predicates without a copula and the ability to take modifiers of the adverbal type. On the other hand, adjectives also have idiosyncratic properties, some of which are derivational, while others are syntactic and/or morphosyntactic. Most of these idiosyncratic properties are connected

with the fact that many adjectives, namely, those of the "relative" type, express qualities that can involve different degrees of intensity (gradation), or also otherwise different points of reference.

To compensate for the lack of a system of actual "forms" of comparison, Mongolian uses other means to express both absolute and relative differences in the degree of intensity. Apart from phonological emphasis (§3.15, for augmentatives) and derivational devices (§4.10, for moderatives), a high absolute degree of a quality ('very') can be expressed by alliteration (§4.11), or also by other intensifying particles, such as *mash* 'very (much), extremely' and others. The level of intensity can also be expressed by another nominal, either adjectival or substantival, such as *yix ~ ix* 'big, much' > 'very', placed before the adjective. Thus, for instance, the colour term *oulaan* 'red' can be intensified in a variety of ways, including (alliterative particle:) *ou.b oulaan* 'bright red', (intensifying particles:) *mash oulaan* 'very red', *cas oulaan* 'extremely red', (adjectival intensifiers:) *yix oulaan* 'very red', *gun oulaan* 'deep red', *xourtz oulaan* 'sharp red', (substantival intensifier:) *gal oulaan* 'fire-red'. In all these constructions, the adjective may be understood as the head-word of the nominal phrase, while the preceding word functions as its modifier.

A high relative degree of a quality ('more') can likewise be expressed by using intensifying modifiers, most typically *iluu* 'more, too much', as in *eunder* 'high' : *iluu eunder* 'higher'. As a lexical item, *iluu* is probably best classified as an adjectival nominal with the basic meaning 'additional, extra', since it can also modify both substantival nominals, as in *iluu sar* 'additional month' = 'intercalary month', *iluu eug-* 'to give more (than required)'. Several other intensifying modifiers with a similar function are either invariable particles, like *geng* '(even) more', or nominals with a defective paradigm, like *oulem* 'still more'. When, however, the point of comparison is included in the construction, the "comparative" relationship can be expressed simply by using the ablative case (ablative-comparative) [39]. Using this construction, an adjective can also be compared with itself, as in *dzoudzaan* 'thick' : *dzoudzaan-aas dzoudzaan* 'thicker than thick' = 'very thick'.

[39]   *ter*   *xun*   *nad-aas*   *nas-tai*
       that   person   [sG1P-ABL   age-POSS]
       'He is older than I.'

To express the highest relative degree of a quality ('the most'), any one of several nominal modifiers in the genitive case can be used before the adjective. The most common of these "superlative" markers is GEN *xamg-ii.n* 'of all', from the collective pronoun *xameg* 'all' [40]. Close in meaning is GEN *twail-ii.n* 'extremely', from the regular noun *twail* 'end, extreme'.

[40]   *xamg-ii.n*   *bagh*   *xubaa-gd-ex*   *tao*
       [all-GEN   small]   [divide-PASS-P.FUT   number]
       'the least common multiple'

In the comparative and superlative constructions, the adjective that concludes the nominal phrase may be regarded as the syntactic headword. To be exact, these constructions are not peculiar only to adjectives, for they are possible also with a substantival nominal (noun) as the headword. In such cases, the headword expresses a gradable property, such as *ax* 'elder brother' vs. *duu* 'younger brother', or also the extremity of a scale [41], such as *suul* 'tail' > 'end' vs. *turuu/n* 'fore' > 'beginning' (etymologically: 'head') [42].

[41] *bii   cam-aas   areb   ax*
      SG1P [SG2P-ABL [ten   elder brother]]
      'I am ten years older than you.'

[42] *xamg-ii.n   suul-d   or-sen   bicelg-uu.d*
      [all-GEN   tail-DAT] [enter-P.PRF   message-PL]
      'the most recent messages'

The comparative and superlative constructions are also possible with certain spatials. In fact, spatials can occasionally receive adjectival meanings, as is the case in *deer* 'above' > 'better', which can, then, also be used in the comparative and superlative constructions, as in (comparative) (*en* 'this' :) ABL *en-ees deer* 'above this' > 'better than this' : (superlative) *xamg-ii.n deer* 'highest up' > 'best of all'. On the other hand, a modifier in the ablative case is possible with an adjective as the headword also when it is not a question of comparison in the strict sense, as in (*end* 'here' :) ABL *end-ees xol* 'far from here'.

6.8   Postpositional phrases

Even when spatials and other postpositionally and/or appositionally used nominals (pronouns, numerals) are disregarded, there are several types of words that can be, or that have been, classified as "postpositions" in the history of Mongolian grammar. However, even this residual group is not homogeneous, for it comprises several formal and functional subgroups, not all of which correspond to the traditional understanding of a "postposition". As it is, the basic common property of all these words is that they are used after nominals to form postpositional phrases which, in turn, can serve as modifiers to verbals.

Ideally, a postposition is an invariable word that has neither a nominal nor a verbal morphology. In the present treatment, synchronically productive forms of productive stems, even if they are used in lexicalized meanings, are not recognized as postpositions (proper). Such forms include, for instance, PART FUT DAT *g-ex-e.d* 'by (a certain time)' (from the quotative verb *g-* : *ge-*), ABL *oucr-aas* 'for the reason (of)' (from *oucer* 'matter, reason'), INSTR *tal-aar* 'in the field (of)' (from *tal* 'side, field'), DAT *xajoo-d* 'beside' (from *xajoo* 'side'), CONV TERM *xur-tel* ~ *xur-ter* 'until' (from *xur-* 'to reach'), INSTR *yos-aor*

'according to' (from *yos//n* 'manner'). The same applies to a few productive forms of otherwise non-productive (or defective) stems, as in the case of DAT *ald-e.d* 'at (a certain time)' (from the defective noun *ald-* 'approximate time'), DAT *xaoren-d* 'between' (from the defective noun *xaor/e.n-* 'space between', etymologically connected with the numeral 2 *xoyer*), DAT *toul-d* 'for the sake (of)' (from the defective noun *toul-* 'sake').

Another group of taxonomically problematic items is formed by the so-called equative and comparative "postpositions" (Sechenbaatar 2003: 177–178). These comprise, most importantly, the items *met*, *adyel* and *shig*, all of which can be used postpositionally after nominals to express similarity or likeness ('similar to', 'like'), as in (*teumer* 'iron' :) *teumer met* 'like iron', (*alyem* 'apple' :) *alyem adyel* 'like apples', (*xii* 'air, wind, gas' :) *xii shig* 'like gas'. Although often identified as "postpositions", these are actually nominal words, as is also confirmed by the fact that they can take inflectional and derivative suffixes of the nominal type, as in INSTR *met-eer* 'in the same way as', INSTR *adyl-aar* 'equally', DIM *adyel-xen* 'identical', POSS *shig-tai* 'of the same kind as'. Other items of the same type are *cinee/n* 'strength, quantity' > 'of the same size as' : DIM *cinee-xen* 'just about the same size as', *xir ~ xer* 'measure' > 'of approximately the same size as' : POSS *xir-tai ~ xer-tai* idem and *jishee* 'example' > 'similar to', 'as well as'.

It is, consequently, better to speak of equative and comparative "nominals" than of "postpositions". These nominals may be identified as either substantival or adjectival depending on their syntactic behaviour. It seems that, in particular, the triplet *met–adyel–shig* are best classified as adjectives, while most of the others may be understood as substantival nominals (nouns). The adjectival properties are particularly prominent in *adyel* : DIM *adyel-xen*, which can also be used as a modifier to both an adjectival and a substantival nominal, as in (*ourt* 'long' :) *adyel ourt* 'equally long', (*uner* 'smell' :) DIM *adyel-xen uner* 'identical smell'.

When used after another nominal, the equative and comparative nominals function as headwords. In these sequences, the modifying nominal can also be in an oblique case form (examples with *mory//n* 'horse'): *shig* is combined with the nominative and attributive cases, as in NOM *mory shig ~* ATTR *mory-e.n shig* 'like a horse'; *met* is combined with the nominative, attributive and genitive cases, as in NOM *mory met ~* ATTR *mory-e.n met ~* GEN *mory/n-ii met* idem; and *adyel* is combined with the nominative, attributive, genitive and possessive cases, as in NOM *mory adyel ~* ATTR *mory-e.n adyel ~* GEN *mory/n-ii adyel ~* POSS *mory/e.n-tai adyel* idem. The actual choice of the case form seems to depend on a combination of lexical, syntactic, dialectal, as well as, possibly, pragmatic factors. The items with a more substantival profile are normally combined with the genitive.

In the clause, the nominal phrases with equative and comparative headwords can function as modifiers not only to a verb [43], but also to another nominal [44]. Moreover, they can occur as nominal predicates [45].

[43]   *baidel   yamer   met   udz-e.gd-e.j   bai-n'*
       situation   [[what.kind   like]   [see-PASS-C.IMPRF   be-DUR]]
       'What does the situation look like?'

[44]   *en'   met   asoodl-ii.g   shiidberl-ex   xereg-tai   bai-n'*
       [[this   like]   question]-ACC   solve-P.FUT   necessity-POSS   be-DUR
       'This kind of questions must be solved.'

[45]   *xair   itgel=gwai   bol   ous=gwai   tzetzeg-tai   adyel*
       love   belief-PRIV   COND   [[water-PRIV   flower]-POSS   like]
       'Love without belief is like a flower without water.'

Since the equative and comparative nominals are most often used in the basic (unmarked) form, they tend to have a strong bond with the preceding nominal. In some cases, they have even evolved into synchronic suffixes, as *cinee/n > -cneen* in the pronominals *eu-cneen* 'this much', *teu-cneen* 'that much', *xe-cneen* 'how much?'. Depending on the dialect, *shig* may also be joined with the preceding nominal in the form =*sheg*, which is probably best understood as a clitic, as in (*gaxai* 'pig' :) *gaxai shig* 'like a pig' > *gaxai=sheg* 'pig-like'. On the other hand, very much like the spatials, *shig* can take possessive or reflexive suffixes that actually refer to the modifying nominal [46] (example from Kullmann & Tserenpil 1996: 287); such cases might also better be understood as involving cliticization.

[46]   *bii   bagsh   shig-ee   xun   bol-x-iig   xus-deg*
       SG1P   [teacher   like-RX   person]   become-P.FUT-ACC   hope-P.HAB
       'I want to become like my teacher.'

It may also be noted that in Written Mongol *shig ~ =sheg* is rendered by the harmonically alternating graphic shapes **sig** (upper-key) ~ **siq** (lower-key), suggesting that it has always been understood as a bound morpheme. An additional confirmation of this is the fact that it can be combined directly with the oblique stems of the personal pronouns, as in SG1P *nad=sheg* 'like me', SG2P *cam=sheg* 'like you'. In such examples, we are actually dealing with a postclitically marked case form, rather similar to the marginally attested equative case, as in (*eubdeg* 'knee' :) EQU *eubdeg-tzeo* 'up to the height of the knees'. A further development of =*sheg* is =*shUU* (< *shig* + the interrogative particle =*UU*), attested dialectally (as in Chakhar). This, in turn, has yielded the dialectal free morpheme *shooxen* = DIM *shoo-xen* 'like', as in (*geuleg* 'puppy' :) *geuleg shooxen* 'like a puppy'.

The next group of postpositional words involves items that express estimates or approximations of numbers. Also termed "approximative postpositions" (Sechenbaatar 2003: 180), these items comprise, most importantly, *orcem* 'around, about, approximately', *shaxem ~ shaxoo* 'nearly, almost' and *garwai ~ garen* 'over, more than'. While these may synchronically well be regarded as lexicalized postpositions, their postpositional function is transparently connected with their derivational history, in that they are all deverbal nouns: *orcem* from *orc-* 'to turn around', *shaxem ~ shaxoo* from *shax-* 'to press' > 'to

approach' and *garwai ~ garen* from *gar-* 'to exit' > 'to exceed'. A possible exception is formed by *garen*, which could also be analysed as a converbial form, that is, CONV MOD *gar-e.n* 'exceeding', in which case its synchronic relationship with the corresponding verbal stem should still be regarded as productive [47] (example from Sechenbaatar l.c.).

[47] *areb   gar-e.n   jil-ii.n   eum-e.n'   neg   ooldz-sen*
       [[[ten   exit-C.MOD]   year]-GEN   front-LOC]   one   meet-P.PRF
       'We met once over ten years ago.'

It may be concluded that at least most of the "approximative postpositions" are nominal words, though derived from verbs. In a more precise terminology they could be called "postpositionally used approximative deverbal nominals", or simply "approximative nominals". This conclusion is confirmed by the fact that the adjectival nominal *iluu* 'more, too much' > 'more than' (probably also ultimately derived from a verb) can be used in the same way [48].

[48] *en'   bol   gouc   iluu   jil   nootzl-e.gd-sen   ner*
       this   TOP   [[[[thirty   more]   year]   hide-PASS-P.PRF]   name]
       'This is a name that was kept secret for over thirty years.'

A common feature of the approximative nominals is that they are most often used after numerals. These sequences do not, however, involve the regular type of nominal phrase, in which the numeral would function as an adnominal modifier. This is evident from the fact that a numeral preceding an approximative nominal always stands in its plain (non-nasal) stem form, as in *myangg//n* 'thousand' : *myangg orcem* 'about a thousand', *myangg garwai* 'over a thousand'. The synchronic situation is open to a variety of alternative explanations (not discussed here in more detail), but diachronically the issue is connected with the verbal origin of the approximative nominals. Instead of a numeral, or after the numeral, a measure word indicating a countable category like a unit of time can also be used, as in (*jil* 'year' :) *jil garwai* 'over a year', *xoyer jil garwai* 'over two years'.

As nominal words, the approximative nominals can take case endings, as in *garwai* : GEN *garwai-g.iin* 'of more than' : INSTR *garwai-g.aar* 'by more than'. The inflected approximative constructions can then occur in the clause in the syntactic functions corresponding to the case endings [49].

[49] *deurb-e.n   jil   garwai-g.iin   xoughtzaa/n-d*
       [[[four-ATTR   year]   over]-GEN]   period-DAT
       'within a period of over four years'

Finally, there is a small group of postpositional words that better than others would seem to fill the conventional definition of true "postpositions". The items in this group might also be called "circumstantial postpositions", since they express various local, temporal

or modal relationships. Functionally, they are close to case endings, except that they are separate words. They include, most importantly, the following items: (local:) *dagoo* 'along', (temporal:) *daraa* 'after', *toursh* ~ *touj* 'during, in the course of', (modal:), *esreg* 'against', *touxai* 'about, concerning', *teuleo* 'for the sake of'. In combination with the genitive of a preceding nominal, they form postpositional phrases that function as adverbal modifiers [50–51]. Instead of the genitive, the nominative is also attested, especially with demonstrative pronouns, as in PROX *en' touxai* 'about this' : DIST *ter touxai* 'about that'.

[50] *arb-e.n*   *jil-ii.n*   *toursh*   *er-e.n*   *sourbeljel-j*   *bai-n'*
     [[ten-ATTR year]-GEN during] search-C.MOD investigate-C.IMPRF be-DUR
     'For ten years he has been investigating (this)'.

[51] *er-cuud*   *yuu/n-ii*   *touxai*   *yary-dg=e.b*
     man-PL   what-GEN   about   talk-P.HAB=CORR
     'What do men talk about?'

Again, however, the borderline against nominals is difficult to draw. Some of the circumstantial postpositions are basically nominal words, or, at least, they can also be used in typical nominal functions. For instance, *daraa* and *esreg* can occur as adnominal modifiers, as in (*oudaa* 'time, occasion' :) *daraa oudaa* 'next time', (*salyx* 'wind' :) *esreg salyx* 'headwind', while *teuleo* = *teuloe/n*, which is transparently derived from the verb *teul-* 'to compensate', is attested in the substantival meaning 'replacement', as in (*ug* 'word' :) GEN *teuleo/n-ii ug* 'pronoun' (literally: 'word of replacement'). Moreover, even in their postpositional function, the circumstantial postpositions can take case endings, which makes the entire construction functionally equal to a nominal phrase [52]. Since the nominal preceding the postposition is normally in the genitive, it may syntactically be understood as a modifier, while the postposition itself is the headword.

[52] *kyanoo/n-ii*   *xeugjm-ii.n*   *touxai-g.aar*   *exl-ii.y*
     [[cinema-GEN   music]-GEN   about]-INSTR begin-VOL
     'Let us begin with a discussion about cinema music!'

A general conclusion from the above is that the elements conventionally classified as "postpositions" represent several semantically and syntactically distinct groups. All "postpositions" in Mongolian are ultimately closely connected with nominals, in some cases with deverbal nominals, and at least the items expressing equative and comparative, as well as approximative relationhips may synchronically still be classified as nominals (proper). Nominal properties are also observed in the circumstantial postpositions, the only group that might otherwise qualify as true postpositions. All of this underlines the rather arbitrary nature of the category of "postposition" in Mongolian, as well as the diffuse character of the subdivisions within the nominal class of words in the language.

6.9 The basic verbal phrase

The basic verbal phrase may be defined as a phrase with a verbal headword and with one or more adverbal modifiers. The verbal headword functions as the predicate in the phrase, while the modifiers function as either objects (O) or adverbials (Adv). In accordance with the general "Ural-Altaic" typological orientation of Mongolian, the verbal phrase always ends with the predicate (V), which, then, can be preceded by either an object (OV) or an adverbial (AdvV) or both. In this context, we need not yet discuss the subject (S), but it has to be mentioned that the subject, which normally comes first in the clause, forms a separate entity which in general does not interfere with the internal coherence of the verbal phrase.

The role of a verbal headword can be filled by either a finite or a non-finite predicate. Only finite predicates can end an independent clause, while non-finite predicates function as modifiers to either a nominal headword (relativization with the help of participial forms) or to another verb (verb chaining with the help of converbial forms). At this stage, it is convenient to restrict the discussion to comprise only sequences with a finite predicate. The finite predicate in Mongolian can, however, be represented by two series of forms: (1) the actual finite forms and (2) the finitely used non-finite forms of the participial paradigm. Due to the structure of the morphological system of the language, a finite predicate always incorporates information of either modal or temporal-aspectual content. Some forms may also convey information of other types, including, in particular, evidentiality.

The ability of verbs to take an object is connected with their "valency", in that, by definition, only transitive verbs can have an object. An object is a substantival nominal (or a substantivally used nominalized verb), and it can be either unmarked or marked by the accusative case ending. The special status of transitive verbs as opposed to intransitive verbs should not, however, be overemphasized in Mongolian, for the two types of verbs share many properties. For instance, many transitive verbs can be used both transitively with an object and intransitively without an object [53]. Also, many intransitive verbs can take unmarked object-like adverbials which can express, for instance, time. Formally, an unmarked object is impossible to distinguish from an unmarked object-like adverbial [54].

[53]	*ounsh=jai-n'* read-PROGR-DUR 'He is reading.'	:	*nom ounsh=jai-n'* book read-PROGR-DUR 'He is reading books.'
[54]	*xoyer nom ounsh-sen* two book read-P.PRF 'He read two books.'	:	*xoyer jil soo-sen* two year sit-P.PRF 'He lived (there) for two years.'

The difference is more pronounced when it comes to marked objects, for the accusative case is used in the basic verbal phrase only to mark the object of transitive verbs, while it can never be used to mark an object-like adverbial. Adverbials, by contrast, can modify both transitive and intransitive verbs both with and without case marking. When marked, adverbials typically stand in the adverbial (local and modal) cases [55]. The position of an adverbial can, however, also be filled by a spatial (in the spatial case forms), either with or without an adnominal modifier [56], or also by any of the other "postpositional" constructions.

[55]   *ger-t*   *or-sen*   :   *ger-ees*   *gar-sen*
        house-DAT enter-P.PRF   house-ABL exit-P.PRF
        'He entered the house.'   'He came out of the house.'

[56]   *dee-r*   *bai-n'*   :   *shiree-n*   *dee-r*   *bain'*
        above-LOC be-DUR   [table-ATTR above-LOC] be-DUR
        'It is (there) above.'   'It is on the table.'

A special category of adverbial is formed by the "indirect object", which expresses the recipient of ditransitive verbs. The indirect object is normally in the dative case, and it tends to precede the direct object in the verbal phrase, though this is a matter of focus. In the unmarked situation, it is probably correct to assume that the object and the verb form a primary-level phrase, to which the indirect object adjoins as a secondary-level constituent [57].

[57]   *ter*   *xun*   *nad-e.d*   *nom*   *eug-sen*
        that   person [SG1P-DAT [book   give-P.PRF]]
        'He gave me some books.'

Strictly speaking, the grammatical relevance of the category of "indirect object" in Mongolian may be questioned, for the recipient function is just one of the many functions that an adverbial in the dative case can have in the language. Passivization, for instance, is possible only with direct (but not with indirect) objects, a situation shared by many other (though not all) languages of the "Ural-Altaic" type. Even so, it is useful to recognize ditransitivity as an inherent (and latent) syntactic property of those verbs that normally require two modifiers, the one expressing the patient (object) and the other the recipient (adverbial).

6.10   Object marking

Object marking has long been a disputed issue in Mongolian grammar. The reason is that the rules governing the choice between the two object cases, the nominative and

the accusative, are not easily formulated. Apart from possible dialectal differences, the four parameters that seem to be relevant in this context are (1) definiteness (definite vs. indefinite), (2) specificness (specific vs. non-specific), (3) genericness (generic vs. non-generic) and (4) animacy (animate vs. inanimate). Traditionally, the emphasis has been on definiteness (Poppe 1951: 61–63), but more recently, the other parameters have received attention (Bittigau 2008; Guntsetseg 2009).

1.   Definiteness: In general, Mongolian has no morphological devices to express distinctions based on definiteness. The marking of definiteness is never obligatory, but when required for pragmatic reasons the demonstrative pronouns PROX *en'* vs. DIST *ter* can be used to indicate that the notion of a substantival nominal (noun) is understood as definite, while indefiniteness can be expressed by using the numeral *neg* 'one', as in (*mory* 'horse' :) *en' mory* 'this horse' vs. *neg mory* 'one horse' > 'a horse'. Another means of indicating definiteness is offered by the possessive suffixes, as in PX 3P *mory-e.n* 'his/their horse' > 'the horse', PX SG 2P *mory-cen* 'your horse' > 'the horse (in your sphere / under discussion)'. As to object marking, the general rule is that an indefinite object is in the nominative case (unmarked), while a definite object is in the accusative case (marked) [58].

[58]   *neg   mory   ab-sen*   :   *en'   mory-ii.g   ab-sen*
        one   horse   buy-P.PRF   this   horse-ACC   buy-P.PRF
        'I bought a horse.'   'I bought this horse.'

2.   Specificness: Specificness is a feature that partially overlaps with definiteness and partially complements it. Thus, definite notions are always also specific (definite specific), while indefinite notions can be either specific (indefinite specific) or non-specific (indefinite non-specific). For instance, the indefinite nominal phrase *neg mory* 'one horse' > 'a horse' can mean either 'any (one) horse' (non-specific) or 'a certain (one) horse' (specific). An indefinite object that is specific is often, though not always, placed in the accusative case, while a non-specific object apparently never bears case marking [59].

[59]   *neg   mory   ab-sen*   :   *neg   mory-ii.g   ab-sen*
        one   horse   buy-P.PRF   one   horse-ACC   buy-P.PRF
        'I bought a horse.'   'I bought a certain horse.'

3.   Genericness: When a nominal is accompanied by no indicator of its status with regard to either definiteness or specificness, it is normally interpreted as generic, which also means that its number is not specified, as in *mory* 'horse' ~ 'horses'. A generic object is normally unmarked [60]. It may be noted that the stems ending in the unstable nasal */n* are in generic function always used in the plain (non-nasal)

stem, that is, the nominative, which has also been called the "indefinite case" ("casus indefinitus"). However, it should be noted that for these nouns the nasal stem form, that is, the attributive case, can likewise have a non-specific reference as compared with the genitive, as in *xoshoo/n* 'banner' (administrative entity) : ATTR *xoshoo-n daregh* 'banner leader' vs. GEN *xoshoo/n-ii daregh* 'leader of a (specific) banner'. Unmarked nominals denoting non-specific quantities of uncountable substances function as "partitive" objects, while the corresponding marked (accusative) forms indicate a specific quantity of the substance [61]. Unmarked generic objects are also common in lexicalized phrases composed of an object and a verbal headword, as in *mory oun-* 'to mount a horse' = 'to ride'.

[60] *neg   mory   ab-sen*   :   *mory   ab-sen*
      one   horse   buy-P.PRF   horse   buy-P.PRF
      'I bought a horse.'   'I bought a horse / some horses.'

[61] *max   id-e.n'*   :   *en'   max-ii.g   id-e.n'*
      meat   eat-DUR   this   meat-ACC   eat-DUR
      'I will eat meat.'   'I will eat this meat.'

4. Animacy: Animacy in the broad sense involves at least two binary features, ±animate and ±human, which are, again, partially overlapping, since +human notions are always +animate, while –human notions can be either +animate or –animate. In Mongolian, only nominals marked as +human have special grammatical properties, though the relevance of this feature is rather limited. A morphological property of +human nominals is that they can take the plural suffixes *-ner* and *-cUUd*. Certain syntactic roles, such as those of the indirect object (recipient) of ditransitive verbs and the agent of passivized verbs, also favour +human (or +animate) nominals. Moreover, certain +human nominals and nominal references, such as the personal pronouns and personal names, are inherently also specific, which means that they always stand in the accusative case when used as objects [62].

[62] *ci   nam-ai.g   bi   cam-ai.g   oryx-ex=gwai=c*
      SG2P   SG1P-ACC   SG1P   SG2P-ACC   throw-P.FUT=PRIV=ADD
      'You shall not abandon me, and I shall not abandon you.'

For the personal pronouns, the use of the accusative as the only object case is a natural choice, since the corresponding nominatives are based on a different stem and are simply never used in any other than the subject function. The accusative is, however, the object case also for the personal interrogative pronoun *xen* 'who' [63]. This may, indeed, be due to its reference being +human, for the corresponding non-personal interrogative pronoun *yuu/n* 'what' is normally unmarked as an object (though the accusative *yuu/n-ii.g* is also attested).

[63] *xen   ol-sem=b*   :   *xen-ii.g   ol-sem=b*
      who   find-P.PRF=CORR   who-ACC   find-P.PRF=CORR
      'Who found (it)?'   'Whom did (you) find?'

[64] *yuu   bai-n=e.b*   :   *yuu   xii-j   bai-n=e.b*
      what   be-DUR=CORR   what   do-C.IMPRF   be-DUR=CORR
      'What is there?'   'What are you doing?'

Altogether, the marking of the direct object in Mongolian is a complex issue that still awaits an exhaustive description. However, the opposition between the unmarked and marked object should not be exaggerated, for the borderline is not always sharp, and in many actual examples both case forms are possible with no (or almost no) difference in the meaning.

6.11   Adverbial marking

Nominal phrases functioning as adverbials are normally marked by case endings representing any one of the adverbally occurring local (dative, ablative) or modal (instrumental, possessive, privative) cases of the nominal declension. Adverbials can also be formed by spatial constructions, which may contain case forms specific to spatials (locative, lative, prolative). There are, however, also unmarked adverbials, for which reason the issue of adverbial marking is to some extent analogical to that of object marking, though the rules are more diffuse when adverbials are concerned. It is convenient to classify the instances of unmarked usage into three functional groups, corresponding to (1) modal, (2) temporal and (3) local adverbials.

1. Modal adverbials: Apart from a small number of postpositional nominals used as unmarked headwords of nominal phrases, regular adjectival nominals are commonly attested without marking to express adverbial modality ('in a certain manner'). The same function can, however, also be expressed by the instrumental case, as well as, for some adjectives, by lexicalized modal derivatives. The adjective *sain* 'good', for instance, has three modal forms: *sain* (unmarked) 'good' > 'well' : *sai-ter* (a unique derivative) 'well' > 'carefully' : INSTR *sain-aar* 'well' > 'favourably'. The unmarked form is common in simple and/or fixed expressions, as in (*yab-* 'to depart' : PRESCR *yab-aarai* :) *sain yabaarai* 'bon voyage', while in complex constructions the marked forms are preferred [65–66].

[65] *xeugjem   sons-x-e.n'*   *oi   togtaol-d   sain-aar   neuleol-deg*
      music   listen-P.FUT-PX3P   mind   memory   good-INSTR   affect-P.HAB
      'Listening to music has a favourable effect on intellectual capacity.'

[66] *xaa-n'*   *xeurengg*   *or-ool-x-aa*   *sai-ter*   *bod-oarai*
      where-LOC   capital   enter-CAUS-P.FUT-RX   good-DX   think-PRESCR
      'Think carefully where you invest capital!'

In practice, unmarked adjectival adverbials are only formed from a rather limited selection of items that frequently occur in adverbal position. The option of unmarked usage may therefore be regarded as a lexical property of certain adjectives, while most others normally require the instrumental case ending, as in *shin'* 'new' : INSTR *shin-eer* 'newly', *nootz* 'secret' : *nootz-aar* 'secretly'. One group of adjectival words that are almost always used without marking are quantifiers like *olen* 'many' (countables) and *yix ~ ix* 'big' > 'much' (uncountables). These may also be compared with numerals, which occur without marking in a multiplicative function ('times'), as in *gourb//n* 'three' : *goureb* 'three times' [67].

[67] *bii*   *ten-d*   *goureb*   *xon-e.n'*
      SG1P   there-LOC   three   stay.overnight-DUR
      'I will stay there three nights.'

2. Temporal adverbials: It has already been mentioned above (§6.9) that time expressions denoting the duration of an activity can be used as unmarked object-like modifiers to verbs. When, however, a time point has to be expressed, the normal way is to use the dative case, as in *tzag* 'time' : DAT *tzag-t* 'at (a certain) time' : *ter tzag-t* 'at that time'. An exception is formed by a relatively large group of nominals and nominal phrases with a temporal reference that can be used adverbially with no case ending. These comprise, for instance, the expressions for the times of the day: *eugleo/n ~ eurleo/n* 'morning', *euder* 'day' > 'daytime', *orai ~ udesh* 'evening', *sheun' ~ seun'* 'night' [68]. As an alternative to the unmarked form, the instrumental is also attested, as in *euder* : INSTR *eudr-eor* 'in the daytime'.

[68] *eugleo/n-ii*   *xool*   :   *bii*   *eugleo*   *ir-sen*
      morning-GEN   food   SG1P   morning   come-P.PRF
      'breakfast'   'I came in the morning.'

Again, the option of unmarked usage seems to be a lexical property of certain nominals with a temporal reference. Unmarked adverbials are commonly formed, for instance, from the terms denoting days and years: (days:) *ourj-der* 'the day before yesterday', *euceg-der ~ eutzeg-der ~ eutzgel-der* 'yesterday', *euneo-der ~ en' euder* 'today', *malgaa-der ~ margaash* 'tomorrow', *neugeo-der* 'the day after tomorrow'; (years:) *ourj-ii.n jil ~ ourj-neng* 'the year before last year', *nodynen jil* 'last year', *en' jil* 'this year', *daraa jil* 'next year', *neugeo jil* 'the year after next year' (with more variants in the dialects). By contrast, expressions referring to months are normally in the dative, as in (*sar* 'month' : DAT *sar-d* :) *en' sar-d* 'in this month' : *gourb-e.n sar-d* 'in March' (literally: 'in month three'). The terms for the

four seasons are attested in the nominative, instrumental and dative reflexive forms, as in *joun* '(in) summer' : INSTR *joun-aar* 'during summer' : DAT RX *joun-d-aa/n* idem, *eubel* '(in) winter' : INSTR *eubl-eor* 'during winter' : DAT RX *eubel-d-eo/n* idem.

Case marking is normally absent when expressions of time are reduplicated to indicate a distributive meaning, as in *euder euder* 'every day', *jil jil* 'every year'. These are equal in function to phrases with the postpositionally used distributive pronoun *beur ~ bur*, as in *euder bur* 'every day', *jil bur* 'every year'. In other types of reduplicative constructions, case endings can, of course, be used, as in ABL + DAT *eudr-eos euder-t* 'from day to day'.

3. Local adverbials: Nominals functioning as local adverbials normally stand in the local cases, that is, the dative (location at, movement to) and the ablative (movement from), as well as, marginally, the directive (movement towards). Under specific conditions they can stand in the instrumental case (route of movement). What is more surprising is that they can also be unmarked. In the modern language this usage is largely lexicalized, for unmarked local adverbials are only permitted of certain nominals (or types of nominals) in combination with certain verbs. Most of the verbs concerned express dynamic movement ('to'), notably: *yab-* 'to depart, to go', *oc-* 'to go', *ir-* 'to come', *or-* 'to enter', *xur-* 'to reach, to arrive', *boutz-* 'to return', as well as *oun-* 'to fall'. There are, however, also examples of verbs expressing static location ('at'), such as *soo-* 'to sit' > 'to stay, to dwell, to be', *xebt-* 'to lie' and *bai-* 'to be'. The selection of possible unmarked nominals can vary from verb to verb, and there are also dialectal differences. In general, the phenomenon seems to be more widespread in Khalkha than in the Inner Mongolian dialects.

The verbs *ir-*, *or-*, *xur-* are perhaps those that are most commonly combined with unmarked local adverbials in all dialects. The nominals in these constructions are typically place names, often well-known ones, such as *oulaan baater* 'Ulan Bator', *xeux xot* 'Huhhot', *beejeng* 'Peking' [69]. The unmarked adverbial can apparently always be replaced by the corresponding dative form, though this is more common in Inner than in Outer Mongolia. The verb *yab-* is normally combined with the dative form of place names in Inner Mongolia, while in Outer Mongolia it is commonly used with the unmarked form [70].

[69] *beejeng   xur-eed   xed-e.n   euder   bol-sen*
     Peking   arrive-C.PRF how.many-ATTR day   become-P.PRF
     'I arrived in Peking several days ago.'

[70] *beejeng   yab-e.n'*   :   *beejen-d   yab-e.n'*
     Peking   depart-DUR   Peking-DAT depart-DUR
     'I will go to Peking.'   'I will go to Peking.'

Many sequences with unmarked local adverbials involve fixed expressions in which the adverbial is permanently "incorporated" into the verbal phrase, as in (*xot//n* 'town,

city' :) *xot oc-* ~ *xot yab-* 'to go to town', (*nouteg* 'homeland, native place' :) *nouteg boutz-* 'to return to one's homeland'. Although the verb in such sequences is intransitive, the general structure is comparable with that of the sequences involving a generic object in combination with a following transitive verb, as in *max id-* 'to eat meat'. If the generic nature of the nominal is lost due to the presence of specification, such as a demonstrative pronoun or a possessive or reflexive suffix, the nominal will have to be marked by the dative case ending [71].

[71]   *nouteg*   *boutz-sen*   :   *nouteg-t-aa/n*   *boutz-sen*
       homeland   return-P.PRF   homeland-DAT-RX   return-P.PRF
       'He returned to his homeland.'   'He returned to his homeland.'

Finally, in a few instances the lack of case marking in a nominal used as a local adverbial may be seen as an inherent property of the nominal itself. Examples are *gadzer* (: RX *gadzr-aa/n*) 'place', *xeuser* 'earth, soil, ground' and *xeudeo/n* 'open steppe, countryside'. These items can be used as adverbials both without marking and in the dative form [72]. Morover, their unmarked usage is also attested in combination with static verbs of existence [73]. Some of the expressions in question may also be viewed as fixed phrases, as in *xeuser oun-* 'to fall on the ground'.

[72]   *en'*   *gadzer*   *ir-sen*   :   *en'*   *gadzer-t*   *ir-sen*
       this   place   come-P.PRF   this   place-DAT   come-P.PRF
       'I came to this place.'   'I came to this place.'

[73]   *man-ai*   *ger*   *bul*   *en'*   *gadzer*   *soo-j*   *bai-n'*
       PL1P.EXCL-GEN   house   family   this   place   sit-C.IMPRF   be-DUR
       'Our family lives at this place.'

The reason for the special behaviour of these nominals is that they are actually petrified locative forms (in *-A > -Ø). They are also formally reminiscent of spatials in *-AA* (the type *gad-aa* 'outside') and *-r* (the type *dot-e.r* 'inside'). Behind a single synchronic form like *gadzer* there lie, therefore, two separate diachronic forms (NOM **gajar* 'place' : LOC **gajar-a* 'at/to a place'). Even so, in the synchronic system the unmarked forms cannot be classified as marked, which is why these items have to be considered in the context of unmarked local adverbials.

6.12   Adverbal invariables

Apart from the marked and unmarked adverbally used nominals and spatials, as well as postpositional constructions, verbs can be modified by elements that may be classified as "adverbal invariables". Unlike postpositions, which are prototypically combined with a nominal modifier, adverbal invariables have no modifiers of their own, though

some of them may consist of two separate phonological words. Like other "invariables" in Mongolian, this is a heterogeneous group, and many items retain a synchronically transparent connection with either nominals or verbals. Some items can even contain or take suffixes. However, to qualify as an adverbal invariable (proper), a word should never occur in syntactic roles typical of either nominals (subject, object, adnominal modifier) or verbals (predicate).

In the verbal phrase an adverbal invariable functions as an adverbial and precedes the verbal headword. The bond between an adverbal invariable and the verbal headword is normally so strong that it is not broken even by a direct object, which means that the object precedes the adverbal invariable (OAdvV), while the more common (unmarked) order would be the opposite (AdvOV). On the other hand, it is not always easy to determine whether an adverbal invariable modifies only the verb or, rather, the whole clause. In the present treatment, it is assumed that this class of words inherently involves modifiers to the verb (only), while clausal modification is assumed to be the realm of other types of operators.

For both formal and functional reasons, adverbal invariables are here divided into two classes, termed (1) "circumstantial adverbs" and (2) "adverbal particles". The distinction is not sharp, and it has no consequences for the syntactic description, since both classes involve, in principle, invariable (monomorphemic) adverbal modifiers (adverbials). Even so, the items classified as particles fill the criterion of invariance better, and they are semantically less transparent than the adverbs, which are formally more diffuse. Both classes are numerically limited, as may be expected in a language in which most adverbials are structured sequences of morphemes (nominal forms and phrases, or spatial or postpositional constructions).

1. Circumstantial adverbs: These are words that convey circumstantial information concerning the action. In practice, this information concerns either temporal or modal circumstances, while there seem to be no examples of local adverbs of this type. As it is, there are very few items in this group that qualify as true invariables: examples are *meud* 'soon', *urxii* 'often', *xaayaa* 'sometimes'. Most items traditionally classified as adverbs are either productive nominal or verbal forms, as in *dang* 'single' : DAT RX *dan-d-aa/n* 'always', *deungg-* 'to do with difficulty' : CONV IMPRF *deungg-e.j* 'with difficulty' > 'barely', *bai-* 'to be' : CONV MOD REDUPL *bai-n bai-n* 'again and again'. There are also items with a non-productive form but with a transparent etymological connection, as in *dar-* 'to press' : *dar.wai* 'immediately', *dzory-* 'to strive' : *dzory-e.g* 'aim, purpose' : *dzory.ood* 'on purpose'.

More importantly, many of the items traditionally classified as adverbs are actually unmarked nominals, or they can be nominalized, which means that they can take case endings and derivative suffixes, as in *xamt* 'joint, jointly, together' : INSTR *xamt-aar*

'together' (also with postpositional uses), *say* 'recent, recently' ~ 'recent time' : DIM *say-xen* 'quite recently' : GEN *say-ii.n* 'recent' [74].

[74] *say*   *ir-sen*   :   *say-ii.n*   *xereg*   *yabdel*
     recent   come-P.PRF   recent-GEN   matter   action
     'He came recently.'   'recent events'

2. Adverbal particles: In the Mongolian grammatical tradition, the items in this category have also been identified as "adverbs", but in the present treatment the term "particle" is preferred. In any case, they fill the definition of an "invariable" better than the items classified as adverbs above. Functionally, the adverbal particles may be divided into four groups, here termed (i) "intensifying", (ii) "aspectual", (iii) "descriptive" and (iv) "imitative" particles. Alternative terms that have been used for these groups are "gradational adverbs", "modal adverbs", "descriptive adverbs" and "imitatives", respectively (Sechenbaatar 2003: 164–171).

The (i) intensifying particles are a group of about a dozen items which express various levels of intensity of action. Most of these items, including such as *mash* 'very (much), extremely', *arai* 'somewhat, scarcely' and *egee* idem, exhibit no synchronic morphology, though others may contain petrified suffixal elements, as in *nilee.n* ~ *milee.n* : *nilee.d* ~ *milee.d* 'rather (much)'. Also, some items show systematic patterns that could be identified as "proto-morphological" (incipient morphology); notably, there is a coherent group of items ending in the velar nasal *ng*: *dang* ~ *daang* 'very (much), extremely', *toung* ~ *tong* idem, *nang* ~ *neng* '(still) more', (from Chinese:) *geng* '(even) more'. Syntactically, the most important property of the intensifying particles is that they can also modify adjectival nominals (gradation) [75].

[75] *nileed*   *sain*   :   *nileed*   *id-sen*
     rather   good   rather   eat-P.PRF
     '(It is) rather good.'   'I ate rather much.'

In their role as modifiers to adjectival nominals, the intensifying particles are reminiscent of the alliterative particles (§4.11). Incidentally, although normally considered to be a feature of adjectival roots alone, alliterative particles can sometimes, though rarely, also be based on verbal roots, as in *xur-* 'to reach, to arrive' : ALLIT *xu.b xur-* 'to be very close to reaching' [76]. Such instances may be viewed either as a special type of intensifying particles or also as a separate (fifth) group of adverbal invariables.

[76] *odao*   *bareg*   *sar*   *xu.b*   *xur-c*   *yab-aa*
     now   apparently   month   ALLIT   arrive-C.IMPRF   depart-P.IMPRF
     'It seems that just about a month has gone.'

The (ii) aspectual particles are likewise a group of about a dozen items whose basic function is to modify the aspectual content of the verbal headword. Most of these items consist of two fully or partially rhymed parts, as in *xalt meult* 'carelessly, rashly', *yab tzab ~ yab tab ~ yag tag* 'exactly, precisely', *mer ser* 'occasionally' [77]. Only a few items have a transparent etymological motivation, as in *xaash yaash* 'carelessly' ← LAT *xaa-sh* 'whither?', *arai carai ~ arai camai* 'with difficulty, reluctantly' ← *arai* 'hardly', *nebt : nebt shoubt* 'thoroughly' ↔ *nebc-* 'to pierce through', cf. also DX *nebt-e.r-* 'to penetrate' (intransitive) : DX *nebt-e.l-* 'to break through' (transitive and intransitive). Some paired items can take symmetric suffixal elements, as in *sand meund ~ sand-oo meund-uu* 'hastily'.

[77] *bii   tuu/n-tai   mer   ser   ooldz-deg*
      SG1P   SG3P-POSS   occasionally   RHYME   meet-P.HAB
      'I meet him only occasionally.'

The (iii) descriptive particles are a relatively large group comprising some fifty items which add both an aspectual content (resultative) and a stylistic dimension (descriptive) to the verb. Most of these particles, which have also been called "passive-root adverbs" (Kullmann & Tserenpil 1996: 221–222), are synchronically independent roots, which can form verbal derivatives of their own. Their use is, however, lexically restricted, in that certain descriptive particles are only combined with certain verbs. On the other hand, some verbs can be combined with several particles, as in *tat-* 'to pull' : *deleb tat-* 'to pull in (small) pieces', *moult tat-* 'to pull out', *dzad tat-* 'to pull apart', *sough tat-* 'to pull out', *xagh tat-* 'to pull in pieces', *xamx ~ xemx tat-* 'to pull in pieces', *xough tat-* 'to pull apart', *yadz tat-* 'to pull in pieces'. Other verbs typically used with descriptive particles include *tzoxy-* 'to hit', *dar-* 'to press', *oc-* 'to go' and *gar-* 'to exit'. Altogether, the descriptive particles function very much like verbal prefixes in some languages. In single usage, they normally refer to a single action, but when reduplicated they can convey the meaning of multiple actions or a recurrent action [78–79].

[78] *yix   abregh   mashn-ii-x-e.n'   tzongx-ii.g   xagh   tzoxy-jai*
      big   monster   car-GEN-NOM-PX3P   window-ACC   asunder   hit-RES
      'The Sumo Champion broke the window of her car.'

[79] *tzongx-nood-ii-n'   xagh   xagh   tzoxy-sen   bai-sen*
      window-PL-ACC-PX3P   asunder   REDUPL   hit-P.PRF   be-P.PRF
      'All of her windows had been broken.'

Finally, the (iv) imitative particles are a group of some dozen items which also enhance the stylistic content of the verbal phrase by adding a dimension based in one way or another on sound symbolism. The majority of these items are onomatopoetic in origin, but there are also examples of less obvious kinds of symbolism. Most items in this group follow a set of formal rules that might be viewed as another example of "proto-morphological" patterns. Thus, the imitative particles typically end in one of the consonants

g b s r ng, onomatopoetic items also in *d sh l*. Some items contain derivative elements, including *-leng, -reng, -ngger, -lceg, -rceg, -rjeg*. Also, these particles are normally used in repetitive sequences, as in *to.g to.g* [sound of knocking or clacking], *se.r se.r* [sound of wind], *nam.s nam.s* [image of sinking or bending] [80]. Only some of these items have a transparent etymological connection, as in *gyal-s gyal-s ~ gyal-e.b gyal-e.b* [image of flashing light] ↔ *gyal-b-* 'to flash' : *gyal-ai-* 'to shine' : *gyal-e.ldz-* 'to twinkle, to glitter'.

[80] *xeub-j*   *yab-aa*   *adyel* *nam.s*   *nam.s*   *alxel-deg*
      float-C.IMPRF depart-P.IMPRF like   bending   REDUPL   step-P.HAB
      'They move forward bending their backs as if floating.'

Many of the imitative particles are close to interjections, or they can be used as interjections. Interjections may be defined as another group of invariable particles. A syntactic difference between adverbial particles and interjections is that the latter form independent defective clauses. Therefore, an interjection can never function as an adverbial modifier without a connective element, which normally is a form of the quotative verb *g(e)-* 'to say', or also the factitive verb *xii-* 'to do'. In combination with these verbs, which may also be realized in the suffixal shapes *-g-* and *-x-*, respectively, many interjections form new imitative verbs or verbal phrases, as in *tung* [sound of explosion] : *tung+g(e)-* 'to make a sound of explosion'.

6.13   Complex verbal predicates

Instead of the various types of non-verbal adverbials (marked or unmarked nominals and spatials, postpositional constructions, adverbal invariables) the function of an adverbial can be expressed by using the adverbal forms of the verb, that is, the converbs, quasiconverbs and ambivalent forms. In such sequences, the first verb, which stands in a converbial or quasiconverbial form is, by definition, a modifier to the second verb, which functions as the headword of the construction. The question is, however, whether, and under what conditions, a construction with two (or more) verbs can be viewed as a single complex predicate. The alternative is that we are dealing with a complex sentence with two (or more) separate predicates.

A rather straightforward solution to the problem concerning the taxonomy of sequences with two (or more) verbs is that we look at the ability of the individual verbs to take independent arguments (subject, object, adverbials). The number of verbs (separate verbal roots and forms) in the construction is itself irrelevant to its taxonomic status, while the important parameter is the number of verbs taking independent arguments. In the present treatment, a complex verbal predicate is defined as a sequence of two (or more) verbs which together can only have a single set of arguments. This normally also

means that the verbs in the sequence are consecutive words, with no other argument(s) inserted between them.

In practice, complex verbal predicates most typically involve sequences in which the verbal headword functions as an auxiliary, while the verb in the modifier position stands in a converbial form from a limited set formed by the imperfective, perfective, modal, momentaneous and serial converbs. Sequences of this type are, for instance, the progressive and momentaneous constructions, as in *id-* 'to eat' : CONV IMPRF *id-e.j bai-* 'to be eating', *tat-* 'to pull' : CONV MOM *tat-e.s xii-* 'to pull abruptly'. Another common type of modifier is the intentional in *-m-AAr*, as in *yab-* 'to depart, to go' : INT INSTR *yab-m-aar bai-* 'to want to go'. In all these constructions, any additional arguments belong to the complex verbal phrase as a whole, while no arguments can be inserted between the two verbal constituents [81].

[81]   *bii*   *odao*   *ger-t-ee/n*   *yab-m-aar*   *bai-n'*
       SG1P   [now   [home-DAT-RX   [depart-INT-INSTR   be-DUR]]]
       'Now I want to go home.'

The division of converbial forms into conjunct (same-subject) and disjunct (different-subject) constructions is not relevant in this context, since a converbial form sharing the subject with its verbal headword can nevertheless have other arguments (object, adverbials) of its own. Thus, many converbial forms, such as the abtemporal converb in *-sAAr*, can occur in different syntactic contexts: with a separate subject [82], with other separate arguments, but with the subject shared with the verbal headword [83], or with all arguments shared with the main verb [84] (examples adapted from Kullmann & Tserenpil 1996: 169). Only the last type of construction qualifies as a complex verbal predicate.

[82]   *bii*   *xot-e.d*   *soo-saar*   *arb-e.n*   *jil*   *bol-lao*
       SG1   city-DAT   sit-C.ABT   ten-ATTR   year   become-CONF
       'I have been living in the city for ten years.'

[83]   *bid*   *mashn-aar*   *yab-saar*   *neg*   *ail-d*   *xur-sen*
       PL1   car-INSTR   depart-C.ABT   one   village-DAT   arrive-P.PRF
       'Travelling by car, we arrived in a village.'

[84]   *man-ai-x-e.n*   *ajl-aa/n*   *xii-seer=e.l*   *bai-g.aa*
       PL1.EXCL-GEN-NOM-PL   work-RX   do-C.ABT=LIM   be-P.IMPRF
       'Our people are still doing their work.'

The ability to take separate arguments varies from converb to converb. An example of a converb that rarely has arguments of its own is the modal converb, which is particularly often used in fixed phrases, as in *or-* 'to enter' + *gar-* 'to exit' : CONV MOD *or-e.n gar-* 'to go in and out', *xoudeld-* 'to sell' + *ab-* 'to take' : CONV MOD *xoudeld-e.n ab-* 'to buy'. By contrast, quasiconverbs can probably never lose their ability to take separate

arguments (even if the arguments are not physically present in the sentence), which means that constructions with quasiconverbs should probably always be analysed as complex sentences.

6.14   The syntax of clitics

If a morphologically marked word form is defined as the union of an independent word (free morpheme) with one or more bound morphemes (affixes), and if a phrase is a sequence of two or more syntactically interconnected words or word forms, either marked or unmarked, then the combination of a word with a clitic must be something between these extremes. At least as far as Mongolian is concerned, a clitic is best understood as an element that is functionally independent (free) but formally dependent (bound). The relative independence of clitics is shown by their ability to function as harmonic switchers (§3.13). Moreover, some elements can be manifested both as clitics and as independent words, as exemplified by the privative noun *ugwai* > =*gwai* [85] and the copula-existential *bai-* > =*ai-* [86]. In such cases, the clitical function involves a higher degree of grammaticalization.

[85] *ner*   *ugwai*   :   *ner=gwai*
      name   EXIST.NEG   name=PRIV
      'It has no name.'   '(It is) without a name.'

[86] *soo-j*   *bai-n'*   :   *soo-j=ai-n'*   > *soo=jai-n'*
      sit-C.IMPRF   be-DUR   sit-C.IMPRF=be-DUR   > sit=PROGR-DUR
      'He is sitting.'   'He is sitting.'

Clitics are a diffuse category, relevant at many different levels of Mongolian grammar. Since they are functionally independent, clitics can represent different parts of speech, including nominals (like the privative noun *ugwai* > =*gwai*), verbals (like the copula-existential *bai-* > =*ai-*) and invariables (enclitic particles). They can function variously as case markers, conjugation markers, epistemic markers and markers of various types of emphasis. From the point of view of their ability to combine with different parts of speech, they may be divided into (1) adnominal, (2) adverbal and (3) ambivalent clitics.

1. Adnominal clitics are relatively rare and their status is often ambiguous. They are typically elements that also occur either as true suffixes or as independent nominal words, as exemplified by PL -*ner* ~ (possibly:) =*ner*, MULT +*oudaa* ~ =*daa* and ORD +*dougaar* ~ (possibly:) =*dUgAAr*. Depending on the approach, it might also be possible to analyse the possessive suffixes 1P -*men'* : SG 2P -*cen'* : PL 2P -*ten'* as adnominal clitics. However, the idea, occasionally proposed, of a wholesale analysis of all

nominal inflectional morphology in Mongolian as being based on the use of clitics does not correspond to the facts.

2. Adverbal clitics include the markers of the progressive and momentanous aspects (PROGR -*J*=*ai*- > =*Jai*-, MOM -*s*=*xii*- ~ -*s*=*ge*-), both of which form inflectable verbal stems. Another example is the zero copula (PRF =Ø-*sen*).

3. Ambivalent clitics, that is, clitics that can be attached both to nominals and to verbals, are by far the most numerous group, a situation that is in accordance with the fact that clitics are, in principle, separate lexical elements whose presence or absence is not directly dependent on the type of word to which they are attached. Often, however, ambivalent clitics show slight functional differences depending on whether they follow a nominal or a verbal. Examples of such functional differentiation are offered by PRIV =*gwai* (case marker for nominals vs. negation marker for nominalized verbs) and EMPH =*AA* (marker of phonological emphasis for nominals vs. formative of the long forms of the tense-aspect markers for verbs). On the other hand, clitics showing no contextually conditioned functional differentiation are INTERR =*UU* (polar question) and CORR =*e.b* (non-polar question).

The reason why clitics are here discussed in connection with phrasal syntax is that the relationship between a clitic and the preceding independent word may be viewed as a special type of phrase. The syntactic relationship between the clitic and the preceding independent word varies: in some cases the clitic functions as the syntactic headword (as in the progressive and momentaneous constructions), while in others it modifies the preceding word (like the possessive suffixes, provided that they are analysed as clitics). Often, however, the clitic is syntactically independent of the preceding word, which means that there is no modifier-headword relationship involved in the sequence. Such syntactically independent clitics are morphologically invariable and are best understood as enclitic particles.

Enclitic particles can operate either at the phrase level or at the clause level. When operating at the clause level they belong to the class of "final particles" (discussed later in connection with clausal syntax, §7.14). When operating at the phrase level they may be termed "emphatic particles" (Sechenbaatar 2003: 186–187), or also "focus particles" (Kullmann & Tserenpil 1996: 346–349), since they emphasize or place the focus on the word to which they are attached. The two most important items of this type are the additive =*c* (syllabified as =*e.c*) and the limitative =*l* (syllabified as =*e.l*). These are commonly translated as 'also, even' ("inclusive emphasis" or "additive focus") and 'only' ("exclusive emphasis" or "restrictive focus"), respectively. The same functions can also be expressed by the independent words *bas* 'also, (once) again, (once) more' (adverbal invariable, but also a discursive connector, §8.13) and *gantz* 'single, sole' : DIM *gantz-xen* 'only (one), solely, alone' (adnominal adjectival nominal) [87–88].

[87] *bii=c*   *yab-e.n'*   :   *bii*   *bas*   *yab-e.n'*
      SG1P=ADD   depart-DUR   SG1P   also   depart-DUR
      'I will go, too.'   'I will go, too.' ~ 'I will also go.'

[88] *bii=l*   *yab-e.n'*   :   *gantz-xen*   *bii(=l)*   *yab-e.n'*
      SG1P=LIM   depart-DUR   single-DIM   SG1P(=LIM)   depart-DUR
      'Only I will go.'   'I alone will go.'

The particle *=c* is most typically attached to the basic (nominative) form of nominals in subject function. It can, however, also follow inflected forms, as in *gar* 'hand' : INSTR *gar-aar* 'by hand' : INSTR ADD *gar-aar=c* 'even by hand', as well as invariables, as in *toung* 'very much' : ADD *toun=c* 'very much indeed'. When combined with interrogative pronominal stems, it forms the corresponding indefinite and connegative items, as in *xen* 'who?' : ADD *xen=c* 'whoever'; in this function, it can also be combined with interrogative verbs, as in *yaa-* 'to do what?' : CONV IMPRF *yaa-j* 'how?' : CONV IMPERF ADD *yaa-j=e.c* 'in whatever way, in (no) way whatsoever'. In combination with other types of verbal forms, *=c* conveys a concessive meaning ('although'), as in *yab-* 'to depart, to go' : PART PRF *yab-sen* '(s/he) went' : PART PRF ADD *yab-sen=c* 'although (s/he) went'. A fully grammaticalized trace of this usage is present in the marker of the concessive converb in *-bc* < TERM ADD *-b=c*, as in CONV CONC *yab-e.bc* 'although (s/he) goes, even if (s/he) went'.

In a very similar way, the particle LIM *=l* is most often attached to the basic form of nominals, though it can also follow inflected forms and invariables. Moreover, it is conspicuously often used after verbal forms, both finite and non-finite. When used after a finite verb, *=l* is normally followed by the final particle AFF *=dAA*, yielding the fixed combination LIM AFF *=l=dAA*, which itself may be viewed as another grammaticalized final particle. A fully grammaticalized example is also present in the marker of the conditional converb in *-bel* < TERM LIM *-b=e.l*, as in CONV COND *yab-bel* 'if (s/he) goes'. Quite often, however, *=l* is used after non-finite forms, especially converbs, and it can even be inserted into fixed sequences containing the auxiliary *bai-* 'to be', as in CONV ABT *-sAAr+bai-* (continuity of progressive action) : CONV ABT LIM *-sAAr=e.l+bai-*. In such cases, the semantic contribution of *=l* is difficult to assess [89-90] (examples from Kullmann & Tserenpil 1996: 348–349). Possibly, it is a question of a mere stylistic device (for casual style), while in some cases rhythmic factors may also be relevant.

[89] *ter*   *en-d*   *ir-eed=e.l*   *nom*   *ab-aad*   *yab-laa*
      that   here-LOC   come-C.PRF=LIM   book   take-C.PRF   depart-CONF
      'He just came here, took some books and left.'

[90] *bii*   *en'*   *nom-ii.g*   *ounsh-saar=e.l*   *bai-n'*
      SG1P   this   book-ACC   read-C.ABT=LIM   be-DUR
      'I am still reading this book.'

A third enclitic particle with a phrase-level emphatic function, though with a much more restricted sphere of use, is the item =*xuu* 'exactly, specifically', here tentatively termed the "specificative" particle. This is an element attached mainly to pronominal stems and forms, as in *en* 'this' : SPEC *en'=xuu* 'exactly this, this very same', *iin* 'like this' : SPEC *iing-xuu* 'exactly like this', though it can also occur after other nominals, as in *unen* 'true' : SPEC *uneng=xuu* 'completely true'. It is also etymologically present in the modal demonstratives *iim-e.r(=)xuu* 'like this' : *tiim-e.r(=)xuu* 'like that'. It may be noted that in Cyrillic Khalkha =*xuu* = -**xüü** is normally joined with the preceding word, while the particles =*c* and =*l* are written as separate single-consonant graphic words, that is, **c** and **l**.

6.15   Coordinating conjunctions

Like most other languages with a "Ural-Altaic" typology, Mongolian has originally no conjunctions as a separate class of words. The syntactic relationships between interconnected clauses are indicated by the converbialized and nominalized forms of the verb. There are also a few conjunction-like items that can enhance the functional role of the converbial forms, or also, indicate certain types of discursive relationships between clauses and sentences (§8.12). These means are, however, typically available only for sequences longer than a phrase, and they tend to involve relationships of subordination, rather than coordination. Therefore, the coordinative links between phrases have to be expressed by a number of different devices.

The simplest way to express a coordinative relationship is by juxtaposition, though this may involve semantic lexicalization, as in binomes of the type *aab eej* 'father (and) mother' > 'parents' (§6.3). To stress the role of the members of a binome as individual actants, an appositional construction with the numeral 'two' as a headword may be used, as in *aab eej xoyer* 'father and mother' (§6.4). For larger groups of actants, higher numerals (though normally only up to 'ten') are used. Numerals can also be combined with pronominal sequences as in 2P SG + 1P PL *cii bid xoyer* 'we two'. Moreover, binomes can be marked by a plural suffix, as in *ax duu* 'elder brother' + 'younger brother' = 'brothers' : PL *ax+duu-ner* idem.

There are, however, also words that synchronically function as interphrasal coordinating conjunctions. These may be divided into copulative ('and') and disjunctive ('or') items. The only etymologically opaque item is √*ba* = *baa* 'and' (Cyrillic Khalkha **ba** = Written Mongol **bae**), while all other conjunctions have a transparent morphological structure. Other copulative conjunctions are *bolen* = CONV MOD *bol-e.n* from *bol-* 'to become'; *xiigeed* = CONV PRF *xii-g.eed* from *xii-* 'to do'; *beugeod* = CONV PRF *beu-g.eod*, connected with the defective copula-existential √*bi-* (but as a conjunction borrowed from Written Mongol **buigat**); rarely also *agaad* = CONV PRF *a-g.aad* from the defective copula-existential *a-* (but again, as a conjunction borrowed from Written Mongol

vaqhat). All of these are used sparingly and tend to convey a connotation of archaic, literary or official style.

Between the different copulative conjunctions there is some stylistic and functional differentiation. For linking two substantival nominals or nominal phrases, including inflected forms, *bolen* is probably the most neutral choice [91], while *beugeod* tends to link verbal phrases and adjectives [92]. It may be recalled that *beugeod* is also used in the special function for expressing empty slots in complex numerals (§4.13), as in *neg dzoo beugeod naim//n* 'one hundred and eight'. In longer lists of coordinated nominals, there is some tendency to group the items by using alternately *baa* and *xiigeed* [93].

[91] *xamg-ii.n tzaraileg eregtai bolen emegtai xamtleg*
      all-GEN   nice   male   and   female   ensemble
      'the nicest male and female ensemble'

[92] *bolbsen beugeod biceg erdem buxii xun*
      educated   and   letter   wise   being   person
      'a person with education and literary culture'

[93] *baraa baa idee xiigeed oundaan terguu-t-e.n*
      thing   and   food   and   drink   beginning-POSS-PL
      'material goods and food and drink and so on'

To express emphasis in the copulative construction ('both'–'and'), the conjunctions can be replaced by the repetitive use of the additive particle *=c* [94] (example from Kullmann & Tserenpil 1996: 301).

[94] *ter nam-ai.g=c tan-ii.g=c sain med-e.n'*
      that   SG1P-ACC=ADD   PL2P-ACC=ADD   good   know-DUR
      'He knows both me and you well.'

The function of disjunctive conjunctions is filled by two basic items, both of which are etymologically transparent: *bouyoo* 'or, and/or' = INTERR *bou=y.oo* < 'is it?' from the copula-existential stem *bou- ~ bwai ~ bai ~ bii*; and *esbel* 'or (else), otherwise' = CONV COND *es-bel* from the negation verb *es-*. The former can be replaced by *youmoo* = INTERR *youm=oo* 'is it' from the (pro)nominal copula *youm*, while the latter can be replaced by the more literary *esxuul*, another petrified form of the negation verb (< CONV SUCC **ese-küle*, as a conjunction borrowed from Written Mongol **vsagule**), misleadingly (for etymological reasons) spelled **esxül** (with a single **ü** in a non-initial syllable) in Cyrillic Khalkha.

The disjunctive conjunctions can connect both nominal and verbal phrases, though the individual items have different preferences, with *bouyoo* (and *youmoo*) being more common between nominals and *esbel* (and *esxuul*) between verbals. Two nominal phrases linked by *bouyoo* can take a case ending either jointly or separately [95]. On the

other hand, *esbel* can be used repetitively ('either'–'or'), in which case it is placed before every item that it coordinates [96] (example from Kullmann & Tserenpil 1996: 306).

[95] *sour* *bouyoo* *ols-aor* : *sour-aar* *bouyoo* *ols-aor*
      [strap or cord]-INSTR [strap-INSTR] or [rope-INSTR]
      'with a strap or a cord' 'with a strap or with a cord'

[96] *ter* *esbel* *ajel* *dee-r-ee* *esbel* *ger-t-ee* *bii*
      that or work above-LOC-RX or house-DAT-RX EXIST
      'He is either at his work or at home.'

The items *bouyoo* and *youmoo*, which contain the interrogative marker *=UU* in combination with two different copular stems, can also be used repetitively, but in such usage they function as predicates [97], which corresponds to their etymological origin as interrogative copulas.

[97] *unen* *bou=y-oo* *xoudel* *bou=y-oo*
      true COP=INTERR lie COP=INTERR
      'Is it true or not?'

In examples of the last type we are actually dealing with two juxtaposed clause-level structures (nominal clauses with interrogative copulas functioning as the predicates). Such examples could possibly be understood as incipient complex sentences with two coordinate clauses, but it has to be noted that, in general, coordination between clauses is a feature alien to Mongolian syntax.

Clausal syntax

7.1   Types of clauses

A clause-level syntactic structure is here understood as a sequence that contains, or that can contain, two principal arguments, which in Mongolian normally correspond to the dichotomy between subject and predicate (grammatical relations), but which can also involve the interrelationship between agent and action (thematic roles), or topic and comment (pragmatic functions). Each of the principal arguments functions as a separate phrase-level entity, which may or may not contain modifiers of its own. There are also modifiers that pertain to the entire clause, as exemplified by several types of clausal particles. The relationship between the subject and the predicate in a clause is basically one between two equal constituents, though it can be argued that the predicate is the more crucial of the two, while the subject could be viewed as its modifier. However this may be, a clause must always have a predicate, while the subject can be absent (or latent) under certain circumstances.

The predicate is also the part of the clause that determines whether the clause is in a larger context dependent or independent. An independent clause typically contains a finite predicate, while a dependent clause contains a non-finite predicate from either the participial (relativization) or the converbial (serialization) series. A dependent clause forms, therefore, a part of a complex sentence, while an independent clause can function either in its own right or as the head clause of a complex sentence. Since the structure and functions of dependent clauses are dealt with separately below in connection with complex sentences (§8), the present discussion will focus on independent, or finite, clauses. From these premises, the basic typology of finite clauses may be sketched as follows:

1. Finite clauses with a verbal predicate. This is the most common type of finite clause, and also the most diversified. The predicate is chosen from three alternative series of verbal forms: the finite modal (imperative) forms, the finite tense-aspect (indicative) forms, or the non-finite nominalized (participial) forms. The predicate can be intransitive (without an object), transitive (with or without an object), or ditransitive (with both a direct and an indirect object).
2. Finite clauses with a nominal predicate. This is the so-called nominal (or equative) clause, in which the predicate can be represented by a nominal word alone, or also by the combination of a nominal word and a copula.

3. Existential clauses. In this type of clause, the predicate is expressed by an existential (normally, a copular-existential) verb, which is inherently intransitive, but which requires a local adverbial as a modifier. Closely connected with existential clauses are expressions of possession (possessive clauses).

4. Passive and causative clauses. These have a verbal predicate that is inherently either transitive or ditransitive, and that has been transformed into a form marked for either the passive or the causative voice. In both cases, the clause can contain apart from the subject a second nominal constituent (agent or causee).

5. Epistemically modified finite clauses. By this are meant clauses that may be seen as modifications of any of the above types. If the basic type of clause is affirmative and declarative, its modified forms can be, for instance, negative and/or interrogative. These modifications are mainly expressed by adding the corresponding markers, such as those for negation and/or interrogation to the predicate, though the details depend on the type of verbal or nominal predicate that is to be modified.

In addition to these regular types of fully-built clauses, there are "irregular", that is, syntactically incomplete, sequences that may also be classified as entities of the clause level. Some of these are simply elliptic versions of regular clauses, as used, for instance, in abbreviated answers to well-formed questions. Two types of truly exceptional structures are, on the one hand, interjections (invariable words used for expressive purposes without a syntactic context) and, on the other, "vocatives" (nominal phrases used for addressing a collocutor and often marked by phonological emphasis). These will be discussed below only as far as they are incorporated in the regular, and more complex, syntactic structures.

7.2   The basic finite clause

The basic finite clause may be defined as a clause in which the subject is a nominal in the unmarked basic form (nominative) and the predicate is expressed by a modally unmarked (indicative) verb, including a finitely used participial form. Depending on the valency of the verb, the clause may contain a direct and/or an indirect object. Both the subject and the object can also have other modifiers, which follow the rules of phrasal syntax. In accordance with the verb-final word order of the "Ural-Altaic" type (SOV), all adverbal modifiers, including the object, are placed after the subject and before the predicate [98]. Nominals ending in the unstable nasal /n/ always appear in the plain stem when used in the subject position [99].

[98]   *man-ai*   *xun*   *euneoder*   *shin'*   *ger*   *ab-sen*
       [PL1P.EXCL-GEN   person]   [today   new   house   take-P.PRF]
       'My friend here bought a new house today.'

[99] *uneg//n*   :   *neg   uneg   gui-j   ir-jai*
      fox   one   fox   run-C.IMPRF   come-RES
      'fox'   'A fox came running.'

Since the Mongolian verb has no personal conjugation, there is no formal agreement between the subject and the predicate with regard to number or person. Exceptions from this are formed by the reciprocal, cooperative and pluritative voices, which inherently imply and require a plural subject. The reciprocal (mutual action) and the cooperative (joint action) have, however, clear (often lexicalized) semantic profiles of their own, while only the pluritative (plural action) may be seen as a candidate for a true plural form of the verb. Certainly, the pluritative cannot be combined with a singular subject, which means that its use may be seen as an agreement phenomenon. On the other hand, its use is not obligatory, for it can always be replaced by the corresponding unmarked form [100].

[100] *ted   yab-sen*   :   *ted   yab-tzgaa-sen*
       PL3P   depart-P.PRF   PL3P   depart-PLURIT-P.PRF
       'They left.'   'They (all) left.'

Syntactically, the reciprocal, cooperative and pluritative voices involve no other complications, which means that independent clauses with the predicate in any one of these forms follow otherwise the format of the basic finite clause. A common property of these voice forms is that they tend to be combined with subjects that are +human, or at least +animate, specifications that are typically combined with plural marking. Even so, the pluritative voice stands apart, and its synchronic status remains open to several different descriptive approaches. Of the forms classified as "voices", only the passive and the causative are connected with more complicated syntactic structures (discussed separately below, §§7.10–7.11). It should be recalled that all voice forms in Mongolian belong to the realm of derivation. The verbs marked for "voice" involve, therefore, secondary (and often semantically specialized) stems that can be inflected in all forms of the verbal conjugation, both finite and non-finite.

Other exceptions from the regular pattern of the basic finite clause are formed by clauses in which either the subject or the predicate is incomplete or even absent. The absence of the subject is particularly common if the subject is a personal pronoun that can automatically be deduced from the context. This happens often in simple dialogues with questions and answers [101]. A generic pronominal subject ('we' ~ 'they' ~ 'people') can also be omitted, especially if the clause contains another constituent, such as an adverbial, in topicalized position [102].

[101] *ir-n=uu*   :   *ir-n=ee*
       come-DUR=INTERR   come-DUR=EMPH
       'Will you come?'   'I will come.'

[102] *man-ai*   *abegh*   *nouteg-t*   *euder-t*   *neg=e.l*   *xaol*   *id-e.n'*
       PL1P.EXCL-GEN   Abaga   homeland-DAT   day-DAT   one=LIM   food   eat-DUR
       'In our Abaga homeland we eat only once a day.'

It is considerably less common to omit the predicate, and clauses containing no predi-cate cannot be regarded as well formed, though predicate ellipsis is possible in casual interchange of questions and answers. What is more interesting is that the predicate can in some cases be formed by an adverbal invariable, such as a descriptive particle [103] (example from Sechenbaatar 2003: 168).

[103] *euneo*   *buduun*   *mod-cen'*   *salyx/e.n-d*   *xoug=aa*
       this   thick   tree-PXSG2P   wind-DAT   apart=EMPH
       'This huge tree was knocked down by the wind.'

Examples of this type are clearly exceptional and should probably be seen as manifesta-tions of a special expressive style. Since it is not a question of a nominal predicate, the adverbal invariable in the predicate position signals the hidden presence of an actual verbal headword, suggesting that we are, after all, dealing with a case of ellipsis, in which the predicative verb has been omitted. (In the above example, the presence of a nomi-nal agent in the dative case would seem to imply that the omitted predicate verb has an inherent passive or causative reference.)

7.3 The imperative clause

Clauses in which the predicate position is occupied by an "imperative form", that is, a form with modal marking and with no inherent temporal-aspectual content (§5.4), fol-low in most respects the model of the basic finite clause. This is, in particular, true of the forms with an inherent third person reference (permissive, desiderative, dubitative, concessive), which always have an overt subject (if not elliptically omitted), as well as any other constituents as required by the construction [104].

[104] *en'*   *eubel*   *tzas*   *yix*   *or-aosai*
       this   winter   snow   big   enter-DES
       'I hope it will snow a lot this winter!'

The situation is slightly different with the forms that refer inherently either to the first (voluntative) or to the second (imperative, precative, prescriptive, benedictive) person. Since these forms are typically combined with pronominal subjects of the respective persons, their use might be viewed as another case of agreement between the subject and the predicate. Although this agreement only concerns the person and not the num-ber of the subject, the implication is normally clear enough to make the use of an overt

pronominal subject superfluous. For this reason, these forms are almost always used without an overt subject. However, it is also possible to include the explicit pronoun in the sequence [105–106].

[105] *yab-y=aa*   :   *bid   yab-y=aa*
      depart-VOL=EMPH   PL1P   depart-VOL=EMPH
      'Let us go!'   'Let us go!'

[106] *ir*   :   *cii   ir*
      come.IMP   SG2P   come.IMP
      'Come!'   'Come!'

It may be questioned whether the overt pronoun in such sequences is, indeed, the subject of the syntactic clause. At least in constructions referring to the second person, the pronoun could be seen as representing a separate vocative clause directed at the collocutor(s). This is also suggested by the fact that the pronoun can be replaced by a regular nominal (such as a title or a name), typically marked by phonological emphasis. It is, then, possible to analyse these sequences as involving two clauses, of which the first (the vocative clause) lacks a predicate, while the second (the imperative clause) lacks an overt subject [107].

[107] *taa   ir-eerai*   :   *bagsh=ai   ir-eerai*
      PL2P   come-PRESCR   teacher=EMPH   come-PRESCR
      'You! Please come!'   'Teacher! Please come!'

Due to the frequent absence of an overt subject, the first word in an imperative clause referring to the second (or also, the first) person is often an unmarked regular nominal. The resulting sequence of an unmarked nominal and a finite verb gives superficially the impression of a regular clause with a subject and a predicate, but in reality the nominal functions as the object of the verb. The object can also stand in the accusative case in accordance with the normal rules of object marking [108]. There are, however, occasional examples of a marked object placed after, rather than before, an imperative predicate [109] (example from Poppe 1951:112). More rarely, other verbal modifiers can also take this position.

[108] *mory   ab*   :   *en'   mory-ii.g   ab*
      horse   take.IMP   this   horse-ACC   take.IMP
      'Take a horse!'   'Take this horse!'

[109] *tuu/n-ii.g   ab*   :   *ab   tuu/n-ii.g*
      that-ACC   take   take   that-ACC
      'Take that one!'   'Take that one!'

It remains unclear to what extent the postverbal location of the object (and other adverbal modifiers), which goes contrary to the rules of the basic word order in Mongolian, is specific to imperative predicates only (as claimed by Poppe). The phenomenon itself may be identified as dislocation, that is, the abnormal positioning of a constituent due to extragrammatical reasons (clause splitting, afterthought). This is a feature always possible in casual speech. Even so, the nature of imperative clauses makes them perhaps more apt to be split into a verbal part (the basic command) and the adverbal part (the circumstances related to the command).

7.4   The nominal clause

In the nominal clause, the predicate is formed by a nominal (or nominalized) word, which may or may not be accompanied by a copula. Since the subject is also a nominal, the clause is basically an equation of two nominals (equative clause). There are, however, several different types of nominals (or nominalized words) that can function as predicates, and the different types have differences in their syntactic behaviour, especially as far as the choice of the copula is concerned. Apart from the option of using no copula, there are three types of copulas:

1.   The full verbs *bai-* 'to be' (static) and *bol-* 'to be, to become' (dynamic). These can also be used as modal and/or aspectual auxiliaries, and *bai-* functions additionally as an existential verb (copula-existential). In the copular function, they are attested with all types of nominals (and nominalized words). Their use is often necessitated by the need to specify modal and/or temporal-aspectual circumstances that cannot be expressed by the nominal itself, or by the other copulas.
2.   The defective verb *bii ~ bwii ~ bwai ~ bai* 'is', which also has the synchronically irregular lexicalized forms CONF *bi-lai ~ bi-lee* 'was', POT *bi=dz ~ bii=dz* '(is) probably' and INTERR *bou=y.oo* 'is it?'. All of these have also auxiliary and existential uses. As copulas they replace the corresponding forms of the full verbs *bai-* and *bol-*, but are considerably more restrictively used.
3.   The invariable copular particles of pronominal origin *meun* (~ *men ~ mun*) : EMPH *meon* 'this very' > 'is' (negated by *bish* 'not this') and *youm ~ yim ~ im* > *=iim ~ =iin* '(some)thing' > 'is'. These have an even more restricted occurrence, in that the former is exclusively combined with substantival nominals (nouns) and the latter almost always with nominalized verbs (participles).

Any nominal predicate can be used without a copula. The use of a copula may therefore be seen as a device to emphasize the nominality of the predicate. This is especially so with the copular particles *meun* and *youm*, which have a general (aorist) temporal reference and do not convey any modal or aspectual connotations. The copula *meun* stresses

the equative relationship between the two nominal arguments of the clause [110]. It can also be used alone as the affirmative answer to nominal clauses containing a polar question [111].

[110] *en'*   *min-ii*   *nom*   :   *en'*   *min-ii*   *nom*   *meun*
        this   SG1P-GEN   book   this   SG1P-GEN   book   COP
        'This is my book.'   'This is my book.'

[111] *en'*   *cin-ii*   *nom*   *meun=uu*   :   *meun*
        this   SG2P-GEN   book   COP=INTERR   COP
        'Is this your book?'   'Yes, it is.'

The copula *youm* is etymologically identical with the generic noun *youm//n* 'something' > 'thing/s' (related to *yuu/n* 'what?'), which substantivizes and/or nominativizes other nominal words and forms, including adjectives, numerals and genitives, as in *xoocen* 'old' : *xoocen youm//n* 'old things', *neg//n* 'one' : *neg youm//n* 'one thing' > 'something', *ouls* 'state' : GEN *ouls-ii.n youm//n* 'state property'. When used with genitives it fills more or less the same function as the marked nominative ending *-x*, as in GEN *min-ii* 'my' : *min-ii youm//n* 'my own, my property' ~ GEN NOM *min-ii-x* 'mine'. After nominalized verbs it often conveys a passive meaning, even when no passive marker is present, as in *id-* 'to eat' : PART FUT *id-ex youm//n* 'something to (be) eat(en)', *xii-* 'to do' : PART PRF *xii-sen youm//n* 'something that has been done'. When, however, used as a copula after participles in finite function it does not affect the voice content of the verb [112].

[112] *tzengxer*   *ool-s-ii.g*   *dab-aad*   *yab-sen*   *youm*
        azure   mountain-PL-ACC   cross-C.PRF   depart-P.PRF   COP
        'We travelled crossing azure mountains.'

In combination with the participle markers, *youm* is often cliticized, yielding *=iim ~ -iin* [113] (Chakhar dialectal example from Sechenbaatar 2003: 189). In such usage, the perfective participle marker *-sen- : -sn-* can be reduced to *-s-*, resulting in the suffixal complex *-s=iim ~ -s=iin* [114] (ibid. 154). Moreover, the cliticized copula, like *youm* itself, can also be followed by other clitical particles, as well as by possessive suffixes [115].

[113] *jil*   *jil*   *xed-e.n*   *xony*   *jar-dg=iin*
        year   REDUPL   how.many-ATTR   sheep   slaughter-P.HAB=COP
        'Every year we slaughter several sheep.'

[114] *jouxem-d-aan*   *eucegder*   *ir-ex*   *bai-s=iim*
        actuality-DAT-RX   yesterday   come-P.FUT   be-P.PRF=COP
        'He was actually supposed to come yesterday.'

[115] *daraa*   *jil*   *iluu*   *goy*   *bai-x=iim-cen'*
        next   year   more   beautiful   be-P.FUT=COP-PXSG2P
        'Next year will be even better.'

More rarely, the copula *youm* can also appear after an adjectival predicate [116] (example modified from Kullmann & Tserenpil 1996: 337). This usage may be seen as a means to emphasize the truthfulness of the statement.

[116] *min-ii*   *eej*   *un-eer*   *tiim*   *eunder*   *youm*
       SG1-GEN   mother   true-INSTR   like.that   high   COP
       'My mother *is* really so tall.'

Since the copulas *meun* and *youm* do not convey modal or temporal-aspectual information, the adding of such information to the clause requires the use of another copula, which is often *bilai ~ bilee* (past tense) or *bidz ~ biidz* (probability). It is, however, also common to accumulate copulas to sequences in which the basic copulas *meun* and *youm* are followed by the more explicit copulas conveying the required modal or temporal-aspectual meaning [117]. In such sequences, the latter copula could also be analysed as a final particle (§7.14), which, moreover, can be followed by other particles, such as the affirmative =*dAA* [118].

[117] *xuux-d-uu.d*   *ter*   *euder*   *byaloo*   *id-sen*   *youm*   *bi-lai*
       child-PL-PL   that   day   pie   eat-P.PRF   COP   COP-CONF
       'The children had eaten pies that day.'

[118] *neg*   *teurl-ii.n*   *nabc-e.t*   *oureghmel*   *meun*   *bi=dz=dee*
       one   type-GEN   leaf-POSS   plant   COP   COP=POT=AFF
       'It is obviously a kind of leafy plant.'

As an alternative to *meun,* the copula *youm* can also be used after substantival nominals (nouns). The difference between *meun* and *youm* in this position is difficult to systematize, but it might be argued that *youm* places the focus on the fact, while *meun* is more concerned with the equation [119]. In any case, *youm* is more widely used in contextually neutral statements, as in normal factual prose [120].

[119] *en'*   *unen*   *ug*   *youm*   :   *en'*   *unen*   *ug*   *meun*
       this   true   word   COP   this   true   word   COP
       'This *is* the truth.'   '*This* is the truth.'

[120] *monggel*   *ouls*   *bol*   *mal*   *aj+*   *axwai-n*   *oren*   *youm*
       Mongol   state   TOP   cattle   economy-GEN   country   COP
       'Mongolia is a country of cattle breeding.'

A specific feature of adjectival predicates is that they are particularly often used without a copula, a feature shared by participles. Adjectives and participles also share the property of not taking the copula *meun*. This points to a syntactic affinity between adjectives and verbals, though it might also suggest that all adjectival predicates are actually elliptic constructions with an adjectival modifier (attribute) and an omitted nominal headword

[121]. On the other hand, when necessary, adjectives can be combined with the full verbal copulas *bai-* and *bol-* [122].

[121]   *ter*   *yix*   *sain*   *nom*   :   *ter*   *nom*   *yix*   *sain*   (*nom*)
           that   big   good   book   that   book   big   good   book
           'That is a very good book.'   'That book is (a) very good (book).'

[122]   *ter*   *sain*   *bai-jai*   :   *ter*   *sain*   *bol-jai*
           that   good   be-RES   that   good   become-RES
           'That was fine.'   'That became fine.'

Adjectives and adjectival pronouns are often used as one-word clauses to express the state of affairs, as in *sain* 'good' > 'it is good, fine', *tiim* 'such, so' > 'it is so' > 'yes'. In this respect, the possessive and privative forms of nouns behave like adjectives, as in *salyx* 'wind' : POSS *salyx-tai* 'windy' > 'it is windy, there is a wind'. Such usage is, however, also close to existential clauses and possessive constructions and has to be reconsidered in connection with the latter.

7.5   The existential clause

In the existential clause, the predicate position is occupied by an existential verb complemented by an adverbal modifier (local adverbial). Unlike the copulas, the existential verbs can normally not be omitted, though the adverbal modifier can be absent when understood from the context. There are two principal types of existential verbs used in Mongolian:

1.   The full verb *bai-* 'to be' = 'to exist, to stay, to live'. Although also used as a copula as well as in auxiliary functions, this is the normal choice for the predicate of an existential clause. Since it is a full verb, *bai-* allows all modal and/or temporal-aspectual circumstances to be expressed morphologically. In some cases, *bai-* can be replaced by other full verbs with a more specific existential meaning, notably *soo-* 'to sit' > 'to dwell, to live, to be' (+human).
2.   The defective verb *bii ~ bwii ~ bwai ~ bai* 'is' = 'there is'. Although this verb is also used as a copula, its existential function seems to be more common in the modern language. By contrast, the forms CONF *bi-lai ~ bi-lee* 'was', POT *bi=dz ~ bii=dz* '(is) probably' and INTERR *bou=y.oo* 'is it?' are normally not used alone in the existential function, though they may follow the inflected forms of *bai-*.

In the most basic type of existential clause containing no specific modal and/or temporal-aspectual reference, the position of the predicate is filled by DUR *bai-n'* 'there is', which, however, can often be replaced by PART HAB *bai-deg* (habitual existence) or PART

IMPERF *bai-g.aa* (general existence) with little difference in the meaning. The existential *bii* (with variants) can also be used in the same function and can apparently freely alternate with DUR *bai-n'* in factual prose. For reasons connected with the pragmatic structure of the clause (topicalization), the adverbal modifier (local adverbial), when present, often occupies the initial position, while the subject is placed between it and the predicate (AdvSV) [123–124].

[123]   *man-ai*   *eureo/n-d*   *xoyer*   *sandel*   *bai-n'*
      PL1P.EXCL-GEN   room-DAT   two   chair   be-DUR
      'There are two chairs in our room.'

[124]   *baroon*   *our-d*   *tal-d*   *neg-e.n*   *xun*   *couloon*   *doursgel*   *bii*
      right   front-ATTR   side-DAT   one-ATTR   man   stone   monument   EXIST
      'On the southwest side there is an ancient stone statue.'

When more complicated modal and/or temporal-aspectual circumstances have to be expressed, the appropriate forms of the full verb *bai-* are used [125]. These can be followed by the forms CONF *bi-lai ~ bi-lee*, POT *bi=dz*, which in such usage may also be analysed as final particles [126]. More rarely, the "full" form *bwii ~ bwai* (Cyrillic Khalkha **bui**) of the defective copula-existential can follow a finitely used participial form (but apparently not an actual finite form) of *bai-* [127], in which case it is probably best seen as a copula, functionally equal to *youm*.

[125]   *nay*   *garwai*   *agaar-ii.n*   *beumbleg*   *ten-d*   *bai-jai*
      eighty   over   air-GEN   ball   there-LOC   be-RES
      'There were over eighty hot-air balloons there.'

[126]   *cii*   *euneoder*   *ger-t-ee*   *bai-n'*   *bidz=dee*
      SG2P   today   home-DAT-RC   be-DUR   PCLE=AFF
      'You will probably be at home today.'

[127]   *xourtz*   *ouxaan=c*   *ten-d*   *bai-sen*   *bwai=dz*
      sharp   intellect=ADD   there-LOC   be-P.PRF   COP=POT
      'Sharp intellect must also have played a role there.'

The subject of an existential clause is normally a substantival nominal (a noun or a substantival pronoun). The position between the adverbal modifier and the copula-existential can, however, also be occupied by an adjectival nominal without a nominal headword [128]. Superficially it might seem that the adjective in such clauses functions as the subject. In reality, we are dealing with a nominal predicate followed by a copula-existential in the copular function.

[128]   *man-ai*   *ger-t*   *dzoun*   *seruu-xen*   *bai-deg*
      PL1P.EXCL-GEN   house-DAT   [summer   [cool-DIM   be-P.HAB]]
      'In our house it is cool in summer.'

The difference between existential clauses with a substantival subject and nominal clauses with an adjectival predicate is clearly evident from the fact that the verb can be omitted in its copular function when following an adjective, but not in its existential function when following a substantival nominal [129].

[129] *en-d*   *nom*   *bai-n'*   :   *en-d*   *sain*   (*bai-n'*)
      here-LOC   book   be-DUR   here-LOC   good   be-DUR
      'There is a book here.'   'It is good here.'

It cannot be ruled out, however, that confusions arise between the various types of clauses in the synchronic consciousness of the naïve speaker. The reason for such confusions would simply be that Mongolian, like many other languages, uses the same elements (verbals and particles) in both the copular and the existential function. In this respect, the (pro)nominal copulas *meun* and *youm* are the least ambiguous, since they can never occur in the existential function.

7.6   Possessive constructions

Possession is expressed in Mongolian at several different levels and by many types of grammatical means. At the level of morphology and phrasal syntax, relevant features include the genitive case (possessor), the possessive suffixes (possessor person) and the possessive case (possessum), as well as, indirectly, the privative case (absence of possessum). At the clausal level, possession is expressed by constructions whose basic function is to link the possessor with the possessum. Since Mongolian does not have a possessive verb ('to have'), there are basically two options for expressing this link: the nominal clause and the existential clause.

When operating with a nominal clause, the possessor functions as the subject in the nominative case, while the predicate position is filled by the possessum, which is expressed by a nominal in the possessive case ('somebody is equipped with something'). Since this is a nominal clause, it can, but need not, be completed by a copula, which is chosen from the normal selection of copulas (*youm*, *bai-*, *bii* with variants). Since, however, the nominal in the possessive case resembles an adjective, it is conspicuously often used without a copula (adjectival nominal predicate). When modal or temporal-aspectual circumstances have to be specified, an inflectable copula is used with or without final particles [130].

[130] *bi*   *nom-tai*   (*bai-n'*)   :   *bi*   *nom-tai*   *bai-sen*
      SG1P   book-POSS   be-DUR   SG1P   book-POSS   be-P.PRF
      'I have a book / some books.'   'I had a book / some books.'

When operating with an existential clause, the possessum becomes the subject in the nominative case, while the possessor functions as the adverbal modifier (local adverbial) in the dative case ('there is something in somebody's possession'). Since this is an existential clause, the predicate is to be understood as an existential verb, chosen from the normal selection of existentials (*bai-*, *bii* with variants), and it can never be omitted even in cases when no marked modal or temporal-aspectual circumstance needs to be expressed [131].

[131] *nad-e.d*   *nom*   *bai-n'*   :   *nad-e.d*   *nom*   *bai-sen*
      SG1P-DAT   book   be-DUR   SG1P-DAT   book   be-P.PRF
      'I have a book / some books.'   'I had a book / some books.'

Both the nominal clause and the existential clause are commonly used as possessive constructions, and the choice between them is basically free, though it may depend on stylistic, rhythmic, pragmatic and dialectal factors. Most interestingly, however, the two constructions can be pleonastically combined into a mixed construction which contains both the possessor in the dative case and the possessum in the possessive case [132]. In a modally and temporally-aspectually neutral context, this construction can, in principle, also occur without a copula, but the absence of the copula is probably less common than in the simple nominal clause.

[132] *nad-e.d*   *nom-tai*   (*bai-n'*)   :   *nad-e.d*   *nom-tai*   *bai-sen*
      SG1P-DAT   book-POSS   be-DUR   SG1P-DAT   book-POSS   be-P.PRF
      'I have a book / some books.'   'I had a book / some books.'

The mixed possessive construction is syntactically intriguing since it does not contain an unmarked nominal that could be analysed as the subject of the clause. Due to this seeming lack of logic, this construction is considered agrammatical by normative grammarians, but it is widely used in the spoken language, especially on the Inner Mongolian side, though the dialectal picture of the phenomenon remains to be clarified. Clearly, this is a diachronically recent innovation, which may or may not still be spreading. To understand the internal structure of the clause, we should probably focus on the adjectival nature of the possessive case form. In fact, it is possible to combine a local adverbial with an adjectival predicate into a subjectless clause [133]. The place of the adjectival predicate can also be filled by the possessive form of a nominal [134]. In as far as adjectives in Mongolian are to be understood as nominal words, such clauses are nominal ('it is...'), rather than existential ('there is...'), in type, but the borderline is conspicuously fuzzy.

[133] *en-d*   *sain*   (*bai-n'*)   :   *en-d*   *sain*   *bai-sen*
      here-LOC   good   be-DUR   here-LOC   good   be-P.PRF
      'It is good here.'   'It was good here.'

[134] *gad-aa*   *yix*   *salyx-tai*   *bai-sen*
outside-LOC big   wind-POSS   be-P.PRF
'It was very windy / there was a strong wind outside.'

It may be concluded that the mixed possessive construction represents exactly the kind of confusion that may be expected to arise between two synthetically similar though analytically different sequences, which, moreover, share the same selection of possible physical predicates (copula-existentials).

7.7 Topicalization and topic marking

Several major languages spoken in the neighbourhood of Mongolian, both "Altaic" (Korean, Japanese) and "non-Altaic" (Chinese), are today often classified as "topic prominent", by which is understood that their clausal structure is based not only on the opposition between the subject and predicate, but also on that between topic (theme) and comment (rheme). Mongolian follows this same areal pattern, though it should be recognized that "topic prominence" and "subject prominence" are not mutually exclusive typologies, but, rather, features that can both be present in any language, though in different proportions. It is also a question of to what extent a given language uses grammatical marking (such as morphology) to express the two potentially contradicting features (subject vs. topic).

In the Mongolian basic finite clause, the subject also functions as the topic, while the predicate may be understood as the comment. This is the most common and unmarked situation. If it is necessary to signal that some other constituent, such as the object, is the topic of the clause, the simple solution is to "topicalize" this other constituent by raising it to the initial position. This results in a marked word order (OSV), which deviates from the basic one [135]. At the same time, the subject can come to stand immediately before the predicate and may be understood as being in a focus position. This effect is often strengthened by prosodic means, that is, by placing extra prominence on the word standing in the focus.

[135] *bii*   *cam-tai*   *ooldz-sen*   :   *cam-tai*   *bii*   *ooldz-sen*
SG1P   SG2P-POSS   meet-P.PRF   SG2P-POSS   SG1P   meet-P.PRF
'I met you.'   'I (am the one who) met you.'

The situation may be generalized by concluding that, in the Mongolian clause, the initial position corresponds to the pragmatic function of the topic (presupposed information), while the final position corresponds to the comment (new information). The comment itself may be the focus (centre of new information) of the clause, but if that is not the case, the role of the focus is filled by the constituent immediately preceding the

predicate. All of this can result in deviations from the normal word order. It is particu-larly common to raise various types of adverbials (local, temporal or modal) to the initial topic position [136].

[136] *en'*   *jil*   *bid*   *xyated*   *teums*   *id-ex=gwai*
     this   year   PL1P   Chinese   potato   eat-P.FUT=PRIV
     'This year we shall not be eating Chinese potatoes.'

Although syntactic means are often enough to signal the topic of the clause, it is possible to mark the topic by elements of topic marking. The basic topic marker is *bol* < *bolbel*, a synchronically invariable particle which is diachronically identical with the converbial form CONV COND *bol-bel* (< *bol-bol < **bol-ba=la*) 'if it is' > 'as it comes to, as for' of the copular verb *bol-* 'to be, to become'. Since the topic is most often also the subject, *bol* is typically placed after the subject and has (mistakenly) also been identified as a "subject marker". It can, indeed, follow all kinds of nominal subjects, including nouns [137] and substantival pronouns [138].

[137] *oulaan baater bol   monggel ouls-ii.n   niislel   youm*
     red   hero   TOP   Mongol   state-GEN   capital   COP
     'Ulan Bator is the capital of Mongolia.'

[138] *bii   bol   bireend   bol-sen   bidzensmen   busgwai*
     SG1P   TOP   brand   become-P.PRF   businessman   woman
     'I am a business woman who has become a brand.'

The topic marker can also follow any other types of topicalized constituents which, then, normally occupy the clause-initial position. These include, for instance, inflected nomi-nals, spatials and invariables functioning as adverbal modifiers [139–140]. The use of the topic marker is, however, never obligatory, and in casual speech it is often replaced by a corresponding pause, which allows the topic to be sufficiently well delimited from the rest of the clause.

[139] *oulaan   baater-t   bol   olen   telbiis   bai-g.aa*
     red   hero-DAT   TOP   many   television   be-P.IMPRF
     'There are many television sets in Ulan Bator.'

[140] *odao   bol   jaryem   gar   ajl-oo.d-ii.g   xii-x   xereg-tai*
     now   TOP   some   hand   work-PL-ACC   do-P.FUT   necessity-POSS
     'Now it is necessary to do some manual operations.'

One function of the topic marker is, consequently, to separate the topicalized word from the immediately following part of the clause. This function becomes important when the sequence would otherwise be ambiguous, which happens, in particular, when

the sequence begins with a demonstrative pronoun followed by a substantival nominal (noun). Such sequences have inherently two syntactic analyses: either they represent a nominal phrase with a headnoun and a preceding pronominal modifier, or they constitute a nominal clause in which the pronoun functions as the subject and the following nominal as a nominal predicate. The topic marker removes this ambiguity and shows that we are dealing with a nominal clause [141] (example from Poppe 1951:99). Incidentally, the interpretation of the sequence as a nominal clause is enhanced by the copula, if present. Thus, ideally, in a sequence of this type, the topic marker and the copula play together to create a fully-formed nominal clause, which is clearly distinct from the corresponding nominal phrase.

[141] *en' nom* :   *en' bol nom* (*meun*)
     this book   this TOP book COP
     'this book' / 'This is a book.'   'This is a book.'

Apart fom the actual topic marker *bol*, there are several other elements that can follow a word functioning as the topic of a clause. None of these other elements is solely a topic marker, but an item very close to this function is the second person singular possessive suffix *-cen'*. Like all possessive suffixes, it is normally attached to nominals, including spatials, and has originally a deictic function ('your' > 'in your sphere'). However, in the modern language *-cen'* can lose much of its deictic content and function more or less like a topic marker [142]. Like *bol*, it can also serve to separate a pronominal subject from a nominal predicate [143].

[142] *odao-cen'*   *xory-e.n'*   *neg dougaar dzoo/n*   *shuu=dee*
     now-PXSG2P   twenty-ATTR   one number hundred   PCLE=AFF
     'Now it is the twenty-first century, isn't it?'

[143] *en' nom* :   *en-cen'*   *nom* (*meun*)
     this book   this-PXSG2P book COP
     'this book' / 'This is a book.'   'This is a book.'

By contrast, several other elements that can be attached to nominals, like the enclitic particles ADD =*c* and LIM =*l*, do not seem to function as topic markers. Unlike *bol* and *-cen'*, they can follow a pronominal modifier without splitting the nominal phrase, as in *nom* 'book' : *en=e.l nom* 'only this book'. It is, however, possible that the particle AFF =*dAA*, also combined with ADD =*c* in the sequence ADD AFF =*c=dAA*, is developing topicalizing functions at least in some dialects, as in *en'=dee* 'this very one' → 'as for this' (Sechenbaatar 2003:192). Moreover, the third person possessive suffix *-e.n'* sometimes seems to have the subsidiary function of a topic marker, a function that was more obvious in older forms of the language (Classical Written Mongol PX 3P SG **vinu** : PL **vanu**).

7.8   Finite tense and aspect

Tense and aspect are two mutually interconnected categories that are, strictly speaking, specific to the verbal phrase. They will nevertheless be discussed here in connection with clausal syntax since they provide the temporal-aspectual setting not only for the verbal predicate, but for the whole clause. At this stage we may restrict the discussion to finite indicative predicates. The finitely used forms and constructions with a temporal-aspectual reference may be classified in terms of four formal and functional parameters: (1) temporal range, (2) aspectual content, (3) morphological adherence and (4) structural composition.

1. Temporal range: As mentioned in connection with verbal morphology (§5), both the finite and the non-finite forms of the verb can represent two temporal ranges: present vs. past (preterite). Both ranges should be understood broadly; for instance, the present tense range comprises also forms that can have a future reference, while the past tense range comprises forms that can refer to the present tense. In practice, many forms are ambiguous, or also vague, in their temporal reference. The basic problem in Mongolian is that there are several forms representing each of the two ranges, especially the past tense range, and it is difficult to systematize the functional differences between the forms representing the same range. This problem has been the subject of considerable literature (cf. e.g. Binnick 1979b, 1990, 1991; Svantesson 1991), but the issue remains unresolved.

2. Aspectual content: There is no question that some of the forms classified as belonging to the two temporal ranges also convey aspectual notions, and some of the distinctions between forms belonging to the same temporal range may be understood as primarily aspectual. Even so, it cannot be automatically concluded that aspect is a separate category in Mongolian; rather, it would seem to be an accompanying feature of many different types of phenomena, both inflectional and syntactic, but also lexical and derivational. It is also often difficult to determine what, exactly, the aspectual content of a form is. The safest approach to aspectuality is simply to acknowledge its relevance and classify predicates into aspectual (marked) and non-aspectual (neutral or unmarked) ones (Saruul-Erdene 2007).

3. Morphological adherence: Morphologically, finitely used verbal predicates can be unambiguously divided into the two categories corresponding to actual finite forms (§§5.4–5.5) and finitely used participles (§5.6). Participles can, however, occur either with or without a copula. While the occurrences without a copula may immediately be recognized as true verbal predicates, those with a copula could also be viewed as examples of nominal predicates (§7.4). This also depends on how the syntactic status of the copula used with participles (*youm*) is analysed: on the one hand, it could be

understood as the nominal headword of the participle, in which case the participle would function as a modifier and not as a finite predicate, while, on the other hand, it could also be classified as a final particle (expressing focus or emphasis), in which case it would not interfere with the finite status of the participle. If the latter analysis were to be accepted, the sequences composed of participial markers and the cliticized copula *youm* > =*iim* (~ =*iin*), could even be viewed as an additional series of complex finite forms: PART HAB COP -*dg=iim*, PART FUT COP -*x=iim*, PART PRF COP -*s=iim*. This possibility will, however, not be followed further here.

4. Structural composition: Structurally, the finitely used predicates may be classified into simple and complex (compound) ones. While both the actual finite forms and the participles (without an enclitic copula) are simple, the periphrastic constructions and forms (§5.12) are complex. It is, however, a matter of interpretation whether periphrastic constructions are at all to be considered at the same level as the actual tense-aspect markers, for periphrasis is typically based on the use of auxiliaries, which themselves have a complete temporal-aspectual paradigm. The only truly periphrastic temporal-aspectual forms are the zero copula structures in PRF =*sen*. On the other hand, the progressive and momentaneous constructions in CONV IMPRF -*j+bai-* > =*jai-* and CONV MOM -*s+xii-* ~ -*s+ge-* > -*s=xii-* ~ -*s=g-* are synchronically derivational features which certainly involve the category of aspect, but which should not be confused with the finite tense-aspect forms in the strict sense.

It may be concluded that each of the four parameters that can be used to classify finite indicative predicates involves a binary opposition: present vs. past, aspectual vs. non-aspectual, finite vs. participial and simple vs. complex. Although these oppositions are independent from each other, it is convenient to adopt the parameter of temporal range as the primary taxonomic criterion, under which further differentiations are made on the basis of aspectual status and formal properties. The following survey of the relationships between form and function in the Mongolian system of temporal-aspectual distinctions, with the focus on the basic finite clause, is based on these general presuppositions.

Starting with the present tense range, this is in modern Mongolian represented by two simple forms: the durative of the finite paradigm and the habitive of the participial set. These are in a clear opposition, in that the durative functions as an aspectually neutral present-future tense, while the habitive has as an aspectually marked (habitive) general indefinite present tense reference ('habitually', 'usually', 'regularly', 'always') [144]. In reality, the difference is even greater, for the simple durative has in most uses a future reference [145], while the actual present ('now', 'at this moment') has to be expressed by the complex durative of the progressive construction [146]. From the formal point of view this means that the present tense reference is more marked than the future tense reference.

[144] *bii   jil   bur   monggel-d   yab-deg*
      SG1P year   every Mongol-DAT   depart-P.HAB
      'I go to Mongolia every year.'

[145] *bii   daraa jil   monggel-d   yab-e.n'*
      SG1P next   year   Mongol-DAT   depart-DUR
      'Next year I will go to Mongolia.'

[146] *bii   odao   monggel-d   yab-e.j   bai-n'*
      SG1P now   Mongol-DAT   depart-C.IMPRF   be-DUR
      'I am now (travelling) in Mongolia.'

Even so, the distinction between present and future is not sharp, and it often depends on the inherent aspectual content of the verb whether the durative form is understood as referring to the future or to the present. For several verbs with an inherent imperfective (static) content, notably *bai-* 'to be' and *med-* 'to know' (but also others), the durative expresses the present tense and is functionally more or less equivalent to the habitive participle [147-148]. Interestingly, these verbs are also attested in the progressive present tense form, but this may be seen as a more heavily marked special stylistic device [149].

[147] *bii   monggel xel   jaaxen   med-e.n'*
      SG1P Mongol language little   know-DUR
      'I know some Mongolian.'

[148] *taa   xyated   xel-ii.g   sain   med-deg*
      PL2P Chinese language-ACC   good   know-P.HAB
      'You know Chinese well.'

[149] *mart-e.j   cad-ex=gwai-g.ee   med-e.j   bai-n'*
      forget-C.IMPRF be.able-P.FUT=PRIV-RX   know-C.IMPRF be-DUR
      'I know I cannot forget.'

There are two other forms that from the point of view of the morphological system belong to the present tense range: the confirmative of the finite paradigm and the futuritive participle. Of these, the confirmative is in most descriptions of the modern language classified as a past tense form ("recent past"). However, it normally expresses a completed action whose relevance continues up to the time of speaking [151]. It can also denote actions that are to be completed soon [152] (examples from Kullmann & Tserenpil 1996: 187). Such uses would suggest that it is an aspectually marked form (completed action = perfective aspect) whose temporal reference can vary but is focussed on the time of speaking. It can also refer to a more distant past, but this normally requires that the time reference is indicated by an adverbial [152] (example adapted from Sechenbaatar 2003: 139).

[150] *bii*   *olen*   *shin'*   *ug*   *togtao-lao*
      SG1P   many   new   word   memorize-CONF
      'I have memorized many new words.'

[151] *bii*   *margaash*   *yab-laa*   *shuu=dee*
      SG1P   tomorrow   depart-CONF   PCLE=AFF
      'I am leaving tomorrow.'

[152] *ter*   *uy-e.d*   *xed-e.n*   *jil*   *emc-ii.n*   *ajel*   *xii-lee*
      that   time-DAT   how.many-ATTR   year   doctor-GEN   work   do-CONF
      'At that time I worked a few years as a doctor.'

The futuritive participle is in certain Common Mongolic idioms (as in Buryat and Khamnigan) freely used as a finite predicate expressing the future tense, which allows the durative to be used more widely for the actual present tense reference. In regular Mongolian (proper), however, the futuritive participle is systematically attested in a finite predicative function only when combined with the privative marker =*gwai* (negation of present or future action). It is also used with the interrogative marker =*UU* [153] and the copula *youm* > =*iim* (~ =*iin*) [154], but in both of these uses the temporal function (future tense) is accompanied by a modal connotation of willingness ('willing') or expectation ('supposed to'). This may be compared with the adnominal occurrences of the futuritive participle, which are always both temporally and modally (as well as aspectually) neutral.

[153] *cii*   *yab-n=oo*   :   *cii*   *yab-x=oo*
      SG2P   depart-DUR=INTERR   SG2P   depart-P.FUT=INTERR
      'Will you go?'   'Are you willing to go?'

[154] *bii*   *yab-n=aa*   :   *bii*   *yab-x=iim*
      SG1P   depart-DUR=EMPH   SG1P   depart-P.FUT=COP
      'I shall go.'   'I am supposed to go.'

The past tense range is represented by the terminative and resultative forms of the finite paradigm and the perfective and imperfective forms of the participial set. As far as the imperfective participle is concerned, it is, again, used elsewhere in Common Mongolic (as in Buryat and Khamnigan) as a general past tense marker. In Mongolian (proper) it has, however, only restricted uses of this type. Most importantly, it is used in combination with the negation marker =*gwai* (negation of past action), more rarely with the interrogative marker =*UU*. Otherwise, very few verbs are commonly attested as finite predicates in this form, examples being *yab-* 'to depart, to go' : PART IMPRF *yab-aa* 'is gone', *soo-* 'to sit, to dwell, to live' : PART IMPRF *soo-g.aa* 'is living' and, most importantly, *bai-* 'to be' : PART IMPRF *bai-g.aa* 'there is' [155], which has a generic present tense reference and is functionally very close to both DUR *bai-n'* and PART HAB *bai-deg*. Only when used in the

progressive construction does *bai-g.aa* refer to a past action with continuing relevance [156], a function close to that of the confirmative form of the present tense range.

[155] *man-ai*   *boodel-d*   *xaloon*   *ous*   *bai-g.aa*
PL1P.EXCL-GEN hotel-DAT hot   water   be-P.IMPRF
'Hot water is available at our hotel.'

[156] *delxii-n*   *olen*   *orn-aos*   *dzoc-e.d*   *ir-j*   *bai-g.aa*
world-GEN   many   country-ABL   guest-PL   come-C.IMPRF be-P.IMPRF
'Guests have been arriving from many different countries of the world.'

Of the remaining forms of the past tense range, the terminative is the least common, especially in the colloquial language. In daily speech, it is conspicuously seldom used in other than questions (either polar or non-polar), while otherwise it is experienced as archaic or bookish. It is, however, not uncommon in factual prose (both Written Mongol and Cyrillic Khalkha) as one of the options for referring to an action completed in the past ("definite past") [157]. It is also used in constructions involving the auxiliaries *bai-* and *bol-* [158]. Although it is normally considered to be aspectually unmarked, this is a matter of interpretation and terminology, since it could well be argued that its reference to completed action should be understood as implying an aspectual content (perfective/ terminative aspect).

[157] *eusber*   *uy-ii.ng-x-n-ii*   *bolbserl-ii.n*   *sang*   *bai-g.ool-e.gd-eb*
growing   age-GEN-NOM-PL-GEN   education-GEN   fund   be-CAUS-PASS-TERM
'An education fund for young people was established.'

[158] *ter*   *jil*   *dalai*   *lam*   *monggel-d*   *ir-ex*   *bol-b=ao*
that   year   sea   lama   Mongol-DAT   come-P.FUT   become-TERM=EMPH
'That year the Dalai Lama was expected to come to Mongolia.'

This means that, ultimately, there are only two forms competing for the status of the principal simple past tense marker ("general past"): the perfective participle and the resultative. The distinction between these two is not only functional but also dialectal, in that the resultative dominates in many Inner Mongolian dialects, as in Khorchin, while in Khalkha the perfective participle has a similar status, though both forms are widely used in all dialects. For many speakers, many types of simple sentences with these two markers are synonymous [159].

[159] *ter*   *negent*   *yab-sen*   :   *ter*   *negent*   *yab-jai*
that   already   depart-P.PRF   that   already   depart-RES
'He has already left.'   'He has already left.'

A situation with two more or less synonymous forms is typically solved either by letting the two forms compete until one of them wins, which may lead to different results in

different dialects, as seems to be happening here between Khalkha vs. Khorchin, or also, by letting the two forms evolve in functionally different directions, which may also be the case with the Mongolian past tense markers. Thus, there are indications that the resultative has properties which may be understood as incipient evidentiality (discussed separately below, §7.9), leaving the perfective participle alone as the most basic past tense form. On the other hand, it might be possible to view the perfective participle as aspectually marked (perfective aspect), while the resultative would be aspectually unmarked, though this is difficult to verify. Also, the perfective participle allows many types of complex constructions with minute pragmatic and discursive differences to be built with the help of auxiliaries and particles [160] (example from Kullmann & Tserenpil 1996: 349).

[160] *ter*   *en-d*   *ir-s(n)=e-l*   *bai-n'*
       that   here-LOC   come-P.PRF=LIM   be-DUR
       'He came here (and there is nothing more to say).'

There are several other types of fixed auxiliary constructions involving both participles and converbs which contribute to the complexity of the temporal-aspectual expressions. For instance, the combinations of the auxiliary *bai-* with the imperfective and perfective converbs yield in some cases different meanings [161] (example from Saruul-Erdene 2007: 152). All participial predicates can also be complemented by the zero copula perfective marker PRF =*sen*, which creates another series of predicative forms, though often with little new semantics [162].

[161] *ter*   *ount-e.j*   *bai-n'*   :   *ter*   *ount-aad*   *bai-n'*
       that   sleep-C.IMPRF   be-DUR   that   sleep-C. PRF   be-DUR
       'He is sleeping.'   'He has fallen asleep.'

[162] *xaol*   *tzai*   *xii-j*   *oo-j*   *id-eed*   *ount-sen=sen*
       food   tea   do-C.IMPRF   drink-C.IMPRF   eat-C.PRF   sleep-P.PRF=PRF
       'We made food and tea, drank and ate, and went to sleep.'

It should be stressed once more that auxiliaries, particles and clitics yield syntactic constructions, but not inflectional forms. When discussing the basic finite tense-aspect system we can only consider the simple verbal forms occuring in the position of finite predicate. The various other types of constructions complement this system at additional levels, which are, in general, less profoundly grammaticalized and, therefore, even more difficult to systematize. These constructions are relevant when we look for the translation correspondences of the temporal-aspectual forms between Mongolian and other languages, but they do not constitute clearly delimited parts of the Mongolian temporal-aspectual system itself. (For an attempt to systematize the translation equivalents of selected verbal structures in English and Mongolian, cf. Kullmann & Tserenpil 1996: 422.)

7.9   Evidentiality

Like aspect, evidentiality is an elusive category, which in many languages is not grammaticalized to the extent that it would be present as a distinct morphological class of forms or a syntactic system of patterns. Moreover, both basic evidentiality and other more subtle features connected with it, such as mirativity, are fashionable topics in general linguistics, which is why they are being "discovered" even in languages that do not have them. It is therefore relatively safe to say that evidentiality is not a fully developed grammatical category in Mongolian, though it is manifested as a subsidiary phenomenon of other features whose basic function is connected with something else, such as tense or aspect. It is also possible that evidentiality is a feature still emerging, at least in some forms of Mongolian.

The basic evidence for the relevance of the category of evidentiality in modern Mongolian comes from the fact that the resultative form of the finite paradigm is often, though not always, used in a sense which suggests that the event was not directly witnessed by the speaker, but is, rather, indirectly deduced ("indirect past"). The resultative may be contrasted with the confirmative, which implies that the event was directly witnessed ("direct past") [163]. In such usage, the confirmative conveys a confirmed fact based on the speaker's personal observation (sensorial knowledge), while the resultative expresses a mere assumption inferred from the available circumstantial evidence (inferential knowledge).

[163] *eucegder   borao   or-lao*   :   *eucegder   borao   or-jai*
       yesterday   rain   enter-CONF   yesterday   rain   enter-RES
       '(I saw that) it rained yesterday.'   '(I can see that) it rained yesterday.'

The opposition between the resultative and the confirmative is also observed in the different behaviour of these forms in combination with different subject persons (first, second, third). The resultative (the "indirect" form) is normally combined with third and second person subjects [164], but rarely with a first person subject. By contrast, the confirmative (the "direct" form) can be freely combined with all subject persons, though, for pragmatic reasons, its combination with the second person is most often attested in questions (both polar and non-polar) [165].

[164] *ter   yix   ounsh-jai*   :   *cii   yix   ounsh-jai*
       that   big   read-RES   SG2P   big   read-RES
       'He seems to have read a lot.'   'You seem to have read a lot.'

[165] *cii   xedzee   ir-lee*   :   *bii   say   ir-lee*
       SG2P   when   come-CONF   SG2P   recently   come-CONF
       'When did you come?'   'I have just come.'

It may be recalled that the confirmative and the resultative have also different temporal references, in that the confirmative has properties which relate it to the present tense range ("recent past"), while the resultative is an unambiguous past tense form. Even so, the evidential contrast of these two forms seems to be independent of their temporal difference. It is, consequently, possible to view the resultative and the confirmative as two different evidential forms (expressing sensorial vs. inferential evidentiality). The fact that the contrast is connected with a past tense reference corresponds well to the cross-linguistic situation that the category of evidentiality is often most elaborate in the past tense, or also, that an evidential system is often built starting with past-tense forms.

It is more difficult to evaluate the status of the other finite forms with regard to evidentiality. Both the durative and the terminative can be freely used with all subject persons, though, again, for pragmatic reasons, a second person reference involves most often a question, especially in the case of the terminative, which is otherwise a rare form in the colloquial language [166]. The finitely used participles are also freely used with all subject persons, and they do not seem to involve any kind of evidential connotation. It might be concluded, then, that only the resultative and the confirmative are evidentially marked forms, while the other finite forms and the finitely used participles are evidentially unmarked (neutral). This means that Mongolian may be said to have a primary contrast between evidential and non-evidential forms, and a secondary contrast between two types of evidentials.

[166] *cii*   *udz-b=uu*   :   *bii*   *udz-eb*
       SG2P   see-TERM=INTERR   SG1P   see-TERM
       'Did you see (it)?'   'I saw (it).'

One should, however, not forget that both the resultative and the confirmative are primarily temporal-aspectual forms and only secondarily evidential forms. The resultative, in particular, is widely used as a general past tense marker, a function in which it competes only with the finitely used perfective participle. Although the reference in these cases is normally to a third person subject, it is often not a question of evidentiality, that is, of drawing conclusions from circumstantial evidence, but simply of conveying factual information [167].

[167] *doren-d-ii.n*   *dzaloo*   *bagsh-ner*   *xolbao*   *bai-g.ool-jai*
       east-ATTR-GEN   young   teacher-PL   union   be-CAUS-RES
       'The young teachers of Dornod Aimak have established a union.'

Since the resultative as a general past tense form is even more widely used in the Khorchin group of dialects than in Khalkha, it is possible that the dialectological picture of the evidential functions of the form is not uniform, an issue that remains to be studied in more detail in the future. Diachronic evidence (from other Mongolic languages) suggests that

the evolution of the resultative into a form with evidential functions is of a relatively old date, but the actual trends in the different dialects may involve a considerable degree of variation.

7.10 Passivization

Although the passive marker in Mongolian is morphologically a derivational (rather than an inflectional) feature, which, moreover, involves some phonologically and/or lexically determined variation between the allomorphs -gd- ~ -d- ~ -t-, passivization as a syntactic operation takes place in a way which rather closely corresponds to the cross-linguistically known picture of the personal passive. In this sense, Mongolian belongs to the languages that "have" a passive. An important characteristic of the Mongolian passive (proper) is, however, that it is rarely used, especially in the spoken language, one reason being that passivization can also be (and is more commonly) expressed by the causative (causative-passive).

It is a matter of opinion and grammatical model whether the passive is seen as a transformation or, simply, as another way to build the clause. In any case, a passive clause may be viewed as the marked alternative of the corresponding (unmarked) active clause. The adding of the passive marker to a transitive verbal predicate requires that the syntactic order of the agent and patient, and their grammatical functions, are reversed (Agent-Patient-Action → Patient-Agent-Action). In this process, object marking is removed from the patient (the new subject), while agent marking is added to the agent (the old subject). The agent, when present, is marked by the dative case ending [168] (example adapted from Kullmann & Tserenpil 1996: 85). It may be noted that the instrumental is normally not used for agent marking in clauses containing a predicate in an actual passive form, though it is used in this function in causative constructions (§7.11).

[168] *noxai*   *moor-ii.g*   *bary-eb*   :   *moor*   *noxai/n-d*   *bary-e.gd-eb*
     dog   cat-ACC   catch-TERM   cat   dog-DAT   catch-PASS-TERM
     'The dog caught the cat.'   'The cat was caught by the dog.'

The use of the dative for agent marking involves a potential ambiguity, since the dative also indicates the recipient of ditransitive verbs. This may be one reason why passive clauses with an overt agent are conspicuously rare. Often, the agent may be seen as denoting an external force rather than an active participant, while the action itself is beyond control and perhaps accidental [169]. The dative is also used in combination with a number of lexicalized items containing the passive marker, such as *taal-* 'to love, to fondle' : PASS *taal-e.gd-* 'to be loved' > 'to appeal'. In such cases, the dative is probably best understood as marking a regular adverbial modifier ('for/to whom?'), rather than an agent ('by whom?') [170].

[169]   *man-ai*   *xony*   *con/e.n-d*   *id-e.gd-jai*
    PL1P.EXCL-GEN   sheep   wolf-DAT   eat-PASS-RES
    'Our sheep was eaten by wolves.'

[170]   *en'*   *doo*   *taa-ner-t*   *taal-e.gd-e.n'*
    this   song   PL2P-PL-DAT   love-PASS-DUR
    'You will like this song.'

Most commonly, however, passivized clauses have no overt agent. Such clauses may nevertheless be thought to involve a covert agent, which, then, often is a generic human actant ('people', 'they', 'one') [171]. The patient, on the other hand, can be (and often is) an inanimate object.

[171]   *ardcel-sen*   *orn-oo.d-ii.n*   *dzeublel*   *bai-g.ool-e.gd-jai*
    democratize-P.PRF   country-PL-GEN   council   be-CAUS-PASS-RES
    'A council of democratic countries was established.'

As in many other languages, one of the functions of the passive is to raise the patient to initial position by making it the subject and, at the same time, the topic of the clause. In Mongolian, however, word order can also be changed in an active clause without passivizing the predicate. Moreover, differences in topicalization can be expressed by the topic particle *bol*, as well as by prosodic means [172–173], which reduces the need for using the passive. An active clause is more practical also since it can freely contain all the actants. Due to the ambiguity of the dative case form, it is often impossible to include an agent in a passivized clause, since the dative is by default understood as indicating a recipient [174].

[172]   *bii*   (*bol*)   *en'*   *dzaxyaa-g*   *bic-sen*
    SG1P   TOP   this   letter-ACC   write-P.PRF
    'I wrote this letter.'

[173]   *en'*   *dzaxyaa-g*   (*bol*)   *bii*   *bic-sen*
    this   letter-ACC   TOP   SG1P   write-P.PRF
    'This letter was written by me.'

[174]   *en'*   *dzaxyaa*   (*bol*)   *nad-e.d*   *bic-e.gd-sen*
    this   letter   TOP   SG1P-DAT   write-PASS-P.PRF
    'This letter was written to me.'

It is also common to use an active clause without an overt subject (agent) in what could be understood as an impersonal meaning. In such sentences, the object (patient) remains in the accusative form if otherwise required by the syntactic context, which means that it is formally a question of an active construction [175] (example from Kullmann & Tserenpil 1996: 186). Since Mongolian does not possess an overt "formal subject" that

could be used in such clauses, the covert subject may be understood as representing the same type of generic human actant ('people', 'they', 'one') as may be thought to be present in agentless passive clauses.

[175] *bid/n-ii*   *gwai-sn-ii.g*   *es*   *eug-cai*
     PL1P.INCL-GEN   ask-P.PRF-ACC   NEG   give-RES
     'We were not given what we had asked for.'

It is, consequently, possible to imply a generic human agent either by an active clause with the patient (object) in the accusative or by a passive clause with the patient (subject) in the nominative [176] (example from Svantesson 2003:171). While both options are available, the active construction is the preferred one.

[176] *xaalgh-iig*   *nee-sen*   :   *xaalegh*   *nee-gd-sen*
     gate-ACC   open-P.PRF   gate   open-PASS-P.PRF
     'The gate was opened.'   'The gate was opened.'

It may be added that the passive marker is conspicuously often absent in relativized clauses involving nominalized verbs (participles) as predicates. This is also evident from lexicalized nominal phrases with a nominalized verb as the modifier of a nominal head-word, as in PART FUT *sour-ex* 'to learn' : (passive use:) + *biceg* 'writing' = *sour-ex biceg* 'textbook' (= 'a book by which one learns'), (active use:) + *xun* 'person' = *sour-ex xun* 'learner' (= 'a person who learns').

7.11   Causative constructions

Apart from the passive, the causative is the other voice form in Mongolian which has direct consequences for the patterns of clausal syntax. Like the passive, the causative is expressed by derivational means, and it often involves a considerable degree of lexicalization, especially when marked by the less productive allomorphs *-g- ~ -lg- ~ -AA-*. As a grammatical device, the causative forms the basis for syntactic phenomena that may be called "causative constructions". Compared with the passive, the causative is more common, and it is also well attested in the spoken language. Importantly, although the causative and the passive involve, in principle, two different syntactic operations, they overlap in Mongolian, in that the causative can also be used in a passive (causative-passive) function.

    Unlike the passive marker, which (with few exceptions) can be added only to transitive stems, the causative marker can be added to both transitive and intransitive stems. The adding of the causative marker to an intransitive stem results, however, only in the transitivization of the verb, as in *gar-* 'to exit, to come out' : CAUS *gar-g-* 'to let exit, to take out'. It is therefore only in combination with transitive and ditransitive stems that we can

speak of actual causative constructions. These may be conveniently classified according to the number and type of actants that are present in the clause. The maximum number of actants is attested in causative clauses based on ditransitive verbs. These clauses can have up to four actants, which may be identified as the causer, the causee, the recipient and the patient. Syntactically, the causer functions as the subject and the patient as an object, while the causee and the recipient are adverbal modifiers in two different nominal case forms: the causee in the instrumental and the recipient in the dative [177].

[177] *bii*   *naidz-aar-aa*   *bagsh-e.d*   *dzaxyaa*   *bic-uul-sen*
      SG1P   friend-INSTR-RX   teacher-DAT   letter   write-CAUS-P.PRF
      'I made my friend write a letter to the teacher.'

Starting from this most complex option, we can go down towards more simple constructions involving less than four actants. Most easily, the recipient may be omitted from the clause, which leaves three actants: the causer, the causee and the patient [178]. However, it is also possible to omit the causee, which likewise leaves three actants: the causer, the recipient and the patient [179]. In principle, it would also be possible to omit both the causee and the recipient, leaving only the causer (subject) and the patient (object), but such a clause would, again, not qualify as a fully-formed causative construction.

[178] *bii*   *naidz-aar-aa*   *dzaxyaa*   *bic-uul-sen*
      SG1P   friend-INSTR-RX   letter   write-CAUS-P.PRF
      'I had a letter written by my friend.'

[179] *bii*   *bagsh-e.d*   *dzaxyaa*   *bic-uul-sen*
      SG1P   teacher-DAT   letter   write-CAUS-P.PRF
      'I had a letter written to the teacher.'

There are, however, examples in which the dative could be understood as marking the causee. In such usage, the action seems to be less controlled or even accidental, as is also the case with dative-marked agents in passive clauses (§7.10). The instrumental, by contrast, expresses that the action is more tightly controlled by the causer [180–181] (Svantesson 2003: 171–172). The issue remains controversial, however, since the dative can also mark a recipient, and there is, in principle, nothing that would prevent the dative-marked modifier of a ditransitive verb from being analysed as a recipient, rather than as a causee.

[180] *bii*   *naidz-d-aa*   *aryx*   *oo-legh-sen*
      SG1P   friend-DAT-RX   liquor   drink-CAUS-P.PRF
      'I (unintentionally) let my friend drink liquor.'

[181] *bii*   *naidz-aar-aa*   *aryx*   *oo-legh-sen*
      SG1P   friend-INSTR-RX   liquor   drink-CAUS-P.PRF
      'I (intentionally) let my friend drink liquor.'

The roles of causee and recipient are further intertwined with those of agent in examples in which the causative is used in a passive (causative-passive) function. In this usage, the causative predicate is always combined with a modifier in the dative case, while the clause contains no modifier in the instrumental [182]. The modifier in the dative would prototypically have to be understood as a recipient, and it can still function as a recipient in an analogous clause with an active structure, in which the patient bears object marking [183]. In the passivized construction, however, the patient is syntactically the subject (in the nominative), which means that the dative-marked modifier will have to be understood as the agent of the clause.

[182]   *man-ai*   *xony*   *con/e.n-d*   *id-uul-sen*
         PL1P.EXCL-GEN   sheep   wolf-DAT   eat-CAUS-P.PRF
         'Our sheep was eaten by wolves.'

[183]   *man-ai*   *xony-ii.g*   *con/e.n-d*   *id-uul-sen*
         PL1P.EXCL-GEN   sheep-ACC   wolf-DAT   eat-CAUS-P.PRF
         'They let our sheep be eaten by the wolves.'

Due to the rare use of actual passive forms in the colloquial language, the causative offers a more easily available alternative for forming a construction with a passive meaning. The fact that passive and causative are interrelated features is confirmed by cross-linguistic evidence. In Mongolian, a natural link between the two categories is created by the analogous use of the dative case, which can mark the agent in both passive and (passive-) causative clauses. The passive function of the causative is, however, not fully developed in Mongolian, especially since the causative also retains its basic causative functions.

7.12   The syntax of negation

Negation is a grammatical feature that has relevance at several levels in Mongolian, including both lexicon and morphology, as well as phrasal and clausal syntax. Its syntactic properties are nevertheless most conveniently discussed in connection with clausal syntax. From this point of view it is possible to speak of three different types of negation: (1) existential, (2) equative and (3) verbal.

1.   Existential negation involves the negation of existence. Although affirmative existence is normally expressed by the existential verbs, the negation of existence is expressed by the privative noun *ugwai* 'absence, absent, no/t', which is also the source of the privative marker =*gwai* 'without'. As a grammatical element, *ugwai* is a nominal, and it can take nominal suffixes, especially case markers.
2.   Equative negation involves the negation of equation, that is, in practice, the negation of nominal clauses. The basic marker of equative negation is *bish* 'not the one', which

is directly derived from the selective pronoun *bish* 'other' > 'other than'. In archaic or official style, the literary form *bous* may also be used. As syntactic elements *bish* and *bous* are invariables that are best understood as the negative counterparts of the affirmative copulas.

3. Verbal negation involves the negation of actual verbal predicates, both finite and non-finite. In this function, Mongolian originally used the negation particles *es* and *ul* 'not' for the indicative series and nominalized forms, as well as the prohibition particles *buu* and *bitgii* 'do not!' for the imperative series. The particle *es* is identical with the stem of the defective negation verb *es-* 'not'. In the modern language, the finite indicative forms are rarely negated as such, and the use of the particles *es* and *ul* has an archaic or bookish flavour. Instead, the function of finite negative predicates is filled by the privative forms of participles. In some cases, participles can also be negated by the negative copula *bish* (~ *bous*).

Both *ugwai* and *bish* can complete a clause without a verbal predicate. They also function as short negative answers ('no') to questions concerning existential or equational relationships. Both elements can be marked by phonological emphasis, yielding *ugwai=ai* and *bish=ee* [184–185], and they can also take the interrogative marker, yielding *ugwai=y.uu* 'is there not?' and *bish=uu* 'is it not?' The latter form is often used with an assertive modal connotation ('it is certainly so') in questions to which an affirmative answer is expected [186].

[184] *cam-d   en'   nom   bii=y.uu*   :   *ugwai=ai*
       SG2P-DAT   this   book   EXIST=INTERR   EXIST.NEG=EMPH
       'Do you have this book?'   'No, I don't.'

[185] *en'   cin-ii   nom   meun=uu*   :   *bish=ee*
       this   SG2P-GEN   book   COP=INTERR   COP.NEG=EMPH
       'Is this your book?'   'No, it isn't.'

[186] *en'   cin-ii   nom   bish=uu*   :   *meon*
       this   SG2P-GEN   BOOK   COP.NEG=INTERR   COP.EMPH
       'This is your book, isn't it?'   'Yes, it is.'

Compared with the independent privative noun *ugwai*, the privative marker =*gwai* has wider applications, since it is also used as a case ending (as described in the section on nominal morphology, §4.6) and as the negation marker of participles and a number of converbial and ambivalent non-finite forms (as described in the section on verbal morphology, §5.13). As a case ending it is typically added to substantival nominals (nouns), as in *gar* 'hand' : PRIV *gar=gwai* 'without hands'. By contrast, adjectival nominals and pronouns are normally negated by *bish*, as in *sain* 'good' : NEG *sain bish* 'not good', *ter* 'that' : NEG *ter bish* 'not that'. Even so, there are a few apparently lexicalized examples of privative marking also on adjectival nominals, as in *moo* 'bad' : PRIV *moo=gwai* ~ NEG

moo bish 'not bad', *adyel* 'similar, alike' : PRIV *adyel=gwai* ~ NEG *adyel bish* 'dissimilar, unlike'. Dialectally, the use of *=gwai* on adjectival nominals can be even more common.

Since participles are nominalized verbs with both substantival and adjectival properties, they can also be combined with either the privative marker *=gwai* or the negation particle *bish*. Since, however, the regular negation of participles takes place by the privative marker, the use of *bish* may be seen as indicating a special (more marked) situation, which forms a parallel to the affirmative clauses containing the copula *youm*. Thus, finitely used participial predicates can occur both with and without a copula in both affirmative and negative clauses. The semantic contribution of the copula is relatively small, but it may be seen as an element that individualizes the reference of the participle, making it a true nominal predicate, while a participle without a copula has a more general verbal reference [187–188]. In practice, the combination of participles with *bish* is a rare phenomenon, and would even be experienced as agrammatical by some speakers.

[187] *ter*   *oc-e-n'*   :   *ter*   *oc-ex=gwai*
       that   go-DUR   that   go-P.FUT=PRIV
       'He will go.'   'He will not go.'

[188] *ter*   *oc-ex*   *youm*   :   *ter*   *oc-ex*   *bish*
       that   go-P.FUT COP   that   go-P.FUT COP.NEG
       'He (is one who) will go.'   'He (is one who) will not go.'

Since the privative forms of participles normally replace the actual negated finite forms, the total number of different predicative forms is much smaller (only four) in negative clauses than in affirmative clauses (which can have up to eight different forms, counting both the finite series and the participles). This means that many of the temporal-aspectual and, especially, evidential distinctions that can be expressed in affirmative clauses cannot be made in negative clauses. On the other hand, the negated structures occasionally contribute to the formal diversity of verbal predicates. For instance, the fact that the privative marker can be added also to the full verb *bai-* 'to be' yields new options for the negation of existence and makes possible even a contrast with regard to the privative noun *ugwai* [189].

[189] *ter*   *ugwai*   *bai-sen*   :   *ter*   *bai-seng=gwai*
       that   EXIST.NEG   be-P.PRF   that   be-P.PRF=PRIV
       'He was absent.'   'He was not (there).'

Another peculiarity of negative constructions is that there are two contrasting past tense forms, corresponding to the privative forms of the imperfective and perfective participles. Although rarely used in a finite function in affirmative clauses, the imperfective participle is the principal form for past tense negation. The privative marker can, however, also be attached to a finitely used perfective participle, in which case it gives the

construction a connotation of unexpectedness, which might also be understood as a sign of incipient mirativity [190]. It may be recalled that the privative marker =*gwai* can also be replaced by the clitically used element =*dwai* 'not yet' of pronominal origin with little actual difference in the meaning. In practice, =*dwai* is attached only to the imperfective participle, a construction which dialectally (in Khorchin) yields the new complex marker =*uudai*.

[190] *ter   ir-ee=gwai*   :   *ter   ir-seng=gwai*
     that   come-P.IMPRF=PRIV   that   come-P.PRF=PRIV
     'He has not come (yet).'   'He did not come (after all).'

The fact that both *ugwai* > =*gwai* and *bish* are used after the nominal or nominalized form they negate corresponds well to the Mongolian principle of placing most grammatical elements (affixes, spatials, auxiliaries, particles) after the stem or the headword. This contrasts with the positioning of the negation particles *es* and *ul*, which, as far as they are still in use, are always placed before the verbal form they negate. There is no doubt that this atypical position has, indeed, been one reason why these particles have been largely replaced by the privative marker as the regular method for negating finite predicates. As it is, *es* and *ul* are still attested in literary or official style, as well as in a number of fixed expressions, which may show also other deviations from the regular grammatical structures [191–192] (examples from Kullmann & Tserenpil 1996: 333).

[191] *bii   es   xel-l=uu   cam-d*
     SG1P   NEG   say-CONF=INTERR   SG2P-DAT
     'Haven't I told you!'

[192] *or-x-ii.g   ul   dzeubsheor-e.n'*
     enter-P.FUT-ACC   NEG   accept-DUR
     'No entrance permitted.'

Originally, the particles *es* and *ul* had a restricted set of preferred forms (both finite and non-finite) with which each of them was combined. These restrictions have become obsolete in the modern language, and the two particles seem to be used today more or less interchangeably. The single context in which they are still relatively common is formed by certain serialized and relativized clauses (discussed below in connection with the syntax of complex sentences). By contrast, the prohibition particles *buu* and *bitgii*, which also precede the verbal form they negate, are actively used, since they provide the only means for the negation of imperative forms. The principal prohibition particle in the modern language is *bitgii* [193], but *buu* is also attested [194] (example from Sechenbaatar 2003: 186) and is also used in a number of fixed phrases, including the non-prohibitive expression *med-* 'to know' : PROH *buu med* '(I) don't know', 'who would know?!'.

[193] *minii*   *xuu*   *cii*   *bitgii*   *aryx*   *oo-g.aac*
       SG1P-GEN   son   SG2P   PROH   liquor   drink-PREC
       'My son, do not drink liquor!'

[194] *daxy-j=e.l*   *man-ai-x-aar*   *buu*   *ir-eesai=dee*
       repeat-C.IMPRF=LIM   PL1P.EXCL-GEN-NOM-INSTR   NEG   come-DES=AFF
       'I hope he will not come to our place another time!'

Finally, there are a few words and forms that contain an inherent (lexical) negation. Apart from the negation verb *es-*, which is mainly used in symmetric constructions like *xii-* 'to do' : PART FUT *xii-x es-ex* 'to do or not to do', but never in finite forms, there is the modal auxiliary *yad-* 'to be unable to'. The converbial form CONV IMPRF *yad-e.j* 'without being able to' > 'with difficulty' > 'almost not' functions as a kind of moderation of a full negation, like also CONV IMPRF *deungg-e.j* 'with difficulty', from *deungg-* 'to do with difficulty'. Very similar meanings can be carried by the intensifying particles *arai* and *egee* 'somewhat, scarcely' > 'almost not', also in the rhyme *arai carai ~ arai camai* 'with difficulty, reluctantly'. These particles are, however, normally used with a negated predicate [195], which means that they themselves function more like connegative elements.

[195] *ter*   *arai=l*   *oic-cex-seng=gwai*
       that   scarcely=LIM   fall-INT-P.PRF=PRIV
       'He almost fell.'

A covert negation is inherently present in the dubitative form of the imperative series, as in *mart-* 'to forget' : DUB *mart-oodzai* 'may s/he/you not forget!', 'let it not be that s/he/you forget/s'. For obvious pragmatic reasons, this form, which is also otherwise rare in the modern spoken language, is not combined with overt negation marking.

7.13   The syntax of interrogation

Mongolian makes a systematic formal distinction between polar (yes/no) and non-polar (wh-) questions, in that the former are marked by the interrogative particle =*UU* (after vowels =*y.UU*), while the latter are marked by the corrogative particle =*b* (syllabified as =*e.b*). These are normally attached to the last word of a clause, which is most commonly a finite verb [196]. The combinations of the finite and finitely used participial forms with the interrogative and corrogative markers (as described in the section on verbal morphology, §5.14) could also be regarded as the interrogative vs. corrogative "forms" of verbs. The corrogative marker can also appear in the original "full" shape (free form) *bwii ~ bwai* [197], identical with the corresponding variants of the defective copula-existential *bii*.

[196] *cii*   *yab-n=oo*   :   *cii*   *xedzee*   *yab-n-e.b*
      SG2P   depart-DUR=INTERR   SG2P   when   depart-DUR=CORR
      'Are you going?'   'When are you going?'

[197] *cii*   *yab-sn=oo*   :   *cii*   *xedzee*   *yab-sen*   *bwai*
      SG2P   depart-P.PRF=INTERR   SG2P   when   depart-P.PRF   CORR
      'Did you go?'   'When did you go?'

In the speech of the younger generation in Inner Mongolia, and possibly elsewhere, there is an increasing tendency to replace the corrogative particle by the interrogative particle also in non-polar questions, especially when directed at the second person [198]. In informal speech and writing it is also common to omit the corrogative marker altogether [199]. The omission seems to be particularly common when the predicate is in the terminative form, which may be due to haplology, as the terminative marker *-e.b* is formally identical with the corrogative marker *=e.b* [200] (example from Kullman & Tserenpil 1996: 186).

[198] *taa*   *xed-e.n*   *cag-t*   *ir-j=uu*
      PL2P   how.many-ATTR   time-DAT   come-RES=INTERR
      'At what time did you arrive?'

[199] *xourel-d*   *or-e.ltz-ex*   *xun*   *xedzee*   *ir-e.n'*
      meeting-DAT   enter-COOP-P.FUT   person   when   come-DUR
      'When will the conference participants arrive?'

[200] *man-ai*   *beux-cuud*   *yamer*   *bary-e.ld-eb*
      PL1P.EXCL-GEN   wrestler-PL   like.what   grasp-RECIPR-TERM
      'How did our wrestlers do?'

Like negation marking, interrogation marking (but not corrogation marking) has occasional consequences for the functional distinctions between verbal forms. It is, for instance, possible to attach the interrogative marker both to the short form and to the long form of the confirmative, yielding an opposition between forms like *yab-* 'to depart, to go' : CONF INTERR *yab-l=oo* 'did you go (already)?' vs. *yab-laa=y.oo* 'shall we/you go (now)?'. Also, the interrogative marker can be added to a finitely used futuritive participle, which creates a modal contrast against the corresponding durative form, as in DUR INTERR *yab-n=oo* 'will you go?' vs. PART PRF INTERR *yab-x=oo* 'are you willing to go?'. The durative with interrogative marking is, moreover, often used as a polite command ('please be so kind as to').

    All the interrogative words used in non-polar questions are of a pronominal origin, and many of them are simply inflected forms of the interrogative pronouns, as in *yuu/n* 'what?' : DAT *yuun-d* 'why?', INSTR *yuu-g.eer* 'how, by what means?'. The interrogative verb *yaa-* 'to do what?' also yields new interrogative words, including CONV IMPERF *yaa-j*

'how', CONV PRF *yaa-g.aad* 'why' and PART PRF *yaa-sen* 'what kind of'. As a finite predicate, the interrogative verb can be combined with the corrogative particle [201], though this is not obligatory.

[201] *xouby*   *niil-uul-e.gc-d-ii.n*   *geree*   *yaa-sem=b*
       part   unite-CAUS-P.AG-PL-GEN   stipulation   do.what-P.PRF=CORR
       'What is the situation with the stockholder law?'

Apart from verbal predicates, both affirmative and negative, interrogation and corrogation marking can be added to any other type of finitely used predicative word, including nominal predicates and copulas. In elliptic usage, interrogation marking (but not corrogation marking) can also be added to any other singly used constituent, including adnominal and adverbal modifiers [202–203].

[202] *en'*   *min-ii*   *shin'*   *nom*   :   *shin=uu*
       this   SG1P-GEN   new   book   new=INTERR
       'This is my new book.'   'Do you mean new?'

[203] *bii*   *odao*   *yab-ex*   *xereg-tai*   :   *odao=y.oo*
       SG1P   now   depart-P.FUT   necessity-POSS   now=INTERR
       'I have to go now.'   'Do you mean now?'

Finally, it may be noted that when answering a question in Mongolian, it is common to repeat the predicative part of the clause without the interrogative marker, as in *ir-* 'to come' : PART FUT PRIV INTERR *ir-ex=gwai=y.uu* 'won't you come?' : PART FUT PRIV *ir-ex=gwai* 'no, I will not come'. In nominal clauses, it is normally sufficient to repeat the copula, especially *meun* 'yes, it is'. Exceptionally, however, the copula *youm* is never used without a preceding nominal or nominalized word. As short answers to all types of polar questions the phrases *tiim* 'like that, so' = 'yes, it is so' vs. *tiim bish* 'not so' = 'no, it is not so' can also be used.

7.14   Final particles

Particles are an extremely diffuse category in Mongolian, though this depends, of course, on how the term "particle" is defined. In the present treatment, the term is used for several types of invariable elements which function as modifiers at either the phrasal or the clausal level. Formally, particles can be either independent words (free morphemes) or enclitic elements (bound morphemes). The independent phrase-level particles, which always precede their headword (normally a verb or an adjectival nominal), include alliterative particles, intensifying particles, aspectual particles, descriptive particles and imitative particles. The enclitic phrase-level particles, which follow their headword (either

a verbal or a nominal), correspond to the category of emphatic particles, also known as focus particles.

At the clausal level, the term "particle" is best used for a number of invariable elements that modify the content or specify the structure of the clause. From this point of view, we may speak of a topic particle (*bol*), several copular particles (*meun*, *youm*, *bish*, *bous*) and likewise several negation particles (*es*, *ul*, *buu*, *bitgii*). The enclitic markers for interrogation and corrogation (=*UU* vs. =*b*) may be identified as interrogative and corrogative particles, respectively. The privative noun *ugwai* is, however, not a particle, since it can be inflected (though rarely), while its enclitic variety =*gwai* functions as a morphological element for marking the privative case of nominals and the negation of several types of non-finite verbal forms.

Another type of particles relevant at the clausal level is formed by what are here called "final particles". By this term are meant invariable elements that typically occupy the final position in the clause and that modify its epistemic content. Because the modification often, though not always, involves modality, they are conventionally discussed under the label of "modal particles" (Kullmann & Tserenpil 1996: 335–344; Sechenbaatar 2003: 188–194), a category which, however, comprises also a number of other elements with varying functions. Most final particles are ultimately connected with the copulas, and in some cases it is simply a question of a copular form being used as a particle. The crucial difference between the two functions (copula vs. particle) is that the copular function is only relevant after nominal (or nominalized) predicates, while the particle function is also attested after an actual (non-participial) finite form (durative, confirmative, terminative, resultative).

Transparent examples of the secondary use of copulas as final particles are offered by the copular forms *bii* 'is' : CONF *bi-lai* ~ *bi-lee* 'was' : POT *bi=dz* ~ *bii=dz* 'is probably' ('isn't it?'), which are all attested after finite forms. Since the copula also originally represents a finite predicate, such usage involves actually sequences of two consecutive finite clauses. Synchronically it is nevertheless a question of a single clause ending in a copula used as a particle. As a particle, *bii*, or also =*bii*, Cyrillic Khalkha **wii** ~ **bii**, can express the denial of a possibility ('it is excluded that') [204] (example from Kullmann & Tserenpil 1996: 341), while *bidz* and *bilai* retain their modal and/or temporal-aspectual profile [205–206].

[204] *ter*   *nad-aas*   *daxy-aad*   *meungg* *ab-e.n'*   *bii*
that   SG1P-ABL   repeat-C.PRF   silver   take-DUR   PCLE
'He will certainly not get any money from me another time.'

[205] *daraa-g.iin*   *deurb-e.n*   *jil-d*   *bas=e.l*   *iim*   *bai-n'*   *bidz*
next-GEN   four-ATTR   year-DAT   also=LIM   like.this   be-DUR   PCLE
'In the next four years it will apparently also be like this.'

[206] *iim   neg   er   bai-jai bilai*
     like.this one   man   be-RES   PCLE
     'There was a man like this.'

Other examples of final particles are offered by enclitic elements which have a less transparent connection with the copulas. This is a very small group, comprising only a few items, the most important of which are (1) =*dAA*, (2) =*deg*, (3) =*lai* and (4) =*shuu*. Some of these have variant forms with functional and dialectal differences. Like all enclitic particles, the final particles are written as separate graphic words in both Cyrillic Khalkha and Written Mongol.

1.   The "affirmative" particle =*dAA* is the only enclitic final particle that has no apparent copular derivation. It is also functionally the most diffuse, in that it stands for a rather vague expression of agreement or affirmation. Although it has no copular functions, it can be combined with both nominal and verbal copulas, yielding sequences like *youm=daa* 'well, yes, it is', POT *bidz=dee* > dialectally *bid=dee* ~ *bed=dee* 'it probably is'. Another frequent combination is LIM AFF =*l=dAA* [207]. In Cyrillic Khalkha, =*dAA* is rendered with the four harmonic variants **daa dee doo döö**, showing that it belongs to the context of the preceding phonological word. Apart from verbal predicates, =*dAA* is attested also on adjectives, as in *sain* 'good, fine' : AFF *sain=daa* '(it is) really fine!', and even on other nominal words, as in LOC ABL *xaa-n-aas* 'from where?' : AFF *xaanaas=daa* 'no way!', in which usage it no longer functions as a final particle in the technical sense. When attached to nominal constituents, =*dAA* may also have a topicalizing function (§7.7).

[207] *xeuld-eod   ux-c-x=iim   bai-n=e.l=daa*
     freeze-C.PRF   die-INT-P.FUT=COP be-DUR=LIM=AFF
     'We are doomed to be frozen to death.'

2.   The particle =*deg* is the habitive participle of the defective copula *a-*, with a zero representation of the stem (Ø-) (§5.12). Although the zero stem is attested also in two other enclitic forms, RES =*jai* and PART PRF =*sen*, the habitive form =*deg* is the only one that can follow actual finite forms, making it a true final particle. Semantically, =*deg* conveys a meaning of apparent likelihood ('it looks like') [208] (example from Kullmann & Tserenpil 1996: 340). Combinations of =*deg* with other particles include HAB ASS =*deg=shuu* and HAB INTERR AFF =*e.dg=UU=dAA*. In Cyrillic Khalkha, =*deg* is rendered with the four harmonic variants **dag deg dog dög**, although the harmonic alternation in this case is phonologically irrelevant (§2.10).

[208] *ter   genet   or-aod   ir-e.n'=deg*
     that   suddenly   enter-C.PRF   come-DUR=HAB
     'It looks like he will come very soon.'

3. The particle =*lai* is the enclitic trace of the confirmative form *bi-lai* ~ *bi-lee* of the defective copula √*bi-*. As it is, this stem can also be represented as zero, but only in this particular form. The form =*lai* [-le:] itself represents an unusual or dialectal variant of the confirmative marker, which, moreover, is harmonically invariant. In Cyrillic Khalkha this element is written **lee**, which is also harmonically invariant, but which may for some speakers represent the shape =*lee* [-lə:]. Functionally, =*lai* still has mainly a temporal-aspectual notion combined with the evidential content (sensorial evidentiality) characteristic of the confirmative form ('as I remember') [209] (example from Sechenbaatar 2003:189). Combinations of =*lai* with other particles include CONF ASS =*lai=shuu* and CONF AFF =*lai= dee*.

[209] *xeer   mory-cen'   eumen'   gol-d   xar-e.gd=jai-n=lai*
       bay   horse-PXSG2P   south   river-DAT   watch-PASS=PROGR-DUR=CONF
       'As I remember, your bay horse could be seen at the south river.'

The particle =*lai* can also be used after a negated predicate, in which case it indicates a counter-expectational conclusion or a decision ('after all', 'no longer') [210]. This usage is rare in Khalkha but common in the Inner Mongolian dialects, in which the invariable shape =*laa* is also attested (as in Chakhar). Moreover, =*lai* ~ =*laa* in this function can also occur after adjectival predicates marked by the privative suffix [211] (example from Sechenbaatar 2003:193). Although it can simply be a question of another function of =*lai*, the dialectal and formal variation suggests that the possibility of external influence from Chinese (the aspectual particle *le*) cannot be completely ruled out as a second model.

[210] *eo   serj=ee   jaoxen   bai-j   bai-x=gwai=lai*
       oh   Serj=EMPH   small   be-C.IMPRF   be-P.FUT=PRIV=CONF
       'Oh, Serj, you are no longer being small.'

[211] *eor   xun   dood-ex   xereg=gwai=laa*
       other   person   call-P.FUT   matter=PRIV=CONF
       'It is no longer necessary to call others.'

4. The "assertive" particle =*shuu*, originally =*sh=uu*, is the enclitic trace of the interrogative form *bish=uu* of the negative copula *bish*. Like the full form *bish=uu*, the enclitic form =*shuu* contains the interrogative marker =*UU*, but its meaning is more strongly assertive ('it is certainly so that'). Historically, the primary clitic is =*sh*, which functions as a harmonic switcher, since the interrogative marker appears in the upper-key variant =*uu*, as is also suggested by the Cyrillic Khalkha shape **shüü**. It is, however, likely that most speakers today conceive of =*shuu* as a single indivisible particle. On the Inner Mongolian side, this particle is also attested in the harmonically alternating shape =*shUU* [212] (Chakhar example from Sechenbaatar

2003: 190). However, since =*sh*(=)*uu* ~ =*sh*(=)*UU* etymologically contains a (negative) copula, it can still follow a nominal predicate [213]. A common combination with another particle is ASS AFF =*shuu*=*dee*, which, in turn, can follow even *bish* in the sequence *bish*=*shuu*=*dee* 'it is certainly not so'.

[212] *xourd-xen* *shamd-ex*=*goo*   *bol*   *orai*   *bol-lao*=*shoo*
   fast-DIM hurry-P.FUT=PRIV COND late become-CONF=ASS
   'If you don't hurry up it will be too late!'

[213] *eutel-sen*=*c*   *xii-x*   *ajel-tai*   *xun*=*shuu*
   grow.old-P.PRF=ADD do-P.FUT work-POSS person=ASS
   'Let me be old, but I am certainly a man with something to do.'

The element =*sh* is also present in the complex particle *shi*=*b*, enclitically =*sh*=*e.b*, Cyrillic Khalkha **shiw**, which possibly contains the negative copula *bish* in combination with the the verbal copula *bii*, though there might also be a connection with the equative nominal *shig* > =*sheg* 'like' (Brosig, p.c.). Like =*sh*=*uu* > =*shuu* ~ =*shUU*, the particle *shi*=*b* is synchronically probably best analysed as a single indivisible entity, that is, *shib* ~ =*sheb*. This particle is particularly frequently used after nominal predicates, in which position it functions as a modally modified copula ('I assume that') [214] (example from Kullmann & Tserenpil 1996: 341). More rarely, it is attested after finite verbs, in which position it functions as a true final particle [215]. Extended variants of *shi*=*b* > *shib* include *shi*(=)*b*=*dee*, dialectally *shi*=*dee*, also used in the enclitic shapes =*she.b*=*dee* ~ =*sh*=*dee*.

[214] *en'*   *min-ii*   *ounsh-sen*   *nom*   *shib*
   this SG1P-GEN read-P.PRF book PCLE
   'I think this is the book that I have read.'

[215] *xor-e.n*   *sanaa*   *xaosen* *turiibc*=*e.l*   *bai-n'*   *shib*
   poison-ATTR thought empty wallet=LIM be-DUR PCLE
   'A poisonous thought is only an empty wallet.'

Other elements that could be listed as final particles include (=)*yAA* ~ (=)*yaa* (explanation) and (=)*baa* (suggestion), with the latter attested also in the extended shape (=)*baa*=*daa*. Both of these are mainly used on the Inner Mongolian side, and they seem to be borrowings from Chinese (cf. the Chinese particles *ya* and *ba* with similar functions), though they may have incorporated native elements as well. The status of (=)*yAA* ~ (=)*yaa* as a final particle may be disputed, since it seems to be used mainly after nominal (or nominalized) predicates [216]. The particle =*baa*, however, is well attested after actual finite forms [217], and it is also combined with forms of the imperative series [218] (examples from Sechenbaatar 2003: 190–193).

[216] *xourg-aa/n   or-ool-aad   niit   nay-e.n   dolao=yao*
       lamb-RX   enter-CAUS-C.PRF   together   eighty-ATTR   seven=PCLE
       'Including also the lambs, there are altogether eighty seven.'

[217] *man-ai   duu   tan-ai-x-aar   oc-lao=baa*
       PL1P.EXCL-GEN   younger.brother   PL2P-GEN-NOM-INSTR   go-CONF=PCLE
       'My younger brother went to your place, didn't he?'

[218] *es-bel   xoyer   sar   xulee-j   udz=baa*
       NEG-C.COND   two   month   wait-C.IMPRF   see.IMP=PCLE
       'Or, let us wait for two months!'

Altogether, the mutual semantic differences between the final particles, and especially between the various combinations of final (and non-final) particles, are often intricate and allow potentially very many types of minute modal and temporal-aspectual, as well as evidential and/or discursive distinctions to be expressed. These distinctions are often similar to those expressed by the markers of interrogation and negation, with which final particles can also be combined. Although not a central part of Mongolian grammar, final particles are very frequently used in colloquial speech, as in dialogues. On the other hand, the very abundance of possibilities suggests that many of the functions may not be fully grammaticalized. Quite certainly, there are also dialectal differences, which make the comprehensive analysis of these elements a considerable challenge for future study.

Complex sentences

8.1 Types of complex sentences

A complex sentence is here understood as an integrated sequence of two or more clauses. Each of the clauses of the complex sentence has its own argument structure and contains prototypically two principal arguments (subject and predicate, or their thematic or pragmatic equivalents), though deviations from this pattern are possible by way of argument sharing. A complex sentence may be seen as the sum of two or more potentially separate components, each of which contains the basic ingredients of an independent clause. Within the complex sentence the components are, however, syntactically interconnected, which is typically signalled by the circumstance that only one of the clauses contains a finite predicate, while the others end in various types of non-finite (participial and converbial) forms.

The clause that contains a finite predicate may be identified as the "head clause", while the others are "dependent clauses". In the context of the head clause, the dependent clauses can function as various types of adnominal and adverbal modifiers, but also as the subject. Following the general rule of Mongolian grammar according to which a modifier precedes its head, and the subject precedes the predicate, a dependent clause typically precedes its syntactic head, which, however may also have other modifiers. Ultimately, the finite predicate of the head clause closes the whole complex sentence (possibly in combination with final particles), thus functioning as the headword for the whole sequence and marking the boundary against the following complex sentence.

Since a complex sentence always contains two or more predicates, it may also be classified as a "polypredicative construction". Polypredicative constructions should be distinguished from complex verbal phrases, which also contain two or more verbals. In complex verbal phrases, as in auxiliary constructions, the verbs normally share all arguments (subject, object, adverbials) and form a sequence of inseparable elements, in fact, a single predicate, with no other words (except enclitic particles) inserted between the parts. In a polypredicative construction, by contrast, the verbs can have completely separate argument structures, which also allows other words (such as modifiers to the latter verb) to be inserted between them.

There are basically four types of syntactic phenomena that contribute to the diversity of complex sentences: (1) relativization, (2) referative constructions, (3) serialization and (4) quotative constructions.

1. Relativization involves the use of a dependent clause as an adnominal modifier, that is, as the equivalent of a relative clause. In Mongolian, the predicate of a relativized clause stands in a nominalized form. Depending on whether or not the nominal headword of the relative clause is corefential with the subject of the nominalized predicate we may speak of conjunct and disjunct relativization.

2. Referative constructions involve the use of a dependent clause without a nominal headword, that is, as the equivalent of a referative clause ("noun clause"). In Mongolian, the predicate of a referative clause also stands in a nominalized form, which may take case endings as required by its syntactic position. A referative clause cannot share arguments with the head clause.

3. Serialization involves the use of a dependent clause as an adverbal modifier ("adverb clause") expressing circumstantial (temporal, causal or modal) relationships. In Mongolian, the predicate of a serialized clause stands in a converbial or quasiconverbial form. Depending on whether or not the subject of the head clause is also the subject of the converbialized predicate of the serialized clause, we may speak of conjunct and disjunct serialization.

4. Quotative constructions involve the insertion of a direct quotation into a clause. In Mongolian, the end of quotations is marked by several alternative forms of the quotative auxiliary (*ge-* : *g-*) which either relativize or serialize the quotation. The inserted quotations themselves are independent entities which, if syntactically complete, end in a finite predicate.

All four principal types of dependent clauses could also be covered by the term "embedding", since in all of them it is basically a question of accommodating a dependent clause into a head clause. The head clause could in this context also be termed the "matrix clause", since it forms the framework into which the dependent clause is "embedded". Because of the potential ambiguity of this terminology it will not be used in the present treatment.

Apart from the constructions connected with the complex sentence in the strict sense of the term, there are several other phenomena (as discussed further below) that require attention in this context. These phenomena are connected, among other things, with the syntactic status of clausal modifiers and predicative complements, as well as with the nature of adjectives and their relationship to relativization.

8.2   Coordination and subordination

The relationship between two clauses in a complex sentence can, in principle, be of two types: either coordinative or subordinative. It is normally understood that clauses linked by coordination are, by definition, of equal syntactic standing, while in a subordinative

relationship one clause (the dependent clause) is subordinated to the other (the head clause). A complex sentence is, however, not simply a sequence of two or more clauses, but a sequence in which the connection of the clauses is marked by grammatical means. Mongolian is a language whose grammatical resources for the expression of coordination are very limited, which means that most complex sentences in the language involve subordination.

Relativized and referative clauses involve unambiguous subordination, in that they function as constituents of the main clause. It has been more difficult to arrive at a consensus on how serialization should be understood in this respect. In many Mongolian grammars, the converbial forms are divided into "coordinative" and "subordinative", with the former group comprising the modal, imperfective and perfective converbs and the latter all the others. Such an interpretation seems to be based on the common translation equivalent of, in particular, the imperfective and perfective converbs ('and') [219], but it is syntactically untenable. Since converbs (and quasiconverbs) are dependent forms, the clauses they conclude also have to be defined as dependent, that is, subordinate, clauses.

[219] *or-j*   *gar-sen*   :   *or-oad*   *gar-sen*
enter-C.IMPRF   exit-P.PRF   enter-C.PRF   exit-P.PRF
'He went in and out.'   'He went in and out.'

The few copulative and disjunctive conjunctions that Mongolian possesses are almost solely used to connect phrases (as described in the context of phrasal syntax, §6.15), rather than clauses. The only connective elements that are relatively commonly attested between two syntactically independent finite clauses, are the disjunctive conjunctions *esbel* and *esxuul* 'or', but in such sequences the link between the clauses remains loose, and it would also be possible to postulate two separate finite clauses. Moreover, the conjunction *esbel* = CONV COND *es-bel* 'if it is not so' still retains its analytic meaning and could be analysed as a separate dependent clause, modifying the second finite clause in the sequence [220].

[220₁] *cii*   *uld*
SG2P   remain.IMP
'You may remain,

[220₂] *es-bel*   *bii*   *xamt*   *yab-ii.y*
NEG-C.COND   SG1P   together   depart-VOL
or, if it is not ok, let me come with you.'

Much more commonly, when a coordinative relationship has to be expressed between two finite clauses, the clauses are simply juxtaposed without a conjunction. In such cases, it is a matter of interpretation whether the clauses are assumed to be linked or not; in

any case, they are not grammatically linked [221]. In oral speech, the connection can, of course, be stressed by prosodic means.

[221₁] *ter*   *uy-e.d=c*   *bai-g.aa=gwai*
      that   period-DAT=ADD be-P.IMPRF=PRIV
      'At that time there were none,

[221₂] *odao* *bol* *bur=c*   *bai-x=gwai*
      now   TOP every=ADD be-P.FUT=PRIV
      and now there still are not any.'

It may be concluded that only subordination can be grammatically marked in Mongolian, which is why all complex sentences in the strict sense of the term involve subordination. Occasionally, however, even subordination remains grammatically unmarked, in which case the syntactic relationship is signalled only by the ordering of the clauses. This is possible in, at least, determinative constructions, in which the first clause is an indirect non-polar question [222].

[222₁] *taa*   *yamer*   *bai-n'*
      PL2P like.what be-DUR
      'The way you are,

[222₂] *tan-ai*   *xuux-e.d* *yag=e.l*   *tiim*   *bai-n'*   *bidz=dee*
      PL2P-GEN child-PL exactly=LIM like.that be-DUR PCLE=AFF
      your children will be exactly the same way.'

In any case, a well-formed complex sentence is best assumed to presuppose the presence of grammatical marking between the clauses. Examples in which no marking is present may possibly be seen as signs of new emerging patterns, but they do not yet involve well-formed grammatical structures. It cannot be ruled out that some of these examples are due to recent influence from other languages (especially Russian). It may be added that most cases of indirect interrogation are expressed by using referative constructions with a nominalized predicate (§8.8).

8.3   Clausal modifiers

Clausal modifiers may be defined as elements that function as modifiers to an entire clause. Although they are normally single words, rather than fully-formed clauses, they are here discussed in the context of complex sentences because their status is in some respects, and with some reservations, reminiscent of that of separate clauses. In practice, clausal modifiers typically convey a modal meaning, but because they operate at a higher level they have to be kept distinct from modal adverbs, which are ordinary

circumstantial modifiers (adverbials) to verbs (§6.12). In general grammatical theory, the two types of modifiers are also known as "disjuncts" (clausal) vs. "adjuncts" (adverbal), while in the Mongolian grammarian tradition the term "modals" has been used (Sechenbaatar 2003: 171–176), though the latter remains vaguely defined since it comprises a variety of different phenomena.

Since clausal modifiers are basically defined functionally, they are themselves formally diversified, and it is not easy to determine which items really qualify as belonging to this category. The difficulty of delimitation is increased by the fact that many elements, especially invariables, are actually multifunctional and can be used both as adverbal and as clausal modifiers. On the other hand, not all elements and constructions conveying the notion of clause-level modality can be classified as representing the category of clausal modifiers. Final particles, for instance, have many functional similarities with clausal modifiers, but they form a distinct category. In general, clausal modifiers are rather loosely connected with their immediate syntactic environment, which is also evident from the prosodic circumstance that in speech they are often preceded and/or followed by a pause.

Items that with good reason may be classified as clausal modifiers include, for instance, expressions of resolution ("resolutional modals") such as *dzaabel* 'definitely' = CONV COND *dzaa-bel* (from *dzaa-* 'to point out'), *yaasenc* 'under any circumstances' = PART PRF ADD *yaa-sen=c* (from *yaa-* 'to do what?'); of affirmation ("affirmative modals") such as INSTR *un-eer* : DAT RX *un/e.n-d-ee/n* 'indeed' (from *un//n* 'truth'), NOM *couxem* : DAT RX *couxem-d-aa/n* 'in reality' (from *couxem* 'reality'); and of various degrees of certainty ("estimative" and "convictional modals") such as NEC POSS *bai-l-tai* 'certainly' : NEC PRIV *bai-l=gwai* 'possibly' (from *bai-* 'to be'), NOM *lab* : POSS *lab-tai* 'certainly' (from *lab* 'certainty, authenticity').

Clausal modifiers can occupy almost any position with regard to the clauses they modify, which means that they are attested both initially and finally, as well as medially. There are, however, differences between the individual items as to which position they normally occupy. The separate syntactic status of a clausal modifier is most obvious when it stands before the clause it modifies [223] (example from Sechenbaatar 2003: 172). However, even when a clausal modifier stands immediately before the finite predicate of the main clause, it clearly belongs to the level of the entire clause, rather than only to the predicate [224].

[223] *labtai*   *ter*   *xed-ii.n*   *neg-e.n'*
       [certainly] [that   how.many-GEN   one-PX3P]
       'It must be one of them.'

[224] *eugleo/n-ii*   *tzai-g.aa*   *dzaabel*   *oo-g.aarai*
       morning-GEN   tea-RX   [absolutely]   drink-PRESCR
       'Be sure to drink your morning tea.'

From the descriptive point of view the most intricate situation is presented by the cases in which the modal connotation is conveyed by an element placed last in the sentence. There are several nominal words used sentence-finally, often marked by either the possessive or the privative case ending, which add a modal meaning to the immediately preceding verbal predicate. Examples are POSS *xereg-tai* 'necessary' > 'must, need' : PRIV *xereg=gwai* 'not necessary' > 'need not' (from *xereg* 'matter, necessity, need') and POSS *bolel-tai ~ bol-tai* 'apparent' > 'may, might' (from *bol-* 'to become' : *bol-e.l* 'possibility'). The preceding verbal predicate stands in a participial form depending on the temporal-aspectual context [225]. Importantly, the verbal predicate cannot be in an actual finite form.

[225]　*ir-ex*　　　*bolel-tai*　　　　　　:　　*ir-sen*　　*bolel-tai*
　　　　come-P.FUT　possibility-POSS　　　　　come-P.PRF　possibility-POSS
　　　　'He will apparently come.'　　　　　　'He has apparently come.'

Though conventionally classified as examples of "modals", such postverbally used "modal nominals" do not necessarily involve clausal modifiers in the strict sense. This is because it seems reasonable to restrict the term "clausal modifier" to elements that do not interfere with the grammatical structure of the clause they modify. Elements that do not allow the verbal predicate to stand in an actual finite form (as opposed to participles) do not fill this criterion, which is why they are probably better analysed in a different way. Even so, it is easy to see that constructions of this type can have several different analyses depending on what level is at focus [226]: we might be dealing with two separate clauses (a), or with a clause modified by a clausal modifier (b), or also with a sequence of a main clause preceded by a referative dependent clause (c). Finally, it is possible that the verbal predicate and the following "modal nominal" form together a complex modally modified predicate (d).

[226]　*bii*　　*margaash*　*yab-ex*　　　*xereg-tai*
　　　　SG1P　tomorrow　depart-P.FUT　necessity-POSS
　　　　(a)　'I will leave tomorrow. It is necessary.' (two independent clauses)
　　　　(b)　'I will necessarily leave tomorrow.' (clausal modifier)
　　　　(c)　'It is necessary that I leave tomorrow.' (referative construction)
　　　　(d)　'I must leave tomorrow.' (modally modified predicate)

The possibility that we are dealing with a complex predicate is suggested by the circumstance that some nominals of this type, notably PRIV *maged=gwai* 'possibly' (from *maged* 'certainty') can follow not only a nominalized verb (participial form), but also the imperfective converb [227]. This would suggest that "modal nominals" function very much like verbal auxiliaries. Only enclitic particles can be inserted between the converb and the nominal [228].

[227] *ir-ex*　　　*maged=gwai*　　　:　　　*ir-j*　　　　*maged=gwai*
　　　come-P.FUT　certain-PRIV　　　　　　come-C.IMPRF　certain-PRIV
　　　'He will perhaps come.'　　　　　　　　'He will perhaps come.'

[228] *bii*　　*margaash*　*ir-j=e.c*　　　　　*maged=gwai*
　　　SG1P　tomorrow　come-C.IMPRF=ADD　certainty-PRIV
　　　'I might come tomorrow.'

The discussion concerning the status and analysis of clausal modifiers and related phenomena in Mongolian cannot be regarded as concluded. This is a very elusive area of grammar that branches off to details that are relevant at different levels of syntax. Modality, as a whole, has no uniform level of manifestation in Mongolian, as modal relationships can be expressed both morphologically and syntactically, as well as lexically. It is the complex interaction between these levels that makes the analysis of modal constructions so challenging. On the other hand, the very diversity of the category suggests that modality is not among the central features of Mongolian grammar. In any case, it seems to be a feature whose grammaticalization is still going on, with different results in the different dialects.

8.4　Predicative complements

Another minor type of constituent with connections at several levels of syntax is formed by "predicative complements", also known as "depictives" (Brosig 2009a), by which are understood nominal elements expressing a capacity that may be seen as a consequence of the action. Although the term "predicative" suggests that it is a question of an element directly dependent on the verbal phrase, it is also possible to view the action and the capacity as representing two separate clauses. Depending on whether the predicate verb is transitive or intransitive, we may speak of "subject complements" and "object complements", which further link this feature with nominal clauses and causative constructions, respectively.

　　　The nominal predicate of a nominal clause is, in fact, often thought to represent the basic type of predicative complement. In Mongolian, the nominal predicate can be followed by a copula, which, in turn, can be either nominal or verbal, and if verbal, either a defective verb or a full verb. However, the verbal copula of a nominal clause, such as *bai-* 'to be', can also be replaced by another, non-copular intransitive verb, such as *gar-* 'to exit, to emerge' [229–230].

[229] *esen+mend*　*bai-sen*　　　:　　　*esen+mend*　*gar-sen*
　　　healthy　　　be-P.PRF　　　　　　healthy　　　exit-P.PRF
　　　'He was healthy.'　　　　　　　　'He emerged healthy.'

[230] *gal-ii.n   ayool-aas   arai   carai   esen+mend   gar-sen*
       fire-GEN   danger-ABL   hardly   RHYME   healthy   exit-P.PRF
       'He escaped from the fire barely alive.'

The structure of such constructions may be described in a number of ways. It is, however, notable that in Mongolian the predicative complement, in this case a subject complement, remains unmarked also when it is used with verbs other than copulas. This would suggest that it should not be analysed as a direct adverbial modifier, which would normally have to be marked by one of the adverbial case endings. Rather, it is an inserted nominal predicate that remains an external element in the clause. The whole construction could be seen as the conglomeration of two clauses: an action clause and a nominal clause.

    The situation is similar with object complements. The prototypical verb used with object complements is the causative copula *bol-g-* 'to cause to become' = 'to make', but it can occasionally be replaced by other transitive verbs, notably *songg-* 'to elect' [231–232] (cf. Poppe 1951: 63).

[231] *said   bol-g-eb   :   said   songg-eb*
       minister   become-CAUS-TERM   minister   elect-TERM
       'They made him a minister.'   'They elected him a minister.'

[232] *elbeg+dorj-ii.g   yeurengxii   said   bol-g-eb*
       Elbegdorj-ACC   general   minister   become-CAUS-TERM
       'Elbegdorj was made prime minister.'

The constructions with an unmarked object complement seem to be gradually yielding ground to a marked construction with the nominal in the instrumental case [233]. In such examples, the instrumental case has an "essive-translative" function ('in/to the capacity of'). Instrumental marking is occasionally attested even in combination with the copula *bai-* in what would otherwise be a regular nominal clause [234] (example from Sechenbaatar 2003: 41).

[233] *amer+jareghl-ii.g ded   yeurengxiil-e.gc-eor   songg-eb*
       Amarjargal-ACC   next   manage-P.AG-INSTR   elect-TERM
       'Amarjargal was elected vice president.'

[234] *namraa   ten-d   xoshoo   darg-aar   xed-e.n   jil   bai-sen*
       Namraa   there-LOC   banner   leader-INSTR   how.many-ATTR   year   be-P.PRF
       'Namraa was banner leader there for several years.'

It has to be stressed, however, that, in spite of their similar meanings, the sequences with and without instrumental marking represent syntactically two different structural patterns which cannot be described in identical terms. While the marked nominals are clearly adverbial modifiers in the context of the verbal phrase, the unmarked nominals are probably best analysed as predicative complements at a level above the basic clause.

8.5   Conjunct relativization

In conjunct relativization, also known as "subject relativization", the subject of a finite clause with a verbal predicate assumes the role of the nominal headword of the relativized clause. The predicate of the original finite clause can be either an actual finite form or a finitely used participle, while the predicate of the relativized clause is always in a participial form, which functions as an adnominal modifier to the nominal that is inherently also its subject. If the finite clause also has a participial predicate, the operation involves, in the most simple case, only a change of the order of the subject and the predicate [235]. It is a matter of one's grammatical model if this is seen as a "transformation" or as a static set of two alternative patterns.

[235] *xun*   *ir-sen*   :   *ir-sen*   *xun*
       person   come-P.PRF   come-P.PRF   person
       'A person came.'   'the person who came'

The relativized sequence is, however, not a complete sentence in its own right, which means that it has to be placed into a head clause, in which it can, when properly marked, take the position of any nominal constituent (subject, object, indirect object, other nominal adverbial). The relativized clause can itself also contain any modifiers that the predicate verb can take, including an object (if the verb is a transitive one) [236–237], but not a separate subject (agent).

[236] *en'*   *nom-ii.g*   *bic-sen*   *xun*   *ten-d*   *soo-j*   *bai-n'*
       this   book-ACC   write-P.PRF person   there-LOC   sit-C.IMPRF   be-DUR
       'The author of this book is sitting there.'

[237] *en'*   *nom-ii.g*   *bic-sen*   *xun-d*   *bii*   *dzaxyaa*   *yab-ool-sen*
       this   book-ACC   write-P.PRF person-DAT SG1P   letter   depart-CAUS-P.PRF
       'I sent a letter to the author of this book.'

In both formal and functional terms, the nominalized predicate of a relativized clause shows rather little diversity, since it allows distinctions to be made only between those temporal-aspectual features that are characteristic of the participial paradigm. In this context, the participial forms have their prototypical references. The basic distinction between the present-tense and past-tense ranges is indicated by the futuritive vs. perfective participles, both of which are very common in relativized clauses, as in *ir-* 'to come' : PART FUT *ir-ex jil* 'coming year' = 'next year', *eungger-* 'to pass by' : PART PRF *eungger-sen jil* 'the year that passed' = 'last year' (with *jil* 'year'). The imperfective and habitive participles have more specific functions [238–239] and are considerably less commonly used.

[238] *xamt*   *yab-aa*   *xuux-d-ii.n*   *tao*
       together   depart-P.IMPF   child-PL-GEN   number
       'the number of children travelling together (with you)'

[239] *delxii-n*   *xamg-ii.n*   *olen*   *xel*   *med-deg*   *xun*
       world-GEN   all-GEN   many   language   know-P.HAB   person
       'the person who knows the most languages in the world'

Many of the epistemic and modal distinctions that are possible in a finite clause, are absent in a relativized clause. It is, for instance, impossible to combine the nominalized predicates of relativized clauses with interrogation, corrogation or final particles, all of which are features of the finite clause. One distinction that can be made is that between affirmation and negation, in that all participial forms can take the privative marker even in a relativized clause [240]. Interestingly, in official style the predicates of relativized clauses can also be negated by the negation particles *es* and *ul.* Moreover, this is the only method available for the rare cases when the agentive participle is used as the true verbal predicate of a relativized clause [241] (example from Kullmann & Tserenpil 1996: 332).

[240] *tamyx*   *tat-deg*   *xun*   :   *tamyx*   *tat-deg=gwai*   *xun*
       tobacco   pull-P.HAB   person   tobacco   pull-P.HAB=PRIV   person
       'smoker'   'non-smoker'

[241] *monggel-d*   *biceg*   *useg*   *ul*   *med-e.gc*   *xun*   *olen*   *bai-n=oo*
       Mongol-DAT   writing   letter   NEG   know-P.AG   person   many   be-DUR=INTERR
       'Are there many illiterate people in Mongolia?'

Many of the characteristics of conjunct relativization are also valid for disjunct relativization (as discussed below). Features shared by both types of relativization include the general principles of nominalization, the functional distinctions between the nominalized predicates and the methods of negation. The main difference is connected with the subject (agent), which is identical with the nominal headword in conjunct relativization, but different in disjunct relativization.

8.6   Disjunct relativization

In disjunct relativization, a nominal constituent other than the subject assumes the role of the nominal headword of the relativized clause. Most commonly, this constituent is the object, in which case we may also speak of "object relativization", but other nominal constituents can also be affected, in which case we may speak of "oblique relativization". The object and oblique markers that may be present in the finite clause are absent in the relativized clause. If the finite clause also has a participial predicate, the operation

involves, in the most simple case, only a change of the order of the constituents, most commonly the object and the predicate [242].

[242] *nom   ounsh-sen*   :   *ounsh-sen   nom*
      book   read-P.PRF   read-P.PRF   book
      'He read a book.'   'the book he read'

An important feature of object relativization is that the predicate assumes an inherently passive function, although no passive marker is present. The passive marker can, of course, be used in relativized clauses, but normally only if the nominal headword of the nominalized verb denotes a personal (+human) participant (patient), in which case there is a need to make a distinction between active and passive subjects [243]. Formally, such cases involve conjunct relativization.

[243] *xar-sen   xun*   :   *xar-e.gd-sen   xun*
      watch-P.PRF   person   watch-PASS-P.PRF person
      'the person who watched'   'the person who was visible'

In the cases involving a constituent other than the object it is normally a question of a local or temporal adverbial, which in the finite clause is marked by an adverbal (local or modal) case ending, most typically the dative [244–245]. In such examples, the verb is intransitive and would normally not allow morphological passivization, while the nominal headword of the nominalized verb denotes an inanimate object or circumstance. Examples of this kind of oblique relativization are not very common in Mongolian. It is particularly uncommon to relativize an indirect object, though theoretically this is possible [246].

[244] *ter   ger-t   soo-sen*   :   *soo-sen   ger*
      that   house-DAT   sit-P.PRF   sit-P.PRF   house
      'He lived at that house.'   'the house where he lived'

[245] *ter   tzag-t   ir-sen*   :   *ir-sen   tzag*
      that   time-DAT   come-P.PRF   come-P.PRF   time
      'He came at that time.'   'the time when he came'

[246] *min-ii   nom   eug-sen   xun   ten-d   bai-n'*
      [SG1P-GEN   book   give-P.PRF   person]   there-LOC   be-DUR
      'The person to whom I have given a book is there.'

The principal grammatical issue connected with disjunct relativization concerns agent marking. The subject of the finite clause is in the corresponding relativized clause represented by an agent, which normally stands in the genitive both in object [247] and in oblique [248] relativization.

[247] *yix*   *abergh-ii.n*   *bic-sen*   *nom*   *yapaon*   *xel-eer*   *gar-laa*
    big   monster-GEN   write-P.PRF   book   Japan   language-INSTR   exit-CONF
    'The book written by the Sumo Champion was published in Japanese.'

[248] *min-ii*   *aj(l)el-deg*   *uildber*   *sheun'*   *orai*   *bol-tel*   *aj(l)el-deg*
    SG1P-GEN   work-P.HAB   factory   evening   late   become-C.TERM   work-P.HAB
    'The factory where I work is active until late in the evening.'

The genitive in such usage may be understood as marking a genitival modifier (G), while the participle functions as an adjectival modifier (A) to the headnoun (N). It may, however, be argued that the syntactic structure of a relativized clause is different from a regular nominal phrase, in which the genitive also precedes the adjective (GAN). In a relative clause the genitive modifies only the immediately following participial form, while in a regular nominal phrase it modifies the entire sequence of an adjectival modifier and its nominal headword [249]. Formally, this structural difference is, however, difficult to verify.

[249] *min-ii*   *gourb-e.n*   *dzoureg*   :   *min-ii*   *ab-sen*   *dzoureg*
    SG1P-GEN   [three-ATTR   picture]   [SG1P-GEN   take-P.PRF]   picture
    'my three photos'   'the photos I took'

There is, however, evidence on that the agent of a relativized clause can under certain conditions also stand in the nominative. Native speakers react varyingly to this possibility, though most speakers agree on that pronominal subjects, in particular, can only stand in the genitive. Even so, the nominative is possible with inanimate non-pronominal subjects, especially in clauses with an existential content [250] (example from Brosig and Guntsetseg, p.c.). The exact background and dialectal picture of this usage remains to be studied.

[250] *ter*   *bol*   *man-ai*   *mashen*   *dzogs-e.j*   *bai-sen*   *gadzer*   *meon*
    that   TOP   PL1P.EXCL-GEN   car   stand-C.IMPRF   be-P.PRF   place   COP
    'That is the place where our car was standing.'

Instead of a semantically fully specified nominal, the generic noun *youm//n* 'something' > 'thing/s' can also be used as the nominal headword in disjunct relativization, in which case we might speak of "generic relativization". The resulting phrase functions as a substantival nominal (noun), as in *ounsh-* 'to read' : PART FUT *ounsh-ex youm//n* 'things to be read' : PART PRF *ounsh-sen youm//n* 'things that (somebody) has read'. Structurally, such phrases are in no way different from other cases of disjunct relativization.

8.7 Nominal relativization

The relativization of verbal predicates raises the question concerning the status of adjectives in Mongolian grammar. Although morphologically nominals, adjectives are in some respects syntactically reminiscent of verbals, and this is also evident from their dual use as both finite predicates (normally without a copula) and as adnominal modifiers. The adnominal use of adjectives is syntactically an obvious parallel to the relativization of verbs, and both word classes can even take similar modifiers, such as intensifying particles [251]. Naturally, if a specific temporal-aspectual content is to be expressed, a copular verb (*bai-* or *bol-*) in the proper participial form has to be used after the adjective, in which case we may speak of "copular relativization", which is simply a variety of regular conjunct relativization [252]. In such sequences, the adjective may also be replaced by a substantival nominal.

[251] *nileed*   *sain*   *xun*   :   *nileed*   *id-sen*   *xun*
  rather   good   person   rather   eat-P.PRF   person
  'a rather good man'   'a man who ate rather much'

[252] *sain*   *bol-sen*   *xun*   :   *sain*   *yary-sen*   *xun*
  good   become-P.PRF   person   good   talk-P.PRF   person
  'a person who has become well'   'a person who has spoken well'

More rarely, and only in literary style, the defective copula *bii ~ bwii ~ bwai* (Cyrillic Khalkha **bui**) can be used as a relativized copular predicate, although it synchronically does not contain a participial marker [253].

[253] *man-ai*   *odao-g.ii.n*   *xeregl-e.j*   *bwii*   *usg-e.n'*
  PL1P.EXCL-GEN   now-GEN   use-C.IMPRF   COP   letter-PX3P
  'the letters that we use now'

The interpretation of adnominal adjectives as relativized predicates is, of course, mere speculation that remains unconfirmed for Mongolian, though it has to be noted that verbal adjectives are a feature well attested elsewhere within the "Ural-Altaic" typological realm. In any case, this line of thinking would seem to facilitate the understanding of other types of nominal relativization. It is, for instance, possible to think of the nominative marker *-x* (§4.9) as a "relativizer", as in LOC *en-d* 'here' : LOC NOM *en-d-e.x* '(one) who is here'. Such forms essentially function as the relativized counterparts of existential clauses, which is why we may terminologically identify them as examples of "existential relativization". Like copular relativization, existential relativization can also be expressed by the nominalized forms of the copular-existential verbs (*bai-* or *bol-*, as well as *bii* with variants).

Finally, there are constructions that may be viewed as examples of "possessive relativization", that is, as the relativized equivalents of possessive constructions ('who has'). The possessive and privative cases as such may be understood as equivalent to relativized constructions, as in *mory/n* 'horse' : POSS *mory-tai* '(one) who has a horse' : PRIV *mory=gwai* '(one) who has no horse', in which role they can be used both as independent nominal (adjectival) predicates and as modifiers before a nominal headword. More interestingly, an entire clause with a nominal subject and an adjectival predicate can be relativized simply by placing it before a nominal headword [254] (example from Poppe 1951:109).

[254] *xeul nutzgen*   :   *xeul   nutzgen   xun*
      foot   naked   [foot   naked]   person
      '(One's) feet are naked.'   'a bare-footed person'

Such sequences are essentially identical in function with nominal phrases marked by the possessive case ending, though in the regular nominal phrase the components have a different order, as in *nutzgen xeul* 'bare feet' : POSS *nutzgen xeul-tai* 'with bare feet'. It is, however, possible to add the possessive case ending also to the adjectival predicate of the relativized clause. The two types of sequences are often more or less synonymous [255]. Even so, it is important to understand that the relativized sequence is a separate clause with a subject (a noun) and a predicate (an adjective). In such sequences, the possessive case marker may also be seen as functioning as a clausal "relativizer".

[255] *olen   nom-tai   xun*   :   *nom   olen-tai   xun*
      [many   book]-POSS   person   [book   many]-POSS   person
      'a person with many books'   'a person who has many books'

From the morphological point of view, it has to be noted that some, though not all, adjectival nominals ending in the nasal *n* can lose this segment in relativized usage when combined with the possessive case ending, as in *biy* 'body, health' + *sain* 'good' > POSS *biy sai-tai* 'one who has a good health'. This may be seen as exceptional behaviour with a lexical basis, as the final nasal of adjectives is otherwise always of the stable type. It may be added that many relativized sequences with an adjectival predicate, either with or without the possessive case ending, have also semantically become lexicalized expressions which function as complex adjectives, as in *seutgel* 'thought, mind' + *dzeolen* 'soft' > *seutgel dzeolen* 'compassionate, kind', *am//n* 'mouth' + *moo* 'bad' > POSS *am moo-tai* 'evil-tongued', *ajel* 'work' + *yix* 'big, much' > POSS *ajel yix-tai* 'busy'.

Special cases are formed by POSS *dour-tai* 'fond of' > 'to like' : PRIV *dour=gwai* 'to dislike' and POSS *xusel-tai* 'willing' > 'to want to' : PRIV *xusel=gwai* 'unwilling', from *dour//n* 'desire, liking' and *xusel* 'wish, willingness', respectively. All of these can be combined with a preceding futuritive participle, in which usage they function very much like

"modal nominals" [256], similar to items like POSS *xereg-tai* 'must' : PRIV *xereg=gwai* 'need not' (as discussed earlier, §8.3). The items POSS *dour-tai* : PRIV *dour=gwai* are, however, frequently also used after nominals in the dative case [257]. In adnominal usage, the subject of such sequences is in the genitive, making the whole construction reminiscent of a relativized clause with a nominalized verbal predicate.

[256] *bii* *yary-ex* *dour-tai* : *bii* *yary-ex* *xusel-tai*
       SG1P talk-P.FUT desire-POSS   SG1P talk-P.FUT wish-POSS
       'I like to talk.'   'I want to talk.'

[257] *bii* *nom-d* *dour-tai* : *min-ii* *dour-tai* *nom*
       SG1P book-DAT desire-POSS   SG1P-GEN desire-POSS book
       'I like books.'   'a book that I like'

Altogether, the syntactic behaviour of adjectives and adjectivally used forms, including the possessive and privative case forms as well as the marked nominative case form of nominals, is in many ways intriguingly similar to that of nominalized verbs. Apart from the various types of relativized constructions, this is also illustrated by referative constructions (as discussed below).

8.8   Referative constructions

While relativization may be seen as a phenomenon that allows clauses to be used adjectivally, that is, as adnominal modifiers (attributes), refererative constructions involve the substantivization of clauses. Like relativized clauses, referative constructions ("noun clauses"), are formed by nominalizing the verbal predicate, but the nominalized predicates in them are used as substantives (nouns), that is, in the roles of nominal headwords (subjects, objects and adverbials). Since Mongolian has no referative conjunction ('that'), the referative constructions in the language are more or less equivalent to what are known as "clausal complements" or "complement clauses" in languages with a different type of syntax.

Ultimately, referative constructions are made possible by the fact that participles in Mongolian can function both as actor nouns and as action nouns, as in *med-* 'to know' : PART FUT *med-ex* (actor noun:) 'one who knows' ~ (action noun:) 'the fact that one knows'. When used as action nouns, participles can take a subject in the genitive, while a subject in the nominative will normally imply that the participle is being used in a finite function [258]. Unlike the situation in the formally similar sequences involving disjunct relativization (§8.6), the nominalized verb following a genitival subject in a referative construction retains its active meaning.

[258] *cii*   *ir-sen*   :   *cin-ii*   *ir-sen*
       SG2P   come-P.PRF   SG2P-GEN   come-P.PRF
       'You came.'   'the fact that you came'

To make the referative construction stand out more clearly in the sentence the nominalized predicate in subject position is often marked by a third-person possessive suffix [259], which may also be seen as having the function of a topic marker (§7.7). In other positions and roles, the substantival status is evident from case marking [260]. It should be noted, however, that when used in the basic local (dative and ablative) and modal (instrumental) cases, referative constructions often, though not always, become functionally equal to converbs and are better classified as quasiconverbs, syntactically belonging to the context of serialization (§§8.9–8.10).

[259] *ter*   *xun-ii*   *ir-x-e.n'*   *yix*   *couxel*   *bai-n=aa*
       that   person-GEN   come-P.FUT-PX3P   big   important   be-DUR=EMPH
       'It is very important that he comes.'

[260] *con/e.n-d*   *xony*   *xadeghl-ool-sen-tai*   *adyel*
       [wolf-DAT   [sheep   conserve]-CAUS-P.PRF]-POSS   like
       'It is as if we had put a wolf in charge of guarding sheep.'

Like several other types of constructions, referative constructions can be either conjunct or disjunct, that is, they can either share or not share their subject with the head clause. This difference is, however, possible only in oblique positions (functions other than the subject). In the conjunct type, the subject is expressed by the reflexive suffix, added to the nominalized predicate [261].

[261] *bii*   *en-d*   *ir-sen-d-ee*   *bayerl-e.j*   *bai-n'*
       SG1P   here-LOC   come-P.PRF-DAT-RX   rejoice-C.IMPRF   be-DUR
       'I am glad that I came here.'

When a referative construction is used in object position, its subject can stand either in the nominative or in the accusative, but also in the genitive, with no apparent difference in the meaning [262] (example from Svantesson 2003:172). The use of the accusative as the subject case in such sequences suggests that both the subject and the nominalized predicate are separately viewed as direct objects of the transitive predicate of the head clause, making this construction somewhat reminiscent of the accusative + infinitive ("accusativus cum infinitivo") construction in some other languages. It is possible, though the matter remains to be investigated, that there are dialectal differences in the use of the three possible subject case forms (nominative, accusative, genitive) in this type of constructions.

[262] *ter ~ tuu/n-ii.g dzaxyaa bic-e.sn-ii.g bii xar-sen*
that that-ACC letter write-P.PRF-ACC SG1P watch-P.PRF
'I saw him write a letter.'

In Mongolian, indirect questions are also expressed with the help of referative constructions. In the case of a non-polar question, the nominalized sequence will then contain an interrogative word in the role of any constituent of the clause [263]. Using the negative auxiliary *es-* in a participial form it is even possible to treat a polar question as a referative construction [264].

[263] *ter xun-ii xedzee ir-x-ii.g med-ex=gwai*
that person-GEN when come-P.FUT know-P.FUT=PRIV
'I do not know when he comes.'

[264] *ten-d ous bii es-x-ii.g med-ex=gwai bai-n'*
there-LOC water EXIST NEG-P.FUT-ACC know-P.FUT=PRIV be-DUR
'We do not know whether there is water there or not.'

Although the predicate in referative constructions is normally a nominalized verb, a structurally very similar construction is possible with an adjectival predicate. Here, again, the subject stands in the genitive [265].

[265] *mory/n-ii sain-ii.g oun-e.j med-deg*
horse-GEN good-ACC ride-C.IMPRF know-P.HAB
'To know whether a horse is good you have to ride it.'

Such examples are based on the fact that adjectives in Mongolian, very much like nominalized verbs, can have both adjectival and substantival functions, as in *sain* 'good' = 'one who is good' ~ 'goodness' = 'the fact that something is good'. In the former function adjectives behave like relativized predicates, while in the latter function they are equivalent to referative constructions.

8.9   Conjunct serialization

Both relativization and referative constructions involve the use of nominalized verbal (and adjectival) predicates as nominals (adjectives and nouns). In serialization, by contrast, verbal forms are used in the function of adverbs, that is, as adverbials modifying the verbal headword that functions as the predicate of the head clause. In conjunct serialization the subject of the dependent clause ("adverb clause") is identical with that of the head clause. This means that the whole sequence has only one shared subject, which normally stands at the beginning of the complex sentence, but which may also be physically absent if implied by the context.

The verbal forms that can indicate conjunct serialization include, on the one hand, the conjunct converbs (10 different forms) and, on the other, the quasiconverbs marked by the reflexive suffix (12 different forms). Some of the conjunct converbs, as also the ambivalent non-finite forms, are also used as components of complex verbal predicates at the phrasal level, and some converbs (especially the momentaneous and serial converbs) are exclusively attested in this function. The difference between phrasal and clausal serialization is simply that in the latter each verb represents a separate clause and can therefore take arguments of its own [266]. Also, the syntactic headwords of complex verbal predicates may be classified as auxiliaries, while clausal serialization involves non-auxiliary headwords.

[266₁] *ger-ees-ee   gar-aad*
      house-ABL-RX   exit-C.PRF
      'She went away from home and

[266₂] *deuc-e.n   jil-ii.n   daraa   ol-d-lao*
      forty-ATTR   year-GEN   after   find-PASS-CONF
      was found forty years later.'

The functional distinction between conjunct and disjunct converbs is not completely strict, and, in any case, many disjunct converbs (7 different forms) can also be used in same-subject constructions. This is perhaps most common in the case of the conditional and concessive converbs, which may be connected with the fact that they are of a transparent finite origin [267].

[267₁] *nuur   boudelt-aa   dzeub   xii-bel*
      face   colouring-RX   correct   do-C.COND
      'If you do your make-up correctly,

[267₂] *taa   oulem=c   xeorxen   bol-e.n'*
      PL2P   still.more=ADD   beautiful   become-DUR
      you will become even more beautiful.'

The actual functions (meanings) of the various converbial and quasiconverbial forms indicating serialization, as elaborated in some detail in the section on verbal morphology (§§5.7–5.8), fall beyond the scope of syntax. It may be noted, however, that most of the converbial forms have either a temporal-aspectual (imperfective, perfective, modal, abtemporal, incidental, immediative, concomitant, successive, contempORAL) or a temporal-conditional (conditional, preconditional, terminative) function. The semantic contrast between the different forms is often minimal, which means that there is a considerable degree of potential overlapping in the system. On the other hand, the diversity of the converbial system allows, at least theoretically, even very subtle distinctions to be

expressed. One complication in this context is that such distinctions often involve dia-
lectal differences in the details.

   With the exception of the modal converb, which has a corresponding negative form
(MOD *-n* : MOD NEG *-ng=gwai* ~ *-l=gwai*), converbs cannot be negated morphologically,
and the need to negate them arises very seldom. When necessary, however, they can be
negated by using the particles *ul* and *es* placed before the converbial form [268] (example
from Kullmann & Tserenpil 1996: 333).

[268₁] *ter*   *uu/n-ii.g*   *ul*   *dzeubsheor-c*
       that   this-ACC   NEG   accept-C.IMPRF
       'He did not agree with this, which is why

[268₂] *gar-ii.n*   *useg*   *dzour-x.aas*   *tatgeldz-eb*
       hand-GEN   letter   draw-P.FUT-ABL   abstain-TERM
       he abstained from signing.'

In general, it may be said that serialized clauses are somewhat more loosely connected
with their head clauses than, for instance, referative constructions are. This is because a
serialized clause does not occupy the position of a principal argument (subject, object)
in the head clause. Instead, it forms a well-delimited entity which can also be omitted
without affecting the integrity of the head clause.

8.10   Disjunct serialization

In disjunct serialization the subject of the serialized clause is different from that of the
head clause. This means that the sequence has two separate subjects, though it is also
possible that neither of them is physically present in the sentence [269].

[269₁] *xai-g.aad*   *xai-g.aad*   *yab-e.bc*
       search-C.PRF   search-C.PRF   depart-C.CONC
       'Although they go looking all around,

[269₂] *xaa-n-aas-c*   *ol-d-ex=gwai*
       where-LOC-ABL=ADD   find-PASS-P.FUT=PRIV
       it cannot be found anywhere.'

The forms normally used in disjunct serialization include, on the one hand, the disjunct
converbs (7 different forms) and, on the other, the quasiconverbs without the reflexive
suffix (12 different forms). The latter forms, in particular, always imply a change of sub-
ject, while some of the disjunct converbs are also used in same-subject constructions. On
the other hand, it is also possible, though not very typical, to use some of the conjunct

converbs, especially the most basic ones (imperfective, perfective) in different-subject constructions [270]. This shows, once again, that the borderline between conjunct and disjunct converbs is not sharp.

[270₁] *ter   xun   ter   ger-t   or-aod*
      that   person   that   house-DAT   enter-C.PRF
      'He entered that tent, while

[270₂] *bii   en'   ger-t   ount-sen*
      SG1P   this   house-DAT   sleep-P.PRF
      I slept in this tent.'

When present in the sequence, the subject of a serialized clause stands normally either in the nominative or in the accusative, with no apparent difference in the meaning [271] (example adapted from Svantesson 2003: 173). It seems, though, that the accusative more often than the nominative indicates an active personal (+human) participant. The use of the accusative here is especially interesting, since in serialization it is not connected with object position. It has to be concluded that the accusative marks not only the direct (definite, specific) object but also the indirect subject. This means that, in Mongolian, almost all case forms can be used to indicate the subject, or also the agent: the nominative (the default case), the genitive (in relativization and referative constructions), the accusative (in disjunct serialization and referative constructions), as well as the dative and the instrumental (in passive and causative constructions).

[271₁] *bii   ~   nam-ai.g   delguur-t   bai-x-e.d*
      SG1P   SG1P-ACC   shop-DAT   be-P.FUT-DAT
      'While I was in the shop,

[271₂] *ter   xun   shooden-d   yab-sen*
      that   person   post.office-DAT   depart-P.PRF
      he went to the post office.'

As in conjunct serialization, the dependent clause in disjunct serialization can be negated by using the particles *ul* and *es* placed before the converbial form [272] (example from Kullmann & Tserenpil 1996: 333).

[272₁] *taa   uu/n-ii.g   ul   dzeubsheor-bel*
      PL2P   this-ACC   NEG   accept-C.COND
      'If you do not agree with this,

[272₂] *gar-ii.n   useg   dzour-ex=gwai   bai-j   bol-e.n'*
      hand-GEN   letter   draw-P.FUT-PRIV   be-C.IMPR   become-DUR
      you may not sign it.'

Serialization is one of the most widely used syntactic devices in Mongolian, and it is not rare to have long sequences of serialized clauses, formed by a succession of different converbs and quasiconverbs. This is particularly typical of literary and descriptive style, while in daily dialogue (clausal) serialization is less common and tends, in any case, to be restricted to examples of binary pairs of only one dependent clause and a head clause. It may be noted that the relative frequency of serialized clauses stands in inverse proportion to that of finite forms. Many of the phenomena connected with finite predicates, such as evidentiality and the final particles, are therefore typically phenomena of the colloquial context, or, in any case, the colloquial language offers more opportunities to use them.

8.11   Quotative constructions

There are several verbs in Mongolian that express verbal communication, including, for instance, *xel-* 'to say', *asoo-* 'to ask' and CAUS *xary-ool-* 'to reply' (from *xary-* 'to return'). The actual quotative verb (proper) is, however, *ge-* (: *g-*) 'to say, to call', which may be classified as an auxiliary. In spite of its exceptional morpheme structure (CV- : C-), *ge-* (: *g-*) behaves morphologically like a full verb and has a range of both finite and non-finite forms, including, for instance, DUR *g-e.n* : CONF *ge-lee* : TERM *g-eb* : RES *ge-jai* : PART FUT *g-ex* : PART PRF *ge-sen* : PART IMPRF *g-ee* : PART HAB *ge-deg* : CONV IMPRF *g-e.j* : CONV PRF *g-eed* : CONV COND *ge-bel* : COND CONC *g-e.bc.* Although the paradigm has some lacunae, this is syntactically a regular transitive verb that can be used alone with an object in the accusative [273].

[273] *min-ii   ner-ii.g   delger+maa   ge-deg*
      SG1P-GEN   name-ACC   Delgerma   QUOTE-P.HAB
      'My name is Delgerma.'

Most commonly, however, *g(e)-* is used in its auxiliary function after sections of reported speech. Typically, the section of reported speech forms an independent finite clause that is inserted into a head clause with the help of a suitable form of *g(e)-*. Since the role of *g(e)-* is to link the section of reported speech with the head clause it is normally used in one of only two forms: PART HAB *ge-deg* for adnominal linkage (relativization) and CONV IMPRF *g-e.j* for adverbal linkage (serialization). More rarely PART PRF *ge-sen* or CONV PRF *g-eed* (but also other forms) can be used in the same functions. In adnominal usage the quotative verb is followed by a nominal [274], while in adverbal usage it is normally followed by another verb that specifies the type of verbal communication in question [275].

[274]   *taben*   *tolgai*   *ge-deg*   *xot*   *bai-g.ool-e.gd-ex*   *yos-tai*
       five   head   QUOTE-P.HAB   town   be-CAUS-PASS-P.FUT   rule-POSS
       'A town by the name "Tawantolgoi" shall be established.'

[275]   *ner-cen*   *xem=b*   *g-e.j*   *asoo-b*
       name-PXSG2P   who=CORR   QUOTE-C.IMPR   ask-TERM
       '"What is your name?" he asked.'

Because of their specific use, the forms PART HAB *ge-deg* and CONV IMPRF *g-e.j* could also be classified as lexicalized particles, but it has to be noted that they tend to retain their basic functional opposition (adnominal vs. adverbal). Even so, the item *g-e.j* has expanded its occurrences to adnominal positions, suggesting that it is developing to a general quotative particle [276]. Moreover, at least dialectally, it can be used without a headword, in which usage it functions as a topic marker for names [277] (example from Sechenbaatar 2003: 153).

[276]   *en'*   *neeree*   *yuu*   *g-e.j*   *ner-tai*   *tzetzeg=bwai*
       this   actually   what   QUOTE-C.IMPR   name-POSS   flower=CORR
       'What is this flower actually called?'

[277]   *naideng*   *g-e.j*   *un-eer*   *sortoo-tai*   *er=shuu*
       Naidang   QUOTE-C.IMPR   truth-INSTR   reason-POSS   man=ASS
       'Naidang is truly a handsome man.'

Apart from names and actual quotations of finite clauses, the quotative verb, especially in the form CONV IMPRF *g-e.j*, is used to link interjections and imitative particles to regular clauses. In this connection, interjections are best understood as separate defective clauses, which function like quotations [278]. It may be recalled that many imitative particles form lexicalized compounds with the verb *g(e)-*, as in *tung* [sound of explosion] : *tung+g(e)-* 'to make a sound of explosion'.

[278₁]   *xanyaa-lg-e.j*   *doos-e.sn-ii*   *daraa*
       cough-CAUS-C.IMPRF   stop-P.PRF-GEN   after
       'After the coughing spell is over,

[278₂]   *xyuu=uu*   *g-e.j*   *doo*   *gar-e.n'*
       ONOM=EMPH   QUOTE-C.IMPRF   sound   exit-DUR
       there is a whistling sound.'

While the quotative verb typically, and originally, follows direct quotations, Mongolian also knows the phenomenon of indirect quotation. This differs from direct quotation by the form of the subject, which in indirect quotation stands in the accusative. At the same time, the personal reference of the subject may be changed to correspond to the indirect speech situation [279] (example from Poppe 1951: 113). The use of the accusative as the

case of the subject in this type of construction is reminiscent of serialization (§8.10), but it has to be noted that the predicate before the quotative verb remains in a finite form. The resulting "mixed" construction has the potential of developing further in a number of directions.

[279] *nam-ai.g*   *ir*   *g-e.j*   *xel-sen*
       SG1P-ACC   come.IMP   QUOTE-C.IMPRF   say-P.PRF
       'He told me to come.'

Another line of development is that the actual quotative function of *g(e)-* is often obscured. In combination with the futuritive participle of a preceding verb, *g(e)-* functions simply as an intentional auxiliary, as in *yab-* 'to depart, to go' : PART FUT *yab-ex g(e)-* 'to intend to go' [280]. When nominalized (in substantival usage), such sequences yield referative constructions with a connotation of second-hand information [281] (example from Kullmann & Tserenpil 1996: 309).

[280] *olen*   *ouls-ii.n*   *xourel-d*   *yab-ex*   *ge-sen*   *youm*
       many   state-GEN   meeting-DAT   depart-P.FUT   QUOTE-P.PRF   COP
       'I intend to go to an international conference.'

[281₁] *ter*   *ir-j*   *cad-ex=gwai*
        that   come-C.IMPRF   be.able-P.FUT=PRIV

[281₂] *ge-dg-ii.n*   *oucer*   *yuu*   *bwai*
        QUOTE-P.HAB-GEN   reason   what   COP
        'What is the reason that he cannot come?'

As in many other languages, some of the functions of the Mongolian quotative verb could be viewed as manifestations of the category of evidentiality. While the principal function of the quotative verb is to express specific information based on direct quotation ("quotative evidentiality"), there are cases in which the information is of a more generic type ("hearsay evidentiality"). In particular, in colloquial speech, the finite form DUR *g-e.n'* can be used after a finite predicate, giving it an evidential connotation ('they say'), as in *ir-* 'to come' : DUR *ir-e.n' g-e.n'* 'he will come, they say' : PART PRF *ir-sen g-e.n'* 'he has come, they say'. Synchronically, *g-e.n'* in such usage may still be analysed as representing a separate finite clause, but it is clearly on the way towards becoming a final particle with an evidential function. Another final particle connected with the quotative verb, is *gem* (< *ge-m*, a petrified deverbal nominal in *-m*), which is used dialectally after imperative predicates to enhance the command ('as I said') (Sechenbaatar 2003: 192).

8.12 Subordinating conjunctions

As has been mentioned in several contexts above, Mongolian has virtually no need for conjunctions, as all interphrasal and interclausal relationships can be expressed either syntactically or morphologically. This is especially the case with relationships of subordination between a dependent clause and a head clause, since such relationships are handled by nominalization (referative constructions) and converbialization (serialization), occasionally also by other means. It goes without saying that although the participial and converbial markers functionally correspond to conjunctions in other language types, they are not conjunctions as such.

Faithful to its own language type, Mongolian shows few signs of even incipient conjunctions of the subordinating type. There are, however, two exceptions, connected with the conditional and concessive converbs. Due to their relatively recent and still transparent finite origin (from the terminative in -b in combination with the enclitic particles LIM =l and ADD =c), these two converbs are in many ways exceptional not only morphologically, but also syntactically. The basic development is that when formed from the auxiliary *bol-* 'to be(come)' these converbs, that is CONV COND *bol-bel* 'if (it) is, when (it) is' and CONV CONC *bol-e.bc* 'even if (it) is, although (it) is', are frequently used after nominal and nominalized predicates, in which position they combine the roles of copula and converb and could possibly also be viewed as clause-final conjunctions [282–283].

[282] *ireedwai   iim   bol-bel   goy=ao*
       future   like.this become-c.cond   beautiful=EMPH
       'If the future is like this, it is beautiful!'

[283] *oun-sen   bol-e.bc   oureldaa/n-d   turuul-eb*
       fall-P.PRF   become-c.conc   competition-DAT   be.first-TERM
       'Although he fell, he won the competition.'

Moreover, CONV COND *bol-bel* is in such usage normally simplified to *bol* [284], which is also the source of the topic marker *bol*. Since *bol* no longer has a synchronic morphological structure, it is a good candidate for an item that could be analysed as a true conjunction. It should nevertheless be noted that it can only stand after nominal and nominalized predicates, for the dependent clause to which it belongs can never have an actual finite form as the predicate.

[284] *bic-e.j   cad-ex   bol   bic=dee*
       write-C.IMPRF be.able-P.FUT   COND   write.IMP=AFF
       'If you can write, do write!'

Another development is that dependent clauses containing the conditional and concessive converbs, or the simplified form *bol*, are often introduced by an element that

has a function similar to that of a conjunction. The element used in conditional clauses is *xereb* ~ EMPH *xerb=ee* 'if', while concessive clauses have *xedii* ~ INSTR *xedii-g.eer* 'although'. Etymologically, both of these elements are derived from the interrogative pronominal stem *xe-* 'what? which? who?', *xedii* being identical with the pronominal quantifier *xe-d-ii* 'how much?' > 'however much', while *xereb* is based on the modal form *xe-r* 'how?'. When used in a dependent clause, they require the presence of the corresponding converbial form. This means that the conditional and concessive relationships are shown twice: first by the anticipatory element and then by the concluding converbial form [285–286].

[285₁] *xerb=ee*   *taa*   *eruul*   *mend-ee*   *bod-deg*   *bol*
      if=EMPH   PL2P   health   health-RX   think-P.HAB   COND
      'If you think of your health,

[285₂] *els-e.n*   *cixr-ii.n*   *xereglee-g.ee*   *bages-g-aarai*
      sand-ATTR   sugar-GEN   usage-RX   diminish-CAUS-PRESCR
      you should reduce your intake of granulated sugar.'

[286₁] *ter*   *xedii*   *noulyems-aa*   *bary-e.j*   *bai-sen*   *bol-e.bc*
      that   although   tear-RX   grasp-C.IMPRF   be-P.PRF   become-C.CONC
      'Although she tried to suppress her tears,

[286₂] *eor-ii.n*   *erx=gwai*   *noulyems*   *ours-e.gh-sen*   *bai-n*'
      self-GEN   power=PRIV   tear   flow-CAUS-P.PRF   be-DUR
      she could not help shedding tears.'

It may be concluded that, at the current state of the language, the elements *xereb* ~ *xerb=ee* and *xedii* ~ *xedii-g.eer* are not yet full conjunctions but, rather, auxiliary elements that anticipate and complement the type of relationship expressed by the clause-final conditional and concessive forms.

8.13   Discursive connectors

By discursive connectors are here meant elements that express connections between separate sentences. Apart from pronominal words (deictics), which indicate references to nominal elements across syntactic boundaries, there are not many such elements in Mongolian, though final particles and clausal modifiers may sometimes be seen as having this function. To some extent, the need for discursive connectors is reduced by the possibility of chaining clauses by morphological means (serialization). For this reason, discursive connectors, like conjunctions, typically involve items that are still in the process of being grammaticalized. Many of these cases involve phrases which are neither lexicalized nor fully grammaticalized.

Most of the items that may be classified as discursive connectors are transparent forms and constructions, often based on converbs. The single major source of such items is the quotative verb *g(e)-*, of which several forms, including CONV CONC *g-e.bc*, CONV TERM *ge-tel* and PART FUT DAT *g-ex-e.d*, are synchronically used as adversative connectors in the meaning 'however, but'. It is easy to see that this function originates from the regular converbial (or quasiconverbial) usage of these items. While the converbial (or quasiconverbial) form is originally at the end of a dependent clause, it has come to occupy the initial position in the following head clause (example from Kullmann & Tserenpil 1996: 302).

[287₁] *dorj   shater   sain   togel-deg*
     Dorj   chess   good   play-P.HAB
     'Dorj plays chess well,

[287₂] *gebc   xeul   beumbeg   togl-ex-d-ao   taaroo-xen*
     but   foot   ball   play-P.FUT-DAT-RX   satisfactory-DIM
     but he is poor at playing football.'

A very similar development is involved in the adversatively used item *xaryen* 'but', which is identical with CONV MOD *xary-e.n* from *xary-* 'to return'. Although this item is functionally equivalent to a conjunction, its role in Mongolian is not to link two parts of a single complex sentence but, rather, to connect two separate sentences, or also larger discursive entities, with each other [288].

[288₁] *bii   bolbserl-ii.n   said-aas   ai-x=gwai   bai-n'*
     SG1P   education-GEN   minister-ABL   fear-P.FUT=PRIV   be-DUR
     'I am not afraid of the Minister of Education,

[288₂] *xaryen   said-ii.n   bolbserl-aos   ai-j   bai-n'*
     but   minister-GEN   education-ABL   fear-C.IMPRF   be-DUR
     but I am afraid of the education of the minister.'

There are also other elements and constructions that have a similar function, but the degree of their grammaticalization may be questioned. An example is offered by the sequence *xedii tiim bolebc* 'although it is so' (with *tiim* 'such, so'), which is increasingly often being used sentence-initially as a discursive element meaning 'in spite of that', 'nevertheless', 'in any case'. Altogether, the taxonomic status of discursive connectors is a complicated area for which no simple descriptive solution is available. Some items are probably impossible to place in a single niche of the grammar, since they are inherently multifunctional. A case in point is the "modal" particle *bas* 'also, even, again' which has both adverbal and adnominal, but also clausal and discursive applications.

The study of the discursive properties of Mongolian is a potentially promising and still largely unexplored field. In a broad understanding, it would, of course, comprise a variety of conceptual, communicative and pragmatic aspects of the language. Even so, the significance of this field should not be exaggerated at the expense of the actual grammar. Grammar is the precise tool by which the speaker operates in all situations, while discourse forms only a diffuse general framework in which the grammatical operations take place.

Text sample

The following text will serve as a brief illustration of the syntactic and discursive properties of Mongolian, as well as of the interpretational and notational conventions used in the present volume. This is an extract of a Khalkha folktale that has been used as a linguistic sample before (originally by Atwood 2002, then also, in the current abbreviated form, in Janhunen 2006, 2010). The text below is presented in two Romanized orthographical versions, corresponding to Written Mongol (1) and Cyrillic Khalkha (2), followed by a phonemic transcription with morphological segmentation (3), glossing (4), as well as an approximate phrasal translation (5). A full textual translation is added separately. In the morphological analysis, only inflectional forms are indicated in full, while derivational forms are specified only as far as they are productive and do not involve lexicalized exceptions.

The Romanized orthographical versions reflect the segmental structure of the corresponding written sequences in terms of the Roman representations used here (on the principles of Romanization, cf. the Chart of Letters). For Written Mongol, the current orthography (Modern Written Mongol) is used.

1 **vrda** **vuridu** **caq tu** **gadav** **quni** **vimaqhadai**
2 **ert** **uryd** **tzagt** **xeden** **xony** **yamaatai**
3 [*ert* *oury-d* *cag-t*] [[[*xed-e.n* [*xony* *yamaa*]-*tai*]
4 early before-ATTR time-DAT how.many-ATTR sheep goat-POSS
5 once upon a time having some sheep and goats

1 **vbugav** **vmagav** **quyar** **vamidurazu** **bajizai**
2 **öwgön** **emgen** **xoyër** **amydarj** **baijee**
3 [*eubgen* *emgen* *xoyer*]] [*amyder-j* *bai-jai*]
4 old.man old.woman two live-C.IMPRF be-RES
5 an old man and an old woman were living

1 **nigav** **vdur** **vbugav** **tuilii e** **tagugar**
2 **negen** **ödör** **öwgön** **tülee** **tüüxeer**
3 [*neg-e.n* *euder*] [*eubgen* [[*tulee* *tuu-xeer*]
4 one-ATTR day old.man firewood collect-C.FIN
5 one day the old man in order to collect firewood

1 **vui du**   **vucidal e**   **bars**   **taqharilduzu**
2 **oid**   **octol**   **bar**   **dairaldaj**
3 [*oi-d*   *oc-tel*]]]   [*bar*   *dair-e.ld-e.j*]
4 forest-DAT   go-C.TERM   tiger   hit-RECIPR-C.IMPRF
5 went to the forest and then   a tiger came across and

1 **cimadai**   **guicu bav**   **surizu**   **vuizan e**   **gazai**
2 **camtai**   **xücee**   **soryj**   **üdzne**   **gejee**
3 [*cam-tai*   [[*xuc-ee*   *sory-j*]   *udz-n=ee*]]   [*ge-jai*]
4 SG2P-POSS   strength-RX   try-C.IMPRF   see-DUR=EMPH   QUOTE-RES
5 I will try to test my strength with you   it said

1 **vbugav**   **mavgdazu**   **savduraqsav ijav**
2 **öwgön**   **megdej**   **sandarsnaa**
3 [*eubgen*   [*megd-e.j*   *sander-sn-aa*]
4 old.man   become.embarrased-C.IMPRF   become.confused-P.PRF[-LOC]-RX
5 the old man was embarrassed and confused but

1 **sayi**   **sagagae**   **vabcu**   **ja**   **yaqhagiqu bui**   **tagai e**
2 **saya**   **sexee**   **abc**   **dza**   **yaaxaw**   **tegyye**
3 [*say*   [*sexee*   *ab-c*]]]   [*dzaa*]   [*yaa-x=e-b*]   [*teg-y=ee*]
4 recent   reason   take-C.IMPRF   INTERJ   do.what=P.FUT=CORR   do.so-VOL=EMPH
5 soon he came to his senses   well, there is nothing to do about it

1 **tagagu dagav**   **marqhasi**   **vna**   **qhazar ijav**   **siu**   **gazai**
2 **tegexdee**   **margaash**   **ene**   **gadzraa**   **shüü**   **gejee**
3 [*teg-ex-d-ee*]   [*margaash*   *en'*   *gadzr-aa*   *shuu*]   [*ge-jai*]
4 do.so-P.FUT-DAT-RX   tomorrow   this   place[-LOC]-RX   PCLE   QUOTE-RES
5 then   tomorrow at this place   he said

1 **vbugav**   **gar tagav**   **qarizu**   **buluqsav**   **yabudal i**
2 **öwgön**   **gertee**   **xaryj**   **bolson**   **yawdlÿg**
3 [*eubgen*   [*ger-t-ee*   *xary-j*]   [[*bol-sen*   *yabdl-ii.g*]
4 old.man   home-DAT-RX   return-C.IMPRF   become-P.PRF   event-ACC
5 the old man returned home and   what had happened

1 **vmagav dagav**   **galazai**   **tagagu du**   **vmagav ni**
2 **emgendee**   **xeljee**   **tegexed**   **emgen ny**
3 [*emgen-d-ee*   *xel-jai*]]]   [*teg-x-e.d*   [*emegn-e.n'*
4 old.woman-DAT-RX   say-RES   do.so-P.FUT-DAT   old.woman-PX3P
5 he told to his wife   then   his wife

1 **quyaqhula bav** **vui du** **vucizu** **gadav** **buiduguv** **mudu**
2 **xoyëulaa** **oid** **ocij** **xeden** **büdüün** **mod**
3 [[*xoy-ool-aa* *oi-d* *oc-e.j*] [[*xed-e.n* [*buduun* *mod*]]
4 two-COLL-RX forest-DAT go-C.IMPRF how.many-ATTR thick tree
5 let the two of us go to the forest and some thick trees

1 **tudaqhu** **girugadagat** **vurgiciqai e** **gazai**
2 **dutuu** **xöröödööd** **orxicix'yë** **gejee**
3 [*doutoo* *xeureod-eod*] *oryx-cex-y=ao*] *ge-jai*]
4 incomplete saw-C.PRF throw-INTENS-VOL=EMPH QUOTE-RES
5 let us partially cut by sawing them she said

1 **vuirlugae ni** **vui du** **virabal** **bars**
2 **öglöö ny** **oid** **irwel** **bar**
3 [*eugleo-n'* [*oi-d* *ir-bel*]] [[*bar*
4 morning-PX3P forest-DAT come-C.COND tiger
5 in the morning when he came to the forest the tiger

1 **gadujiv u** **viracigagsav** **vbugav i** **guiliyazu** **bajizai**
2 **xediinii** **ircixsen** **öwgöniig** **xüleej** **baijee**
3 [*xedii/n-ii* *ir-cex-sen* *eubegn-ii.g*] [*xulee-j* *bai-jai*]]
4 former-GEN come-INTENS-P.PRF old.man-ACC wait-C.IMPRF be-RES
5 was waiting for the man who had come earlier

1 **ja** **vudu** **gav ni** **guicudai bav** **vuizan e da**
2 **dza** **odoo** **xen ny** **xücteigee** **üdzne dee**
3 [*dzaa*] [*odao* [[*xen-e.n'* *xuc-tai-g.ee*] *udz-e.n'=dee*]]
4 INTERJ now who-PX3P strength-POSS-RX see-DUR=AFF
5 well now which one of us is strong we shall see

1 **gazu** **vbugav** **galagat** **girugadazu** **balatgagsav**
2 **gej** **öwgön** **xeleed** **xöröödöj** **beltgesen**
3 [*g-e.j*] [*eubgen* *xel-eed*] [[[*xeureod-e.j* *beltg-sen*]
4 QUOTE-C.IMPRF old.man say-C.PRF saw-C.IMPRF prepare-P.PRF
5 the old man said and what he had prepared by sawing

1 **modu nuqhut ijav** **tuilgigat** **tuilgigat** **vunaqhaciqal e**
2 **modnuudaa** **tülxeed** **tülxeed** **unagacixlaa**
3 *mod/n-oo.d-aa*] [[*tulx-eed* *tulx-eed*] *ounegh-cex-laa*]]
4 tree-PL-RX push-C.PRF push-C.PRF fell-INTENS-CONF
5 those trees he pushed and pushed and felled them

1 **bars** **yaqhagizu cu** **vurulduqhat** **tajimu** **buiduguv** **mudu**
2 **bar** **yaaj c** **oroldood** **tiim** **büdüün** **mod**
3 [*bar* [*yaa-j=e.c* *oreld-aod*] [[*tiim* *buduun* *mod*]
4 tiger do.what-C.IMPRF=ADD try-C.PRF such thick tree
5 the tiger, however much it tried such thick trees

1 **vunaqhazu** **cidaqsav vuigai** **marqhasi** **basa** **tagiqhat**
2 **unagaj** **cadsangüi** **margaash** **bas** **daxiad**
3 [*oun'g-e.j* *cad-seng=gwai*]]] [[*margaash* *bas* *daxy-aad*]
4 fell-C.IMPRF be.able-P.PRF=PRIV tomorrow also repeat-C.PRF
5 could not fell tomorrow once more

1 **guicu bav** **surii e** **tagagu dagav** **gagar e jiv** **cilaqhu ji**
2 **xücee** **sor'yë** **tegexdee** **xeeriin** **culuug**
3 [*xuc-ee* *sory-y=ao*]] [*teg-ex-d-ee* *xeer-ii.n* *couloo-g*]
4 strength-RX try-VOL=EMPH do.so-P.FUT-DAT-RX steppe-GEN stone-ACC
5 let us try our strength that time steppe stones

1 **sigusu** **qhardal e** **qaqh e** **bazun e** **gazu**
2 **shüüs** **gartal** **xaga** **badzna** **gej**
3 [*shuus* *gar-tel*] [*xagh* *badz-n=aa*]] [*g-e.j*]
4 juice exit-C.TERM to.pieces squeeze-DUR=EMPH QUOTE-C.IMPRF
5 until juice comes out we shall squeeze

1 **bars** **galal e** **vbugav** **gar tagav** **virazu**
2 **bar** **xellee** **öwgön** **gertee** **irj**
3 [*bar* *xel-lee*] [*eubgen* [*ger-t-ee* *ir-j*]
4 tiger say-CONF old.man home-DAT-RX come-C.IMPRF
5 the tiger said the old man came home and

1 **vmagav dagav** **galabal** **quniv u** **sux bar** **basilaq**
2 **emgendee** **xelbel** **xoninÿ** **süügeer** **byaslag**
3 [*emgen-d-ee* *xel-bel*]] [[*xony/n-ii* *suu-g.eer*] [*byasleg*
4 old.woman-DAT-RX say-C.COND sheep-GEN milk-INSTR cheese
5 when he told this to his wife cheese from sheep milk

1 **siqazu** **vuigcai** **marqhasi ni** **bulzuqsav** **qhazar ijav**
2 **shaxaj** **ögcee** **margaash ny** **boldzson** **gadzraa**
3 *shax-e.j*] *eug-cai*] [*margaash-e.n*'] [*boldz-sen* *gadzr-aa*]
4 press-C.IMPRF give-RES tomorrow-PX3P agree-P.PRF place[-LOC]-RX
5 she pressed for him the following day at the agreed place

1 **vbugav u**   **viragu du**   **bars** **guiliyagsar** **saqhuzu** **bajizai**
2 **öwgönii**   **irexed**   **bar** **xüleeseer** **suuj** **baijee**
3 [*eubegn-ii*   *ir-x-e.d*]   [*bar* [*xulee-seer* [*soo-j* *bai-jai*]]]
4 old.man-GEN   come-P.FUT-DAT   tiger wait-C.ABT sit-C.IMPRF be-RES
5 when the old man came   the tiger was already sitting and waiting

1 **vbugav** **gasag** **caqhav** **cilaqhu** **vabcu** **bars tu** **vuiggugat**
2 **öwgön** **xeseg** **tzagaan** **culuu** **abc** **bard** **ögööd**
3 [*eubgen* [[*xeseg* [*tzagaan* *couloo*]] *ab-c*] [*bar-d* *eugeod*]
4 old.man part white stone take-C.IMPRF tiger-DAT give-C.PRF
5 the old man took some white stones and   gave them to the tiger

1 **ja** **sigusu ji ni** **qharqhaqhat** **vurgix** **gazai**
2 **dza** **shüüsii ny** **gargaad** **orxi** **gejee**
3 [*dzaa*] [*shuus-ii-n'* [*gar-g-aad* *oryx*]] [*ge-jai*]
4 INTERJ juice-ACC-PX3P exit-CAUS-C.PRF throw.IMP QUOTE-RES
5 well take the juice out of them   he said

1 **bars** **tara** **cilaqhu ji** **budaradal e** **bazuqsav cu**
2 **bar** **ter** **culuug** **butartal** **badzsan c**
3 [*bar* [[*ter* *couloo-g*] [*bouter-tel* *badz-sen=c*]]]
4 tiger that stone-ACC break-C.TERM squeeze-P.PRF=ADD
5 although the tiger squeezed those stones to pieces

1 **sigusu** **qharuqsav vuigai** **tagagu du** **vbugav** **basilaq ijav**
2 **shüüs** **garsangüi** **tegexed** **öwgön** **byaslagaa**
3 [*shuus* *gar-seng=gwai*] [*teg-x-e.d*] [*eubgen* [*byaselg-aa*
4 juice exit-P.PRF=PRIV do.so-P.FUT-DAT old.man cheese-RX
5 no juice came out then the old man

1 **qharqhazu** **viragat** **bazubal** **sigusu ni**
2 **gargaj** **ireed** **badzwal** **shüüs ny**
3 [*gar-g-e.j* *ir-eed*] *badz-bel*]] [*shuus-e.n'*
4 exit-CAUS-C.IMPRF come-C.PRF squeeze-C.COND juice-PX3P
5 took out his cheese and when he squeezed it the juice

1 **qhazar e** **tusulzu** **vuizagdabae** **bars** **tajilugdagsav ijav**
2 **gadzar** **dusalj** **üdzegdew** **bar** **diilegdsenee**
3 [*gadzer* *dousel-j*] *udz-e.gd-eb*] [*bar* [*diil-e.gd-sn-ee*
4 place[-LOC] drip-C.IMPRF see-PASS-TERM tiger defeat-PASS-P.PRF-RX
5 was seen dripping on the ground the tiger that it had been defeated

1	**guiliyazu**	**vbugav i**	**gar tagav**	**vurizai**
2	**xuleej**	**öwgöniig**	**gertee**	**uryjee**
3	*xulee-j*]	[*eubegn-ii.g*	*ger-t-ee*	*oury-jai*]]
4	wait-C.IMPRF	old.man-ACC	home-DAT-RX	invite-RES
5	admitted and	invited the old man to his home		

Once upon a time there lived an old man and an old woman. They had some sheep and goats. One day the man went to the forest to collect firewood. A tiger came across and said: "I want to test my strength with you." The man was embarrassed but came to his senses and said: "All right, we shall meet tomorrow at this place." He returned home and told his wife what had happened. She said: "Let us go to the forest and saw some thick trees without cutting them completely." Next morning, when they came to the forest, the tiger was waiting for the man who had come last time. "Now we shall see which one of us is stronger," the man said. He pushed and pushed the trees that he had prepared by sawing and felled them. The tiger could not fell such thick trees, even if it tried as hard as it could. "Let us try our strength once more tomorrow! This time we shall squeeze stones so that juice comes out of them," the tiger said. When the man came home and told this to his wife, she pressed some cheese from sheep milk for him. Next day, when the man came to the agreed place, the tiger was already sitting and waiting. The man took some white stones and gave them to the tiger. "Well, take the juice out of them!" he said. But even though the tiger squeezed those stones to pieces, no juice came out. Then the man took out his cheese and squeezed it so that juice was seen dripping on the ground. The tiger admitted that it had been defeated and invited the man to its home.

Sample paradigms

Although Mongolian is not a language with a particularly complicated morphology, it has nevertheless a good share of formal diversity in both the nominal and the verbal paradigm. The nominal inflectional paradigm comprises 8+ case forms and a few double declension forms, most of which can be combined with 3–4 possessive suffixes and a reflexive suffix, yielding altogether close to 50 different simple and complex nominal forms. The verbal paradigm is even more diversified, comprising some 10 modal forms, 4 finite forms, 4–5 participles, 17+ converbs and 2–4 ambivalent non-finite forms, yielding altogether some 40 simple forms, of which many can be combined with the markers of emphasis, negation, interrogation or corrogation, or also with case endings and/or the possessive and reflexive suffixes, raising the total to well over 100 different simple and complex verbal forms. The diversity is further increased by special classes of words, such as pronouns and spatials, synthetic periphrastic forms, as well as by the morphophonological differences between the stem types. Moreover, some important morphological categories, like nominal number and verbal voice, are formed derivationally.

Since it would be impossible here to illustrate the whole morphological diversity of the language, the sample paradigms below contain only a selection of some of the most common nominal and verbal inflectional forms. The inflected words are *gar* 'hand, arm' (nominal, obstruent stem), *mory//n* 'horse' (nominal, unstable nasal stem), *yab-* 'to depart, to go' (verbal, standard stem). For each form, only one suffix variety is quoted. (For the sake of comparison, the same data, in a different notation, may be found in Poppe 1951: 65–69, 92–93.)

	SG	RX	PX 3P
NOM	*gar*	*gar-aa/n*	*gar-e.n'*
ATTR			
GEN	*gar-ii.n*		
ACC	*gar-ii.g*	*gar-ii.g-aa/n*	*gar-ii-n'*
DAT	*gar-t*	*gar-t-aa/n*	*gar-t-e.n'*
ABL	*gar-aas*	*gar-aas-aa/n*	*gar-aas-e.n'*
INSTR	*gar-aar*	*gar-aar-aa/n*	*gar-aar-e.n'*
POSS	*gar-tai*	*gar-tai-g.aa/n*	*gar-tai-n'*
PRIV	*gar=gwai*		

GEN NOM	*gar-ii.ng-x*	*gar-ii.ng-x-aa/n*	*gar-ii.ng-x-e.n'*
DAT NOM	*gar-t-e.x*		

NOM	*mory*	*mory-ao/n*	*mory-e.n'*
ATTR	*mory-e.n*		
GEN	*mory/n-ii*		
ACC	*mory-ii.g*	*mory-ii.g-ao/n*	*mory-ii-n'*
DAT	*mory/e.n-d*	*mory-e.n-d-ao/n*	*mory/e.n-d-e.n'*
ABL	*mory/n-aos*	*mory/n-aos-ao/n*	*mory/n-aos-e.n'*
INSTR	*mory-aor*	*mory-aor-ao/n*	*mory-aor-e.n'*
POSS	*mory-tai*	*mory-tai-g.ao/n*	*mory-tai-n'*
PRIV	*mory=gwai*		

GEN NOM	*mory/n-ii-x*	*mory/n-ii-x-ao/n*	*mory/n-ii-x-e.n'*
DAT NOM	*mory/e.n-d-e.x*		

			EMPH	INTERR	PRIV
MOD	IMP	*yab*	*yab=aa*		
	PREC SG	*yab-aa-c*			
	PREC PL	*yab-aa-t*			
	PRESCR	*yab-aarai*			
	BEN	*yab-e.gten*			
	VOL	*yab-ii.y*	*yab-y=aa*	*yab=y=oo*	
	PERM	*yab-e.g*			
	DES	*yab-aasai*			
	DUB	*yab-oodzai*			
FINIT	DUR	*yab-e.n'*	*yab-n=aa*	*yab-n=oo*	
	CONF		*yab-l(=)aa*	*yab-l=oo*	
	TERM	*yab-eb*	*yab-b=aa*	*yab-b=oo*	
	RES	*yab-j*	*yab-j(=)ai*	*yab-j=oo*	
PART	FUT	*yab-ex*		*yab-x=oo*	*yab-ex=gwai*
	HAB	*yab-deg*		*yab-dg=oo*	*yab-deg=gwai*
	PRF	*yab-sen*		*yab-sn=oo*	*yab-seng=gwai*
	IMPRF	*yab-aa*		*yab-aa=y.oo*	*yab-aa=gwai*

	AG	*yab-e.gc*	
CONV	IMPRF	*yab-j*	
	PRF	*yab-aad*	
	MOD	*yab-e.n*	*yab-e.ng=gwai*
	ABTEMP	*yab-saar*	
	FIN	*yab-xaar*	
	INCID	*yab-e.nggaa/n*	
	PRECOND	*yab-maa/n*	
	COND	*yab-bel*	
	CONC	*yab-e.bc*	
	TERM	*yab-tel*	
	IMM	*yab-megtz*	
	CONCOM	*yab-e.nggoot*	
	SUCC	*yab-e.xlaar*	
	CONTEMP	*yab-e.msaar*	
AMB	INT	*yab-maar*	
	NEC CX	*yab-e.l-tai*	*yab-e.lt=gwai*

Chart of letters

Since there is no one-to-one correlation between the orthographical representations of Mongolian sounds and sound sequences in the two official scripts, on the one hand, and the phonemic structure of the language, on the other, the Written Mongol and Cyrillic Khalkha letters are listed below without their phonemic counterparts. Due to the different orthographical principles, reflecting different chronological stages of the language, the letters of the two scripts are also not automatically convertible to each other, which means that their Romanized values (in the leftmost and rightmost columns) do not necessarily stand for equivalent sound segments.

The Written Mongol letters can have up to three graphic forms, corresponding to the initial (1), medial (2) and final/absolute (3) positions within the graphic word. By contrast, the Cyrillic Khalkha letters are positionally invariant, though they have separate minuscule (4) and majuscule (5) forms, of which the latter are often used in initial position (as in proper names). Note also that Written Mongol is written vertically (from top to bottom), with the letters bound into words with the help of a basic line, while the Cyrillic script is written horizontally (from left to right) and with each letter (in printed form) standing separately. Both scripts include a number of ligatures standing for sequences of two segments.

Romanizing Written Mongol and Cyrillic Khalkha is a major challenge, and there exist several systems for both scripts. The systems used in the present treatise are based on the principle of graphemic simplicity and full re-convertibility (for more details, cf. Balk & Janhunen 1999; Janhunen 2003c; Svantesson 2003).

	1	2	3	4	5	
a / v	᠊	᠊	᠊	а	А	a
ae			᠊			
b	᠊	᠊	᠊	б	Б	b
be			᠊			
bl	᠊	᠊				
bu	᠊	᠊	᠊			
c	᠊	᠊		ч	Ч	c
d	᠊	᠊		д	Д	d
dz	᠊	᠊		з	З	dz

e				э	Э	e
f				ф	Ф	f
fe						
fl						
fu						
g				г	Г	g
ge						
gl						
gu						
h						
i / j				и	И	i
				й	Й	i
ix						
k				к	К	k
ke						
kl						
ku						
l				л	Л	l
m				м	М	m
ml						
n				н	Н	n
o				о	О	o
				ө	Ө	ö
p				п	П	p
pe						
pl						
pu						
q				х	Х	x
qh						
r				р	Р	r
s				с	С	s
sh				ш	Ш	sh
t				т	Т	t
’t						
tz				ц	Ц	tz

u	ꝗ	ꝗ	ꭥ	у	У	u
ux			ꝗ	ү	Ү	ü
w / e	ꜥ	ꜥ		в	В	w
x		ˈ	ˌ			
y	ꜥ	ꜥ		ь	Ь	y
				ы	Ы	ÿ
				я	Я	ya
				е	Е	ye
				ё	Ё	yë
				ю	Ю	yu
z		ч		ж	Ж	j
z			ꜛ			
zh	ꙍ	ꙍ				

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