

Melayu Betawi Grammar

N U S A

Linguistic Studies in Indonesian
and Languages in Indonesia

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MELAYU BETAWI GRAMMAR

by

Kay Ikranagara

1980

Badan Penyelenggara Seri NUSA

Universitas Atma Jaya, Jakarta

Jakarta

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INTRODUCTION

1.1 Purpose and scope of the study

This study is a generative description of the language of the Betawi ethnic group of Jakarta. Those who identify themselves as *anak Bətawi* (children or people of Batavia, the old name of Jakarta) refer to their language as *Jakarta*, *Bətawi*, or *Məlayu Bətawi*. The term "Betawi" will be used here for convenience.

The description is based primarily on tape recordings of vernacular speech, supplemented by work with an informant (see section 1.4).

Betawi is particularly important because of its influence on Bahasa Indonesia, the national language of Indonesia (see section 1.3.1). It is also of interest as an example of a dialect which apparently arose primarily through language shift by native speakers of languages very closely related to the target language (see section 10).

The theoretical framework on which this study is based is a generative theory of case grammar which may be called "lexicase". It has been developed by Starosta (1971a, 1971b, 1971c, 1973a, 1973b, 1974, 1975), Taylor (1971), Li (1973), Kullavanijaya (1974) and Clark (1975), in studies of English, Sora, Japanese, Rukai, Thai and Vietnamese. It is less powerful than transformational theories of grammar. In this theory, case relations and case forms are marked on lexical items, and generalizations about relations between sentences are captured by redundancy rules and derivation rules.

Particular attention is paid in this dissertation to the subject of derivation rules. This study finds that the prefixes, suffixes and reduplication processes of Betawi are all derivational rather than inflectional.

Some other aspect of the grammar are only outlined here. But this description is far more complete than the only previous descrip-

tion of Betawi, Muhadjir's brief (1964) article, "Dialek Djakarta".

In this introductory section, the historical background and sociolinguistic setting of Betawi are sketched, and the research methods used are explained. In section 2, the theoretical framework is summarized. In sections 3 — 9, aspects of the grammar of Betawi are described. Based on this description, some conclusions about the origin and classification of Betawi are discussed in the final section.

1.2 Historical background

The following summary of the historical evidence relating to the origin of the Betawi language is based on Milone's (1966) dissertation, *Queen City of the East: the metamorphosis of a Colonial Capital*, and Castle's (1967) article, "The ethnic profile of Djakarta".

When the Dutch made Batavia the chief base of their East Indies operations in 1619, the area was sparsely settled. The Dutch did not encourage settlement from Java. The free settlers remained generally outnumbered by slaves. An important early source of slaves was the mainland of South Asia. These slaves were already cultural hybrids using a form of Portuguese as a lingua franca. But after the 17th century, this area was no longer a source of slaves. A Portuguese-based creole continued to be used in Batavia until the 18th century, when it died out, leaving some remnants in the port area of Tugu (described in Schuchart (1891) and leaving many loan words to Betawi.

The most important source of slaves from the eighteenth century on was East Indonesia, especially Bali. The Portuguese-based creole is reported to have been being replaced by a form of Malay as the lingua franca of Batavia

from the middle of the eighteenth century. Malay had long been a language of the ports throughout Indonesia, and apparently was adopted by the diverse Indonesian groups in Jakarta to communicate among themselves and with the foreign population. A distinct Jakartan dialect is reported as the lingua franca of the city from the beginning of the nineteenth century, although no description is available from an early period.

The composition of the population of the city near the beginning of the nineteenth century is known from the census of 1819. There were 14,139 slaves (Bali being the predominant source of slaves), 11,845 Chinese, 7,720 free Balinese, 3,331 Javanese and Sundanese, 3,151 Malays (from other islands of the archipelago as well as the Malay peninsula), 2,208 Europeans, and smaller numbers of other Indonesian groups and Arabs.

Nineteenth-century Batavia was a strictly stratified society. The law treated the population as three castes: Europeans; foreign Asians (including Chinese, Arabs, and Indians); and Indonesians. Each group was required to wear identifiable national costume and exhibit certain kinds of deferential behavior in relation to the highest caste, the Europeans. The Europeans were also the only group allowed to speak Dutch. In terms of economic power, the Indonesians occupied the lowest position.

By the middle of the nineteenth century, descendants of the diverse Indonesian groups had lost their identity to a new ethnic identity, the *anak Betawi*. The distinctive features of this ethnic group could be seen in many areas of life: religion, customary law, the position of women, drama, music, ceremonies, dress and architecture. Their native language was the distinct dialect of Jakarta, Betawi.

The 1930 census showed that the *anak Betawi* made up about 50% (778,953) of the population of the city, with Sundanese (494,547) and Javanese (142,563) the next largest groups. Since this period, Betawi has continued to be in close contact with Sundanese and Javanese, the languages of the largest number of recent

immigrants to Jakarta.

In section 10, aspects of the grammar of Betawi will be compared with languages with which it has been in contact, and its classification as a Malay dialect and linguistic evidence on the contribution of other languages to its development will be discussed.

1.3 Sociolinguistic setting

1.3.1 Betawi and Bahasa Indonesia

1.3.1.1 History

From 1867, the children of Indonesian aristocrats were allowed to enroll in Dutch language schools especially reserved for them. Jakarta, of course, had no indigenous aristocracy. The elite of Indonesia came to speak primarily Dutch and regional languages.

When Bahasa Indonesia (literally 'Indonesian language') was proclaimed by the 1928 Youth Council as the national language of Indonesia, it was no more than an ideal (Alisjahbana 1971:181). The choice of Malay as the basis for the new national language was influenced by its long history as a lingua franca in the archipelago (Alisjahbana 1971:180). It was not the native language of the elite. The speech in which it was proclaimed as the national language was in fact made in Dutch (Halim 1972:13). A magazine, *Pudjangga Baru* ('The New Writer'), was founded as a rallying place for those committed to the ideal.

This beginning sounds very different from the typical pattern which Bloomfield (1933:483) describes for the origin of standard languages:

In most instances they have grown out of the provincial types of standard that prevailed in the upper class of the urban center that became the capital city of the unified nation.

The unique dialect of the capital city, Betawi, was not the language of the upper class, nor was Betawi a "provincial standard". The language of the surrounding province was Sundanese.

A pattern closer to the Indonesian one

was the origin of standard German as described by Bloomfield (1933:483):

In other instances, even the center of origin is obscure. Modern standard German is not based on any one provincial dialect, but seems to have crystallized out of an official and commercial type of speech that developed in the eastern frontier region. It was not created, but only helped by Luther's use in his bible translation.

As in the case of standard German, the origin of Bahasa Indonesia is somewhat obscure. The dialect of Riau was considered to be the source of the school language, developed and spread through teachers and books especially from the teacher training college in Bukit Tinggi (Alisjahbana 1965:521). The influence of Minangkabau was important at an early stage because most of the teachers of Bahasa Indonesia and many writers were from that area (Muhadjir 1971a) as well as important officers of Balai Pustaka, the government printing house (Teeuw 1962). The works of certain early writers were very important. Alisjahbana's grammar (first edition 1948) which has been a school standard, was based especially on the writings of H.A. Salim, Sanusi Pane, Hatta, Dayoh, and Imam Supardi (Alisjahbana 1971:148).

Through use in government and education, the new national language came to stand in a diglossia relationship with the regional languages. The psychological correlates of this situation have been discussed in Alisjahbana (1954) and Anderson (1966). A.A. Fokker, in a lecture at the University of Indonesia, December 4, 1950, (quoted by Alisjahbana 1954:7), spoke of the domain of Bahasa Indonesia as the rational, that of the regional languages as the emotional. Alisjahbana (1954:7) suggests that the regional languages symbolize the atmosphere of the society of the new age. The importance of such attitudes in the development of the language can be seen in Tanner's (1967) case study of language use among the Indonesian elite, consistently showing the "formal", "neutral" or "democratic" connotations of Bahasa Indonesia as the reason for its choice as a medium (Tanner 1967:23, 24, 32).

But in succeeding generations the clear

diglossia situation has begun to disappear (e.g. Soepomo 1974). As the national language takes over more informal and casual functions it is particularly Betawi which serves as a source for the developing casual lect. As Tanner puts it:

Certain gaps in the functional range of Indonesian [Bahasa Indonesia] are rapidly being filled as the language adapts itself to the increasing burdens of popular use. (Tanner 1967:29)

The importance of the influence of Betawi on Bahasa Indonesia is repeatedly noted: (Betawi is referred to in various articles as Jakartanese, Bahasa Jakarta ('Jakarta language'), Omong Djakarta ('Jakarta speech') or Melaju Betawi ('Batavian Malay')). "Djakarta" is the old spelling for "Jakarta". Bahasa Indonesia may be referred to in English as "Indonesian".)

Of considerable importance since World War II is the influence of the Javanese and Sundanese languages and Jakartanese (a dialect of Malay) on the development of the Indonesian language. It is important to consider how much these influences are accepted within the standard language, and how widespread the acceptance is outside of Java. (Rubin and Kridalaksana 1972:24)

...logat Djakarta ini ternyata telah memegang peranan penting dalam pertumbuhan bahasa nasional Bahasa Indonesia. Pengaruhnya didalam bahasa suratkabar terutama jang terbit di Djakarta, semakin besar. [It is clear that this dialect of Jakarta has an important role in the growth of the national language Bahasa Indonesia. Its influence in the language of the newspapers, primarily those published in Jakarta, continues to grow.] (Muhadjir 1971b)

Bahasa² daerah lain terutama bahasa Djawa, Sunda dan lebih² lagi dialek "Melayu Betawi" kini menghamburi kata² bahasa Indonesia. [Other regional languages, particularly Javanese, Sundanese and most especially "Batavian Malay" now fill out the vocabulary of Bahasa Indonesia.] (Muhadjir 1971a)

It is only in the melting pot of Djakarta that Indonesian has developed and shown its creativity in the post revolutionary years. The main aspect of Djakarta's influence on Indonesian has been the growing incorporation of the so-called Bahasa Djakarta or at least major parts of it, into the national language. (Anderson 1966:107)

Curiously we are badly informed on the spoken language of Jakarta. We do not dispose of documentation of any degree of adequacy on the historical components of this language, its structure or vocabulary. This is all the more deplorable, since this language of the capital city of the country, with at present more than three million inhabitants, inevitably exercises an ever increasing influence on B.I. (Teeuw 1961:45)

1.3.1.2 Means of influence of Betawi on the National Language

Important means of the spread of the influence of Betawi to other regions are newspapers, magazines, radio, movies and the movements of individuals to and from Jakarta.

The newspapers of the capital city can be found in the major cities all over Indonesia. In the regular news articles, written in Bahasa Indonesia, many vocabulary items from Betawi appear, and sometimes even grammatical forms like the verbal affix *in* (Muhadjir 1971a and 1971b gives many examples). There are usually special sections: political satire, jokes, comics and short stories, in a style even more strongly influenced by Betawi, and employing many of its "markers" ("features which have acquired social meaning": see Labov 1970:66) for humorous or sarcastic effect.

The new movie industry carries Betawi or Betawi-influenced speech to the regions. *Ber-nafas dalam lumpur* (1970), *Bunga-bunga berguguran* (1972), and *Dul, anak Betawi* (1973) were popular films which attempted to use the colorful dialect of the city. And every town seems to have its movie theater where even the villagers of the area come to spend their holidays.

The radio also spreads Betawi. *Lenoŋ* (Betawi theater) and *gambarŋ kəromoŋ* (Betawi music) as well as talk programs such as *Pok Ani: "Kang Gado-Gado"* may be heard on Radio Republik Indonesia. A *gambarŋ kəromoŋ* singer, Benjamin, who sings in Betawi, is also popular on the national scene.

Visits to and from Jakarta are probably an important way of spreading features of Betawi speech. For example, the many students who come to attend courses in the schools of

the capital city pick up the slang of the students of Jakarta, heavily influenced by Betawi (Anderson 1966:107, Kähler 1965:512).

1.3.1.3 Ways in which Betawi influences Bahasa Indonesia

What is borrowed in this way may be isolated elements of what is spoken as a native language by the *anak Betawi*. Tanner (1967: 29) notes:

Speakers in this group considered themselves to be using Djakarta slang when, within an ongoing conversation of daily Indonesian, they utilized certain characteristic Djakartan expressions. It was not necessary to consistently use the Djakartan accent, to speak whole sentences in the Djakarta dialect, or to know much about internal stylistic differentiation in that dialect. Appropriate supplementation of conversational Indonesian with Djakartan words and phrases was sufficient. These expressions were exceedingly informal, intimate and often rather coarse. They have no precise counterparts in ordinary or standard Indonesian.

As well as the borrowing of vocabulary, the influence of Betawi on the casual speech of speakers of Bahasa Indonesia may be phonological or syntactic. For example final [e] often appears where standard Bahasa Indonesia has final [a] or shwa appears in final syllables where Bahasa Indonesia has [a] (e.g. *ade* 'have' and *datəŋ* 'come' in place of Bahasa Indonesia *ada* 'have' and *dataŋ* 'come'). The Betawi forms of the active verbal prefix appear in place of the Bahasa Indonesia ones, and the distinctive Betawi suffix *in* is used. Even the Betawi pronouns *gue* 'I' and *lu* 'you', and *kite* (Bahasa Indonesia 'we (incl.)') meaning 'we (excl.)' or 'I' are used. The use of the sentence particles *doŋ*, *si*, *de*, etc. is very common. Vocabulary items are especially from the young people like *pacaran* 'going together, a romantic relationship', from fashion like *gondroŋ* 'long hair (on boys)', from the vocabulary of corruption: *ñatut* 'chisel' (with both literal and figurative English meanings) and crime: *ñoloŋ* 'steal', as well as coarse vocabulary.

Wolff's (1972) teaching grammar of Bahasa Indonesia for English speakers includes

many examples of the Betawi-influenced casual speech of educated speakers, and the speech of educated speakers with those of the lower classes in Jakarta.

Labov (1970:46) suggests that "there are no single style speakers". The developing casual style of Bahasa Indonesia fills out its stylistic repertoire.

Anderson (1966:107) characterizes attitudes toward the use of Betawi elements in informal speech by speakers of Bahasa Indonesia:

Particularly for the younger generation of politicians, officials and students, Bahasa Djakarta in slightly refined form, has become a normal mode of social intercourse. Its popularity clearly derives from its intimate, jazzy, cynical character, which forms a satisfying counterpoint to the formal, official Indonesian of public communication.

Tanner's case study of elite speakers shows that "Djakarta slang" is used when the speakers wish to communicate familiarity and casualness (Tanner 1967:22, 23, 30).

Performances of Shakespeare's works in Bahasa Indonesia in the Jakarta Art Center have used the most formal language for the noble characters, the most coarse Betawi-influenced language for the clowns and servants.

Muhadjir (1971a) concludes that the influence from Betawi can only be considered an enrichment of the national language.

Betawi is clearly not spreading at the expense of the national language. Regional and foreign languages are also influencing Bahasa Indonesia, and regional varieties of the national language are also being formed. But at present Betawi is one of the strongest influences on Bahasa Indonesia in the sense that it is providing elements of a more casual variety for the standard language.

At the same time Betawi itself is stigmatized as an inferior language to be eradicated by "good" Bahasa Indonesia. Interviews with high school teachers in Jakarta carried out by Ida Pasaribu, a graduate student at the University of Indonesia in 1972, showed that the teachers felt it to be a problem in the class-

room. They referred to both those who spoke Betawi as a first language and those whose first language was different, but whose Bahasa Indonesia was influenced by Betawi.

There is probably a continuum situation between Betawi and Bahasa Indonesia in Jakarta. The study of this continuum, and the study of the casual speech of speakers of Bahasa Indonesia in other areas of Indonesia are subjects of much interest for further study.

1.3.2 Ethnic, geographical, and social variation

Ethnic, geographic and social factors are all marked by linguistic differences in Jakarta. While the study of these differences is beyond the scope of this dissertation, some of the types of differences which are popular knowledge are indicated below.

The speech of various ethnic groups in Jakarta is occasionally parodied in the *lenong* (Betawi folk play). Certain features considered characteristic of Chinese speakers, such as the possessive phrase of the form "possessor-*puñe*-possessed" (e.g. *gue puñe rume* 'my house') or the substitution of a lateral [l] for trilled [r] are parodied by actors representing Chinese landlords. For a Javanese character, the Javanese nonverbal politeness behavior which accompanies speech and the "heavy" (lowered larynx: Catford 1961) stops are humorously overemphasized. Another stereotype is the speech of the *belande* (Dutchman or Westerner). Mustofa, of the Ikatan Lenong Jakarta (Jakarta "Lenong" Association), in his portrayal makes the foreigner's stringing together of Malay words almost incomprehensible, hilariously substituting words (e.g. *Sude makan doktor?* 'Have you eaten the doctor?' for *Sude pergi doktor?* 'Have you gone to the doctor?') and shows the foreigner uncomprehending of the rudeness conveyed in the form of address used to him by a ruffian. The actual speech of such groups in Jakarta today has not yet been studied as far as I know. Some features of natural speech recordings of speakers of Arabic descent in Jakarta, such as the use

of personal pronouns *ane* and *ente* and the frequent use of Arabic loan words and pronunciations, were noted by Jasmin Sahab, a graduate student at the University of Indonesia in 1972. Speakers representing these other ethnic groups found in Jakarta today were not included in this study.

That there are speech differences corresponding to geographical areas of Jakarta is also a matter of popular knowledge. Strong final [h] and glottal stop pronunciations were said to be typical of outlying areas of Jakarta by my primary informant, and in a tape recording of natural conversation in Kebon Pala district, speakers spontaneously note a striking difference between their speech and that of other areas of Jakarta: the final shwa in place of final [e] (*Kitə kəbañakan ə* 'We use too/very much ə'). A dialect survey of Jakarta has recently been carried out by C.D. Grijns of the University of Leiden in cooperation with the Lembaga Bahasa Nasional (National Language Institute). On the basis of preliminary results of the survey, districts which appear to represent the most widespread "standard" lect, including one area which shows a distinct areal (phonological) feature (Kebon Pala) were selected for this study. The speakers whose natural conversation was tape recorded were from Jatinegara (Cipinang Cipedak and Cipinang Besar), and Kebon Pala. The primary informant was from Pejompongan. The lenong groups recorded were from Jatinegara.

Due to historical circumstances, the *anak Betawi* are for the greater part of the lower classes (see Castles 1967:200—204). As they are relatively little exposed to education and the mass media, their knowledge of the national language is limited (see e.g. Universitas Indonesia 1974:6, 7). To the extent that the social situation is changing, they will be exposed to Bahasa Indonesia. The Betawi dialect may eventually be completely replaced by Bahasa Indonesia or a local variety of it. In this study, however, the informants were all of the lower classes, with relatively little exposure to Bahasa Indonesia.

I think that the description attempted

here of the vernacular speech of the Betawi ethnic group, as spoken by native speakers, from selected areas of Jakarta, with little knowledge of Bahasa Indonesia, is an important prerequisite to the study of many other aspects of the complex sociolinguistic situation in Jakarta.

1.4 Methodology

The research for this dissertation was carried out from January 1972 to August 1973 in Jakarta.

As Labov (1970:50—51) has pointed out, there are various difficulties for traditional linguistic methods in dealing with stigmatized languages. In the traditional linguistic "interview" situation, the native speaker may produce prestige forms he does not normally use. If pressed to produce nonprestige forms, he may produce stereotyped forms which are simply a collection of the "most different" or "worst" sentence types.

Therefore, several methods were used to obtain data on the vernacular. Tape recordings were made of *lenong*, which, as explained below, are a source of vernacular speech. Tape recordings of unmonitored natural conversations were also made. There was also work with an informant as a final step, but the language of the tapes was the basis for the elicitation, and her contribution was basically filling in rare forms, and giving her judgments and intuitions, as discussed below.

1.4.1 Tape recordings of *lenong*

Lenong, Betawi drama, is a form of improvised folk play. The actors are not professionals, but make their livings in jobs typical of this group: as vendors, servants, *pəsuru* 'office boy/janitor', or drivers of *oplet* 'mini-buses', buses, or *becak* 'trishaws'. A *lenong* group, such as the Rindu Malam ('Longing for Night') troupe, is loosely formed under a leader. On an occasion such as a circumcision, the group may be hired to provide entertainment.

A raised platform is set up in the *kampon* (urban village or urban quarter). Members of the group gather in the early evening and based on the number of actors available that night, decide on one of a number of well-known story outlines, and dole out parts. The plots are laid in Jakarta and involve *kampon* people. A typical plot involves the defeat of a gang of ruffians (often the henchmen of a Chinese or Dutch landlord) by the pious Muslim hero and his friends. Other characters usually involved are old people and young heroines. The climax is usually a *pencak-silat* 'self-defense' match. The play lasts all night. All the dialogue is completely improvised.

Recently some of these plays have been performed in the Jakarta Art Center, and on Jakarta's television. They are shortened and briefly rehearsed, and will no doubt eventually show other adaptations to the new media.

A number of these plays were recorded at the Art Center and in the *kampon* (see Appendix A). Mamat, the son of the leader of the Rindu Malam troupe, was hired to assist in transcribing, by clarifying what was on the tape for transcription.

The language of the plays is not that of a playwright, as in the West, nor an archaic or high language like that of many forms of drama in Asia. The plays concern *kampon* people, they are performed by non-professionals, they are completely improvised, unrehearsed, and last an entire night. That the language is natural vernacular, and not a specialized stage language, was confirmed by general observation and recordings of unmonitored natural conversation.

1.4.2 Tape recordings of natural conversation

Since an outside observer or tape recorder may be disruptive of normal patterns of speech in this group, it was necessary to use surreptitious recording to obtain samples of unmonitored natural conversation. Before using the material, the speaker's permission was always asked. Since the assistants who were doing the recording were friends and

neighbours of those recorded, there was no difficulty, and some of the speakers were hired to assist in the transcription by clarifying what was on the tape.

Two assistants, who were graduate students of the Department of Anthropology of the University of Indonesia, Jasmin Sahab and Sujai, did the tape recording. Both had had linguistic training and had lived for several years in the areas in which they worked. They were both natural members of the groups they recorded, which consisted of their own neighbours. Jasmin, who often uses her own tape recorder to play music, did not tell the respondents it was running. Sujai put his in his book bag. An advantage for recording natural conversation in the *kampon* is that there is no traffic, so such background noise is not a problem (although conversations of passersby and vendors do interrupt). Much social life takes place out of doors, and during the fasting month groups sat outside talking all night, giving many opportunities for recordings of good quality in the clear night air.

The speakers were known to the assistants as native speakers of Betawi. The backgrounds of the six speakers recorded for one-half hour to three hours are summarized in Appendix A. They were recorded chatting in homes, on verandas, on open pathways in the *kampon*, or at corner coffee shops. The topics were generally current difficulties and opinions, or accounts of experiences with family members or employers.

Sujai hired some of the speakers he recorded to assist him in transcribing his tapes (clarifying what was on the tape for transcription). The tapes made by Jasmin Sahab in Jatinegara were transcribed by me with the assistance of Mamat of the Rindu Malam troupe.

1.4.3 Work with an informant

The purpose of work with an informant was to fill in gaps in the tapes in paradigms and rare syntactic forms, to check predictions

made on the basis of analysis of the language of the tapes, and to elicit her judgments and intuitions. The judgments and intuitions of the native speaker are considered part of the data to be accounted for. The work was carried out from January through August 1973 in weekly or twice weekly sessions.

The primary informant, Bu Siti, is a member of the Ikatan Lenong Jakarta (Jakarta "Lenong" Group) and often joins the Rindu Malam troupe. She appeared in three of the *lenong* recorded, and an additional tape was made of her chatting with a neighbor, Salmine, also of the Ikatan Lenong Jakarta. Bu Siti is in her forties, and comes from the Pejompongan district of Jakarta. As far back as she knows, her family is from Pejompongan. Her husband works as a night watchman. She had no schooling, is illiterate, and reports herself to speak only Betawi. Her only contact with the mass media is to listen to *gambang keromon* (Betawi music) and *lenong* on the radio. She was an excellent informant as she is extremely patient, likes to talk, and is imaginative and adept at creating dialogues to illustrate the use of a form. She found it easy to judge forms as, for example "something we don't say", "something people on the outskirts of Jakarta say" (*pingiran* 'on the edge'), "something upper-class people say" (*gədean* 'too big'). When I checked predictions with her, I might be told that a sentence or form never occurred; had an unexpected meaning; frequently occurred; or was rarely used, but could be used in such and such a context, sometimes resorting to quite imaginative situations.

Basically, the attempt in the following chapters is to describe the vernacular speech of the tapes, informed by the informant sessions, and general observation.

1.5 Conventions for the transcription and translation of examples

The Betawi examples in the following sec-

tions are from the tape recordings of *lenong* or natural conversations, and in a few cases, from the informant sessions. There is no standard orthography for Betawi. Therefore, for convenience, in all sections but section 9, Phonology, examples are given in a transcription which is phonemic except that the usual orthographic conventions of capitalization and punctuation are used.

While tense, gender, number and sometimes person are only optionally indicated in Betawi, they are required for English translations. The following convention is adopted. Tense, gender, number and person in the English sentence translations are those provided by the original context of the Betawi sentence. Thus it must be noted that the translations provided are often not the only ones possible for the Betawi sentences in isolation. However, the kind of multiple glossing which would otherwise be necessary is extremely unwieldy. For example, sentence (1) below, rather than being translated with the confusing 'this/these is/are/was/were/will-be his/her/their house/houses' is translated with the tense, number and gender provided by the original context of the Betawi example.

- (1) *Ini rumeñe die.*
 this house (def./pos.) he
 'This is his house.'

Certain words in Betawi which have no precise lexical counterparts in English are indicated in the literal item-by-item translation only by their word class in parentheses, such as (SPart.) "sentence particle" and (Intro.) "introducer". Their meanings are described in the syntax section. The free English translation is meant to be a grammatical sentence of English with as nearly as possible the same meaning as that of the Betawi sentence in its original context.

* * *

THEORETICAL FRAMEWORK

2.0 Introduction

The theoretical model used in this study is the "lexicase" model of grammar, as developed by Starosta (1971a, 1971b, 1971c, 1973a, 1973b, 1974 and forthcoming), Taylor (1971), Li (1973), Kullavanijaya (1974) and Clark (1975).

Much of the research in syntactic theory since Chomsky (1965) has resulted in the development of more powerful theories, with a corresponding weakening in their predictions about possible grammars and languages. In relying on derivation and subcategorization rules, less powerful devices than transformational rules, to capture the relationships between sentences, the lexicase theory restricts rather than increases the power of the theory, and makes very strong claims about the form of a grammar.

In treating case relations as features of lexical items, the lexicase theory accounts for Fillmore's basic claim, that "for the predicates provided in natural languages, the rules that their arguments play are taken from an inventory of role types fixed by grammatical theory" (Fillmore: 1971a:376).

In this section, the components of a grammar in the lexicase model are described. Differences from other generative models are summarized, and the notions of case form, case relation, and case frame features in lexicase theory are introduced.

2.1 The lexicase model

The components of a grammar in the lexicase model are the phrase structure rules, the lexicon, and the phonological component.

The phrase structure rules are a set of context free rewriting rules. They generate

trees indicating the hierarchical relationships between sentence constituents. They contain all the information necessary for the insertion of lexical items from the lexicon. The information in these representations is necessary for the insertion of lexical items in two ways:

1) The syntactic category features marked on the lexical item must match the terminal category node under which the item is to be inserted.

2) Lexical items can only be inserted if no contextual features are violated. The contextual features in the lexical entries are stated in terms of sister categories, and so the hierarchical information the phrase structure rules give is necessary to identify which categories are sisters.

The phrase structure rules in this model are a greatly simplified version of Chomsky's (1965) phrase structure rules. They include only syntactic constituents, and all grammatical categories such as question, imperative, auxiliary, etc. are treated as features of lexical items. This brings the phrase structure rule closer to a formalization of the structuralist immediate constituent analysis than phrase structure rules in other generative frameworks.

The lexicon includes both lexical entries and sets of lexical rules. Each lexical entry is a set of features. The lexical entries include phonological, syntactic, and semantic information that cannot be predicted by redundancy rules. Thus they include phonological representations; grammatical category features, such as [+N](noun); semantic features, such as [+stative]; case features - both case relation features, such as [+AGT] (agentive), and case form features, such as [+NM] (nominative); and

case frame features, such as $\left[+ \left[\begin{array}{l} + \text{ NM} \\ + \text{ AGT} \end{array} \right] \right]$.

(Case and case frame features will be discussed in section 2.3).

There are several types of rules included in the lexicon: redundancy rules, derivation rules, subcategorization rules, and morphophonemic rules. These lexical rules fill in redundant features of lexical items, expand abbreviated items, and state generalizations about related lexical items. These rules are less powerful than transformational rules. They cannot manipulate trees in any way, and cannot refer to linguistic context, except in terms of contextual features of lexical items, which refer to heads of sister constituents. (The head of a construction is its obligatory constituent.)

Redundancy rules are rules which capture the general characteristics shared by many lexical items. The rules specify redundant features of lexical items. For example, in Betawi, the rule:

$$\left[\begin{array}{l} + \text{ V} \\ - \text{ [+ THM]} \end{array} \right] \longrightarrow \left[\begin{array}{l} - \text{ [+ AGT]} \\ - \text{ [+ BEN]} \\ - \text{ [+ INS]} \\ - \text{ [+ COM]} \end{array} \right]$$

states that a verb which does not allow a theme actant (an "atmospheric verb", see section 6), also does not allow agentive, benefactive, instrumental, or comitative actants. Redundancy rules are ordered rules. They apply before derivation rules, and reapply to the output of the derivation rules.

In this study, a distinction between two types of derivation rules is made. One type is the productive derivation rule. These rules derive new items from items listed in the lexicon. The new items are specified with the feature [+derv.] (derived) and are then part of the lexicon, and subject to other lexical rules. Productive derivation rules are completely productive and the meanings of the derived items are completely predictable on the basis of the old items.

An example of a productive derivation rule in Betawi is the rule:

$$\left[\begin{array}{l} + \text{ V} \\ + \text{ stative} \\ + \left[\begin{array}{l} + \text{ NM} \\ + \text{ THM} \end{array} \right] \end{array} \right] \xrightarrow{\triangleright} \left[\begin{array}{l} + \text{ V} \\ + \text{ deriv.} \\ + \text{ stative} \\ + \text{ comparative} \\ + \left[\begin{array}{l} + \text{ NM} \\ + \text{ THM} \end{array} \right] \end{array} \right]$$

This rule states that given a stative intransitive verb in Betawi there is a corresponding derived comparative stative intransitive verb, which shares all the same features, but which has the additional meaning 'more (V)', and which is specified as [+derv.]. An example of a derived comparative verb in Betawi is *gədean* 'bigger', derived from *gəde* 'big'. (A morphophonemic rule gives such derived comparative verbs the affix *-an*). Derivation rules are written with a fletched arrow, as shown above.

The second type of derivation rule is the word formation analogy. These rules state the analogous patterns on the basis of which one set of items is related to another. Both the derived items are listed in the lexicon, but one is specified as [+derv.]. In some cases, these rules may reflect derivation rules which were once completely productive, although the result of competing derivation rules may be patterns different from the original rules. In other cases, they reflect patterns on which words are derived which may never have been completely productive.

An example of a word formation analogy in Betawi is the rule:

$$[+ \text{ V}] \xrightarrow{\triangleright / /} \left[\begin{array}{l} + \text{ N} \\ + \text{ deriv.} \\ + \text{ person} \end{array} \right]$$

The rule states that *for some verbs* there is a corresponding noun which shares the same features but which refers to 'person who (V)s or is characterized by (V)' and which is spe-

cified as derived. Both items are listed in the lexicon. An example of a derived "person" noun in Betawi is *pəmbohoŋ* 'liar, cheater' from *bohoŋ* 'lie, cheat'. (A morphophonemic rule gives the prefix *pəŋ-* to such derived person verbs.) In this study, word formation analogies are written with a double barred arrow, as shown above, indicating that they are directional, although they are not completely productive rules.

Derivation rules are unordered. They apply before subcategorization rules.

Subcategorization rules give information about the subcategories in the grammar. An example of a verb subcategorization rule in Betawi is the rule:

$$[+V] \longrightarrow \pm([+NM])$$

The symbol \pm distinguishes subcategorization rules from other types of lexical rules. This rule says that a verb may belong either to the subcategory $+[+NM]$ or to the subcategory $-([+NM])$. An example of a verb belonging to the $+[+NM]$ subcategory in Betawi is *pəgi* 'go', a verb which allows a subject, and an example of a verb belonging to the $-([+NM])$ subcategory in Betawi is *ujan* 'rain', an atmospheric verb, which takes no subject. Subcategorization rules are ordered rules.

Morphophonemic rules are ordered rules which give the phonological shape of a form if certain syntactic or morphological features are present and indicated in the environment. Inflectional morphophonemic rules are associated with individual derivational rules, and new phonological shapes given by derivational morphophonemic rules may be carried over in further derivation.

An example of a morphophonemic rule in Betawi is:

$$l_V \longrightarrow an]_V \left/ \begin{array}{l} [+derived \\ +comparative] \end{array} \right.$$

This rule gives a verb which is derived as a comparative verb the suffix *-an*.

The lexical rules operate on lexical entries to produce fully specified lexical items.

The lexical items are inserted into the trees generated by the phrase structure rules wherever they are syntactically compatible. The result is syntactic representations which are fully specified with all the syntactic and lexical information necessary to serve as input to the phonological and semantic components.

The phonological rules operate on the syntactic representations producing fully specified phonological representations.

The semantic interpretation component is not considered part of the grammar. It will not be dealt with in this study. It presumably contains rules which interpret the sentences produced by the grammar on the basis of the information given by the syntactic representations, and the context of situation, which includes linguistic, "real world", and "imagined world" contexts, presuppositions, beliefs, and knowledge of participants. Thus the semantic component deals with the "appropriateness" of a sentence, in the context of situation, while the grammar determines only the "grammaticality" of a sentence. So a sentence in Betawi like:

- (1) *Die cuci piriŋ pake poʔon.*
 she wash dish with tree
 'She washed the dishes with a tree.'

is considered perfectly grammatical, although it is only rarely appropriate (for example, when it refers to a giantess).

2.2 Differences from other generative models

The lexibase model differs from other generative models in the following characteristics:

- 1) It has no deep structures and no transformational component.

As case features and semantic features are marked on lexical items and the relationships between lexical items are shown by derivation and subcategorization rules, the (surface) syntactic representations contain enough information to show grammatical relations between sentences and to serve as input to the contextual semantic interpretation component. As there are no distinct deep structures, no

transformational component is necessary. Generalizations which are accounted for by the transformational rules in other generative models are accounted for by the use of lexical rules. The main burden of the description is shifted from the powerful transformational component of other generative models to the lexicon.

Below is an example of how the interrelationships between two constructions are shown by the features on the lexical items. The relationship between the following two sentences is captured by the marking of features on the verb *nulis* 'write (active)' and *ditulis* 'write (passive)', and the nouns *surat* 'letter' and *Siti* (a name).

(1) *Siti nulis surat itu.*

$\begin{bmatrix} + N \\ + NM \\ + AGT \\ \alpha F_a \end{bmatrix}$	+	$\begin{bmatrix} + V \\ + \begin{bmatrix} + NM \\ + AGT \\ \beta F_i \end{bmatrix} \\ + \begin{bmatrix} + AC \\ + THM \\ \gamma F_j \end{bmatrix} \\ \delta F_m \end{bmatrix}$	+	$\begin{bmatrix} + N \\ + AC \\ + THM \\ \theta F_k \end{bmatrix}$	[+ DET]
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'Siti wrote the letter.'

(2) *Surat itu ditulis Siti.*

$\begin{bmatrix} + N \\ + NM \\ + THM \\ \theta F_k \end{bmatrix}$	[+ DET]	+	$\begin{bmatrix} + V \\ + \begin{bmatrix} + NM \\ + THM \\ \gamma F_j \end{bmatrix} \\ + \begin{bmatrix} + AC \\ + AGT \\ \beta F_i \end{bmatrix} \\ + \text{deriv.} \\ \delta F_m \end{bmatrix}$	+	$\begin{bmatrix} + N \\ + AC \\ + AGT \\ \alpha F_a \end{bmatrix}$
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'The letter was written by Siti.'

In this example, the two verbs share all their semantic features, δF_m . Their relationship is captured by a derivation rule which states that an agentive may be derived as a passive verb (passive = a verb derived from an active

verb which does not follow the accusative case hierarchy: see section 6). The noun *surat* has the same case relationship [+THM](theme) to the verb in each sentence. The noun *Siti* has the same case relationship [+AGT](agentive) to the verb in each sentence. [βF_i] and [γF_j] represent the identical selectional restrictions imposed by both verbs on their agentive and theme actants respectively. [αF_a] and [θF_k] represent the semantic features of the agentive and theme actants which are interpreted as appropriate or not in accordance with whether they meet the restrictions imposed by [βF_i] and [γF_j]. These specifications formally show the relationship of the two sentences; the relationship between the two verbs, the fact that the nouns have the same case relationship to the verb in each sentence, and the fact that the same selectional restrictions are imposed on the subject (nominative actant) of the active verb and the object (accusative actant) of the passive verb, and vice versa.

2) The semantic component is outside of the realm of the grammar.

In this model semantic features are an important part of the lexicon. The semantic interpretation component, outside of the grammar, is assumed to interpret the fully specified syntactic representations in conjunction with the context of situation. This reflects the claim that the "appropriateness" of sentences, involving judgments of the normality of extra-linguistic situations, is not in the province of the grammar.

3) Case forms and case relations are treated as features of lexical items.

In contrast to Fillmore's (1969:365—6) approach, in which case relations are represented in the deep structure as grammatical categories or Jackendoff's (1972:25—43) approach, where "thematic relations" are handled by rules of semantic interpretation operating on deep structures, lexibase treats case forms and relations as features of lexical items. An advantage of this approach is that since case relations appear in the fully specified (surface) syntactic representations, neither deep structure nor the powerful trans-

formational component are necessary. The advantages of this solution to handling case relations and some answers to objections raised to this approach are discussed in Starosta (1975).

- 4) Case forms as well as case relations are treated as drawn from a limited universal set.

Although the study of covert case relations was initiated in the framework of generative grammar by Fillmore (1968, 1969), the study of the ways these case relations can be realized has been neglected. Case relations may be realized overtly in a number of ways, including noun or pronoun affixation or suppletion, prepositions and postpositions, word order, verb affixation, and noun auxiliaries. It is normal for a single case form to realize more than one case relation. Starosta (1973b) discusses cross languages generalizations about groupings of case relations which can be neutralized by a single case form.

2.3 Case relations, case forms, and case frame features in lexicase theory

Case relations may be defined as "grammatical relations contracted by nouns which express the nature of their participation in the process or state represented in the sentence" (Anderson 1971:10). They are drawn from a universal set of perhaps a dozen case relations.

Case relations are realized in various languages by various devices. The manifestations of case relations ("case markers") can be grouped into a set of case forms, also drawn from a limited universal set.

For convenience, case relation features are symbolized here by three letter abbreviations, i.e. [+ AGT]: agentive, and case form features by one or two letter abbreviations, i.e. [+ NM]: nominative. The terms subject and object, used as short terms for nominative actant and accusative actant respectively, refer to case forms in this study.

An actant is a constituent of a sentence which is a noun phrase or a prepositional

phrase. The actant acts as a unit in carrying a case relation and case form in a sentence. In a noun phrase, the case relation and case form of the actant is determined by the case relation and case form features of the head noun. In a prepositional phrase, the case relation is determined by features of the head noun, the case form by features of the preposition.

Case relation features are specified on nouns. Both nouns and prepositions are specified with case form features. In Betawi, all noun phrases in prepositional phrases are in the accusative case form (see section 5.2).

Example:

<i>Die</i> he	<i>bəli</i> buy	<i>ikan</i> fish	<i>bakal</i> for	<i>gue.</i> me
[+ N + NM + AGT]		[+ N + AC + THM]	[+ P + B]	[+ N + AC + BEN]

'He bought fish for me.'

Abbreviations:

Case forms:	Case relations:
NM: nominative	AGT: agentive
AC: accusative	THM: theme
B : benefactive	BEN: benefactive

In this sentence, the prepositional phrase *bakal gue* 'for me' constitutes an actant which is in the benefactive case form and relation:

[+ B + BEN]

Verbs are specified with case frame features. The case frame features indicate which cases are allowed or required to cooccur with the verb. These features subclassify verbs into groups. A lexicase model case frame differs from a Fillmorean (1968) case frame in several ways. In place of a single unanalyzable case frame, such as [+ A (I) O], lexicase frames are in the form of individual selectional features which apply to features on heads of sister constituents. This permits separate manipulation in terms of cooccurrence restrictions and allows 1) predication of occurrence of one case frame feature in terms of others by redundancy rules, 2) statement in

derivational rules of only those parts of case frames that are changed, with the assumption that the rest are unchanged, and 3) ordering of subjectivalization without transformations, by redundancy rules (see Starosta 1973b:100 - 101). A lexicase case frame also states the case forms with which an item may occur, as well as the case relations.

The case frame features may specify that a verb must occur with a particular case, for example [+BEN] (benefactive), by using a positive feature, i.e. +[+BEN]; that it cannot occur with that case by using a negative feature, i.e. -[+BEN]; or that it allows an actant with that feature optionally, i.e. +([+BEN]). When the positional order of the case feature with respect to the verb is specified, the blank indicates the position of the verb, i.e. +___[+BEN] (after the verb), or +[+BEN] ___ (before the verb).

Prepositions also carry case frame features. For example, in Betawi the preposition *di* 'at' has the case frame feature: +___[+LOC]. This means it obligatorily occurs before a noun which carries the location case relation.

Nouns also carry case frame features, although this has not been fully worked out yet for any language. This would account for case relations in verbless sentences, and within noun phrases.

2.4 Inflection and derivation in lexicase theory

Li (1973:234) suggests the following characteristics of inflection as opposed to derivation:

- 1) that inflection does not change the syntactic class of the form,
- 2) that an inflectional affix cannot be carried over from one part of speech to another,
- 3) that the form, meaning, and semantic properties are nearly completely, if not one hundred percent, predictable,
- 4) that an inflected form is not subject to any further derivation.

In addition, inflectional morphophonemic rules must apply after all derivational ones, and inflectional rules are obligatory.

By these criteria, in English, the *-ing* form deriving gerundive nouns from verbs, is a derivational affix, as the item changes syntactic class. But the verbal suffix *-s* indicating the third person singular present tense, and the past tense suffix *-ed* are inflectional.

By these criteria there are very few, if any, affixes in Betawi which may be considered inflectional. This question is discussed further in section 7.

* * *

P H R A S E S T R U C T U R E I N B E T A W I

3.0 Introduction

In this section, the phrase structure rules (PS rules) posited for Betawi are stated and discussed. The phrase structure component of lexicase theory is discussed above in section 2.1. In 3.1, the PS rules for Betawi are given, in 3.2, some of the constituents of the rules are discussed, and in 3.3, various sentence types generated by the rules are described and exemplified.

3.1 The phrase structure rules (PS rules)

The phrase structure rules posited for generating possible grammatical strings in Betawi are stated below. A list of abbreviations used follows.

PSR I

$$S \xrightarrow{\text{(Intro.)}} \left\{ \begin{array}{l} S \dots (\text{cocon.}) S \\ \left(\left(\begin{array}{l} (\text{sub-con.}) S \\ NP \\ PP \\ Adv. \\ SPart. \\ Voc. \end{array} \right) \right)^n \left\{ \begin{array}{l} V \\ NP \\ PP \end{array} \right\} \left(\left(\begin{array}{l} S \\ (\text{sub-con.}) S \\ NP \\ PP \\ Adv. \\ SPart. \\ Voc. \end{array} \right) \right)^n \end{array} \right\}$$

PSR II

$$PP \xrightarrow{P} \left\{ \begin{array}{l} NP \\ S \end{array} \right\}$$

PSR III

$$NP \xrightarrow{} \left\{ \begin{array}{l} NP \dots \text{cocon.} NP \\ (\text{Det.}) (\text{Adj.}) N \left(\left(\begin{array}{l} NP \\ PP \\ S \\ Adj. \end{array} \right) \right)^n (\text{Det.}) \end{array} \right\}$$

Abbreviations:

S	sentence
Intro.	introducer
cocon.	coordinating conjunction
subcon.	subordinating conjunction
NP	noun phrase
PP	prepositional phrase
Adv.	adverb
SPart.	sentence particle
Voc.	vocative
V	verb
P	preposition
Det.	determiner
Adj.	adjective
N	noun

Conventions:

n	The superscript n indicates that the constituent is iterative.
X...Y	means that Y is iterative.

3.2 Some constituents in the PS rules

3.2.1 Introducer (Intro.)

Introducers may occur at the beginning of all types of sentences. Examples are *tapi(ñe)* 'but', *jadi(ñe)* 'so, therefore', *abis(ñe)* 'so in that case', *lagi(ñe)* 'moreover, besides', *mañke(ñe)* 'therefore, that's why', *pokokñe* 'the point is, in summary', *nameñe* 'that means, that is', *omog-omog* 'by the way'. Many of them are derived from nouns or verbs (see section 7.4.1.4). The suffix *-ñe* which also derives definite nouns suggests that they might alternatively be treated as derived nouns in various case relations.

Examples:

- (1) *Abis die kə mane?*
so he to where
 'So where did he go?'
- (2) *Manke saye pulang siaᅇ-siaᅇ.*
therefore I come home late, in
the afternoon
 'That's why I came home late.'
- (3) *Nameᅇne ᅇa? kan*
that is, that means (pron.) (SPart.)
masi sayeᅇ.
still love
 'That means you still love me.'
- (4) *Pokokᅇne gue peᅇen tao, diri 'lu*
the point is I want know self you
slamat, ᅇᅇga?
safe not
 'The thing is, I want to know if you are all right.'

Interjections which occur independently may also serve as introducers of sentences. Examples are *ye* serving as a delayer, *e* calling for attention, *o* expressing surprise, *ua* expressing dismay, *ayo* and *mari* expressing an imperative meaning 'come on, let's (go)'.
 Examples:

- (5) *E e ni anak kə mane?*
(intro.) (intro.) this child to where
 'Where did the child go?'
- (6) *O rupeᅇne mulutᅇne pᅇnu nasi.*
oh it seems mouth(def./pos.) full rice
 'Oh, it seems your mouth is full of rice.'
- (7) *Ayo pulang.*
Come-on go-home
 'Come on, let's go home.'

3.2.2 Coordinating conjunction (Cocon.)

Some coordinating conjunctions in Betawi are:

<i>ape</i>	<i>tapi</i>	<i>ame</i>
'or'	'but'	'and'
[+ cocon.]	[+ cocon.]	[+ cocon.]
[+ Q]		[+ [+ N] _____ [+ N]]

ape is derived from the noun *ape* 'what'. It

is specified as a question word. *ame* is derived from the preposition *ame* 'with'. *ame* 'and' is specified as occurring between noun phrases. There is no direct translation of English 'and' for sentence coordination. The Malay and Bahasa Indonesia *dan* 'and' does not occur in Betawi. Sentences may be intonationally treated as one with no conjunction (see section 3.3.2.1).

3.2.3 Subordinating conjunction (subcon.)

Subordinating conjunctions in Betawi may be inherent or derived. Examples of inherent subordinating conjunctions are *karne* 'because', *sambil* 'while', *supaye* 'in order that', *asal* 'provided', *kalo* 'if, when'. Examples of derived subordinating conjunctions are *sᅇlameᅇne* 'while', *sᅇkapanᅇne* 'when', *sᅇabisᅇne* 'after', *sᅇbᅇlunᅇne* 'before', *sᅇudeᅇne* 'after', *sᅇlagiᅇne* 'while'. Derived subordinating conjunctions are derived from verbs or adverbs (see section 7.4.1.8). The suffix *-ᅇne* which is also the definite noun suffix, suggests that these forms might alternatively be treated as derived time nouns which allow sentence complements. They are also similar to prepositions, except that they are followed by sentences while prepositions may be followed by noun phrases. Subordinate clauses may also occur without a subordinating conjunction (see section 3.3.2.2).

3.2.4 Sentence particle (SPart.)

Sentence particles: *kan*, *ye*, *si*, *doᅇ*, *de*, *ko?*, *?ah*, and *ke?* express feelings and attitudes of the speaker, such as surprise, indifference, discomfort, uncertainty, urging. The meanings of these particles are discussed in detail in terms of conversational postulates in Ikranagara 1975a.

There are restrictions on the position of occurrence of some of these particles. *de*, *doᅇ*, *si*, *ye*, and *?ah* never occur before the verb unless preceded by a noun, adverb, or subordinate clause. These five particles are specified with the feature [+noninitial] and a redundancy rule states that when verbs are

preceded by such a particle, the particle must be preceded by a noun, adverb or subordinate clause.

It is possible for more than one sentence particle to occur in a sentence.

Example:

- (1) *Tapine bilang dulu ame*
 but tell first (prep.)
siMiun doṅ ye??
 Miun (SPart.) (SPart.)
 'But you must tell Miun first, o.k.?'

3.2.5 Determiner (Det.)

The determiners in Betawi are *(i)ni* 'this, the (near)' and *(i)tu* 'that, the (far)'. Unlike English determiners, the determiners in Betawi may occur with pronouns and commonly occur with possessive phrases and common names. They may occur both before and after a noun phrase, as in example 5.

Examples:

- (1) *anak ni*
 child this, the
 'this child, the child'
- (2) *saye ni*
 I this, the
 'I'
- (3) *anak lu itu*
 child you that, the
 'your child, that child of yours'
- (4) *Ayati tu*
 Ayati that, the
 'Hayati (name)'
- (5) *ni anak ni*
 this, the child this, the
 'this child, the child'

The determiners in Betawi are specified as [+definite] (definite = "assumed by speaker to be known to hearer"). Nouns in Betawi may be derived as [+definite] (see section 7.2.2.2). [+derived] [+definite] nouns may occur with or without determiners.

Examples:

- (6) *anakñe*
 child (def./pos.)

'the child/my, your, our, his, her, their child'

- (7) *anakñe itu*
 child (def./pos.) that/the
 'that, the child/my, your, our, his, her, their child'

The determiners, being definite, also serve as something like subject markers in Betawi, as the subject noun phrase of a sentence in Betawi must be definite (see section 5.1).

3.2.6 Adjective (Adj.)

Adjectives are inherent or derived. Derived adjectives are from stative intransitive verbs (see section 7.4.2.1). Only quantifying adjectives may precede the noun as specified by a redundancy rule (RR (1) below). Examples of quantifying adjectives are *bəbərəpe* 'few', *bañak* 'many, much', *sabən* 'every, each', *tiap-tiap* 'every, each', *səməue* 'all' and numerative adjectives. Redundancy rules ((2), (3), below) specify that certain quantifying adjectives, e.g. *tiap-tiap*, *sabən*, *bəbərəpe*, do not occur before uncountable nouns, and quantifying adjectives do not occur after a noun. (Numeratives derived as nouns may follow other nouns: see section 3.3.4.)

Redundancy rules relating to quantifying adjectives:

$$\text{RR (1) } [+N] \longrightarrow \left[\begin{array}{c} - [+Adj.] \\ - [Quan.] \end{array} \right]$$

$$\text{RR (2) } \left[\begin{array}{c} +N \\ -count. \end{array} \right] \longrightarrow \left[\begin{array}{c} - [+Adj.] \\ + [Quan.] \\ + [count.] \end{array} \right]$$

$$\text{RR (3) } [+N] \longrightarrow - \left[\begin{array}{c} + [Adj.] \\ + [Quan.] \end{array} \right]$$

Examples:

Nonquantifying:

- (1) *Lu anak tolol.*
 you child stupid
 'You are a *stupid* child.'

Quantifying:

- (2) *Saben ari die datəŋ.*
every day he come
 'He comes *every* day.'
- (3) *Ude due-pulu taon ləbi.*
 already twenty year more
 'It has been more than *twenty* years.'

3.2.7 Noun (N)

Some aspects of proper names and pronouns in Betawi will be discussed below.

Proper human names in Betawi may be derived compounds consisting of an inherent proper name and a title. The title may be a job title or position in the family. Family titles are also used for those of similar age and status of such a family member (in relation to the speaker).

Example: *ma?* 'mother' *Buyuŋ* (name)
Ma?-Buyuŋ (name)

Sentence:

- (1) *Ma?-Buyuŋ kan kərje di sane.*
Ma-Buyung (SPart.) work at there
 'Ma-Buyung works there.'

Proper human (or animate) names may also be derived with the prefix *si*, for familiar and informal reference.

Example: *Puase* (name) *siPuase* (name)

Sentence:

- (2) *Lu jaŋan kasi siPuase.*
 you don't give (name)
 'Don't give it to *Puase*.'

Pronouns in Betawi are of two types, inherent and derived. Inherent pronouns in Betawi are:

<i>(s)aye</i>	<i>gue</i>	<i>kite</i>	<i>lu</i>	<i>die</i>
[+skr.] [-adr.]	[+skr.] -adr. -po- lite +inti- mate	[+skr.] +adr.]	[-skr.] +adr. -po- lite +inti- mate	[-skr.] [-adr.]
'I'	'I'	'we'	'you'	'he, she'

While *(s)aye* and *gue* may be accurately characterized as [-plural], the other pronouns sometimes vary. *Lu* and *die* are usually [-plural], *kite* [+plural]. But *kite* is sometimes used as [-plural], [-addressee], and *lu* and *die* are sometimes used as [+plural].

Derived pronouns are derived from certain titles. These derived pronouns function syntactically as pronouns (see section 7.2.1.11). They may refer to any person. As mentioned in section 1, the English translations provided are based on the original context of the sentence.

Examples:

<i>ñai</i>	'native wife of European'	<i>ñai</i>	'I, you, she (of, by or to native wife of European)'
<i>(a)baŋ</i>	'older brother'	<i>(a)baŋ</i>	'I, you, he (slightly older man)'

Sentences:

- (3) *Ñai mao ñapu.*
 (pron.) want sweep
 'I want to sweep.'
- (4) *Kan abaŋ mao səmbayaŋ.*
 (SPart.) (pron.) want pray
 'Didn't you want to go pray?'

3.3 Expansion of the phrase structure rules

3.3.1 Statements, questions and commands

Sentences having different types of illocutionary force in Betawi may have the same

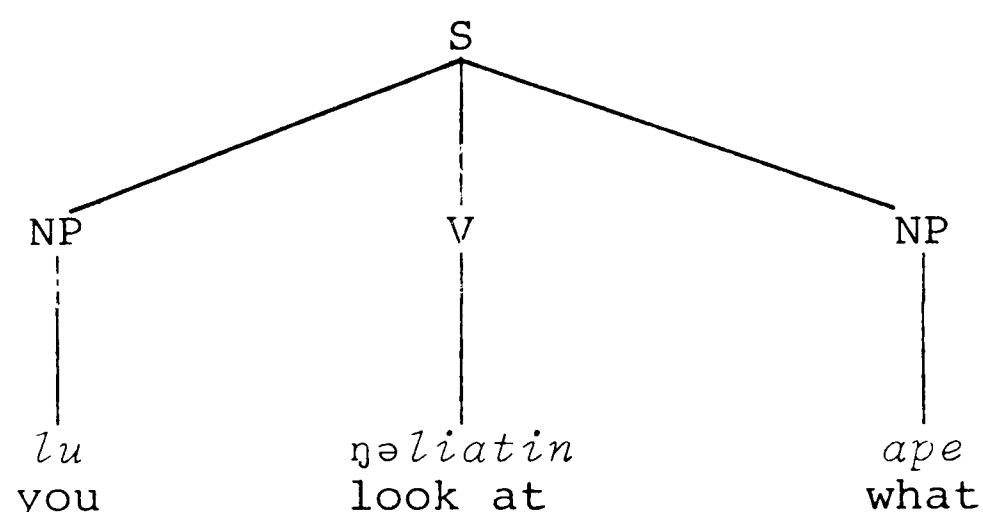
syntactic structure.

The structure of content questions in Betawi is the same as that of statements, but they contain lexical items which are specified in the lexicon as [+Q] (question words), such as:

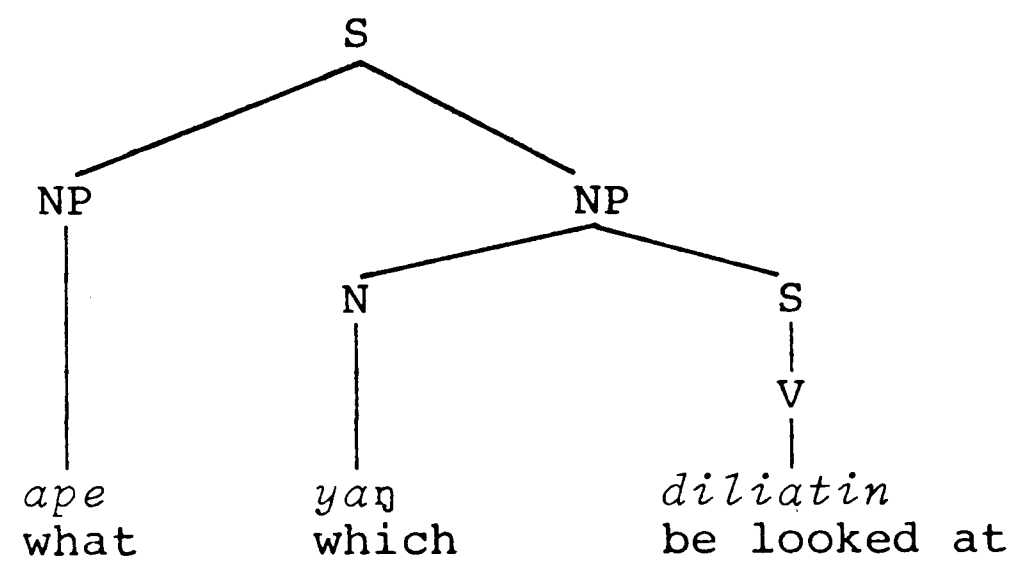
<i>ape</i>	<i>ape</i>	<i>siape</i>	<i>mane</i>	<i>kapan</i>
[+N -hum. +Q]	[+cocon. +Q]	[+N +hum. +Q]	[+N +LOC +Q]	[+N +TIM +Q]
'what'	'or'	'who'	'where'	'when'
<i>bərape</i>	<i>pəgimane</i>	<i>kərape</i>		
[+V +stative +quantifying +Q]	[+Adv. +MAN -cause +Q]	[+Adv. +MAN +cause +Q]		
'how many, how much'	'how'	'why'		

The fact that the "focus-presupposition" sentence type (see section 3.3.2.5) with the question word as subject is preferred to questions where the question word functions as subject or object of the verb, is not accounted for here. This is simply a preference, as sentences like (1) below are perfectly grammatical and normal, as are the more frequent "focus-presupposition" examples such as (2).
Examples:

- (1) *Lu ηəliatin ape?*
you look at what
'What are you looking at?'

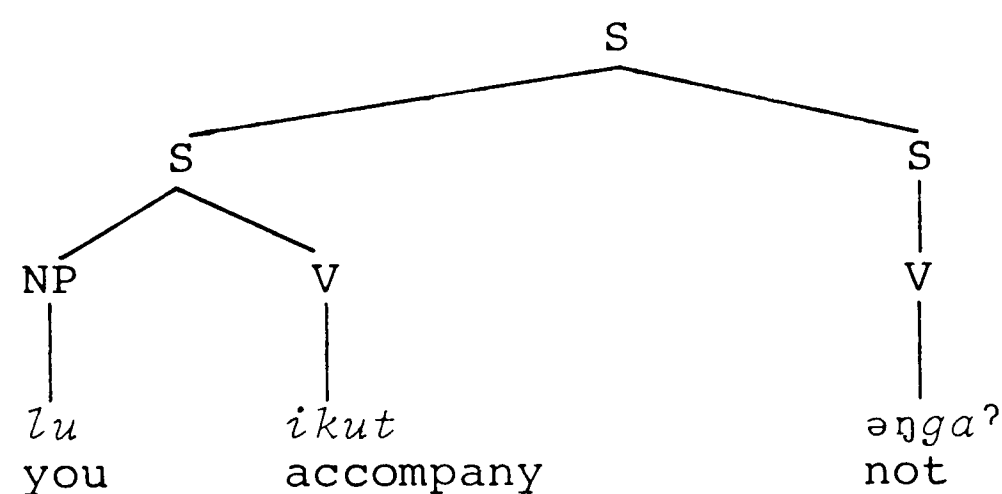


- (2) *Ape yaŋ diliatin?*
what which be looked at
'What are you looking at?'
(lit: 'What is being looked at?')

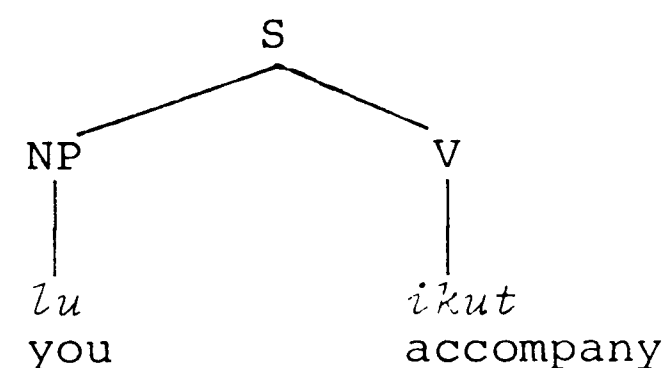


The syntactic structure of yes/no questions is also the same as that of statements. They are frequently of the form S(cocon.)S (see example (3) below) where the second S consists only of a negative verb (see section 6.13) such as *əŋga?* 'not' or *bəlun* 'not yet'.
Examples:

- (3) *Lu ikut əŋga??*
you accompany not
'Are you going along or not?'



- (4) *Lu ikut?*
you accompany
'Are you going along?'



The structure of commands is the same as that of statements, but they may contain imperative verbs. Verbs are specified as either [+imperative] or [-imperative] by the following rule:

SR (1) [+V] → [+imp.]

Imperative verbs do not take the prefix *η-* except in the case of certain verbs derived from nouns (see section 8, VMR (1)). Imperative verbs can and often do have subjects.

They may be stative or passive.

Examples:

- (5) *Lu iŋət ye.*
 you remember (SPart.)
 'You remember!'

Active transitive:

- (6) *Pili de yaŋ mane.*
 choose (SPart.) which where
 'Choose which one.'

Derived from noun with obligatory prefix:

- (7) *ŋopi de, ŋopi*
 have-coffee (SPart.) have-coffee
 'Have some coffee, have some coffee.'

Stative:

- (8) *Cəpətan doŋ kərjaanñe*
 more-fast (SPart.) work (def./pos.)
 'Work faster.'
 (lit: 'Let your work be faster.')

Passive:

- (9) *Ni dipegan doŋ*
 this hold (pas.) (SPart.)
 'Hold on.'
 (lit: 'Let this be held.')

A few items are lexically specified as [+imperative], such as *jaŋan* 'don't' and the interjections (*a*)*yo* and *mari* 'come on, let's (go)'.¹ *jaŋan* is specified as allowing a verb complement (see section 3.3.4).

Examples:

- (10) *Lu jaŋan sətor ame*
 you don't pay/deposit (prep.)
siAyati.
 Ayati
 'Don't give the money to Ayati.'

- (11) *Ayo.*
 come-on
 'Come on.'

The following universal rule states that imperative verbs imply second person subjects (Li 1973:220):²

$$\text{RR (4) } [+imp.] \longrightarrow - \left[\begin{array}{l} +NM \\ -addr. \end{array} \right]$$

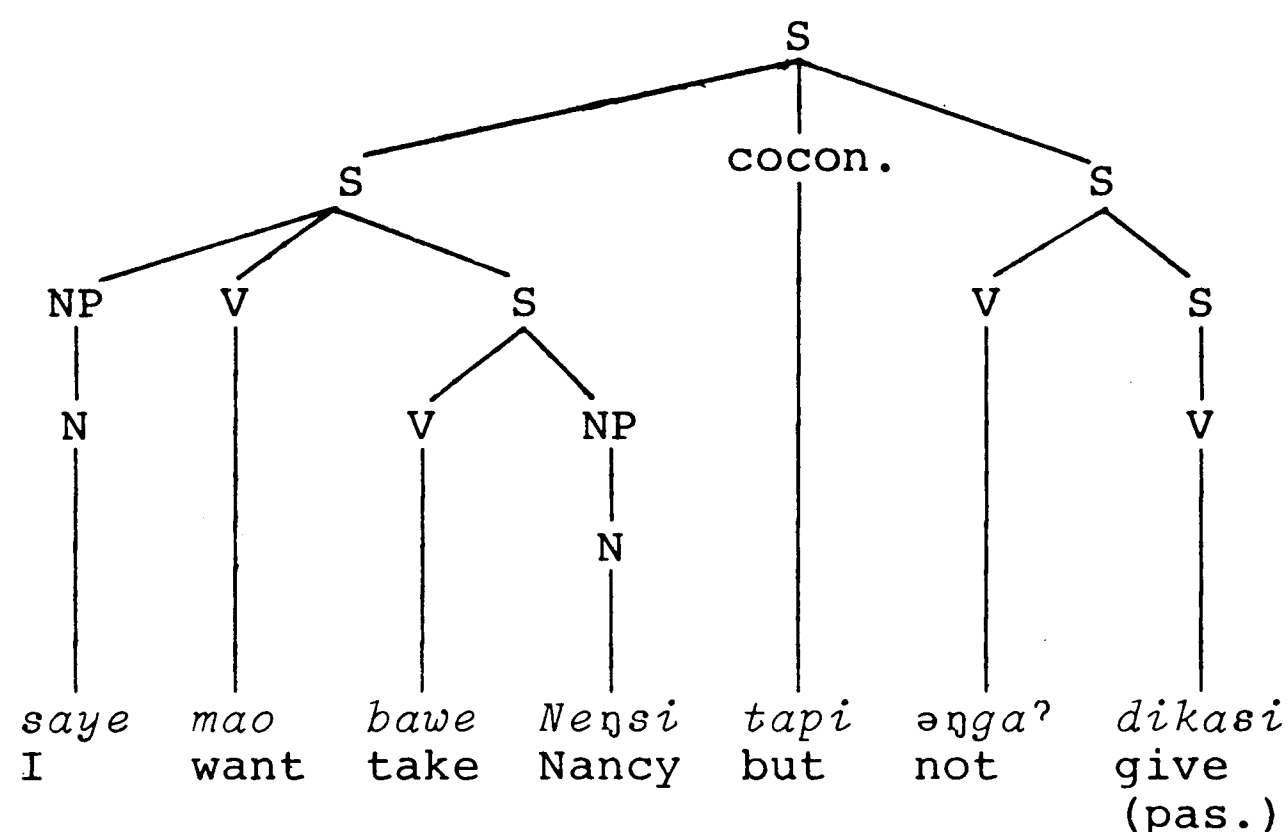
3.3.2 Phrase structure rule I

Some of the possible types of sentences which may be generated by phrase structure rule I are discussed and exemplified in this section.

3.3.2.1 Compound sentences

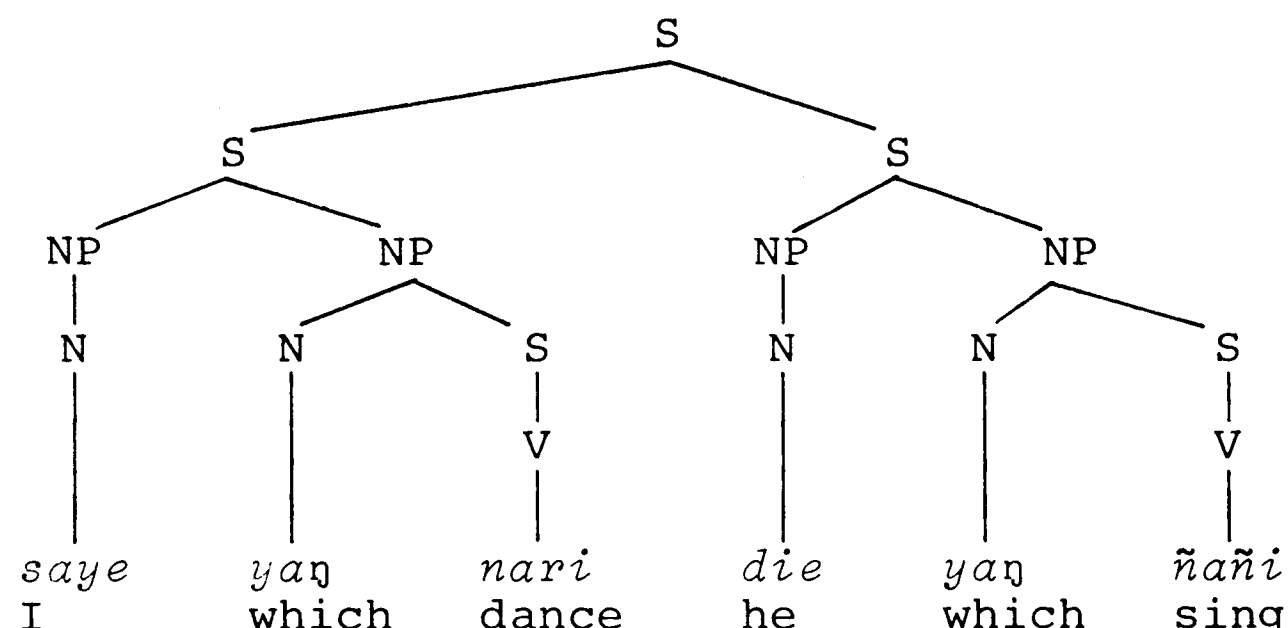
PSR I allows several choices. The first one, S....(cocon.)S gives compound sentences. An example of a compound sentence is:

- (1) *Saye mao bawe Neŋsi tapi*
 I want take Nancy but
əŋga? dikasi.
 not give (pas.)
 'I wanted to take Nancy but wasn't allowed.'



In the following example, the two sentences are treated as one intonationally, although no conjunction is present:

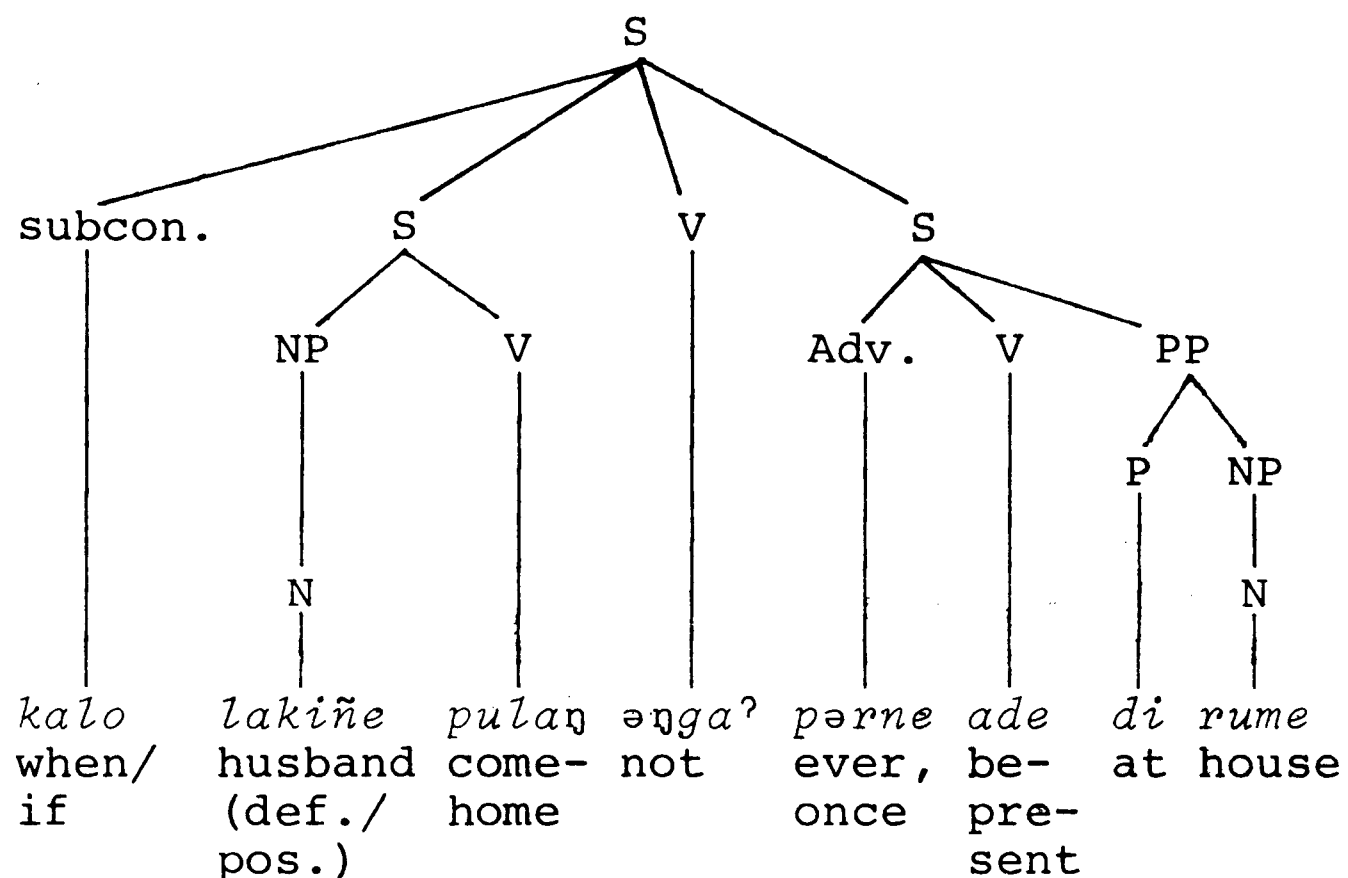
- (2) *Saye yaŋ nari, die yaŋ*
 I which dance, he which
ñañi.
 sing
 'I dance and he sings.'
 (lit: 'I am the one who dances and he is the one who sings.')



3.3.2.2 Subordinate clauses

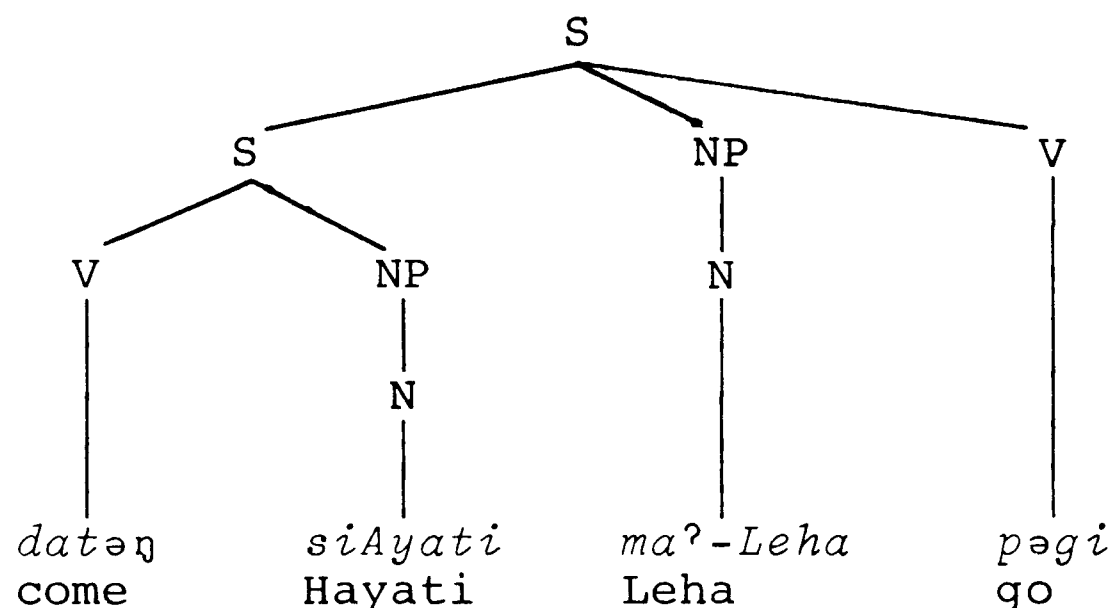
The second choice in PSR I allows the choice of (subcon.)S, which gives sentences with subordinate clauses. An example of a sentence in Betawi with a subordinate clause is:

- (1) *Kalo lakiñe*
when/if husband (def./pos.)
pulaŋ əŋga pərne
come-home not ever, once
ade di rume
be-present at house
'When her husband comes home, she's never at home.'



Subordinate clauses in Betawi may also occur without a subordinating conjunction. Examples:

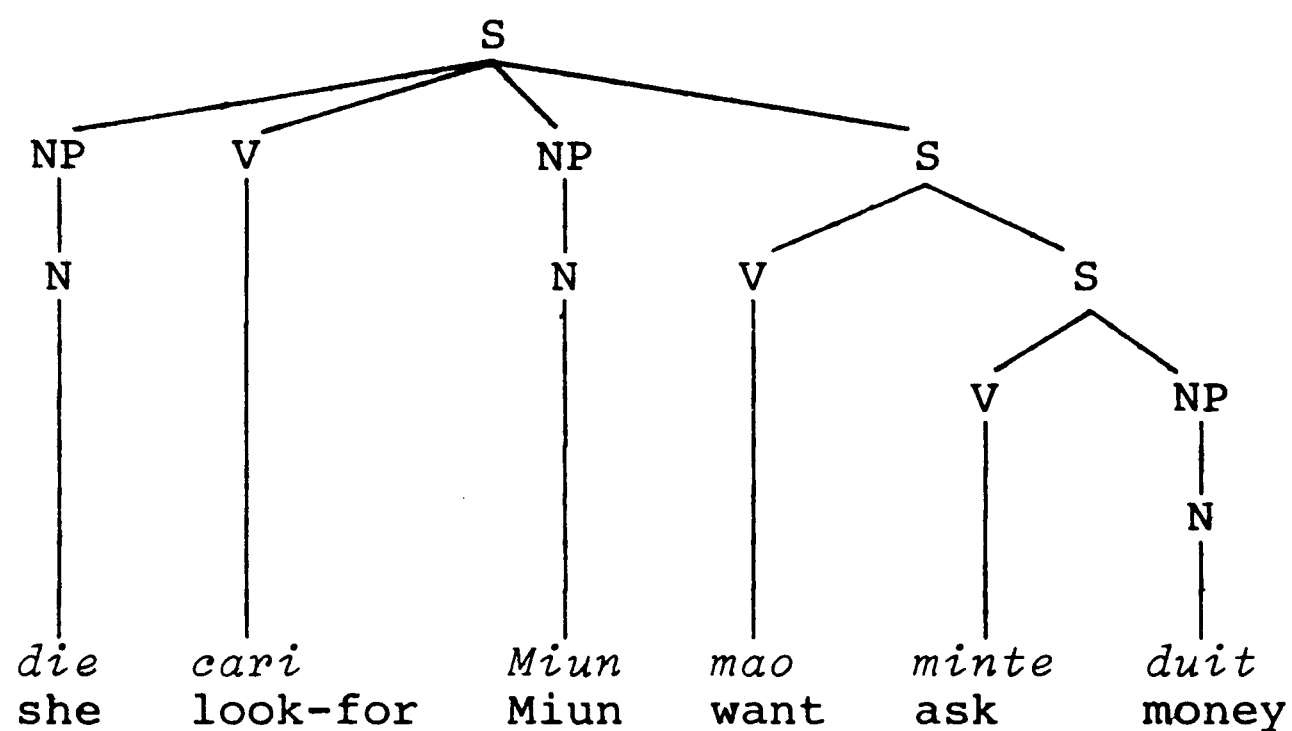
- (2) *Datəŋ siAyati, ma?-Leha pəgi.*
come Ayati Leha go
'When Hayati comes, Leha leaves.'



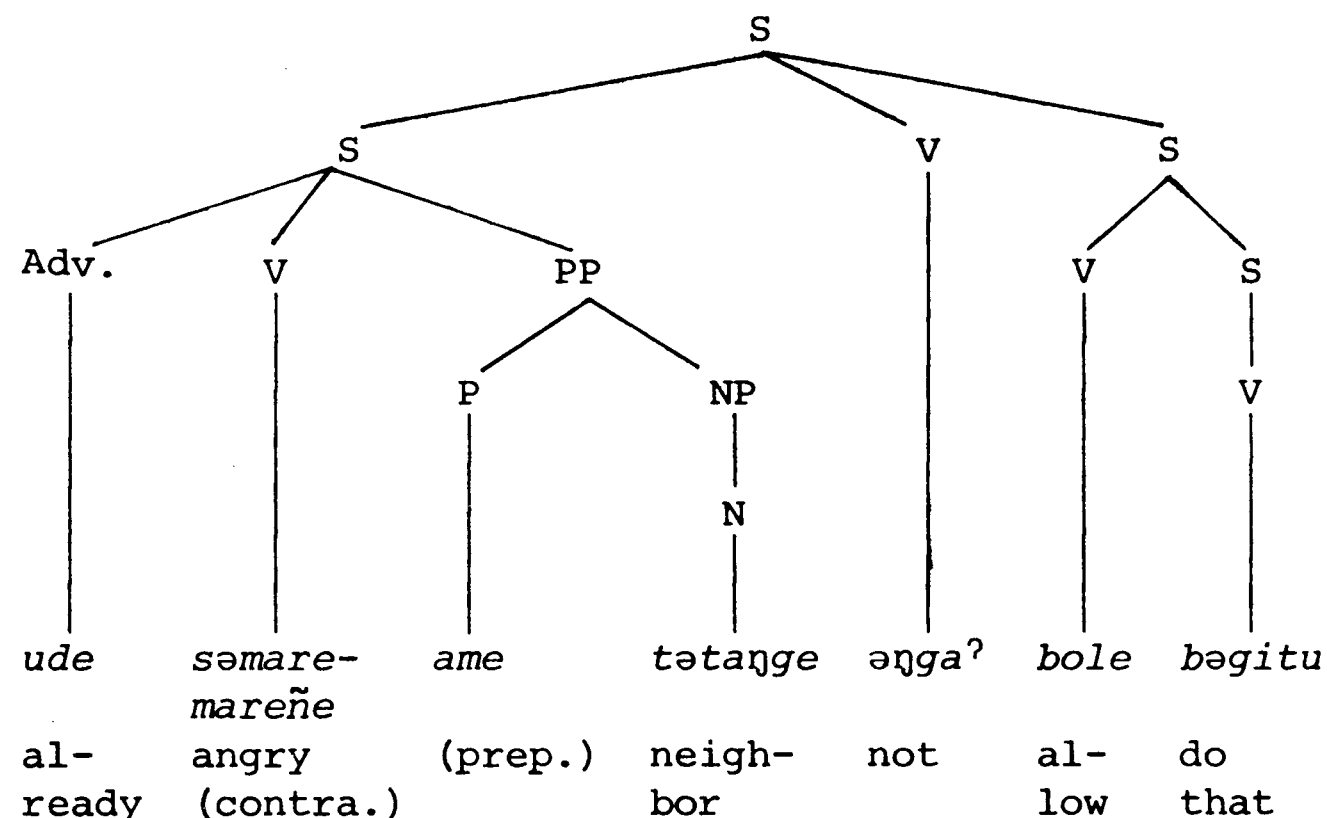
- (3) *Die cari Miun, mao minte*
she look-for Miun want ask
duit.
money

'She is looking for Miun because she

wants to ask for money.'



- (4) *Ude səmare-mareñe ame*
already angry (contra.) (prep.)
tətange əŋga? bole bəgitu.
neighbor not allow like-that
'Although you are angry at the neighbors, you may not do that.'



In example (3) *səmare-mareñe* is a derived contradictive verb, discussed in section 7.3.1.1.16.

3.3.2.3 Subjectless sentences

PS rule I allows sentences without a subject. There are some verbs which are specified in the lexicon as not allowing subjects, such as atmospheric and existential verbs. Some embedded sentences are also sentences which do not allow subjects. Following are examples of types of sentences which do not allow subjects.

3.3.2.3.1 Atmospheric and existential sentences

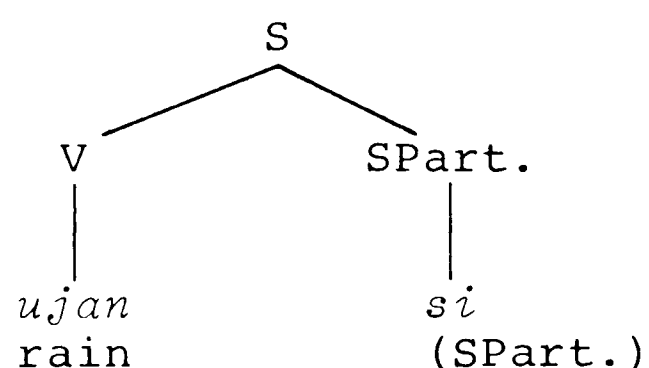
Certain verbs referring to natural phe-

nomena are specified in the lexicon as not allowing subjects, such as *ujan* 'rain', *aḡin* 'wind', *panas* 'hot', *diḡin* 'cold', *adəm* 'cool'. They may have corresponding nouns (*ujan*) or nonatmospheric verbs which allow subjects (*panas*, *diḡin*, *adəm*). They allow time, location, and manner actants.

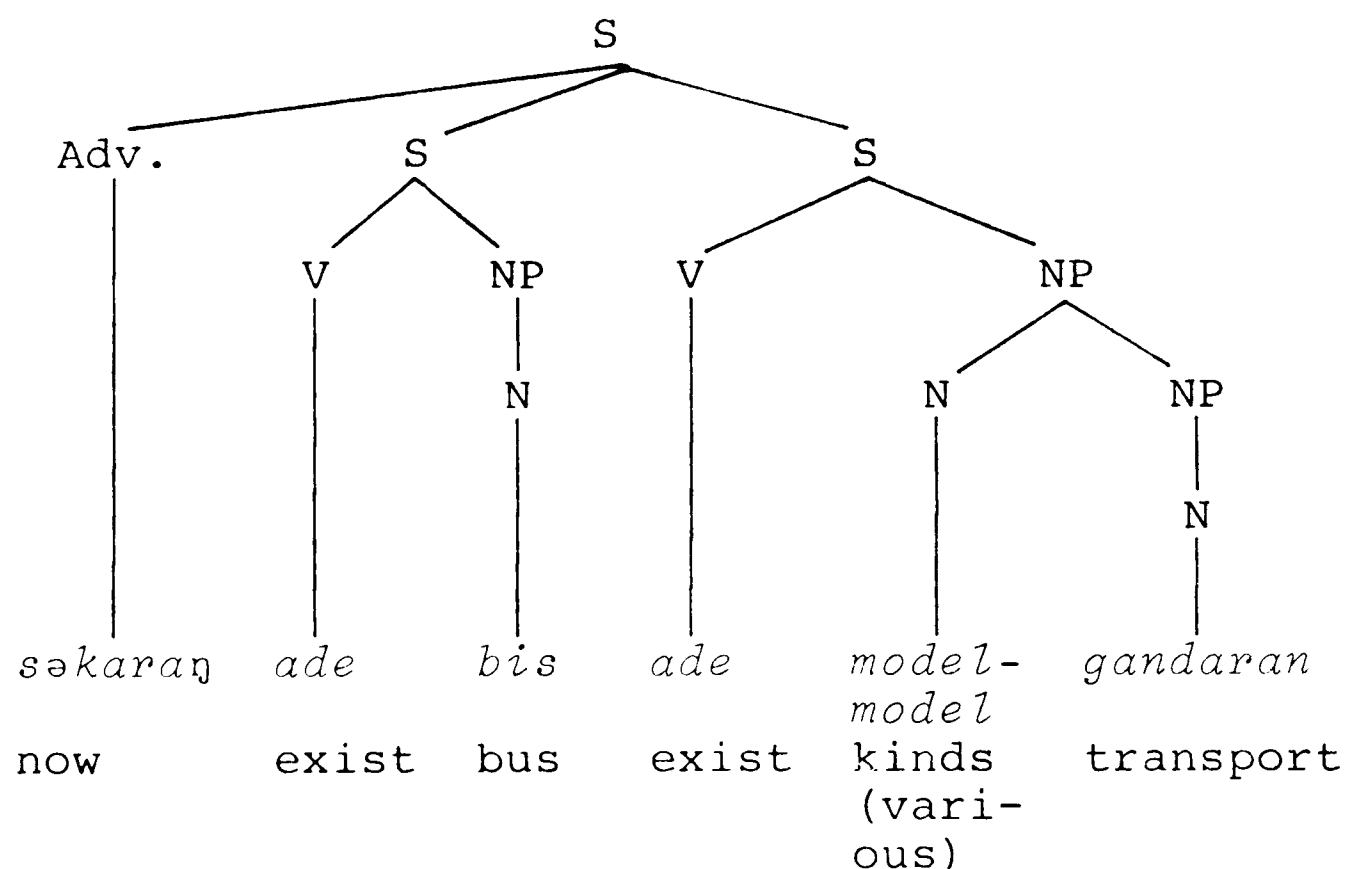
Existential sentences are sentences with the existential verb *ade* 'be, exist'. Both existential *ade* and possessive *ade* 'to have' are considered to be derived from the location verb *ade* 'to be present, be at'. The existential verb *ade* is specified in the lexicon as not allowing a subject.

Examples:

- (1) *Ujan si.*
rain (SPart.)
'It was raining (that's why).'



- (2) *Səkaraḡ ade bis, ade*
now exist bus, exist
model-model gandaran.
model/kind (various) transport



3.3.2.3.2 Nonfinite sentences

Certain embedded sentences also do not allow subjects. Following Kullavanijaya (1974), I posit the following rules, which specify that verbs are either finite or nonfinite, and that nonfinite verbs do not allow subjects:

SR (2) [+V] → [+finite]

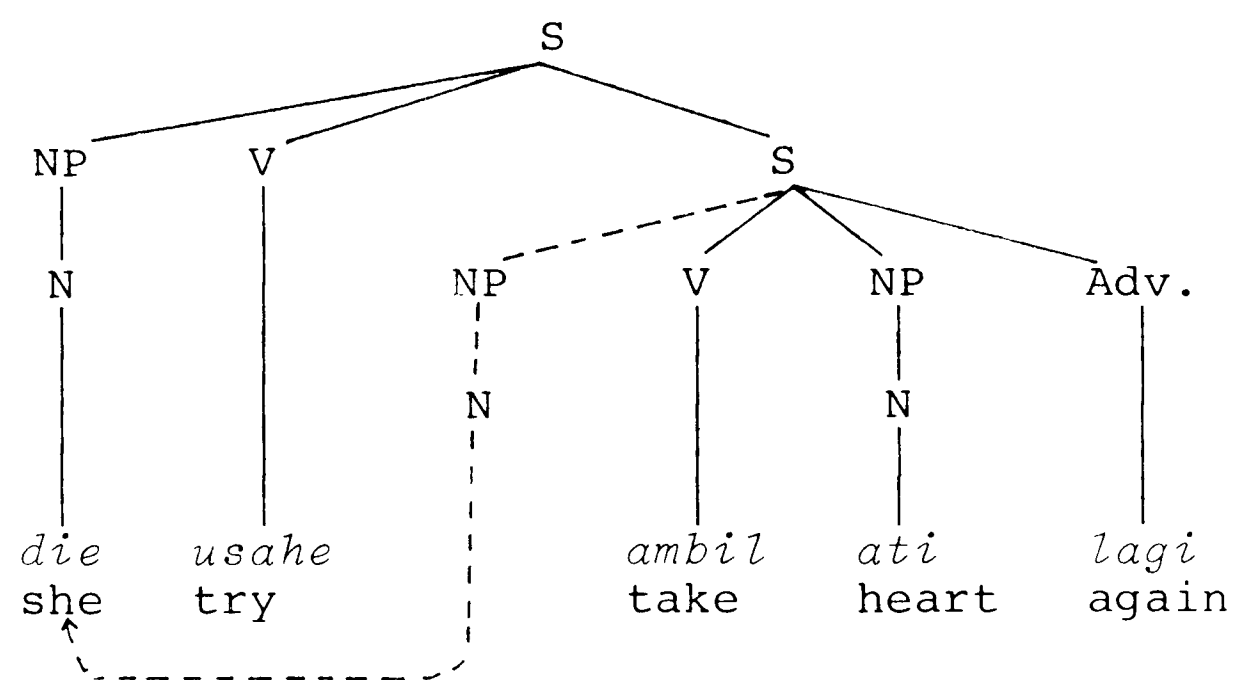
SR (7) $\left[\begin{array}{c} +V \\ -finite \end{array} \right] \rightarrow [- +NM]$

Nonfinite verbs are required or allowed in certain embedded sentences such as verb complements. Some verbs have the selectional feature $\left[+ \text{---} [-finite] \right]$. This means that they take sentence complements with nonfinite verbs. The missing subject of the embedded sentence is understood as referring to the subject or object of the matrix verb depending on features of the matrix verb (cf. Jackendoff 1972:178-226).

For example, the verb *usahe* 'try' is specified with the feature [+subject-control], which means that its complement's missing subject is understood as identical to its subject. The verb *suru* 'order, tell' has the feature [+object-control], which means that its complement's missing subject is understood as identical to its object. The corresponding passive verb *disuru* 'ordered, told' has the feature [+subject-control], as specified by the passive rule. Negative and auxiliary verbs are verbs which require nonfinite sentence complements. Such features of verbs relating to sentence complementation may be predicted by semantic-syntactic features, such as those posited for transitive verbs in Thai by Kullavanijaya (1974).

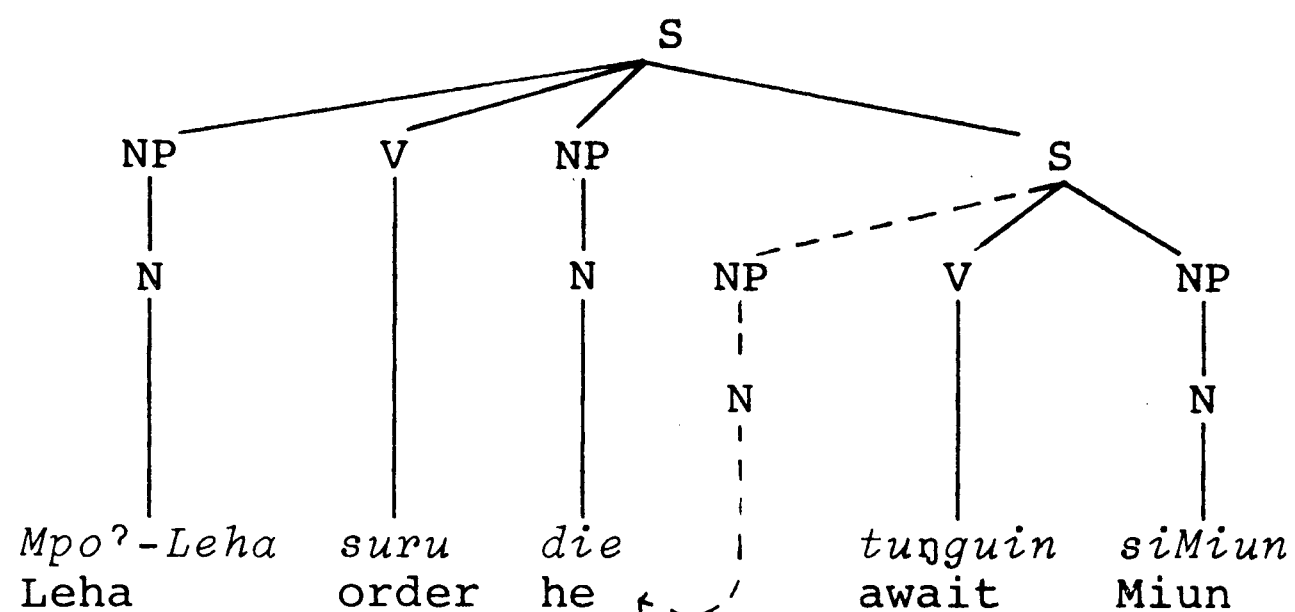
Examples:

- (1) *Die usahe ambil ati lagi.*
she try take heart again
'She tries to attract him again.'



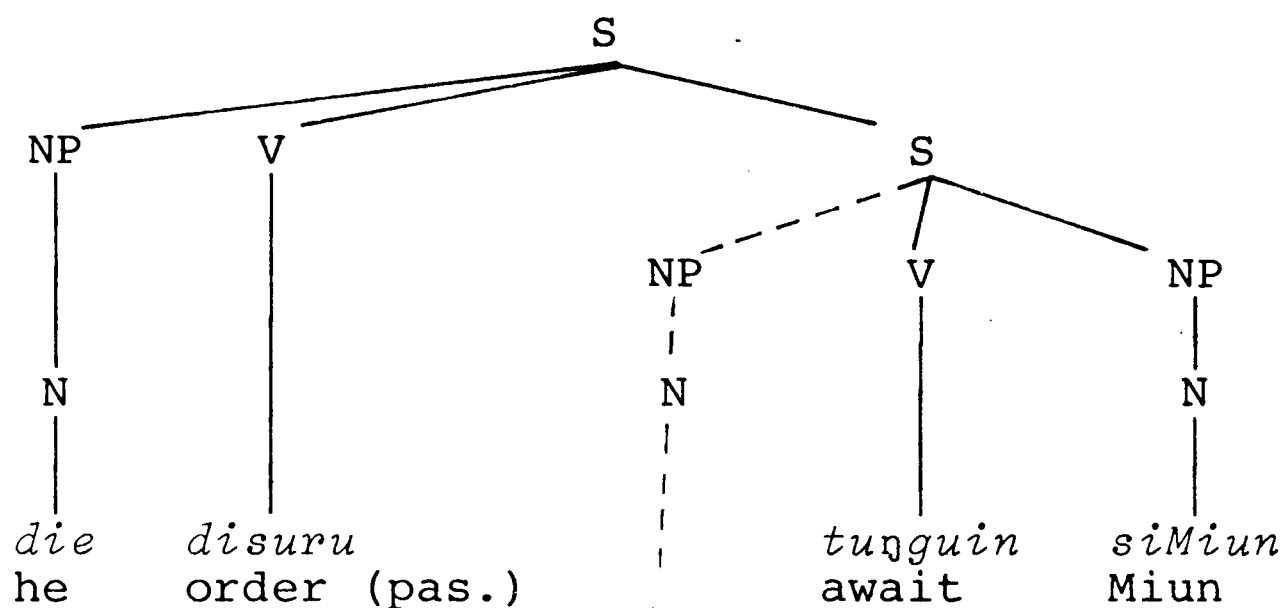
'She tries to attract him again.'

- (2) *Mpo[?]-Leha suru die tunguin*
 Leha order he await
siMiun.
 Miun
 'Leha told him to wait for Miun.'



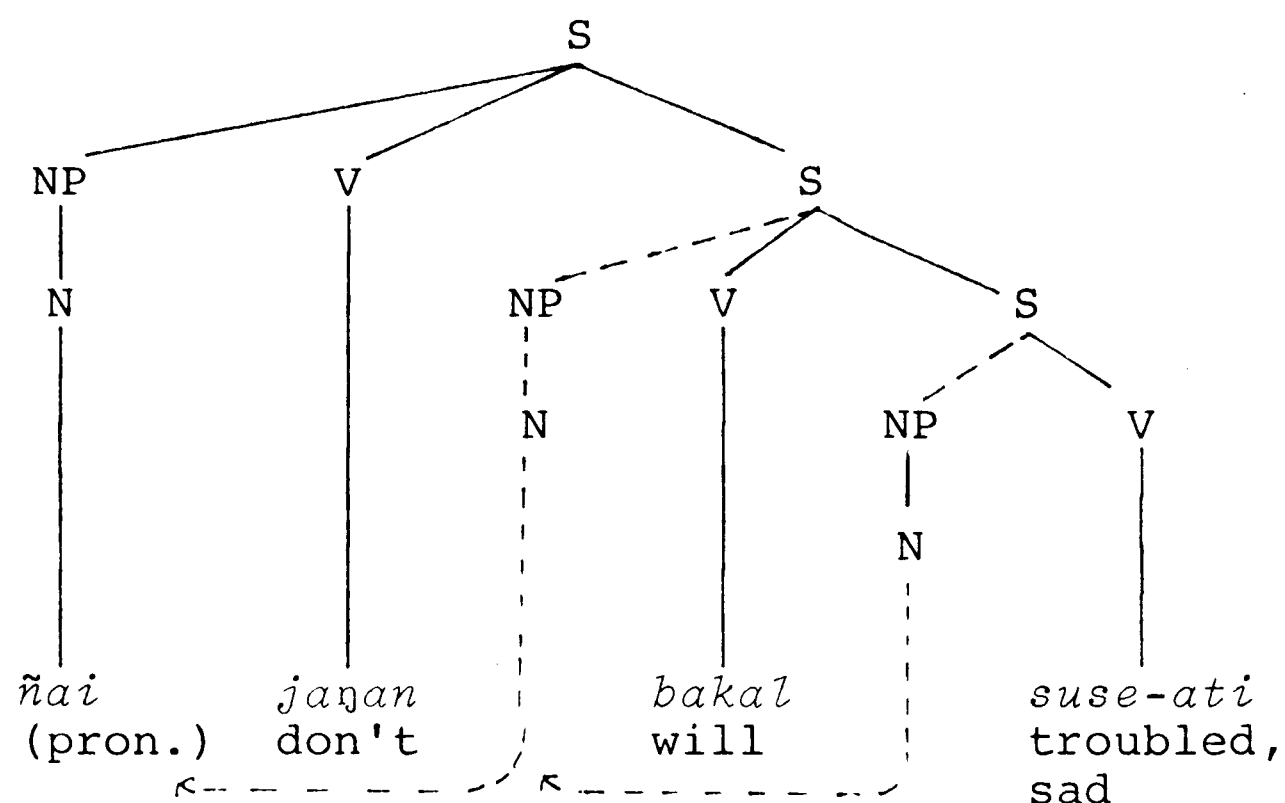
'Leha told him to wait for Miun.'

- (3) *Die disuru tunguin siMiun.*
 he order (pas.) await Miun
 'He was told to wait for Miun.'



'He was told to wait for Miun.'

- (4) *Ñai jañan bakal suse-ati.*
 (pron.) don't will troubled, sad
 'Don't be troubled, sad.'



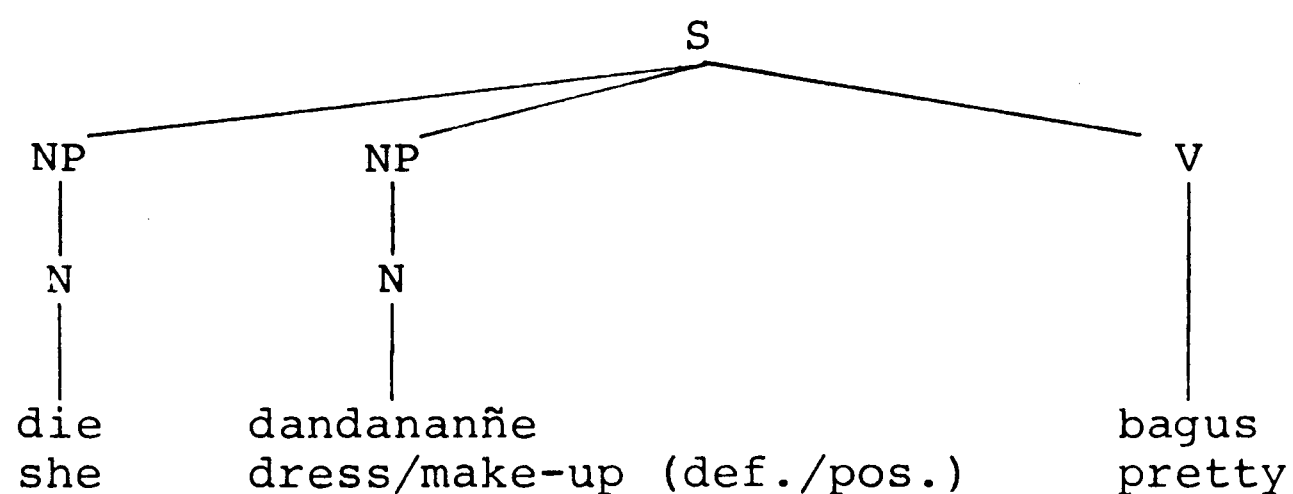
'Don't be troubled, sad.'

3.3.2.4 Sentences with more than one subject

PS rule I allows sentences with more than one subject. This allows a very common sentence type in Betawi: sentences with two subject noun phrases in which the second is a possessed attribute of the first. In the lexibase theory, two nouns in the same case relation to a verb such as those in the examples below (the subject nouns are in the theme case relation in these examples) must be coreferential. In these sentences, the second noun, as a possessed attribute of the first, is considered to be coreferential with the first in the sense that it is included in it.

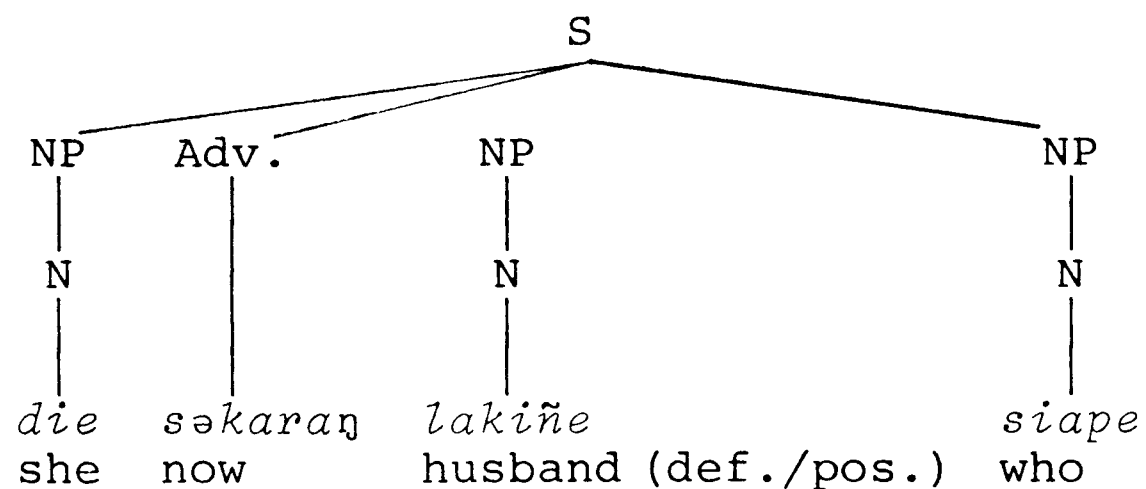
- (1) *Die dandanane*
 she dress/make-up (def./pos.)
bagus.
 pretty

'Her dress/make-up is pretty.'
 ('She, her dress/make-up is pretty.')



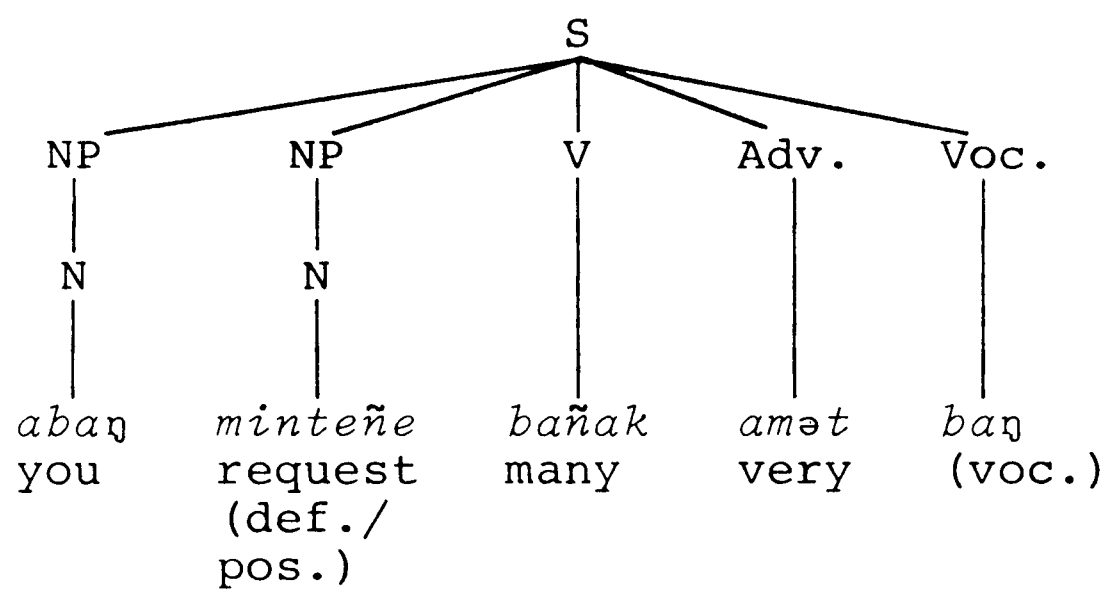
- (2) *Die səkarañ lakiñe*
 she now husband (def./pos.)
siape?
 who

'Who is her husband now?'
 ('She, now who is her husband?')

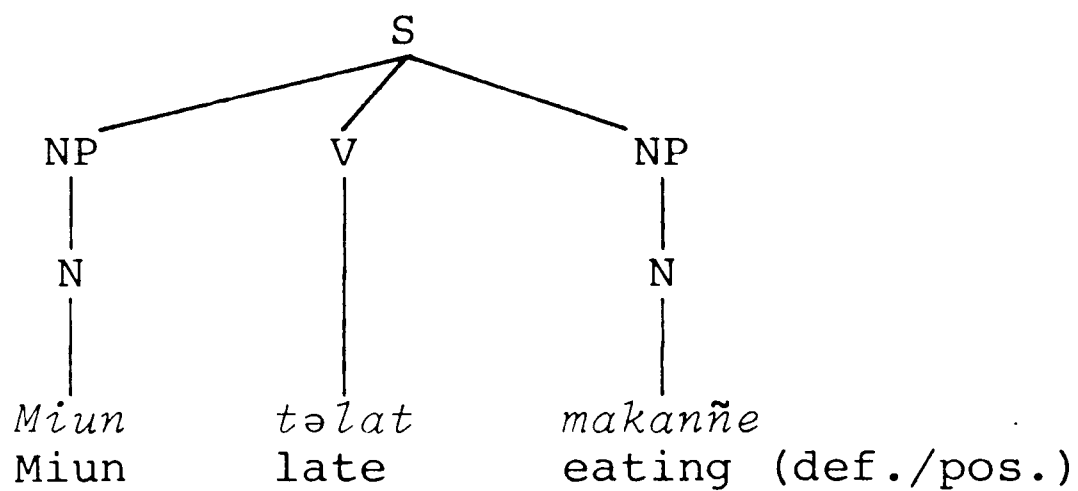


- (3) *Abañ minteñe bañak amət bañ.*
 (pron.) asking many very (voc.)
 (def./pos.)

'You ask very many things.' (lit:
 'You, your requests are very many.')



- (4) *Miun təlat, makanñe.*
 Miun late eat (def./pos.)
 'Miun ate late.'
 (lit: 'Miun, his eating was late.')

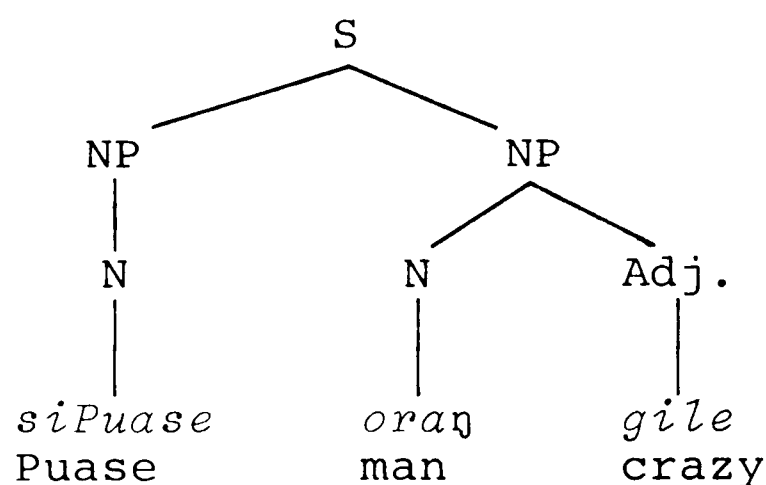


3.3.2.5 Verbal and verbless sentences

PS rule I allows the choice of verbal or verbless sentences. Verb types in Betawi are discussed in terms of case frame features in section 6, Verb subcategorization.

Phrase structure rule I allows for two types of verbless sentences. One type has a noun phrase as head of the construction, the other a prepositional phrase. (The head of a construction is its obligatory constituent.) An example of a verbless sentence with a noun phrase as head of the construction is:

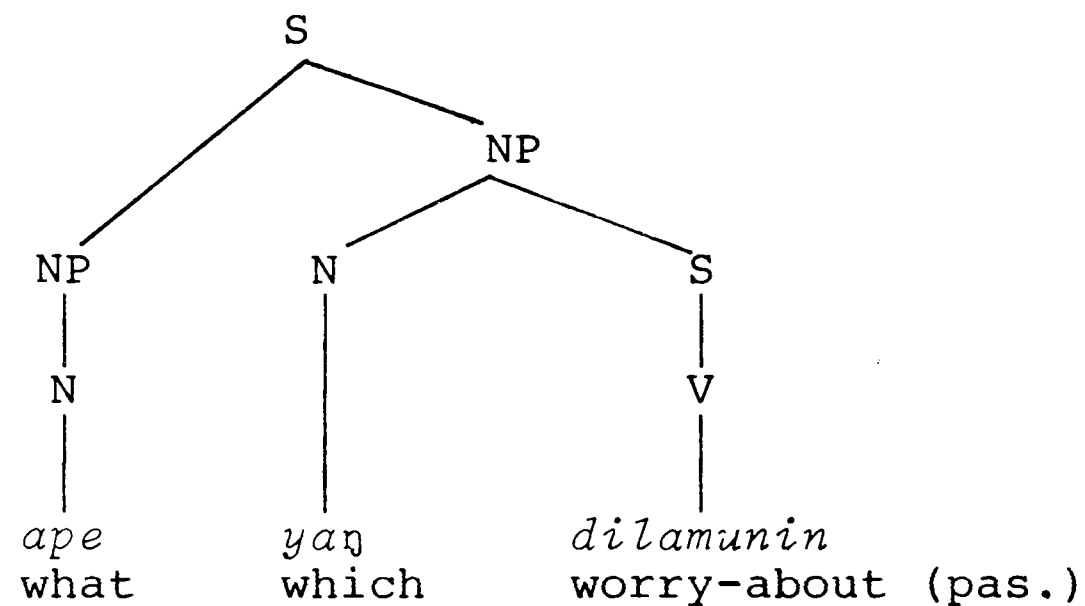
- (1) *siPuase oraŋ gile.*
 Puase person crazy
 'Puase is a crazy man.'



The common "focus-presupposition" sentence type is a verbless sentence with a noun phrase as head, the noun phrase head being of the structure NS (see section 3.3.4).

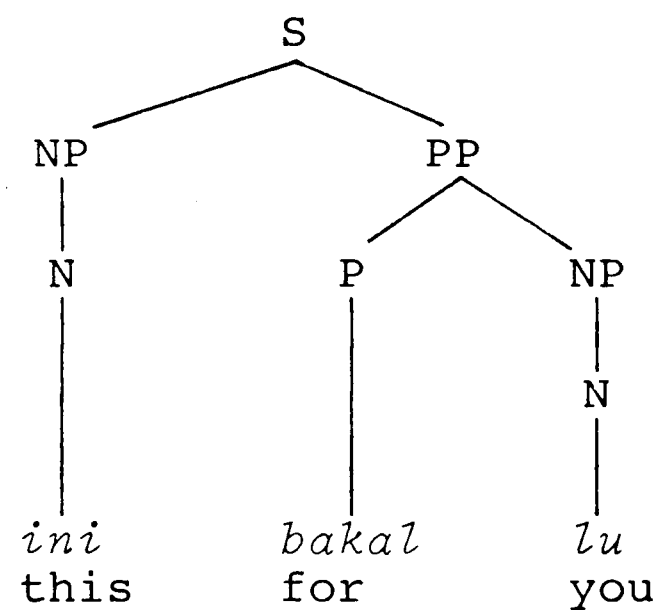
Example:

- (2) *Ape yaŋ dilamunin?*
 what which worry-about (pas.)
 'What are you worried about?'
 (lit: 'What is it that is being worried about?')

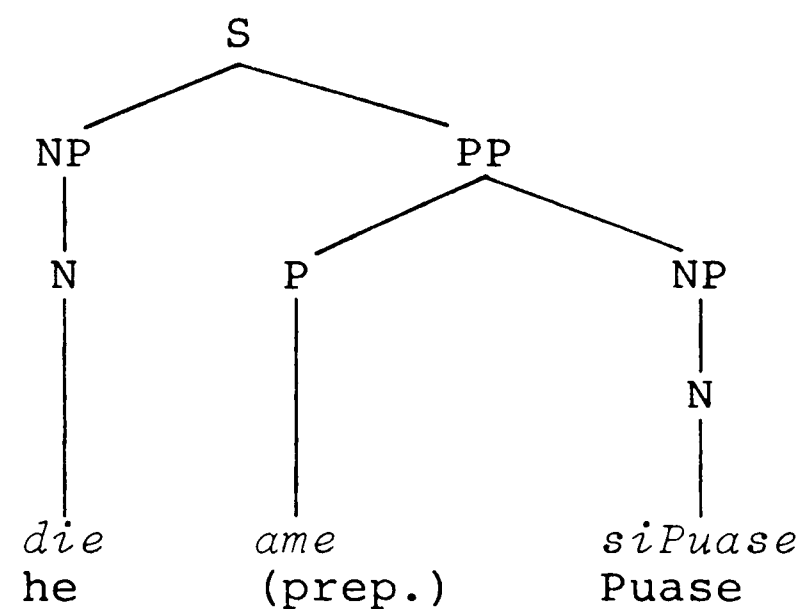


Examples of the second type of verbless sentence, with a prepositional phrase as head, are:

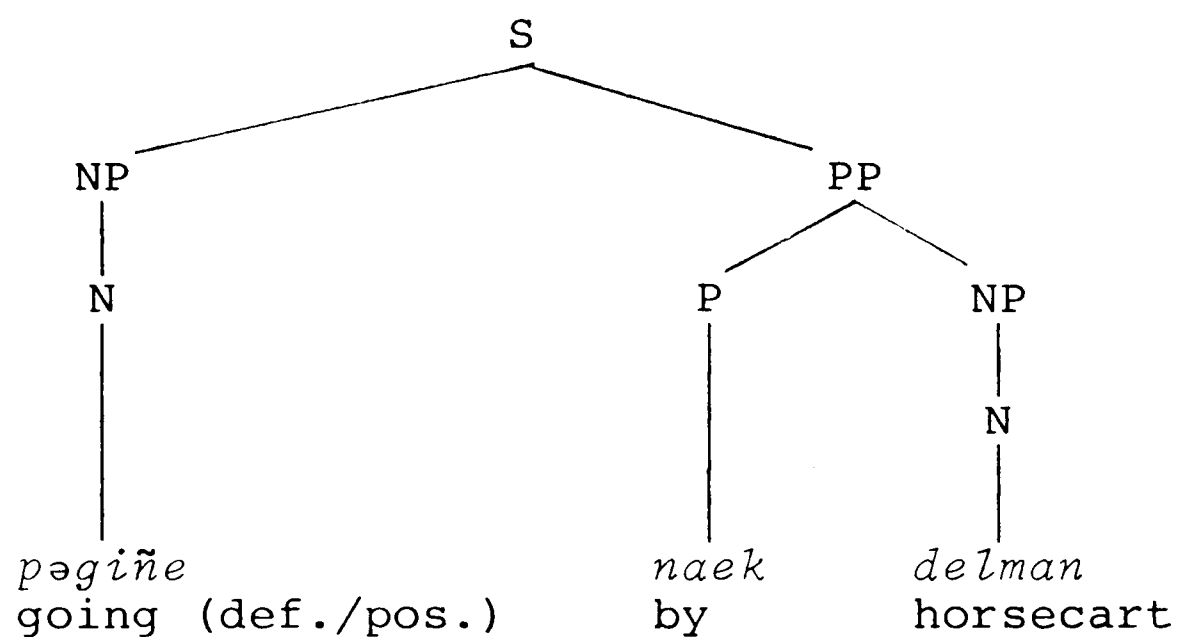
- (3) *Ini bakal lu.*
 this for you
 'This is for you.'



- (4) *Die ame siPuase.*
 he (prep.) Puase
 'He is with Puase.'



- (5) *Pəgiñe naek delman.*
 going (def./pos.) by horsecart
 'He went by horsecart.'
 (lit: 'His going was by horsecart.')

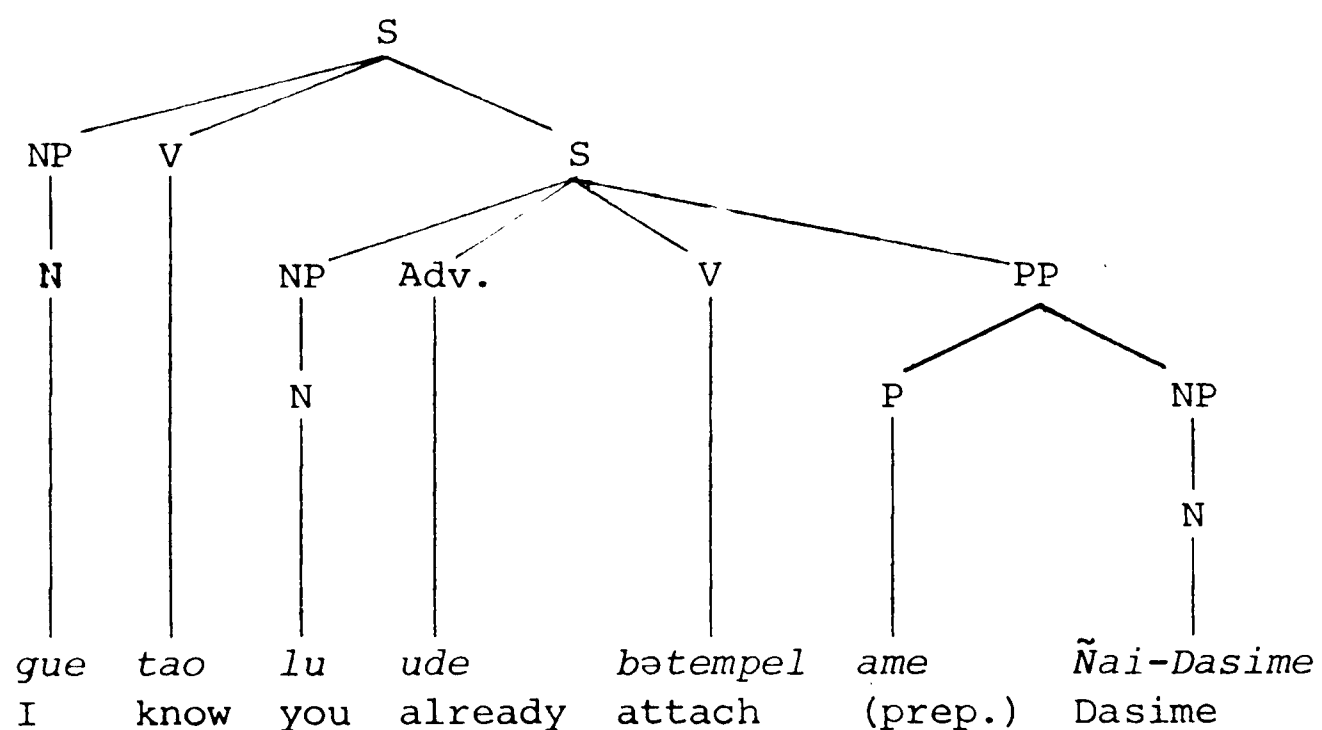


3.3.2.6 Verb complements

PS rule I allows sentences with verb complements. A verb complement is an embedded sentence which is a sister category of a verb, both of which are directly dominated by S. A verb may require the verb of its complement to be either finite or nonfinite. As described above in section 3.3.2.3.2, a nonfinite verb does not allow a subject. The missing subject is understood as coreferential with the subject or object of the matrix verb, according to features of the matrix verb.

Example of verb which requires a finite verb complement:

- (1) *Gue tao lu ude bətempel*
 I know you already attach
ame Ñai-Dasime.
 (prep.) Dasime
 'I know you and Dasime are attached.'



The subject of verb complementation will not be treated in this study. Kulavaniyaya (1974:242-319) deals with this subject in a lexibase framework for Thai transitive verbs.

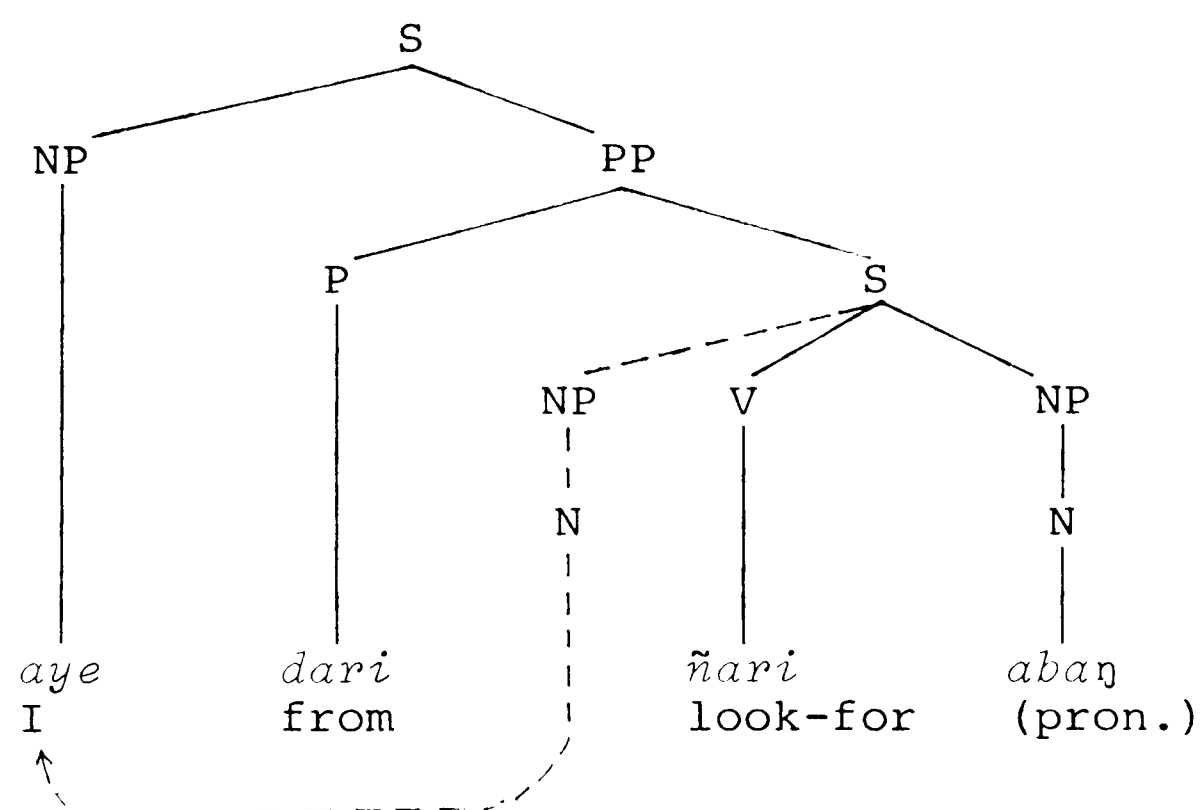
3.3.3 Phrase structure rule II

Phrase structure rule II states that a

prepositional phrase consists of a preposition and a noun phrase, or a preposition and a sentence. Examples of prepositions with noun phrases are provided in section 4, Case Relations. An example of a preposition with a sentence is below. Like verbs, prepositions must carry features which predict the types of sentences they allow.

Example:

- (1) *Aye dari ñari aban.*
 I from look-for (pron.)
 'I was looking for you.'



3.3.4 Phrase structure rule III

Phrase structure rule III allows several different choices. Two of them are N NP and N S.

The expansion of PS rule III as N NP allows various types of noun phrases like the examples below:

- (1) *setan kartu ceki*
 devil card gambling
 (kind of card game)
 'devil of "ceki" cards'
- (2) *anak kwitang*
 child Kwitang
 (place name)
 'person from Kwitang'
- (3) *tukan sado*
 worker horsecart
 'horsecart driver'

Noun phrases containing a counter noun following a head noun:

- (4) *beras səletər*
 rice one-liter

'a liter of rice'

- (5) *ayam due biji*
 chicken two thing
 'two chickens'

Noun phrases consisting of a noun and a numerative noun:

- (6) *taon due-pulu*
 year twenty
 'in (19)20'

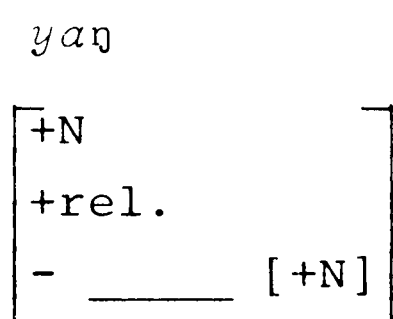
Possessive phrases:

- (7) *anak(ñe) lu (itu)*
 child (def./pos.) you that
 'your child'

Noun phrases containing a relative phrase:

- (8) *surat yaŋ ditulis Siti*
 letter which write Siti
 'letter written by Siti'

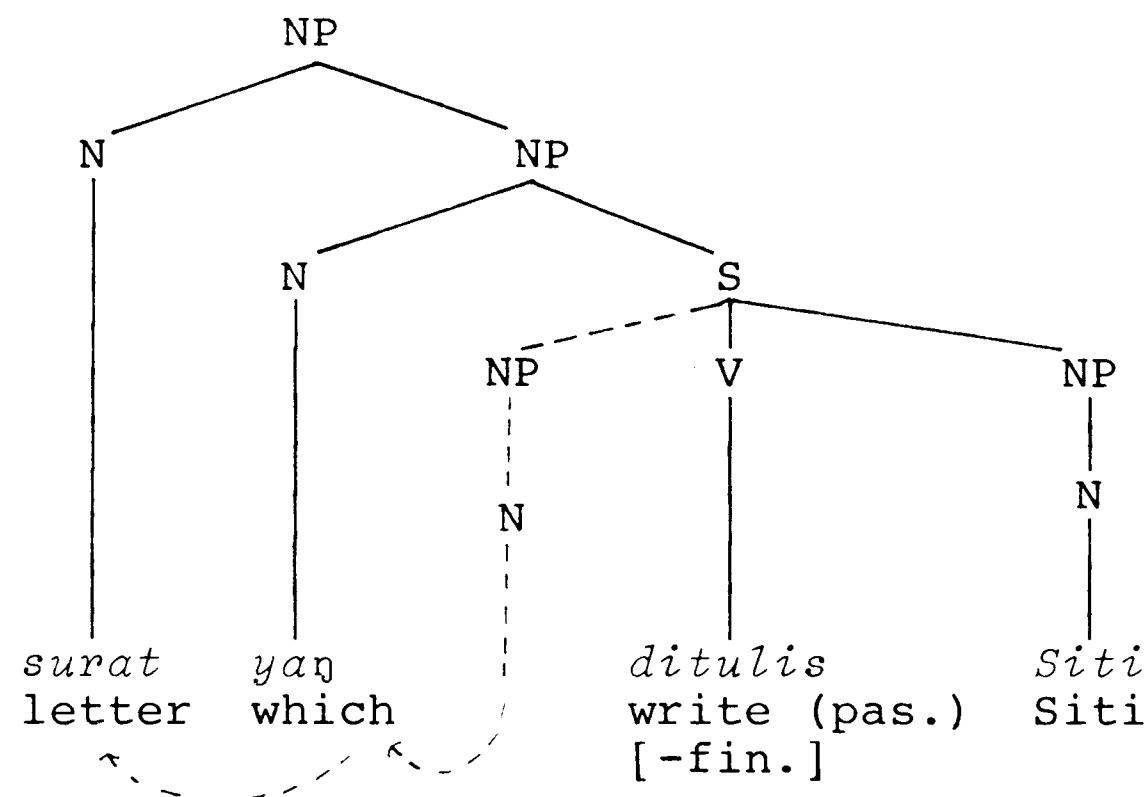
The expansion of PS rule III as N S gives noun phrases with the relative noun *yaŋ* as head. It is the only noun which allows a sentence complement. A redundancy rule specifies that other nouns do not take sentence complements. The relative noun *yaŋ* has the features:



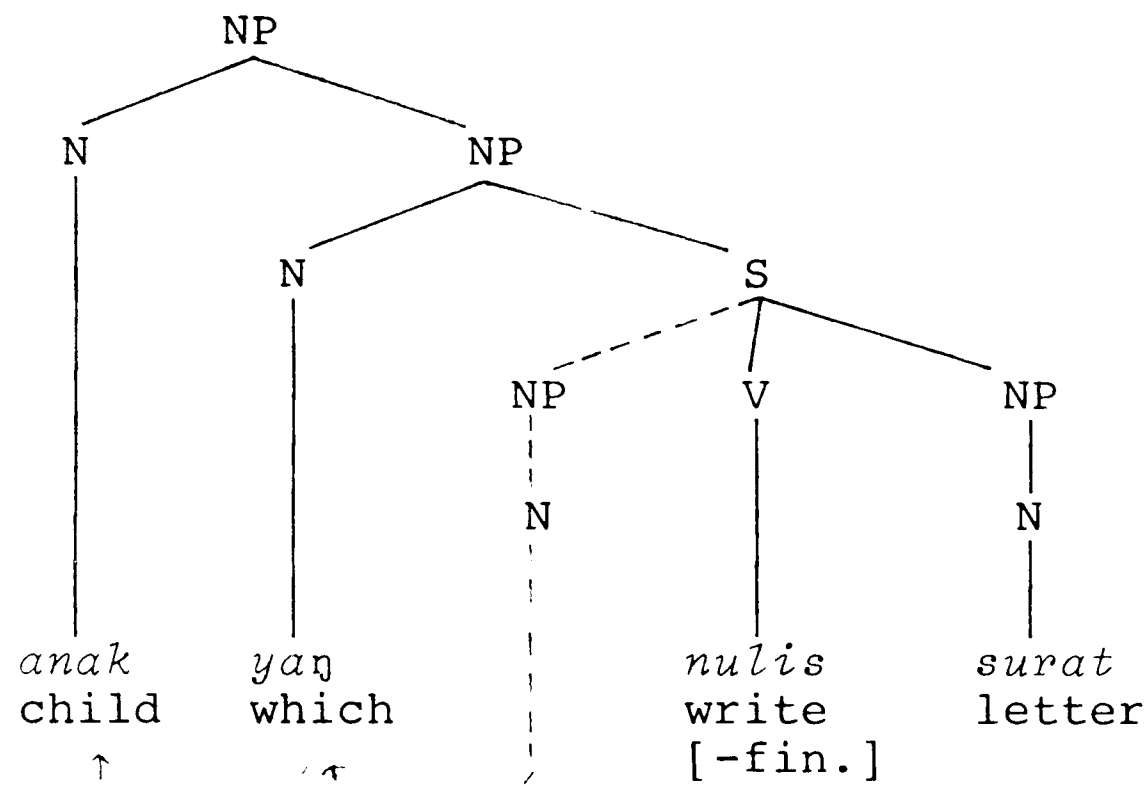
This specifies that *yaŋ* may not have a noun as a sister head constituent. According to PS rule III, as a noun, *yaŋ* may be modified by a prepositional phrase, sentence, adjective, or determiner. The feature [+rel.] means that when *yaŋ* modifies a noun, it is understood as coreferential with it, and that the subject or a sentence following *yaŋ* is understood as coreferential with *yaŋ*. The verb in the embedded sentence may be finite or nonfinite. If it is nonfinite (does not allow a subject) the missing subject is understood as coreferential with *yaŋ*. If it is finite (allows a subject), the subject is interpreted as coreferential with *yaŋ* in the sense that it is included in it, as a possessed attribute.

Examples:

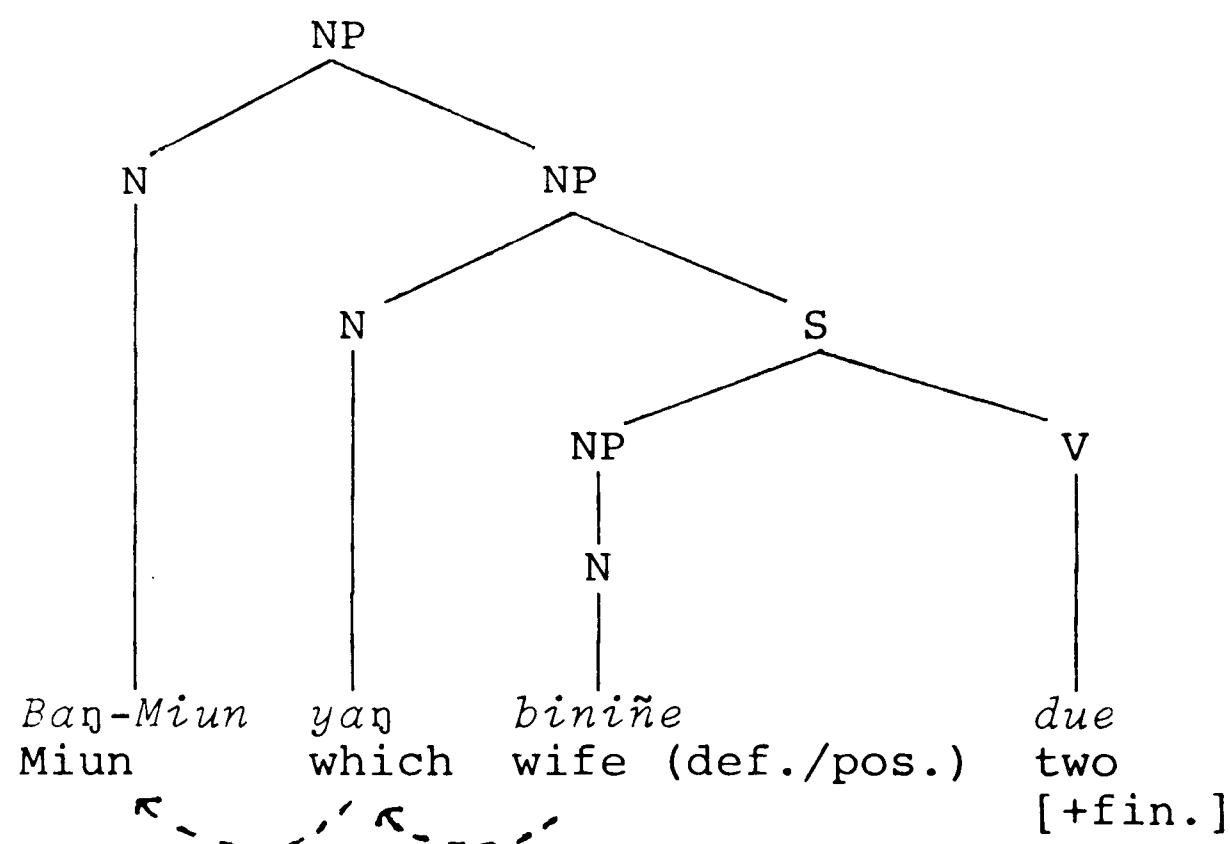
- (9) *surat yaŋ ditulis Siti*
 letter which write (pas.) Siti
 'letter which was written by Siti'



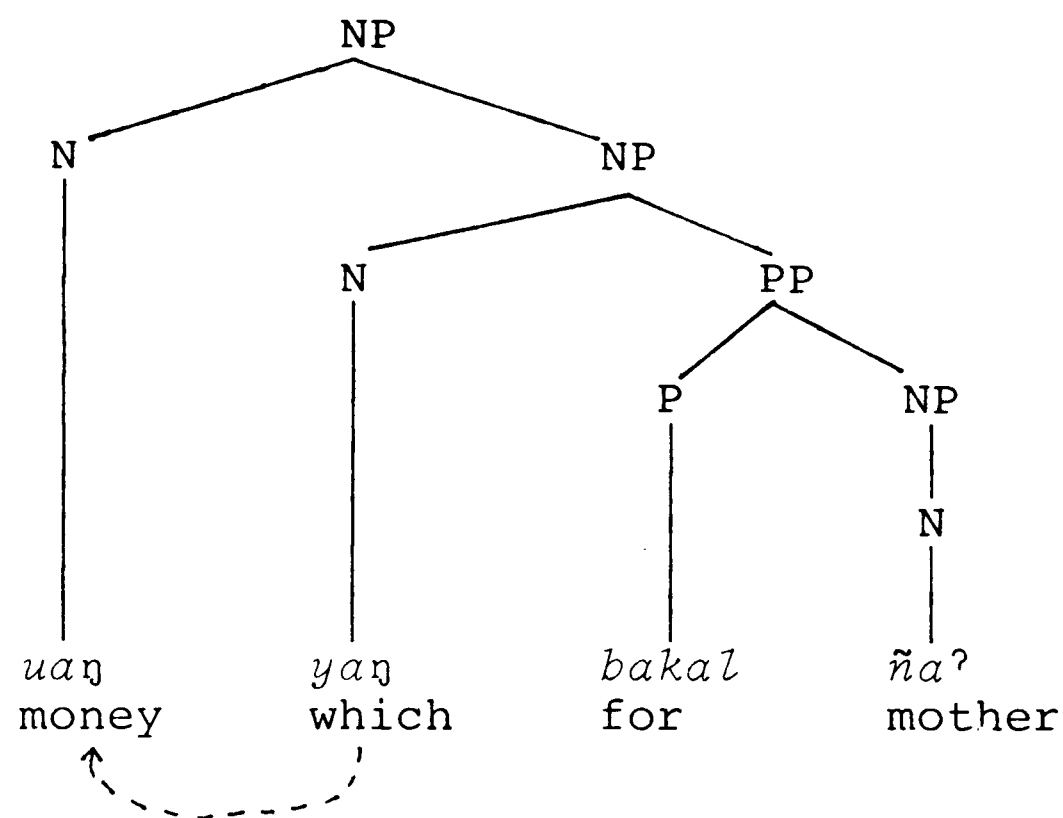
- (10) *anak yaŋ nulis surat*
 child which write letter
 'child who wrote a letter'



- (11) *Baŋ-Miun yaŋ biniñe*
 Miun which wife (def./pos.)
due
 two
 'Miun whose wives are two'



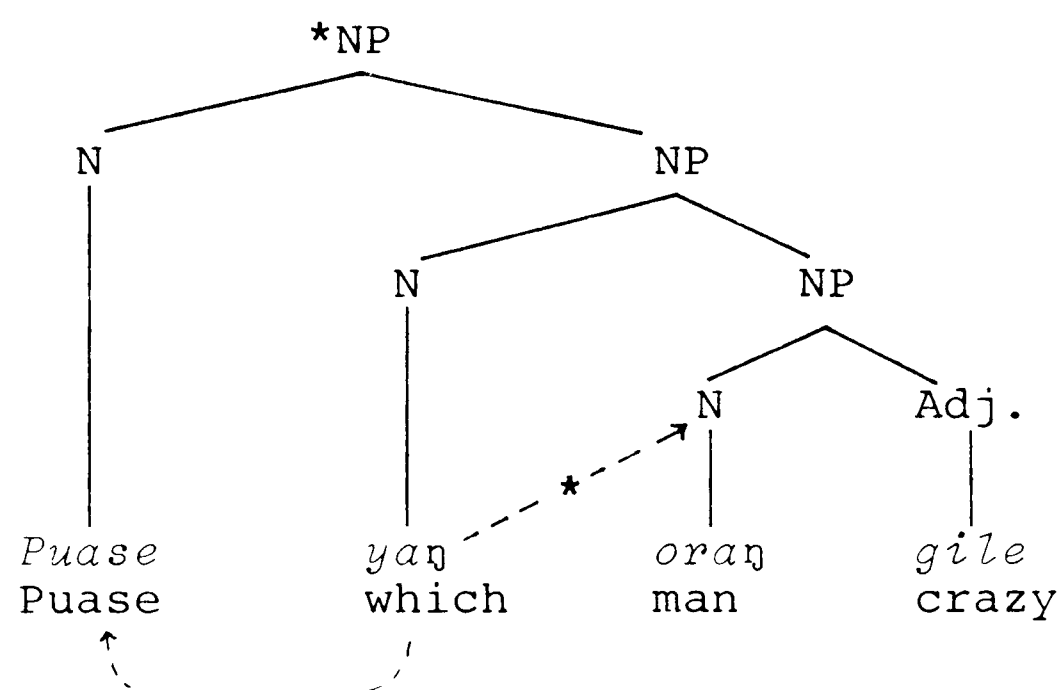
- (12) *uaŋ yaŋ bakal ña?*
 money which for mother
 'money which is for mother'



Thus relative phrases are more restricted in Betawi than their counterparts in English, in two ways.

First, *yaŋ* is specified in the lexicon (see above) as not allowing a sister head noun. The literal translation of English examples such as (13) are ungrammatical.

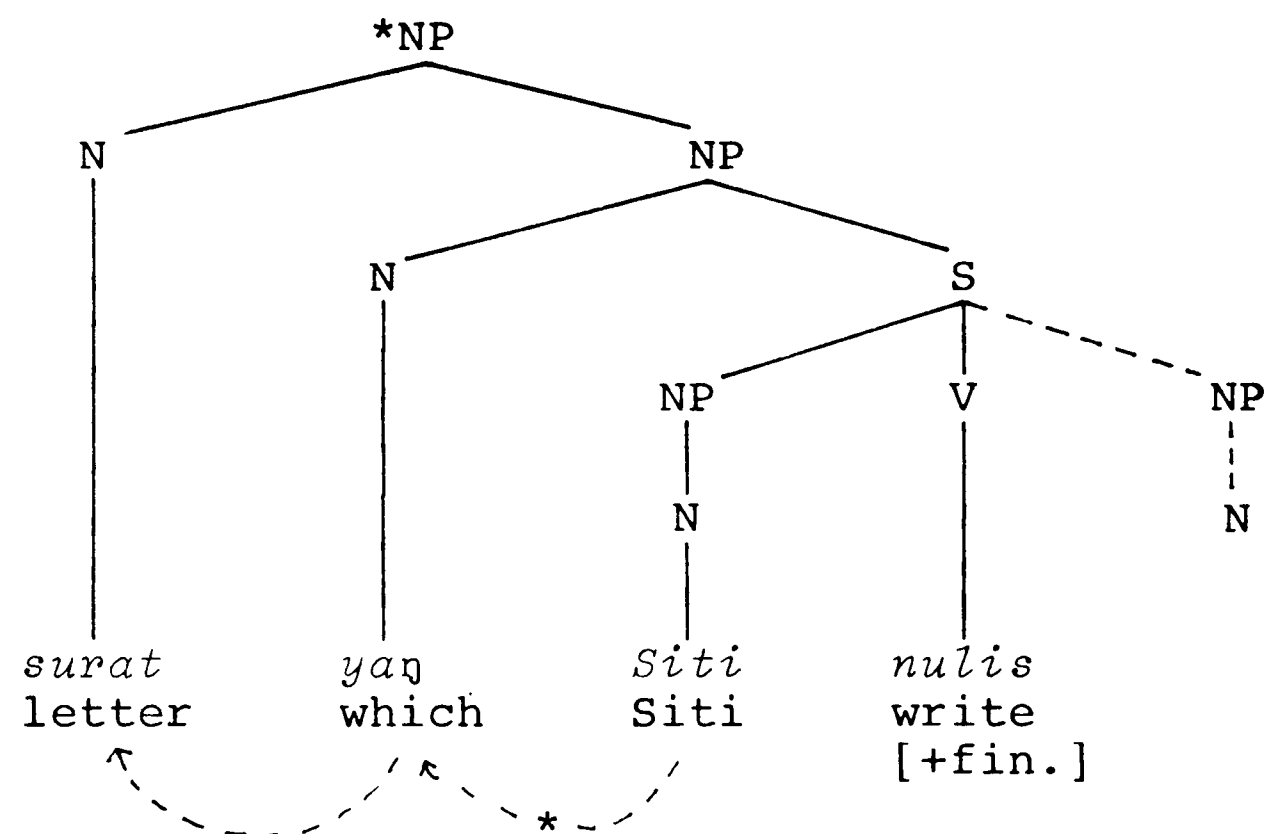
- (13) **Puase yaŋ oraŋ gile*
 Puase which man crazy
 'Puase who is a crazy man'



Second, *yaŋ* is always coreferential with the subject of the embedded sentence. Literal translations from English in which *yaŋ* is not coreferential with the subject of the embedded sentence are ungrammatical.

Example:

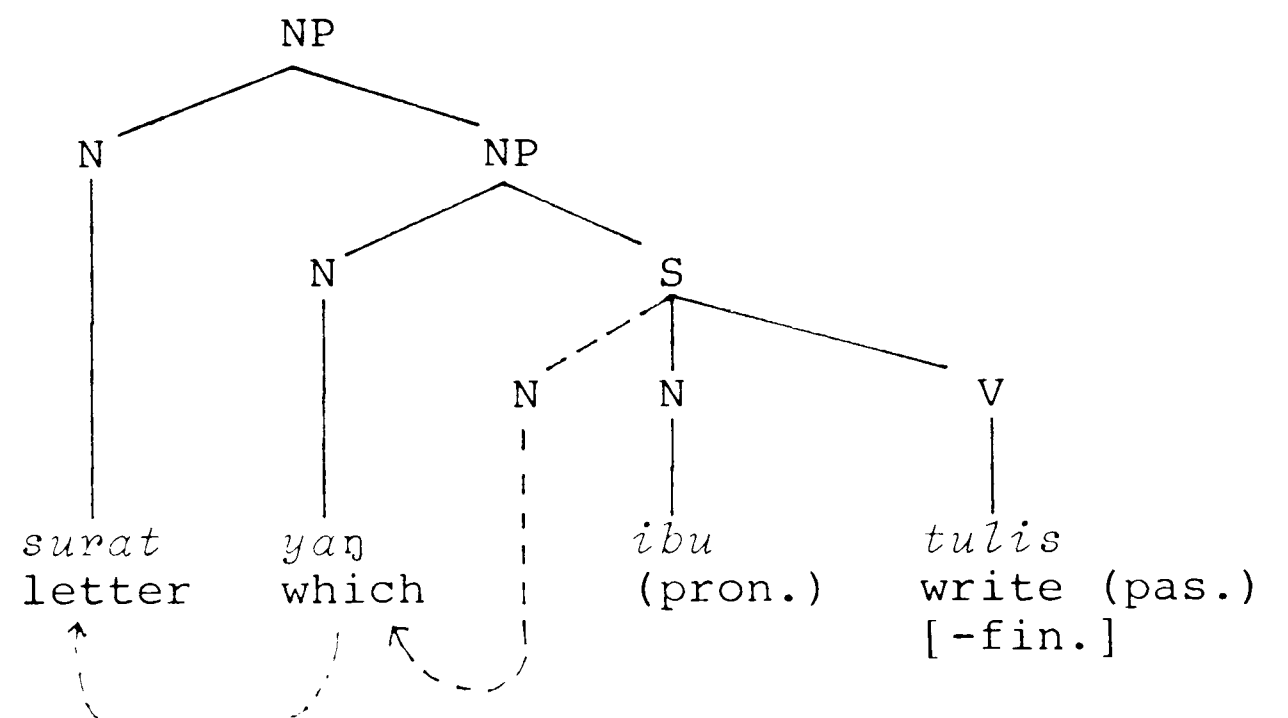
- (14) **surat yaŋ Siti nulis*
 letter which Siti write
 'letter which Siti wrote'



It might be proposed that there are some exceptions to this restriction, in examples like (15), where the verb in the embedded sentence is directly preceded by a pronoun and takes no prefix.

- (15) *surat yaŋ ibu tulis*
 letter which (pron.) write
 'letter which was written by me'

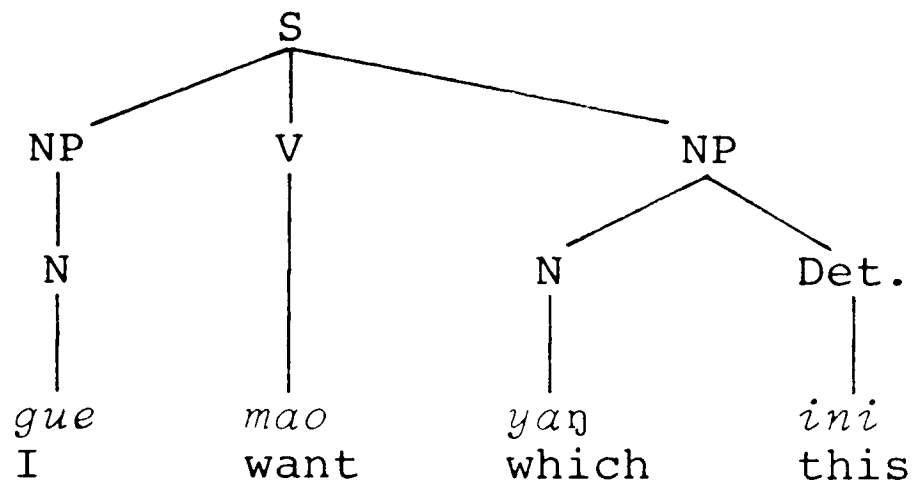
The translation with a passive verb in the embedded sentence is meant to illustrate that the Betawi verb in the embedded sentence is a passive verb. (However the English passive, especially with a pronominal agent is a very marked construction. Differences in the use of the active and passive in English and Betawi are discussed in section 7.1.2.) The arguments for considering the type of sentence embedded in the noun phrase example (15) as passive are discussed in section 5.2. Such examples have a nonfinite passive verb, one which has a missing subject, in the embedded sentence. The missing subject in example (15) is coreferential with *yaŋ* 'which' and with *surat* 'letter'.



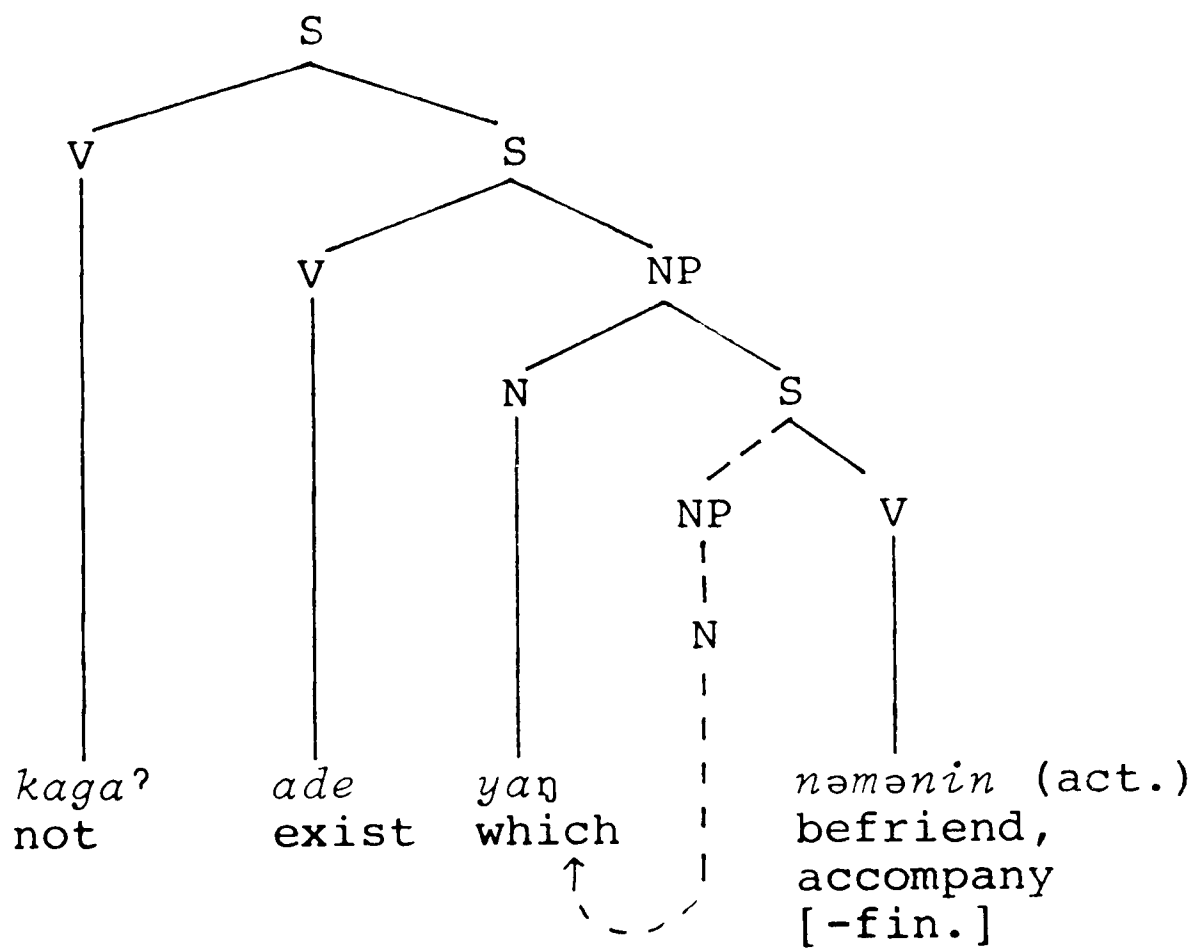
Thus such examples are not counter examples to the general rule that *yaŋ* is always coreferential with the subject of the embedded sentence.

yaŋ may also occur as the head of a non-modifying noun phrase, as in examples (16) and (17).

- (16) *Gue mao yaŋ ini.*
 I want which this
 'I want this one.'



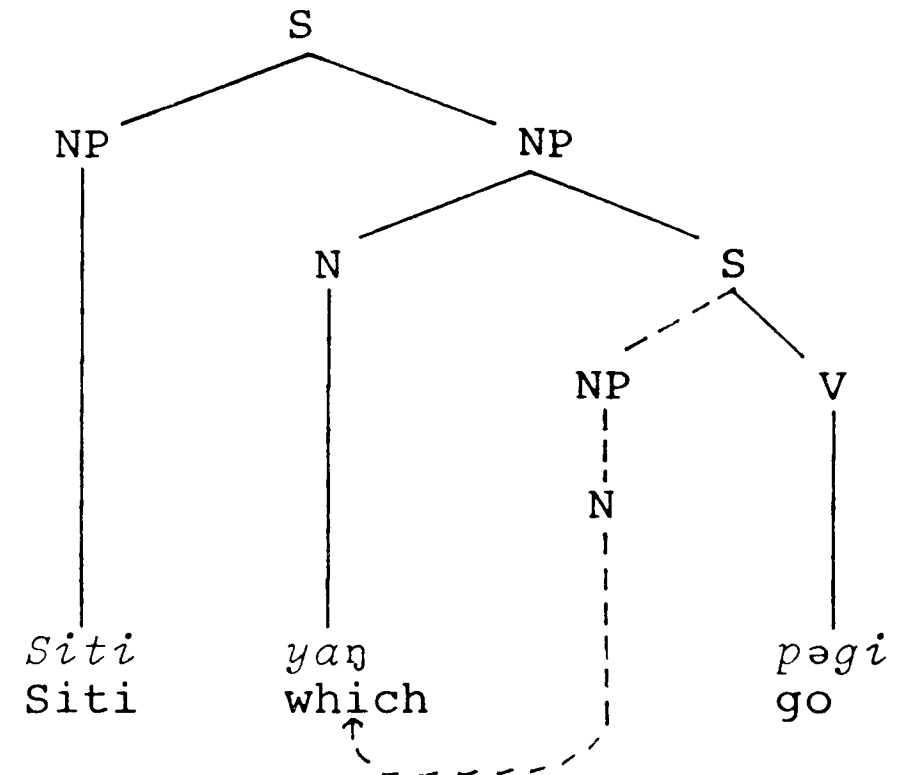
- (17) *Kaga? ade yaŋ nəmənin.*
 not exist which befriend,
 accompany
 'There is no one who goes
 with him.'



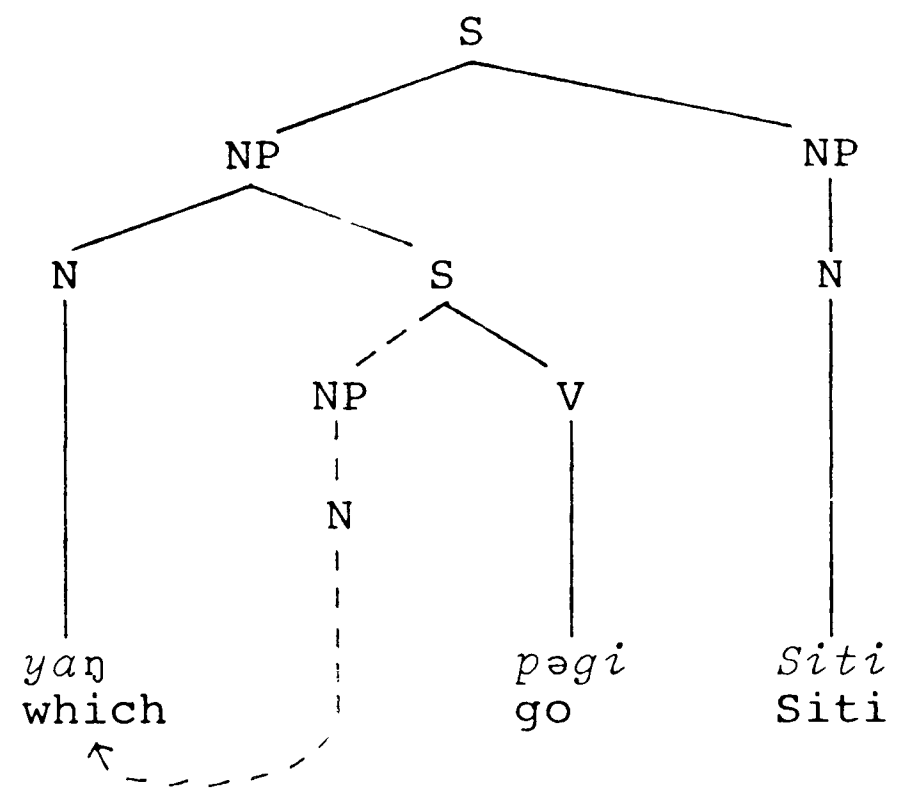
When such noun phrases occur in verbless sentences with noun phrases as heads they give

sentences similar to English cleft and pseudo cleft sentences in presuppositional structure, as in examples (18) and (19).

- (18) *Siti yaŋ pəgi.*
 Siti which go
 'It was Siti who went.'



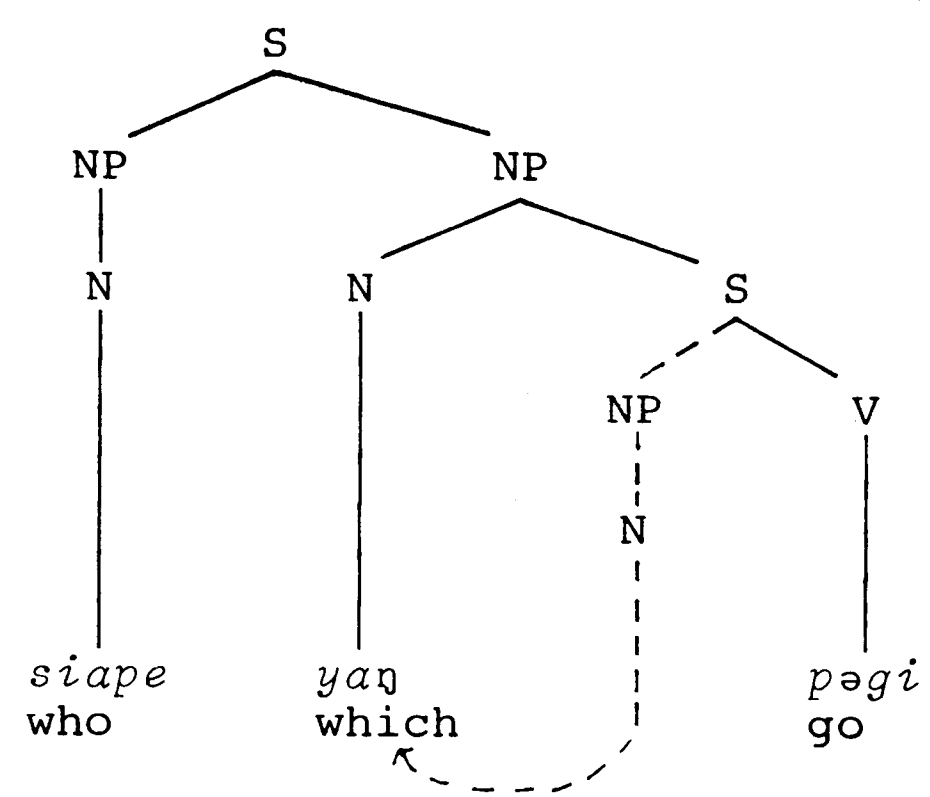
- (19) *Yaŋ pəgi Siti.*
 which go Siti
 'The one who went was Siti.'



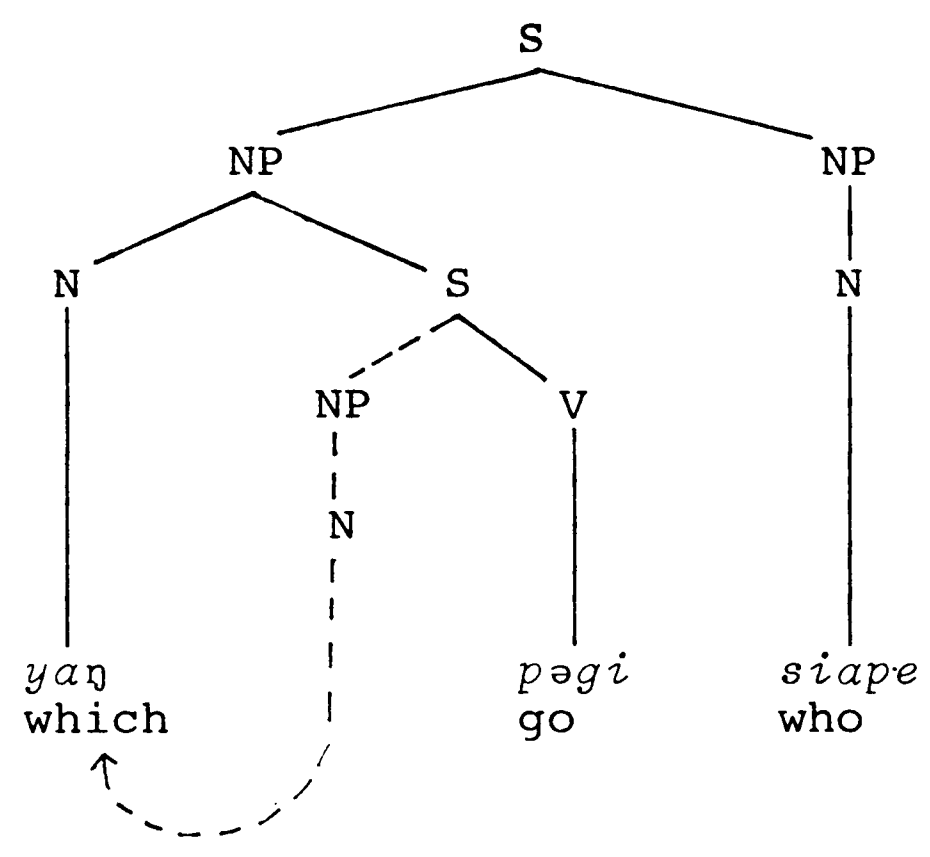
For questions, this structure is preferred to sentences in which the question word serves as subject or object of the verb.

Examples:

(20) *Siape yan pəgi?*
 who which go
 'Who went?'



(21) *Yan pəgi siape?*
 which go who
 'Who went?'



* * *

Notes to section 3

1. *ayo* and *mari* may also be used as part of leave-taking formulas, perhaps in an "optative" sense something like 'I guess I'll be going'.

Example:

(i) *Ayo Ua? pərmisi ua?*
 'I'll-go'. (voc.) excuse-me (voc.)
 'Well, I guess I'll be going. Excuse me.'

2. "Optatives" and "exhortatives" (in some languages) might be considered first and third person imperatives.

CASE RELATIONS IN BETAWI

4.0 Introduction

In this section, case relations in Betawi will be discussed. The basic notions of the case relation, case form and case frame feature in lexicase theory are introduced above in section 2.3.

It is posited that there are nine case relations in Betawi, which are part of a universal set of case relations found in all languages. The case relations in Betawi are:

Theme	(+THM)
Agentive	(+AGT)
Dative	(+DAT)
Benefactive	(+BEN)
Instrumental	(+INS)
Comitative	(+COM)
Locative	(+LOC)
Time	(+TIM)
Manner	(+MAN)

The seven case forms posited for Betawi, which will be discussed in the next section (section 5) are:

Nominative	(+NM)
Accusative	(+AC)
Benefactive	(+B)
Instrumental	(+I)
Comitative	(+C)
Locative	(+L)
Manner	(+M)

The markers of the nominative and accusative case forms in Betawi are combinations of word order, intonation, and definiteness. The markers of the other case forms are prepositions. The object of a preposition as well as a verb is in the accusative case form. So it is the actant consisting of the preposition and noun which carries the other case forms.

Case frame features of verbs, which specify which case forms and relations they allow, are discussed in section 6. Nouns must also carry case frame features relating to sister head nouns for verbless sentences, although this has not yet been worked out in detail for any language.

In describing the nine case relations, for each relation first the definition of the case relation in lexicase theory and then the forms in which it is realized in Betawi and examples with various sentence types will be given.

4.1 The theme case relation

The term "theme" is adopted here for the semantically most neutral case relation which was called "objective" in previous works in a lexicase framework. Fillmore defined this case relation as "the case of anything representable by a noun whose role in the action or state identified by the verb is identified by the semantic interpretation of the verb itself" (Fillmore 1968:25), and "the entity that moves or changes or whose position is in consideration" (Fillmore 1971a:376). This basic definition is adopted for the theme case relation in lexicase theory. By this definition, a theme actant can be considered to be present in the case frames of all verbs except atmospheric verbs. The lexicase theory differs from Fillmore's practice in extending the definition to cover animate beings, and in treating subjects of intransitive verbs as being in the theme case relation.

A special kind of noun in the theme case relation is allowed with [+quote] verbs. It is derived by a derivation rule of the same sort which derives compounds (Starosta 1973b:

105-106). This rule is a general rule which can take an utterable segment and derive a [+quote] noun capable of appearing as the object of certain verbs of quotation. Such special nouns are excluded as objects of other types of verbs. As derived nouns they may carry case like other nouns (see example (8) below).

In Betawi, the theme case relation may be realized in either the nominative or accusative case form. The theme case relation is realized in the nominative case form with intransitive verbs, direct passive verbs, and in verbless sentences. It is realized in the accusative case form with existential verbs, active transitive verbs, indirect passive verbs, and in verbless sentences.

Examples:

In nominative case form:

Location verb:

- (1) *oraŋñe* *datəŋ* *kə*
 person (def./pos.) come to
- | | |
|------|--------|
| +N | +P |
| +NM | +L |
| +THM | +gol. |
| | -term. |

marɪ.
 here

+N
+AC
+LOC

'He came here.'

Stative verb:

- (2) *Abaŋ* *ɕakəp* *ye* *baŋ.*
 (pron.) handsome (SPart.) (voc.)
- | |
|------|
| +N |
| +NM |
| +THM |

'You are handsome.'

Intransitive dative verb:

- (3) *Lu* *mare* *ame* *gue.*
 you angry (prep.) I
- | | | |
|------|----|------|
| +N | +P | +N |
| +NM | +C | +AC |
| +THM | | +DAT |

'You are angry with me.'

Direct passive verb:

- (4) *Tu* *delman* *ude* *ditaro.*
 that horsecart already put (pas.)
- | |
|------|
| +N |
| +NM |
| +THM |

'The horsecart is already put away.'

Verbless sentence:

- (5) *Lu* *dari* *mane* *aje*
 you from where just
- | | | |
|------|-------|------|
| +N | +P | +N |
| +NM | +L | +AC |
| +THM | +src. | +LOC |

si?
 (SPart.)

'Where are you (coming) from?'

In accusative case form:

Existential verb:

- (6) *əŋga?* *ade* *yaŋ* *baek* *kaye*
 not exist which good like
- | |
|------|
| +N |
| +AC |
| +THM |

diri lu, Ti.
 self you (voc.)

'There is no one good like you, Ti.'

Active verb:

- (7) *Die* *bawe* *anak* *saye.*
 he take child I
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +AGT | +THM |

'He took my child.'

Active quote verb:

- (8) *Dari* *tadi* *gue* *bilan* *kan*
 from before I say (SPart.)
- | | | |
|----|------|------|
| +P | +N | +N |
| +L | +AC | +NM |
| | +TIM | +AGT |

aye mao tu ñai.
I want that (native wife
 of European)

[+N
+deriv.
+quote
+AC
+THM]

'From before I said I want that
"nyai".'

Goal indirect passive verb:

(9) Miun dikasi duit ame
Miun give (pas.) money (preop.)

[+N
+NM
+DAT]

[+N
+AC
+THM]

[+P
+C]

siDulo.
Dulo

[+N
+AC
+AGT]

'Miun was given the money by Dulo.'

Benefactive indirect passive verb:

(10) Ma[?]-Buyung dibəliin
Ma-Buyung buy (ben.) (pas.)

[+N
+NM
+BEN]

ikan ame Ma[?]-Leha.
fish (preop.) Ma-Leha

[+N
+AC
+THM]

[+N
+AC
+AGT]

'Ma Buyung was bought fish by
Ma Leha.'

Verbless sentence:

(11) Lu oraŋ tue.
you person old

[+N
+NM
+THM]

[+N
+AC
+THM]

'You are an old person.'

4.2 The agentive case relation

The agentive case relation is the case of the "typically animate perceived instigator of the action" (Fillmore 1968:24).

In Betawi, the agentive case relation can be realized in the nominative, accusative or comitative case form. It is realized in the nominative case form with active agentive verbs, in the comitative or accusative case form with passive agentive verbs.

Examples:

In nominative case form:

Active verb:

(1) Lu ñariin gue?
you look-for me

[+N
+NM
+AGT]

[+N
+AC
+THM]

'Are you looking for me?'

In comitative case form:

Direct passive verb:

(2) Ude diləpas ame
already release (pas.) (prep.)

[+P
+C]

tuan.
(pron.)

[+N
+AC
+AGT]

'She was released by him.'

In accusative case form:

(3) Neŋsi dibawe papeñe.
Nancy take (pas.) father
 (def./pos.)

[+N
+NM
+THM]

[+N
+AC
+AGT]

'Nancy was taken by her father.'

4.3 The dative case relation

The dative case relation is the case of

"the animate being affected by the state or action" (Fillmore 1968:24) which is "indirectly involved in the state or activity" (Taylor 1971:44), or, "involved in an activity without being affected as an active participant in that activity" (Kullavanijaya 1974:49).

The dative actant is understood as "source" or "goal" depending on properties of the verb. With [+source] verbs there may be a dative actant which is interpreted as designating the origin of the action, with [+goal] verbs there may be a dative actant designating the intended end of the action.

The dative case relation may be realized in the nominative, accusative, comitative or locative case form. It is realized in the nominative case form with goal indirect passive verbs and nonagentive transitive verbs. It may be realized in the accusative case form with goal-object verbs, in the comitative case form with active source and goal verbs and intransitive dative verbs, and in the source subcase of the locative case form with source verbs and in verbless sentences.

Examples:

In nominative case form:

Goal indirect passive verb:

(1) *Miun dikasi duit*
Miun give (pas.) money

[+N]
[+NM]
[+DAT]

[+N]
[+AC]
[+THM]

ame siDulo.
(prep.) Dulo

[+P]
[+C]

[+N]
[+AC]
[+AGT]

'Miun was given money by Dulo.'

Nonagentive transitive verbs:

Possession verb:

(2) *Gue ude puñe bini.*
I already have wife

[+N]
[+NM]
[+DAT]

[+N]
[+AC]
[+THM]

'I already have a wife.'

Cognitive verb:

(3) *Iye, ua? juge tao, Lo.*
yes (pron.) also know (voc.)

[+N]
[+NM]
[+DAT]

'Yes, I know too, Dulo.'

In accusative case form:

Goal-object verb:

(4) *siDulo nasi Miun duit.*
Dulo give Miun money

[+N]
[+NM]
[+AGT]

[+N]
[+AC]
[+DAT]

[+N]
[+AC]
[+THM]

'Dulo gave Miun money.'

In comitative case form:

Active goal verb:

(5) *Die nomon ape ame lu?*
he say what to you

[+N]
[+NM]
[+AGT]

[+N]
[+AC]
[+THM]

[+P]
[+C]

[+N]
[+AC]
[+DAT]

'What did he say to you?'

Active source verb:

(6) *Puase pinjam uan ame*
Puase borrow money (prep.)

[+N]
[+NM]
[+AGT]

[+N]
[+AC]
[+THM]

[+P]
[+C]

Ayati.
Ayati

[+N]
[+AC]
[+DAT]

'Puase borrowed money from Ayati.'

Intransitive dative verb:

(7) *Aye kasal ame laki*
I angry (prep.) husband

[+N]
[+NM]
[+THM]

[+P]
[+C]

[+N]
[+AC]
[+DAT]

saye ni.
I this

'I am angry with my husband.'

In locative case form:

(8) *Lime-belas taon aye bəlarajar*
fifteen year I learn

+N	+N
+AC	+NM
+TIM	+AGT

dari ua?
from (pron.)

+P	+N
+L	+AC
	+DAT

'For fifteen years I learned from' you.'

In verbless sentence:

(9) *Duit ini dari Dulo.*
money this from Dulo

+N		+P	+N
+NM		+L	+AC
+THM			+DAT

'This money is from Dulo.'

4.4 The benefactive case relation

The benefactive case relation is "the relation of the entity for whose benefit an action is performed, or for the benefit of which a state exists ... or the reason or purpose for which an action is undertaken" (Starosta 1973a:139).

In Betawi, the benefactive case relation may be realized in the nominative, benefactive, or accusative case form. It may be realized in the nominative case form only with benefactive indirect passive verbs, in the benefactive case form with all other types of verbs and in verbless sentences, and in the accusative case form only with active benefactive verbs.

Examples:

In nominative case form:

Benefactive indirect passive verb:

(1) *Ma?-Leha dibəliin*
Ma-Leha buy (ben.) (pas.)

+N
+NM
+BEN

ikan ame Ma?-Buyung.
fish (prep.) Ma-Buyung

+N	+P	+N
+AC	+C	+AC
+THM		+AGT

'Ma Leha was bought fish by Ma Buyung.'

In accusative case form:

Active benefactive verb:

(2) *Ma?-Buyung bəliin Ma?-Leha*
Ma-Buyung buy (ben.) Ma-Leha

+N	+N
+NM	+AC
+AGT	+BEN

ikan.
fish

+N
+AC
+THM

'Ma Buyung bought Ma Leha fish.'

In benefactive case form:

Active benefactive verb:

(3) *Ma?-Buyung bəliin ikan*
Ma-Buyung buy (ben.) fish

+N	+N
+NM	+AC
+AGT	+THM

bakal Ma?-Leha.
for Ma-Leha

+P	+N
+B	+NM
	+BEN

'Ma Buyung bought fish for Ma Leha.'

Nonbenefactive verbs:

(4) *Tambain de dikit*
Add (SPart.) a-little

+N
+AC
+THM

baŋ *bakal* *jalan-jalan.*
(voc.) for going/trip

+P	+N
+B	+AC
	+BEN

'Add a little for the trip.'

(5) *siDulo* *ŋasi* *duit* *ame*
Dulo give money (prep.)

+N	+N	+P
+NM	+AC	+C
+AGT	+THM	

Ayati *bakal* *Miun.*
Ayati for Miun

+N	+P	+N
+AC	+B	+AC
+DAT		+BEN

'Dulo gave money to Hayati for Miun.'

Verbless sentence:

(6) *Duit* *ini* *bakal* *ña?*
money this for mother

+N	+P	+N
+NM	+B	+AC
+THM		+BEN

'This money is for mother.'

4.5 The instrumental case relation

The instrumental case relation is the case of the means by which an action or state comes about. An actant in the instrumental case relation is interpreted as "transport" or "cause" with certain verbs. Actants in the instrumental case relation which occur with intransitive direction verbs are interpreted as "transport" and those occurring with stative verbs are interpreted as "cause".

In Betawi the instrumental case relation may be realized in the instrumental, accusative, or comitative case form. Sentences with instrumental actants realized in the nominative case form do not occur naturally in my data. The reaction of my informants to such created sentences as *Koñciñe (ŋə) buka(in) pintu* 'The key opened the door' and *Mata-ariñe manasin air* 'The sun heated the water' was that they were understandable but awkward.

The instrumental case relation may be realized in the accusative case form with in-

strumental adversative verbs. It may be realized in the instrumental case form with all verbs which allow instrumental actants except adversative verbs. (The subcase of the instrumental case form allowed depends upon features of the verb.) The instrumental case relation may be realized in the comitative case form with all verbs which allow instrumental actants except stative verbs. It may be realized in the instrumental or comitative case form in verbless sentences which have subjects derived from verbs which allow such actants.

Examples:

In accusative case form:

Instrumental adversative verb:

(1) *Die* *kəjatoan* *pohon.*
he fall (advers.) tree

+N	+N
+NM	+AC
+THM	+INS

'A tree fell on him.'
(lit: 'He was fallen on by a tree.')

In instrumental case form:

(2) *Saye* *buke* *pintu* *pake*
I open door by/with

+N	+N	+P
+NM	+AC	+I
+AGT	+THM	-trans.
		-cause

konçi *ni.*
key this

+N
+AC
+INS

'I opened the door with this key.'

Verbless sentence:

(3) *Bukeñe* *pake*
opening (def./pos.) by/with

+N	+P
+NM	+I
+THM	-trans.
	-cause

koñci.
key

+N
+AC
+INS

'It opens with a key.'
(lit: 'Its opening is with a key.')

Intransitive directional verb:

- (4) *Die* *pəgi* *naek* *delman.*
he go by horsecart
- | | | |
|------|---------|------|
| +N | +P | +N |
| +NM | +I | +AC |
| +THM | +trans. | +INS |
- 'He went by horsecart.'

Verbless sentences:

- (5) *Pəgiñe* *naek*
going (def./pos.) by
- | | |
|------|---------|
| +N | +P |
| +NM | +I |
| +THM | +trans. |
- delman.*
horsecart
- | |
|------|
| +N |
| +AC |
| +INS |
- 'He went by horsecart.'
(lit: 'His going was by horsecart.')

Stative verb:

- (6) *Ini* *base* *kəna* *air*
this wet by water
- | | | |
|------|--------|------|
| +N | +P | +N |
| +NM | +I | +AC |
| +THM | +cause | +INS |
- ujan.*
rain
- 'This is wet from rain water.'

In the comitative case form:

- (7) *Gue* *liat* *ame* *biji-mate*
I see (prep.) eye-ball
- | | | |
|------|----|------|
| +N | +P | +N |
| +NM | +C | +AC |
| +AGT | | +INS |
- gue.*
I
- 'I saw it with my own eyes.'

4.6 The comitative case relation

The comitative case relation is "the relation associated in a parallel way with one of the other actants in a sentence" (Starosta 1973a:139).

There are some verbs which require comitative actants in their case frames, e.g. *campur* 'mix'. Atmospheric, existential, and stative verbs do not allow comitative actants.

In Betawi, the comitative case relation is always realized in the comitative case form.

Examples:

- (1) *Anak* *itu* *suke*
child that likes/is-in-habit-of
- | |
|------|
| +N |
| +NM |
| +THM |
- maen* *ame* *anak* *saye.*
play with child I
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +COM |

'That child often plays with my child./That child likes to play with my child.'

- (2) *Die* *ame* *siPuase.*
he (prep.) Puase
- | | | |
|------|----|------|
| +N | +P | +N |
| +NM | +C | +AC |
| +THM | | +COM |
- 'He is with Puase.'

4.7 The locative case relation

The locative case relation designates the orientation in space of the state or action described in the sentence.

Direction, Source, and Goal are not set up as separate cases. Instead they are treated as subcase features of locative actants which depend on lexical properties of prepositions. The features of prepositions are [+dir.] (direction): "designating the direction of motion of the action in relation to the location": [+gol.] (goal): "designating the intended end of the action": [+src.] (source): "designating the starting point of the action", and [+term.] (terminus): "designating the actual end of the action". The features of the preposition imply the subcase of the actant. Verbs carry case frame features which specify which subtypes of locative actants they occur with.

Locative actants are interpreted as eith-

er "inner" or "outer" locatives. Inner locatives refer to the location of theme actant only, while outer locatives refer to the location of the action or state as a whole. An example of a sentence with an inner locative actant in Betawi is:

- (1) *Na, tərus masak di*
 (intro.) then cook at
- | |
|-------|
| +P |
| +L |
| -dir. |

pəgoreŋan.
 frying-pan

+N
+AC
+LOC

'Then cook it in a frying pan.'

An example of a sentence in Betawi with an outer locative actant is:

- (2) *Die lagi masak di*
 she presently cook at
- | |
|------|
| +N |
| +NM |
| +AGT |
- | |
|-------|
| +P |
| +L |
| -dir. |

dapur.
 kitchen

+N
+AC
+LOC

'She is cooking in the kitchen.'

Inner locatives are either strict or nonstrict. Strict inner locatives are obligatory locative actants. An example of a sentence with a strict locative actant in Betawi is:

- (3) *Pan aye tinggal di*
 (SPart.) I live at
- | |
|------|
| +N |
| +NM |
| +THM |
- | |
|-------|
| +P |
| +L |
| -dir. |

sono.
 there

+N
+AC
+LOC

'I used to live there.'

Verbs which have obligatory locative actants

are specified as [+strict], and verbs which allow inner locatives are specified as [+location] verbs.

In verbless sentences with deverbal nouns as subjects, the locative prepositions allowed and the interpretation of the locative actant as inner or outer depend upon features of the noun carried over in derivation. In verbless sentences with nondeverbal nouns as subjects, all locative prepositions are allowed, and the locative actant is interpreted as inner. An example of a sentence with a deverbal noun as subject in Betawi is:

- (4) *Tinggalñe di mane?*
 living (def./pos.) at where
- | |
|-------|
| +P |
| +L |
| -dir. |
- | |
|------|
| +N |
| +AC |
| +LOC |

'Where do you live?'

An example of a verbless sentence with a nondeverbal noun as subject in Betawi is:

- (5) *Kalo gitu, antar sore*
 if like-that later afternoon
- | |
|------|
| +N |
| +AC |
| +TIM |

aye kə mari lagi
 I to here again

+N
+NM
+THM

+P
+L
+gol.
-term.

+N
+AC
+LOC

de.

(SPart.)

'If it's like that, I'll come back again later this afternoon.'

In Betawi the locative case relation is always realized in the locative case form:

Examples:

- (6) *Lu ñembe di dəpan gue.*
 you bow at front I
- | |
|------|
| +N |
| +NM |
| +THM |
- | |
|-------|
| +P |
| +L |
| -dir. |
- | |
|------|
| +N |
| +AC |
| +LOC |

'You bow before me.'

- (7) *Die* *datəŋ* *dari* *Bəkasi.*
 he come from Bekasi
- | | | |
|------|-------|------|
| +N | +P | +N |
| +NM | +L | +AC |
| +THM | +src. | +LOC |
- 'He came from Bekasi.'

- (4) *Dié* *maen* *ampe* *jam*
 she play until hour
- | | | |
|------|--------|------|
| +N | +P | +N |
| +NM | +L | +AC |
| +AGT | +term. | +TIM |
- due.*
 two
- 'She played until two.'

4.8 The time case relation

The time case relation designates the orientation in time of the state or action described in the sentence.

In Betawi the time case relation is realized in the accusative case form and the source and terminus subcases of the locative case form.

Examples:

In accusative case form:

- (1) *Pake* *duit* *lu* *əntaran.*
 use money you a while/for-now
- | | |
|------|------|
| +N | +N |
| +AC | +AC |
| +THM | +TIM |
- 'Use your money for a while/ for the time being.'

- (2) *Pəgiñe* *jam* *due.*
 going (def./pos.) hour two
- | |
|------|
| +N |
| +AC |
| +TIM |

'She went at two.'
 (lit: 'Her going was at two.')

In locative case form:

- (3) *Gue* *kənal* *dari*
 I know/acquainted from
- | | |
|------|-------|
| +N | +P |
| +NM | +L |
| +THM | +src. |
- dulu.*
 before
- | |
|------|
| +N |
| +AC |
| +TIM |
- 'I've known you for a long time.'

4.9 The manner case relation

The manner case relation designates the manner in which an action is carried out or state obtains.

In Betawi, the manner case relation is always realized in the manner case form. Actants in the manner case relation in Betawi have the meaning 'like, resembling (N)'.

Examples:

- (1) *əŋga?* *ade* *yaŋ* *baek* *kaye*
 not exist which good like
- | | |
|------|----|
| +N | +P |
| +AC | +M |
| +THM | |

diri *lu,* *Ti.*
 self you (voc.)

+N
+AC
+MAN

'There is no one good like you, Ti.'

- (2) *Kənape* *jadi* *kaye* *oraŋ* *gile?*
 why become like person crazy
- | | |
|----|------|
| +P | +N |
| +M | +AC |
| | +MAN |

'Why have you become like a crazy person?'

- (3) *Naŋisñe* *kaye* *ikan*
 crying (def./pos.) like fish
- | | | |
|------|----|------|
| +N | +P | +N |
| +NM | +M | +AC |
| +THM | | +MAN |

koki.
 (kind-of-fish)

'You cry like a (kind of fish with protruding eyes).'

Other kinds of "manner" meanings in Betawi are expressed with inherent or derived adverbs, or with sentences having stative verbs with nominalized verbs as subjects.

Example:

Stative verb with deverbal noun as subject:

(4) *Jalanñe* *pəlan.*
 walking/going (def./pos.) slow
 'He walks slowly.'
 (lit: 'His walking is slow.')

Especially with imperative verbs, noun phrases with *yaŋ* may express these meanings.
 Examples:

Transitive verb:

(5) *Lu* *biŋaŋ* *yaŋ* *jəlas.*
 you say which clear
 [+N] [+N]
 +NM +AC
 +AGT +THM
 'Speak clearly./Speak the truth.'

Verbless sentence:

(6) *Yaŋ* *cəpat* *doŋ* *jalanñe.*
 which fast (Spart.) walking
 (def./pos.)
 [+N] [+N]
 +NM +AC
 +THM +THM
 'Walk quickly.'
 (lit: 'Let your walking be fast.')

* * *

CASE FORMS IN BETAWI

5.0 Introduction

Case relations are realized in Betawi in several ways: by prepositions, word order, intonation and definiteness. These markers may be grouped into seven case forms:

Nominative	(+NM)
Accusative	(+AC)
Benefactive	(+B)
Instrumental	(+I)
Comitative	(+L)
Locative	(L)
Manner	(+M)

Five case forms: benefactive, instrumental, comitative, locative and manner, are realized by prepositions, either inherent or derived. The nominative and accusative case forms are indicated by word order, intonation, and definiteness.

The following discussion of case forms will include description of the markers of each case form and the case relations realized by each case form. A table showing the correlations of case forms and case relations in Betawi is provided in 5.8.

5.1 The nominative case form

The nominative case form is the form of what has been called the "grammatical subject" of a sentence. The term "subject" is used here as a short way of saying "nominative actant".

In Betawi the nominative case form realizes the agentive, theme, dative, and benefactive case relations.

The markers of the subject of a sentence in Betawi are word order, intonation, and definiteness. The characteristics of the subject

may be seen with an intransitive verb. The subject precedes the verb, or if the verb is emphasized, may follow it. If the verb is emphasized and the subject follows, an intonation difference results. Functionally, the intonation corresponds to the "retraction" intonation of Bahasa Indonesia (Halim 1969:137). However, the details of intonation in Betawi, which appear to be quite different from Bahasa Indonesia, require a separate study which is beyond the scope of this dissertation. The intonation which marks the subject which follows an emphasized verb in Betawi will be symbolized with a comma here.

Examples:

- (1) *Miun pəgi.*
 Miun go
 [+N] [+V]
 [+NM]
 [+THM]
 'Miun went.'

- (2) *Pəgi, Miun*
 go Miun
 [+V] [+N]
 [+emph.] [+NM]
 [+THM]
 'Miun went.'

- (3) *Tadi pagi Miun pəgi.*
 past morning Miun go
 'This morning Miun went.'

- (4) *Miun tadi pagi pəgi.*
 Miun past morning go
 'Miun went this morning.'

- (5) *Tadi pagi pəgi, Miun.*
 past morning go Miun
 'Miun went this morning.'

- (6) *Pəgi tadi pagi, Miun.*
 go past morning Miun

'Miun went this morning.'

- (7) *Pəgi, Miun tadi pagi.*¹
go Miun past morning
'Miun went this morning.'

- (8) *Pəgi, tadi pagi Miun.*
go past morning Miun
'Miun went this morning.'

The subject noun is always definite. A definite noun may be inherently definite, derived as definite (with the suffix *-ñe*), or modified by a definite modifier. (See redundancy rules in Appendix B.)

Examples:

Inherently definite:

- (9) *Die pəgi.*
he go
'He went.'

- (10) *Pəgi, die.*
go he
'He went.'

Derived as definite:

- (11) *Anakñe pəgi.*
child (def./pos.) go
'His child went.'

- (12) *Pəgi, anakñe.*
go child (def./pos.)
'His child went.'

Definite modifier:

- (13) *Anak lu pəgi.*
child you go
'Your child went.'

- (14) *Pəgi, anak lu.*
go child you
'Your child went.'

- (15) *Anak itu pəgi.*
child that/the go
'The child went.'

- (16) *Pəgi, anak itu.*
go child that
'The child went.'

Nondefinite:

- (17) **Anak pəgi.*
child go

'A child went.'

- (18) **Pəgi, anak.*
go child
'A child went.'

A sentence such as example (17) in English may be expressed with an existential sentence in Betawi:

Example:

- (19) *Ade anak yaŋ pəgi.*
exist child which go
'There was a child who went.'

Subjects of other types of verbs have the same characteristics. Example with active and passive verbs are below.

Active:

- (20) *Anak itu (ŋə)bawe*
child that/the take/bring
kaluŋ.
necklace
'The child took a necklace.'

- (21) *(ŋə)bawe kaluŋ anak itu.*
bring/take necklace child that/
the
'The child took a necklace.'

- (22) **Anak (ŋə)bawe kaluŋ.*
child take/bring necklace
'A child took a necklace.'

- (23) **(ŋə)bawe kaluŋ anak.*
take/bring necklace, child
'A child took a necklace.'

Passive:

- (24) *Kaluŋ itu dibawe*
necklace that/the take/bring
(pas.)

gue.
I

'The necklace was taken by me.'²

- (25) *Dibawe gue, kaluŋ*
take/bring (pas.) I necklace
itu.
that/the

'The necklace was taken by me.'

- (26) *Kaluŋ itu gue bawe.*
necklace that/the I take/
bring

'The necklace was taken by me.'

- (27) **Kaluŋ dibawe gue.*
necklace take/bring (pas.) I
'A necklace was taken by me.'
- (28) **Dibawe gue, kaluŋ.*
take/bring (pas.) I necklace
'A necklace was taken by me.'
- (29) **Kaluŋ gue bawe.*
necklace I take/bring (pas.)
'A necklace was taken by me.'

Similarly in verbless sentences, the subject noun phrase precedes the head of the sentence or follows with an intonation difference and is definite.

Examples:

- (30) *Anak itu kə mari.*
child that/the to here
'The child came.'
- (31) *Kə mari, anak itu.*
to here child that/the
'The child came.'
- (32) **Anak kə mari.*
child to here
'A child came.'
- (33) **Kə mari, anak.*
to here child
'A child came.'

Lexical rules state that only nouns which are definite may be nominative, and that nominative nouns precede the head of the sentence (although conventions for stating this for verbless sentences have not been worked out yet), or follow if the head is emphasized, with an intonation difference. These rules are stated in Appendix B.

5.2 The accusative case form

The accusative case form is the most versatile case form. In Betawi, in addition to being the case form of all nouns in prepositional phrases, the accusative case form realizes the agentive, theme, dative, benefactive, instrumental, and time case relations.

In Betawi the accusative case form is distinguished by lack of the definiteness, word order, and intonation characteristics of the nominative case form, and by requirements

of word order. Actants in the accusative case form may be nondefinite. They generally occur immediately following the verb, and the pause and intonation which accompany subjects which follow the verb do not occur. (There are a few exceptions to the ordering requirement, which will be discussed below.)

Examples:

Active

- (1) *Anak itu (ŋə)bawe*
child that/the bring/take
[+N] [+V]
[+NM]
[+AGT]
ape?
what
[+N]
[+AC]
[+THM]
'What did that child bring?'
- (2) *(ŋə)bawe ape, anak itu?*
bring/take what child that/the
[+V] [+N] [+N] [+N]
[+emph.] [+AC] [+AC] [+NM]
[+THM] [+AGT] [+AGT]
'What did that child bring?'
- (3) **Anak itu ape (ŋə)bawe?*
- (4) **Ape anak itu (ŋə)bawe?*
- (5) **(ŋə)bawe, anak itu ape?*
- (6) **(ŋə)bawe, ape anak itu?*
- (7) **Ape (ŋə)bawe, anak itu?*

Passive

- (8) *Kaluŋ itu dibawe*
necklace that take/bring (pas.)
[+N] [+V]
[+NM]
[+THM]
Ayati.
Ayati.
[+N]
[+AC]
[+AGT]
'The necklace was taken by Ayati.'

- (9) *Dibawe* *Ayati,* *kaluŋ*
take/bring (pas.) Ayati necklace
- | | | |
|--------|------|------|
| +V | +N | +N |
| +emph. | +AC | +NM |
| | +AGT | +THM |

itu.
that

'The necklace was taken by Ayati.'

- (10) **Kaluŋ itu Ayati dibawe.*
(11) **Ayati kaluŋ itu dibawe.*
(12) **Dibawe, kaluŋ itu Ayati.*
(13) **Dibawe, Ayati kaluŋ itu.*
(14) **Ayati dibawe, kaluŋ itu.*

The exceptions to the ordering requirement are as follows: 1) A redundancy rule specifies that if there is a nontheme nontime actant in the accusative case form, it follows the verb directly, and the theme actant in the accusative case form follows it directly.

Examples:

- (15) *siDulo* *ŋasi* *Miun* *duit.*
Dulo give Miun money
- | | | |
|------|------|------|
| +N | +N | +N |
| +NM | +AC | +AC |
| +AGT | +DAT | +THM |

'Dulo gave Miun money.'

- (16) *ŋasi* *Miun* *duit,* *siDulo*
give Miun money Dulo
- | | | | |
|--------|------|------|------|
| +V | +N | +N | +N |
| +emph. | +AC | +AC | +NM |
| | +DAT | +THM | +AGT |

'Dulo gave Miun money.'

- (17) **siDulo ŋasi duit Miun.*
(18) **siDulo Miun ŋasi duit.*
(19) **ŋasi, siDulo duit Miun.*
(20) **ŋasi duit, siDulo Miun.*
(21) **ŋasi duit Miun, siDulo.*

2) A redundancy rule specifies that with a passive verb, a pronominal agentive actant in the accusative case form may occur directly before the verb. In this case the verb takes no prefix (see section 8, VMR (§)).

Examples:

- (22) *Kaluŋ* *itu* *gue* *bawe.*
necklace that I take/bring
(pas.)

+N	+N
+NM	+AC
+THM	+AGT

'That necklace was taken by me.'

- (23) **Gue kaluŋ itu bawe.*
(24) **Bawe gue kaluŋ itu.*
(25) **Bawe kaluŋ itu gue.*

If "retraction" intonation is added to sentence (25), the result is the grammatical active sentence (26) without the optional prefix.

- (26) (*ŋə*)*bawe* *kaluŋ* *itu,* *gue.*
take/bring necklace that I

+V	+N	+N
+emph.	+AC	+NM
	+THM	+AGT

'I took the necklace.'

But examples like (22) should not be confused with active sentences without an optional *ŋ*-prefix. The active prefix is not optional here: if it is added in sentences like (22) they become ungrammatical.

Example:

- (27) **Kaluŋ itu gue ŋəbawe.*

Even if sentences such as (22) were considered to be "active" with a different definition than that used here (see section 6.0), the *ŋ*-prefix would have to be excluded. In addition, there are arguments for considering this type of sentence to be passive. If this type of sentence is considered to have a passive verb, which has a theme rather than an agentive subject, the following facts are accounted for:

A. The nonpronominal noun phrase must be definite.

Example:

- (28) **Kaluŋ* *gue* *bawe.*
necklace I take/bring

'A necklace was taken by me.'

This is accounted for if it is assumed that

the nonpronominal noun phrase is the subject of the sentence, and that the subject in this type of sentence, as in active and other passive sentences, must be definite.

B. The construction occurs only with pronouns. (Pronouns in Betawi may be either inherent or derived. Derived pronouns are especially from kin terms (see section 7.2.1.12).)

Example:

- (29) **Kaluṅ itu anak itu bawe.*
 necklace that child that take/bring
 'That necklace was taken by the child.'

It seems likely that the motivation for such a construction, where the agent precedes the verb rather than following it as in other passive sentences in Betawi, has to do with the distribution of "old" and "new" information. The tendency in Betawi seems to be a linear sequence of the order: old information - new information. The subject, which must be definite, i.e. old information, is sentence-initial in sentences with no special emphasis. The object, which can be indefinite, i.e. new information, follows the verb. Thus the passive sentence with a pronoun (old information) in final position, as in example (30), is considered rather awkward (although not ungrammatical) and the construction exemplified in (22) with the pronoun preceding the verb is preferred.

Example:

- (30) *Kaluṅ itu dibawe gue.*
 necklace that take/bring I
 'The necklace was taken by me.'

If the construction exemplified in (22) is not considered a passive, there is no apparent motivation for the restriction to a pronominal actant preceding the verb and to a definite nonpronominal noun phrase.

Further exceptions to the usual ordering restriction on accusatives are: 3) Actants in the time case relation without prepositions may either precede or follow the verb. They are considered to be in the accusative case form as they may be nondefinite noun phrases:

Examples:

- (31) *Kəmarin die bawe*
 yesterday she take/bring
- | | |
|------|------|
| +N | +N |
| +AC | +NM |
| +TIM | +AGT |
- kaluṅ itu.*
 necklace that
- | |
|------|
| +N |
| +AC |
| +THM |
- 'Yesterday she took the necklace.'

- (32) *Die bawe kaluṅ itu*
 she take/bring necklace that
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +AGT | +THM |
- kəmarin.*
 yesterday
- | |
|------|
| +N |
| +AC |
| +TIM |
- 'She took the necklace yesterday.'

4) All nouns which occur after prepositions are considered to be in the accusative case form, as they follow the preposition, and may be nondefinite noun phrases.

Example:

- (33) *Saye buke pintu itu*
 I open door that
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +AGT | +THM |
- pake koñci.*
 with key
- | | |
|---------|------|
| +P | +N |
| +INS | +AC |
| -trans. | +INS |
| -cause | |
- 'I opened the door with a key.'

Case frame features of verbs (and head nouns in verbless sentences, although this is not yet formalized) determine the word order of accusative actants (and nominative actants, as described above). These rules are stated in Appendix B. Such rules also state that

other types of actants follow the verb, unless they are emphasized, as in the following example:

Example:

- (34) *Lu* *dari* *sono* *ambil*
 you from there take
- | | | |
|------|-------|--------|
| +N | +P | +N |
| +NM | +L | +AC |
| +AGT | +src. | +LOC |
| | | +emph. |
- ape?*
 what
- | |
|------|
| +N |
| +AC |
| +THM |
- 'From there, what did you take?'

5.3 The comitative case form

In Betawi, the comitative case form realizes the comitative, instrumental, dative, and agentive case relations.

The marker of the comitative case form is the following preposition:

- ame*
- | | |
|----|--|
| +C | {
[+COM]
[+INS]
[+DAT]
[+AGT]
} |
| + | |
| | |
| | |
- 'with, by, to, from'

The preposition *ame* is probably historically derived from *same* 'the same, identical'. However, at least for my primary informant, it is now a completely separate lexical item. In spite of many examples of optional *s* dropping in other lexical items in her speech (*sude/ude* 'already', *sampe/ampe* 'until', *saye/aye* 'I', *Siti/Iti* 'Siti') she does not pronounce these two words interchangeably.

Since the comitative case form realizes four different case relations, a four way ambiguity is possible.

Example:

- (1) *Ikan* *itu* *dibali*
 fish that/the buy (pas.)
- | | |
|------|--|
| +N | |
| +NM | |
| +THM | |
- ame* *gue.*
 (prep.) I
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +AGT |
- 'That fish was bought by me.'
- (2) *Ikan* *itu* *dibali*
 fish that/the buy (pas.)
- | | |
|------|--|
| +N | |
| +NM | |
| +THM | |
- ame* *gue.*
 (prep.) I
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +DAT |
- 'That fish was bought from me.'
- (3) *Ikan* *itu* *dibali*
 fish that/the buy (pas.)
- | | |
|------|--|
| +N | |
| +NM | |
| +THM | |
- ame* *gue.*
 (prep.) I
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +COM |
- 'That fish was bought with me.' =
 'We bought it together.'
- (4) *Ikan* *itu* *dibali*
 fish that/the buy (pas.)
- | | |
|------|--|
| +N | |
| +NM | |
| +THM | |
- ame* *gue.*
 (prep.) I
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +INS |
- 'That fish was bought with me.' =
 'I was used for payment.'

Each of these sentences may be expressed in another way if the context does not make the meaning clear. Comitative actants may be made clear with a phrase like *bəsame* 'together'. Source dative actants may be realized in the locative case form. Goal dative and agentive actants may be realized in the nominative or accusative case form.

In addition, there may be ambiguity between the preposition *ame* 'with', and the noun conjunction *ame* 'and' which is considered to be derived from the preposition.

Example:

(5) *Gue mampusin Dasime ame siMiun.*
I kill Dasime and Miun'
'I killed Dasime and Miun.'

(6) *Gue mampusin Dasime ame*
I kill Dasime (prep.)
siMiun.
Miun
'I killed Dasime with Miun.' =
'We killed her together.'

5.4 The locative case form

In Betawi, the locative case form realizes the dative, time and locative case relations.

The markers of the locative case form are the following prepositions:

<i>di</i>	<i>kə</i>	<i>dari</i>
$\left[\begin{array}{l} +L \\ -dir. \\ + [+LOC] \end{array} \right]$	$\left[\begin{array}{l} +L \\ +gol. \\ -term. \\ + [+LOC] \end{array} \right]$	$\left[\begin{array}{l} +L \\ +src. \\ + \left\{ \begin{array}{l} [+LOC] \\ [+DAT] \\ [+TIM] \end{array} \right\} \end{array} \right]$
'at'	'to'	'from'

<i>(s)ampe</i>	<i>lewat</i>
$\left[\begin{array}{l} +L \\ +term. \\ + \left\{ \begin{array}{l} [+LOC] \\ [+TIM] \end{array} \right\} \end{array} \right]$	$\left[\begin{array}{l} +L \\ +dir. \\ -gol. \\ -src. \\ + \left\{ \begin{array}{l} [+LOC] \\ [+TIM] \end{array} \right\} \end{array} \right]$
'up, to, until'	'past, along, through'

These prepositions frequently take as objects such locative nouns as:

<i>daləm</i> 'inside'	<i>ujung</i> 'corner, edge'
<i>luar</i> 'outside'	<i>sebəle</i> 'side'
<i>atas</i> 'top'	<i>səbəraŋ</i> 'across'
<i>bawe</i> 'bottom'	<i>situ</i> 'there'
<i>dəpan</i> 'front'	<i>sini</i> 'here'
<i>bəlakaŋ</i> 'back'	<i>sono</i> 'there (far)'
<i>sampiŋ</i> 'side'	<i>mari</i> 'here'
<i>antare</i> 'between'	<i>mane</i> 'where'

Redundancy rules specify the redundant features of subcase forms, such as the fact that all [+gol.] prepositions are [+dir.], etc. The prepositions *(s)ampe* and *lewat* are derived from the following verbs:

<i>sampe</i>	'arrive'
<i>lewat</i>	'pass'

5.5 The instrumental case form

In Betawi, only the instrumental case relation may be realized in the instrumental case form.

The markers of the instrumental case form are the following prepositions:

<i>pake</i>	<i>naek</i>	<i>kəna</i>
$\left[\begin{array}{l} +I \\ -cause \\ -trans. \\ + [+INS] \end{array} \right]$	$\left[\begin{array}{l} +I \\ -cause \\ +trans. \\ + [+INS] \end{array} \right]$	$\left[\begin{array}{l} +I \\ +cause \\ -trans. \\ + [+INS] \end{array} \right]$
'by, with'	'by'	'by'

These prepositions are derived from the verbs:

<i>pake</i>	'use'
<i>naek</i>	'go up; go by'
<i>kəna</i>	'contact; hit; suffer'

5.6 The benefactive case form

The markers of the benefactive case form are the following prepositions, apparently interchangeable:

<i>bakal</i>	<i>bagi</i>	<i>buat</i>
$\left[\begin{array}{l} +B \\ + [+BEN] \end{array} \right]$	$\left[\begin{array}{l} +B \\ + [+BEN] \end{array} \right]$	$\left[\begin{array}{l} +B \\ + [+BEN] \end{array} \right]$
'for'	'for'	'for'

They are probably derived from the following verbs or nouns:

<i>bagi</i>	'to divide, give out'
<i>buat</i>	'to make'
<i>bakal</i>	'material, supplies' ³

5.7 The manner case form

In Betawi the manner case form realizes only the manner case relation. The marker of the manner case form is the inherent preposition:

<i>kaye</i>
$\left[\begin{array}{l} +M \\ + [+MAN] \end{array} \right]$
'like, similar to, resembling'

5.8 Conclusion

As may be seen from table 1 below, there is no one to one correspondence between case relations and case forms. This explains the possibility of ambiguities, such as the examples of section 5.5.

Some case neutralizations found in Betawi are also found in other languages, for example, the neutralization of the locative and time case relations in the locative case form which is found in English, Japanese,

Korean, Vietnamese, Thai and Rukai (Starosta 1973b), the neutralization of the dative and comitative case relations in the comitative case form, also found in Thai (Kullavanijaya 1974), and the neutralization of the instrumental and comitative case forms in the comitative case form also found in Thai (Kullavanijaya 1974) and English.

The tendency to derive prepositions from certain kinds of verbs is another cross-language tendency which appears in Betawi. This tendency is discussed in Clark (1975).

Table 1

Correlation of case forms and case relations in Betawi
(This table refers to actants, not nouns. Nouns in all case relations may be realized in the accusative case form.)

Case forms:	[+NM]	[+AC]	[+B]	[+I]	[+C]	[+L]	[+M]
Markers:	word order, intonation, definiteness	word order (intonation, definiteness)	<i>bakal</i> <i>bagi</i> <i>buat</i>	<i>pake</i> <i>naek</i> <i>kəna</i>	<i>ame</i>	<i>di</i> <i>kə</i> <i>dari</i> <i>lewat</i> <i>sampe</i>	<i>kaye</i>
Case relation:							
[+THM]	X	X					
[+AGT]	X	X			X		
[+DAT]	X	X			X	X	
[+BEN]	X	X	X				
[+INS]		X		X	X		
[+COM]					X		
[+LOC]						X	
[+TIM]		X				X	
[+MAN]							X

* * *

1. Examples (7) and (8) are less likely than some of the others, but are apparently acceptable in context.

2. Although I have translated the passive sentence (24) with an English passive for clarity, the English passive sentence would not necessarily be used in the same context as the Betawi one. See discussion section 7.1.2.

3. The auxiliary verb *bakal* 'will, (future)' and the noun *bakal* 'material', both from Javanese, are probably derivationally related. Semantically, it seems more likely that the preposition *bakal* came from the

noun than from the verb.

Examples:

- (i) *Buat bakal maen ceki, duitñe.*
 for material play card-game money
 (def./pos.)
 'The money is (a fund) to play cards,
 gambling.'
- (ii) *Ñai jañan bakal susa-atı.*
 (pron.) don't will sad
 'Don't be sad.'

SUBCATEGORIZATION OF VERBS IN TERMS OF CASE FRAME FEATURES IN BETAWI

6.0 Introduction

Verbs may be subcategorized on the basis of their case frame features. The subcategorization divides verbs into major subcategories such as atmospheric, existential, agentive, etc. which are important in the grammar in various ways. In Betawi they function as important categories in derivation rules.

Some terms which are used for major subcategories of verbs in lexicase theory are:

Atmospheric verb: an atmospheric verb is a verb which allows no theme actant.

Existential verb: an existential verb is a verb which allows a theme actant, but no subject.

Transitive verb: a transitive verb is a verb which allows a subject which is not in the theme case relation. Redundancy rules specify that such verbs require a theme actant in the accusative case form. This actant may be missing in the appropriate context of situation, which also includes the speakers' common knowledge of the world. So certain transitive verbs may have missing objects where these are supplied by common knowledge, e.g. *He is eating* where the object "food" need not be specified. (Kullavanijaya 1974:106-121).

Active verb: an active verb is a verb which selects the case relation of its subject in accordance with the accusative subject choice hierarchy: if there is an agentive actant it is the subject; if there is no agentive actant, but there is a dative actant, the dative actant will be subject; if there is no dative actant, the theme actant will be subject. (In Betawi there are no instrumental subjects.)

Passive verb: a passive verb is a verb derived from and marked with respect to an

active verb, which selects its subject according to a priority different from the unmarked accusative subject choice hierarchy (Starosta 1974:11).

In addition the following terms will be used:

Direct passive verb: a direct passive verb is a passive verb which allows a theme actant as subject.

Indirect passive verb: an indirect passive verb is a passive verb which allows a non-theme actant as subject. There are two types in Betawi: benefactive indirect passive verbs, which allow benefactive actants as subjects, and dative indirect passive verbs, which allow dative actants as subjects.

Benefactive verb: a benefactive verb is a verb which allows a benefactive object. In Betawi these verbs are derived by the benefactive verb rule.

In this section, major subcategories of verbs in Betawi are outlined. This subclassification does not attempt to be complete or detailed but to provide an outline of major subcategories, especially those which function in derivation rules. A tree diagram of the subcategorization is given following section 6.13 which may be converted into ordered rules in the usual way. Redundancy rules relating to verb subcategorization are stated in Appendix B.

6.1 Atmospheric verbs

Atmospheric verbs have the case frame - [+THM]. Examples are *ujan* 'rain' and *panas* 'hot'. Redundancy rules specify that - [+THM] verbs do not allow any actants except time, locative, and manner actants.

Examples:

- (1) *Tapi di sono panas*
 but at there hot
- | | |
|--------|------|
| +P | +N |
| +L | +AC |
| -dir.] | +LOC |

ye.

(S Part.)

'But it is hot there.'

- (2) *Mao ujan ni.*
 will rain this, now

+N
+AC
+TIM

'It is going to rain now.'

6.2 Existential verb

The existential verb *ade* 'exist' has the case frame +([+THM]), -[+NM]. It is considered to be derived from the location verb *ade* 'be present at'. Redundancy rules specify that it has a theme actant in the accusative case form, and that no other actants are allowed except time actants.

Examples:

- (1) *Jaman ña? ade juge duit*
 time (pron.) exist also money
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +TIM | +THM |

ratusan.

hundred (bill)

'In my time, there were hundred bills.'

- (2) *əŋga? ade yaŋ bərani ame*
 not exist which brave (prep.)

+N
+AC
+THM

gue.

I

'There is no one brave enough to stand up to me.'

6.3 Active nonbenefactive nondative verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +AGT \end{bmatrix}$, - $\begin{bmatrix} +AC \\ +BEN \end{bmatrix}$ - [+DAT]. Examples of such verbs are *makan(in)* 'eat', *nuluŋ(in)/tuluŋ(in)* 'help', *ñari(in)/cari(in)* 'look for', *mukul/pukul*

'hit', *masak* 'cook'; creative verbs such as *nulis/tulis* 'write'; perception verbs such as *(ŋə)liat* 'see', *(ŋə)deŋər* 'hear'; some cognitive verbs such as *mikir/pikir* 'think'; and derived verbs such as *mandiin* 'bathe (s.o.)', *mampusin* 'kill', *bərsiin* 'clean (s.t.)', *marein* 'get angry at', *masukin* 'put in', *(ŋə)liatin* 'look at', *mukulin/pukulin* 'hit repeatedly'. Redundancy rules specify that a theme object is allowed with any verb which does not have a theme subject.

Examples:

- (1) *Ayo de, kənapə*
 come-on (SPart.) why
- diliatin, makan makanñe*
 look-at (pas.) eat food

+N
+AC
+THM

de

(SPart.)

tu.

that, there

+N
+AC
+LOC

'Come on, why are you just looking at it, eat the food (there).'

- (2) *Kalo kite pikir nasib oraŋ*
 if we think fate person

+N
+NM
+AGT

+N
+AC
+THM

satu-satu, ye ...

one-by-one (SPart.)

'If we think of people's fates, one by one, well'

- (3) *Gue mampusin lu.*
 I kill you

+N
+NM
+AGT

+N
+AC
+THM

'I'll kill you.'

6.4 Active source and goal verbs (nonbenefactive nondative-object)

These verbs have the case frame + $\begin{bmatrix} +NM \\ +AGT \end{bmatrix}$, - $\begin{bmatrix} +AC \\ +DAT \end{bmatrix}$, - $\begin{bmatrix} +AC \\ +BEN \end{bmatrix}$, + ([+DAT]) and are specified with either the feature [+src.] or the feature [-src.]. The feature [+src.] means that such a verb allows a dative actant

in the source subcase of the locative case form or the comitative case form which is understood as the source of the action. Examples of active nonbenefactive source verbs are *tərime/nərime* 'receive', *(ŋə)bəli* 'buy', *pinjəm/minjəm* 'borrow', *sewa/ñewa* 'rent'.

Redundancy rules specify that if such a verb is [-src.] it is also [+gol.]. The feature [+gol.] means that such a verb allows a dative actant in the comitative case form which is understood as the intended end of the action. Examples of such verbs are *(ŋə)jual* 'sell', and *(ŋ)omomŋ* 'say'.

Examples:

Source:

- (1) *Die* *minjem* *uaŋ* *ame*
 she borrow money (prep.)
- | | | |
|------|------|----|
| +N | +N | +P |
| +NM | +AC | +C |
| +AGT | +THM | |
- gue.*
I
- | |
|------|
| +N |
| +AC |
| +DAT |

'She borrowed money from me.'

Goal:

- (2) *Tadi* *gue* *ŋomomŋ* *ape*
 just-now I say what
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +AGT | +THM |
- ame* *lu?*
 to you
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +DAT |

'What did I say to you just now?'

6.5 Dative-object verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +AGT \end{bmatrix}$, + $\begin{bmatrix} +AC \\ +DAT \end{bmatrix}$. Examples of such verbs are *kasi(in)* /*ŋasi(in)* 'give', *kirim(in)* /*ŋirim(in)* 'send', and derived verbs such as *pinjəmin/minjəmin* 'lend', *sewain/ñewain* 'rent out'. Redundancy rules specify that the dative actants of these verbs may be realized in either the accusative or the comitative case form, and that they

have the feature [+gol.] which means that the dative actant is understood as the intended end of the action.

Example:

- (1) *Ini* *kan* *abaŋ*
 this, how (SPart.) (pron.)
- | | |
|------|------|
| +N | +N |
| +AC | +NM |
| +TIM | +AGT |
- ude* *ŋasi* *saye* *duit*
 already give I money
- | | |
|------|------|
| +N | +N |
| +AC | +AC |
| +DAT | +THM |
- baŋ.*
 (voc.)
 'Now you've given me money.'

6.6 Active benefactive verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +AGT \end{bmatrix}$, + $\begin{bmatrix} +AC \\ +BEN \end{bmatrix}$. All such verbs are derived by the benefactive derivation rule. Such verbs are understood as implying a benefactive actant. Redundancy rules specify that such verbs allow benefactive actants in the accusative or benefactive case form. Examples are *masakin* 'cook(ben.)', *(ŋə)bəliin* 'buy (ben.)', and *(ŋə)jualin* 'sell (ben.)'.

Example:

- (1) *Die* *jualin* *saye*
 she sell (ben.) I
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +AGT | +BEN |
- baraŋ* *itu.*
 thing that
- | |
|------|
| +N |
| +AC |
| +THM |
- 'She sold those things for me.'

6.7 Direct passive verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +THM \end{bmatrix}$, + ([+AGT]). All direct passive verbs are derived from active verbs by the direct passive derivation rule. Examples of direct passive verbs are *dimakan(in)* 'eaten', *dituluŋ(in)* 'helped', *dicari(in)* 'looked for',

dipukul 'hit', *dimasak* 'cooked', *dibeli* 'bought', *dijual* 'sold', *ditulis* 'written', *diliat* 'seen', *didenar* 'heard', *dipikir* 'thought', *dimasukin* 'put in', *dimandiin* 'bathed', *dimampusin* 'killed', *dibersiin* 'cleaned', *diliatin* 'looked at', *dimarein* 'scolded', *dipukulin* 'hit repeatedly'.

The passive derivation rule specifies that the agentive actant may be realized in either the accusative or comitative case form. When it is pronominal, it may directly precede the verb and the verb takes no prefix (see section 5.2). Direct passive verbs are also derived from goal-object and benefactive-object verbs, but these seem to be considered awkward.

Examples:

- (1) *Itu pisan lu makanin.*
 that banana you eat
- | | |
|------|------|
| +N | +N |
| +NM | +AC |
| +THM | +AGT |

'You ate that banana.'
 (lit: 'That banana was eaten by you.')

- (2) *Soal itu ude dipikir*
 problem that already thought
 (pas.)

+N	
+NM	
+THM	

<i>ame</i>	<i>gue.</i>
by	I

+P	+N
+C	+AC
	+AGT

'I've already thought about that problem.' (lit: 'That problem has already been thought about by me.')

6.8 Dative indirect passive verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +DAT \end{bmatrix}$, + ([+AGT]). All dative indirect passive verbs are derived by the dative indirect passive derivation rule. Examples of such verbs are *dikasi(in)* 'given', *dikirim(in)* 'sent', *disewain* 'rented' and *dipinjamin* 'lent'.

Such verbs have the feature [+goal] carried over in derivation. The indirect passive rule specifies that the agentive actant must be realized in the comitative case form.

Example:

- (1) *Miun dikasi duit itu*
 Miun give (pas.) money that
- | | | |
|------|--|------|
| +N | | +N |
| +NM | | +AC |
| +DAT | | +THM |
- | | |
|------------|----------------|
| <i>ame</i> | <i>siDulo.</i> |
| (prep.) | Dulo |
- | | |
|----|------|
| +P | +N |
| +C | +AC |
| | +DAT |

'Miun was given the money by Dulo.'

6.9 Benefactive indirect passive verbs

These verbs have the case frame + $\begin{bmatrix} +NM \\ +BEN \end{bmatrix}$. Benefactive indirect passive verbs are all derived by the benefactive indirect passive rule. Examples of benefactive indirect passive verbs are *dimasakin* 'cooked (ben.)', *dibeliin* 'bought (ben.)', *dijualin* 'sold (ben.)'. The indirect passive derivation rule specifies that the agentive actant is realized only in the comitative case form. Example:

- (1) *Ibu dimasakin nasi*
 mother cook (ben.) (pas.) rice
- | | | |
|------|--|------|
| +N | | +N |
| +NM | | +AC |
| +BEN | | +THM |
- | | |
|------------|--------------|
| <i>ame</i> | <i>saye.</i> |
| (prep.) | I |
- | | |
|----|-----|
| +P | +N |
| +C | +AC |
- 'I cooked rice for Mother.'
 (lit: 'Mother was cooked rice by me.')

6.10 Nonagentive dative-subject verbs

These verbs have the case frame -[+AGT], + $\begin{bmatrix} +NM \\ +DAT \end{bmatrix}$. Redundancy rules specify that these verbs have the feature [+goal] which means that their dative subjects are understood as the goal of the action. Redundancy rules also

specify that they do not allow instrumental actants. Verbs with this case frame are the possession verbs *puñe* 'own' and *ade* 'have' and the cognitive verb *tao* 'know'. These verbs do not take the prefixes *ŋ-* or *di-*.

The verb *tao* is specified with the feature [+src.] which means that a dative actant in the source subcase of the locative case form or the comitative case form, which is understood as the origin of the action, is allowed. The dative actants are considered to be coreferential in the sense that they refer to the path of the action.

Examples:

- (1) *Kalo lu ude ade*
if/when you already have
- | |
|------|
| +N |
| +NM |
| +DAT |
- laki, ude bərume-tange,*
husband, already have-household
- | |
|------|
| +N |
| +AC |
| +THM |
- ambil kaye ña?, sabar*
take like (pron.) patient
- ame laki.*
(prep.) husband
- 'When you have a husband and a household, be like me, patient with your husband.'

- (2) *Gue tao ame siPuase.*
I know (prep.) Puase
- | |
|------|
| +N |
| +NM |
| +DAT |
- | |
|----|
| +P |
| +C |
- | |
|------|
| +N |
| +AC |
| +DAT |
- 'I know from Puase.'

6.11 Intransitive dative verbs

These verbs have the case frame -[+AGT], +[+NM], + ([+DAT]). They are generally verbs expressing emotions. Examples are: *sənaŋ* 'happy, like', *takut* 'afraid', *kəsiən* 'sorry, feel pity', *cinte* 'in love', *sayəŋ* 'love, sympathetic to', *kəsəl* 'upset', *mare* 'angry', *baek* 'kind', *bərani* 'brave, dare to defy', *bəñci* 'hate', *malu* 'embarrassed' *ormat* 'respect', *sabar* 'patient'.

Redundancy rules specify that such verbs

have the feature [+goal] which means that the dative actant must be realized in the comitative case form and is understood as the end toward which the emotion is felt.

Examples:

- (1) *Gue masi sayəŋ*
I still sympathetic, love
- | |
|------|
| +N |
| +NM |
| +THM |
- ame lu.*
(prep.) you
- | |
|----|
| +P |
| +C |
- | |
|------|
| +N |
| +AC |
| +DAT |
- 'I still love, care for you.'
- (2) *Aye cinte ame prəmpuan*
I love (prep.) woman
- | |
|------|
| +N |
| +NM |
| +THM |
- | |
|----|
| +P |
| +C |
- | |
|------|
| +N |
| +AC |
| +DAT |
- laen.*
other
- 'I love another woman./
I am in love with another woman.'
- (3) *Gue buat ape mare*
I for what angry
- | |
|------|
| +N |
| +NM |
| +THM |
- | |
|----|
| +P |
| +B |
- | |
|------|
| +N |
| +AC |
| +BEN |
- ame lu.*
(prep.) you
- | |
|----|
| +P |
| +C |
- | |
|------|
| +N |
| +AC |
| +DAT |
- 'Why should I be angry with you?'
- (4) *Baŋ-Puase məsti kəsiən ame*
Puase must pity (prep.)
- | |
|------|
| +N |
| +NM |
| +THM |
- | |
|----|
| +P |
| +C |
- saye doŋ.*
I (SPart.)
- | |
|------|
| +N |
| +AC |
| +DAT |
- 'You must have pity on me.'

- (5) *Aban* *eman* *baek* *de*
(pron.) really *kind* (SPart.)

[+N]
[+NM]
[+THM]

ame *Yati.*
(prep.) *Yati.*

[+P]
[+C]

[+N]
[+AC]
[+DAT]

'You are really *kind* to me.'

- (6) *Siape* *yaŋ* *bəraŋi* *ame*
who which *brave* (prep.)

[+N]
[+NM]
[+THM]

[+N]
[+AC]
[+THM]

[+P]
[+C]

gue?
I

[+N]
[+AC]
[+DAT]

'Who dares to stand up to me?'

- (7) *Kənape* *kalo* *lu* *əŋga?* *bəŋci*
why if you not *hate*

[+N]
[+NM]
[+THM]

ame *gue,* *bəgitu* *lu*
(prep.) I like-that you

[+P]
[+C]

[+N]
[+AC]
[+DAT]

liat *gue,* *lu* *mao* *lari?*
see I you want run

'Why, if you don't *hate* me, do you want to run as soon as you see me?'

- (8) *Kalo* *ŋai* *ude* *əŋga?* *suke*
if (pron.) already not *like*

[+N]
[+NM]
[+THM]

ame *tuan,* *biarin*
(prep.) (pron.) leave, let

[+P]
[+C]

[+N]
[+AC]
[+DAT]

de, *ŋai.*
(SPart.) (voc.)

'If you don't *like* him any more, let it be.'

6.12 Instrumental-object verbs

These verbs have the case frame + $\begin{bmatrix} +AC \\ +INS \end{bmatrix}$. All instrumental-object verbs are derived by the adversative instrumental derivation rule. Adversative verbs have the meaning 'to suffer an unexpected, accidental, or adversative action'. Examples are *kəpukul* 'be hit (accidentally)', *kətabrak* 'be hit (by a vehicle)', *kədatəŋan* 'be come upon (unexpectedly and probably undesirably)'. Redundancy rules specify that the instrumental actant may be realized in the accusative or comitative case form. They also specify that these verbs allow theme subjects and do not allow benefactive actants.

Example:

- (1) *Rume* *ŋa?* *atapŋe*
house (pron.) roof (def./pos.)

[+N]
[+NM]
[+THM]

[+N]
[+NM]
[+THM]

kəbawe *(ame)*
take, carry (advers.) (prep.)

[+P]
[+C]

aŋin.
wind

[+N]
[+AC]
[+INS]

'The roof of my house was *carried* away by the wind.'

6.13 Nondative noninstrumental-object intransitive verbs

These verbs have the case frame -[+AGT], + $\begin{bmatrix} +NM \\ +THM \end{bmatrix}$, -[+DAT], - $\begin{bmatrix} +AC \\ +INS \end{bmatrix}$. Verbs with this case frame include verbs which are specified with the semantic-syntactic feature [+stative], such as *panas* 'hot', *mere* 'red', *mati* 'dead', *enak* 'pleasant', *sakit* 'sick, hurt', *base* 'wet'. This feature functions in derivation rules, and refers to verbs which represent a state rather than an activity. A redundancy rule specifies that stative verbs allow instrumentals only in the cause subcase of the instrumental case form, although some verbs are further specified as not allowing

any instrumental.

This class also includes verbs specified with the feature [+location], such as *pəgi* 'go', *datəŋ* 'come', *sampe* 'arrive', *lewat* 'pass', *jalan* 'walk, go, travel', *pulaŋ* 'go home', *naek* 'go up', *turun* 'go down', *tinggal* 'stay' and *ade* 'be present'. The feature [+location] means that these verbs allow a locative actant which is understood as inner locative. Also included is the [+strict] verb *tinggal* 'live at'. The feature [+strict] means that the verb requires an inner locative actant. It is considered to be derived from the [-strict] verb *tinggal* 'stay'. Redundancy rules also specify that only directional verbs allow instrumental actants in the transport subcase of the instrumental case form.

This class also includes verbs which refer to spontaneous actions such as *naŋis* 'cry', *kətawe* 'laugh', *mampus* 'die', *baŋun* 'wake up', verbs which refer to actions done to oneself such as *dandan* 'dress (oneself)', *mandi* 'bathe (oneself)', and several types of derived verbs.

Many verbs which take sentence complements also have this case frame. However the subject of verb complementation is not dealt with in this study (see section 3.3.2.6). Negative and auxiliary verbs are in this class. Examples are *əŋga?* 'not', *bəlun* 'not yet', *jaŋan* 'don't', *bakal* 'will/intend to', *mao* 'will/intend to', *suke* 'be in the habit of', *bise* 'be able', *bole* 'be allowed', *arus* 'have to', *məsti* 'have to', *use* 'have to', *abis* 'finished, just completed'.

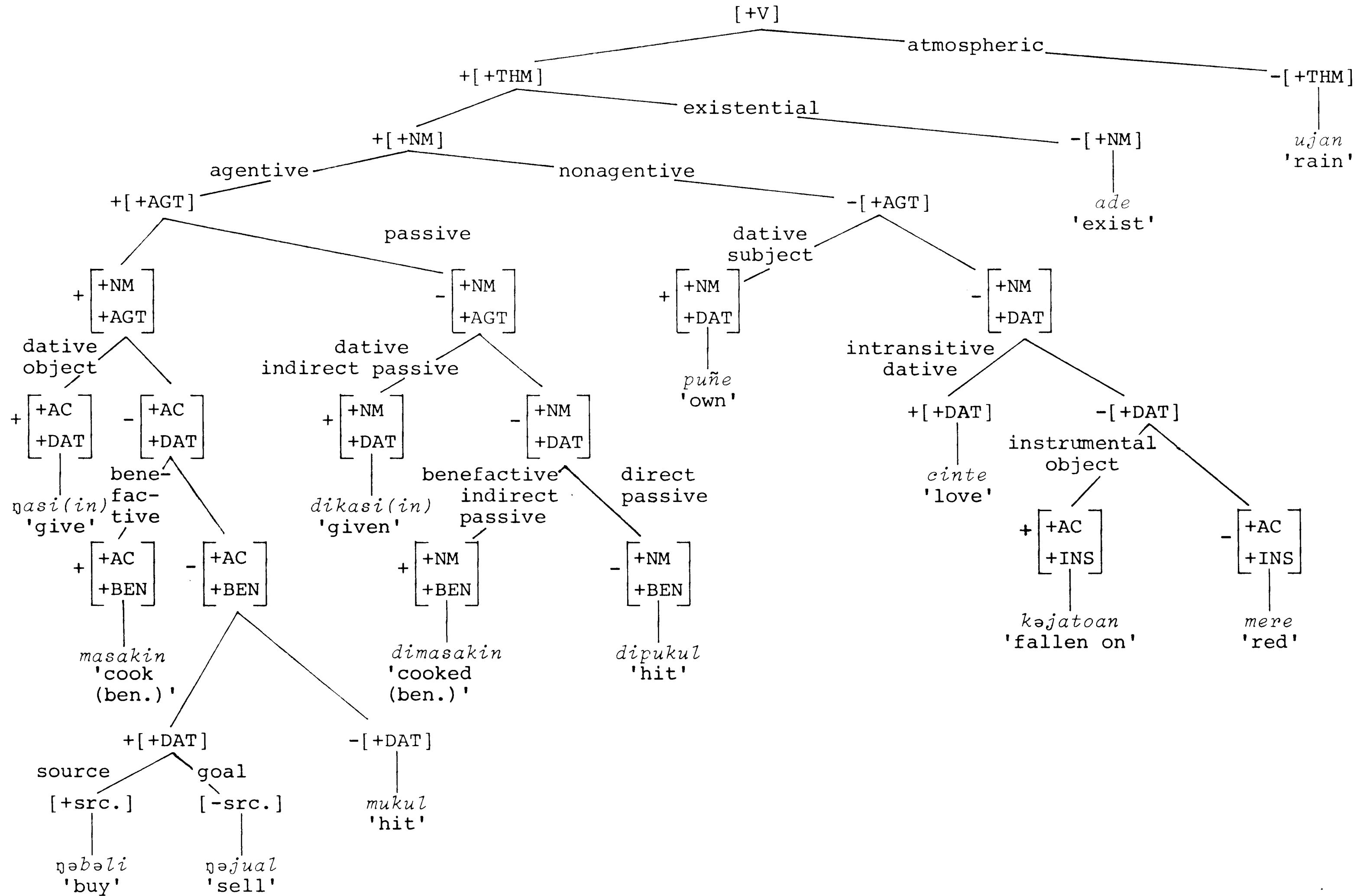
Examples:

- (1) *Ini* *base* *kənu* *air*
 this *wet* by water
- | | | | |
|------|--|--------|--|
| +N | | +P | |
| +NM | | +I | |
| +THM | | +cause | |
- ujan.*
 rain
- | | | | |
|------|--|--|--|
| +N | | | |
| +AC | | | |
| +INS | | | |
- 'This is *wet* from rain water.'
- (2) *Lu* *datəŋ* *naek* *ape?*
 you *come* by what
- | | | | | |
|------|--|---------|--|------|
| +N | | +P | | +N |
| +NM | | +I | | +AC |
| +THM | | +trans. | | +INS |
- 'How did you *come*?'
- (3) *Pan* *aye* *tinggal* *di*
 (SPart.) I *live* at
- | | | |
|------|--|-------|
| +N | | +P |
| +NM | | +L |
| +THM | | -dir. |
- sono.*
 there
- | | |
|------|--|
| +N | |
| +AC | |
| +LOC | |
- 'I used to *live* there.'
- (4) *Saye* *abis* *nagi* *.pajək.*
 I *completed* collect tax
- | | | |
|------|--|------|
| +N | | +N |
| +NM | | +AC |
| +THM | | +THM |
- 'I *just finished* collecting taxes.'

Table 2

Subcategorization of verbs in terms of
case frame features in Betawi

(One example of a verb from each subcategory is given.)



DERIVATION IN BETAWI

7.0 Introduction

In this section, derivation rules in Betawi are discussed. Derivation in lexicase theory is discussed above in sections 2.1 and 2.4. In 7.1, problems in describing derivation in Betawi are discussed. In 7.2-4, noun, verb, and other derivation rules are given, and in 7.5, some derivation rules are collapsed to show the patterns of derivation of major categories. All morphophonemic rules (MR) associated with derivation are discussed in section 8, Morphophonemic Rules.

7.1 Problems in describing derivation in Betawi

7.1.1 Word formation analogies, derivation, and inflection in Betawi

Most of the rules in this section are word formation analogies. They are not completely productive and predictive rules. In some cases, this may just mean that it is very difficult to define exactly the class to which the rule applies. It is often difficult to draw the line between completely productive and predictive rules, which create new forms, and those which are not completely productive and predictive, so that the output must be listed in the lexicon. In the case of rules which apply to very small closed classes, such as for example, determiners, the rule is listed as a word formation analogy.

Completely productive derivation rules are very few: the definite/possessed, collective, familiar name, and numerative noun derivation rules; the comparative, excessive, distributive, and passive verb derivation rules; the adjective derivation rule; the "together" adverb derivation rule, and the "quote" derivation rule.

These rules are completely productive except that there are certain exceptions which must be accounted for by a type of blocking restriction. It must prevent an item from undergoing a rule, if and only if there already is a form with another meaning in the lexicon, with the phonological form the derived form would have. For example, the noun *mate* 'eye' is blocked from undergoing the collective derivation rule, as a form *mate-mate* 'spy' is already listed in the lexicon. Similarly, the form *pinjəm* 'borrow' is blocked from undergoing the rule which gives any transitive verb the suffix *-in*, as there is already a form *pinjəmin* 'lend' in the lexicon. However, I do not know how such a restriction could be formalized.

Rule features, a device used in transformational grammars (Lakoff 1970), are used provisionally here to indicate exceptions to general patterns in the morphophonemic rules associated with derivation rules. Although this does describe the data accurately, the use of rule features might be considered ad hoc. An alternative solution would be to posit identical competing derivation rules with different associated morphophonemic rules. One problem that is foreseen for the latter solution is that the generalization expressed by the general rule with exceptions would not be captured. However, the alternate approach has not been fully worked out and its further investigation is left to future studies.

In some cases it is very difficult to decide whether an affix is derivational or inflectional. In particular, the passive and the definite/possessed affixes meet many of the criteria for inflection (see section 2.4).

However, passive verbs may be rederived as nouns (for example, *diurusñe* 'its being arranged' from *diurus* 'arranged'). Since one

of the basic criteria for inflection is that the inflected form may not be rederived as another part of speech, the passive rule is treated as derivation rather than inflection.

If we attempt to treat the definite/possessed affix *-ne* as inflection, a rule must state that it is optional when the noun is followed by a possessor or definite modifier. But inflectional affixes are generally obligatory. So this affix is also treated as derivational.

There are some optional affixes for certain types of verbs which do not change meaning. These are the prefix *η-* on active agentive verbs and inchoative verbs, and the suffix *-in* on agentive verbs (which are not derived as transitive verbs with different meanings). These affixes may be the result of derivation rules which are not longer productive, or of extension of word formation analogies to cases where they do not change meaning. Because these affixes are optional, and because the same affixes function as obligatory derivational affixes in other cases, they are treated as derivational in these cases also.

7.1.2 Active and passive verbs in Betawi

In Betawi there are active and passive agentive verbs. In this study, active verbs are listed in the lexicon as underived, and a passive derivation rule is posited. The strongest argument for this treatment is that the active forms may be used without any prefix, while the passive forms have an obligatory prefix, except when preceded by a pronoun in the agentive case relation and accusative case form (see section 5.2). This is not a very overwhelming argument. Active verbs also have an optional prefix, and might be treated as derived from passive verbs. Historically, Malay may have been a VSO language, and both these forms may have arisen by secondary topicalization. Alternatively, it may have been an ergative language, with first the active forms being derived, and then the passive, the passive prefix arising from the third person pronoun. However, synchronically, because

the active prefix is only optional and the passive prefix is obligatory, it seems preferable to treat passive verbs as derived.

This does not imply anything about frequency of use, or "markedness" in some intuitive sense, of active versus passive verbs. The unmarked ordering of information in Betawi seems to be old-new. Non-definite subjects are not allowed. In sentences with both a definite theme and agent, it appears that the theme subject sentence (passive) is usually preferred. However, it is difficult to find ways to test such preferences.

The distribution of active and passive forms differs from that in English for several reasons. Some of them are:

1) Passive imperative verbs are allowed and common in Betawi.

2) The fact that the relative noun *yan* is always coreferential with the subject of an embedded sentence means that some English relative clauses which are active would have to be translated with passive verbs in Betawi, and some English relative clauses which are passive would have to be translated with active verbs in Betawi.

3) The requirement for a definite subject in Betawi means that some English active sentences would have to be translated with passive sentences in Betawi, and some English passive sentences would have to be translated with active sentences in Betawi.

Example:

A child saw her.
**Anak (ηə)liat die.*

She was seen by a child.
Die diliat ame anak.

4) Because of the status/familiarity connotations of pronouns in Betawi, pronouns are sometimes avoided. This may be a factor in the frequency of use of passive verbs, which put less emphasis on agentive actants.

7.2 Noun derivation rules

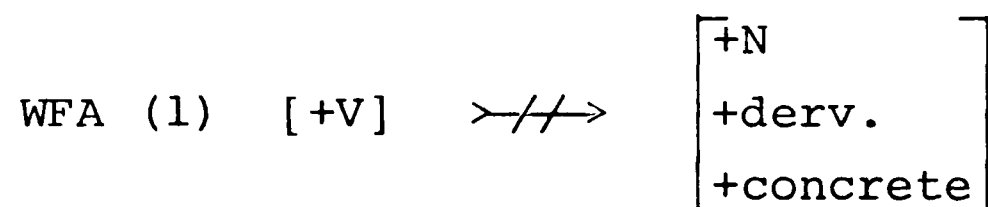
7.2.0 Introduction

The statement of noun derivation rules in

this section will be in two parts: 7.2.1, Word formation analogies (WFA) and 7.2.2, Completely productive derivation rules (DR). For each WFA or DR, the rule will be stated, the associated morphophonemic rule, if any, will be described and examples will be provided. Sentence examples are included to demonstrate the use of the forms derived by the rules. By comparing these examples with those provided in studies of related dialects and languages, it may be observed that the same affixes and the same types of processes may exist, but the rules, and which rules particular forms undergo, may differ.

7.2.1 Noun word formation analogies

7.2.1.1 "Concrete" word formation analogy



WFA (1) states that for certain verbs there are corresponding derived nouns referring to the concrete result of the action of the verb, or thing to be used for the action of the verb, or in the case of a stative verb, concrete items characterized by the verb. The meanings of the derived nouns cannot be predicted very exactly, for example, whether they refer only to result of action (e.g. *buatan* 'thing made') or to thing to be used in an action as well (e.g. *bawean* 'thing brought or to be brought').

Examples which appear to be derived from nouns may be treated as rederived from verbs which are derived from nouns (see sentence example (4) below).

Morphophonemic rules give such derived nouns the suffix *-an*. Some items are individually specified as taking the prefix *pəŋ-* as well, or allowing it optionally. (See section 8.1, NMR (2), (6).)

Examples:

<i>bawe</i> 'bring'	<i>(pəm)bawaan</i> 'thing brought or to bring'
<i>maen</i> 'play'	<i>maenan</i> 'toy'

<i>jual</i> 'sell'	<i>jualan</i> 'merchandise'
<i>kirim</i> 'send'	<i>kiriman</i> 'thing sent or to be sent'
<i>makan</i> 'eat'	<i>makanan</i> 'food'
<i>buat</i> 'make'	<i>buatan</i> 'thing made'
<i>jaet</i> 'sew'	<i>jaetan</i> 'thing sewn or to be sewn'
<i>pake</i> 'wear, use'	<i>pakean</i> 'clothes'
<i>bəlanje</i> 'shop'	<i>bəlanjaan</i> 'thing bought or to to be bought'
<i>jalan</i> 'go, walk'	<i>jalanan</i> 'street'
<i>manis</i> 'sweet'	<i>manisan</i> 'sweet, candy, cake, etc.'
<i>kotor</i> 'dirty'	<i>kotoran</i> 'dirty things, garbage'

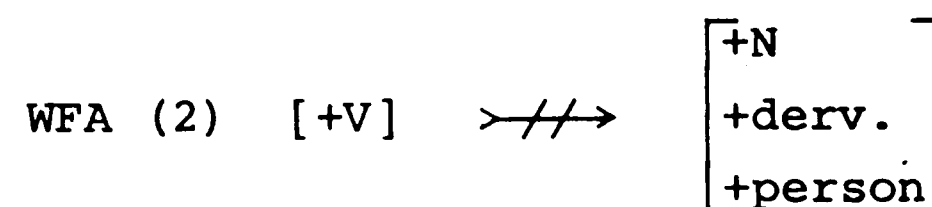
Derived:

<i>macul</i> 'to hoe'	<i>paculan</i> 'hoeing, area hoed.'
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Sentences:

- (1) *Kənapə bawə pakean ŋai?*
why bring clothes (voc.)
'Why did you bring clothes?'
- (2) *Ini gue sabən jalan*
this I every-time go
ronde, kətəmu lu, di jalanan.
round meet you at street
'Whenever I go my rounds I meet you on the street.'
- (3) *Aye bəli manisən buat Siti.*
I buy sweet for Siti
'I bought a sweet for Siti.'
- (4) *Itu lebar juge ni. Paculan*
that wide also this hoed-area
siapə ni?
who this
'That is pretty wide. Whose hoeing/hoed-area is it?'

7.2.1.2 "Person" word formation analogy



WFA (2) States that for certain verbs there are corresponding derived nouns meaning 'person characterized by (V)'. The meaning of the derived noun cannot be predicted exactly (for example, whether the person characterized by the state is always in the state, or temporarily in the state, or one who brings about the state).

Morphophonemic rules give such derived nouns the prefix *pəŋ-*. A few nouns are individually specified as taking the suffix *an* as well, or allowing it optionally. (See section 8.1, NMR (2), (6).)

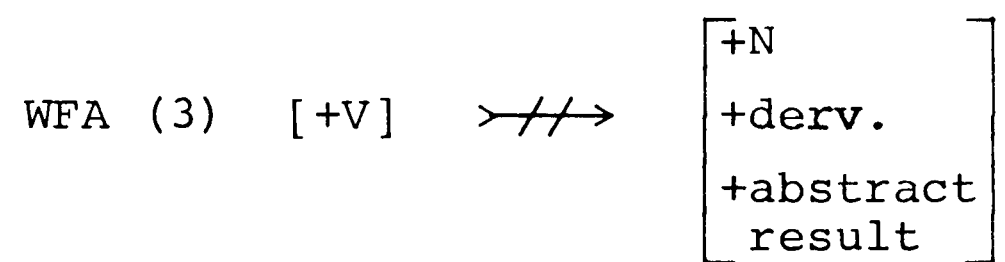
Examples:

<i>jual</i> 'sell'	<i>pənjual</i> 'seller'
<i>alana</i> 'prevent'	<i>pənalana</i> 'one who is an obstacle'
<i>bawe</i> 'bring'	<i>pəmbawe</i> 'one who brings'
<i>curi</i> 'steal'	<i>pəncuri</i> 'thief'
<i>kaco</i> 'confused'	<i>pənacaco</i> 'person who confuses things'
<i>diem</i> 'quiet'	<i>pəndiem</i> 'quiet person'
<i>takut</i> 'afraid'	<i>pənakut</i> 'coward'
<i>bohona</i> 'lie'	<i>pəmbohona</i> 'liar'
<i>tuluna</i> 'help'	<i>pənuluna</i> 'helper'
<i>kirim</i> 'send'	<i>pəŋirim</i> 'sender'
<i>mare</i> 'angry'	<i>pəmare(an)</i> 'angry person, person who is always angry'
<i>minum</i> 'drink'	<i>pəminuman</i> 'drinker, alcoholic'

Sentence:

- (1) *Lu jadi pənalana besar.*
 you become obstacle big
 'You are becoming a great obstacle.'

7.2.1.3 "Abstract result" word formation analogy



WFA (3) states that for certain verbs there are corresponding derived nouns meaning 'abstract result of (V)'.

Examples which appear to be derived from nouns may be treated as rederived from verbs derived from nouns (see sentence example (4) below).

Morphophonemic rules give derived "abstract result" nouns the prefix *kə-* and suffix *-an*. Some items are individually specified as exceptions to the rule which gives the prefix *kə-*. (See section 8.1, NMR (3), (6).)

A few nouns are individually specified as taking the prefixes *pəŋ-* or *pər-*. There are many fewer such items which take the prefixes *pəŋ-* or *pər-* than those which have the prefix *kə-*. (See section 8.1, NMR (2), (4).)

Such exception features may be the result of various productive derivation rules having competed in the past. This may leave, as in this case, and in the following one (WFA (4): "Institution" WFA), what appears to be a regular pattern with exceptions.

Examples:

<i>baik</i> 'good'	<i>kəbaikan</i> 'goodness'
<i>kəjam</i> 'cruel'	<i>kəkəjaman</i> 'cruelty'
<i>sabar</i> 'patient'	<i>kəsabaran</i> 'patience'
<i>mao</i> 'want'	<i>kəmaoan</i> 'desire'
<i>səmpat</i> 'have opportunity'	<i>kəsəmpatan</i> 'opportunity'
<i>suke</i> 'like'	<i>kəsukaan</i> 'desire, thing liked'
<i>səlamət</i> 'safe'	<i>kəsəlamətan</i> 'safety'

<i>sangup</i> 'able'	<i>kəsangupan</i> 'ability'
<i>kəsəl</i> 'angry'	<i>kəsəlan</i> 'anger'
<i>iŋət</i> 'remember'	<i>iŋətan</i> 'remembrance'
<i>bantu</i> 'help'	<i>bantuan</i> 'assistance'
<i>ajar</i> 'teach'	<i>ajaran</i> 'teaching'
<i>tuluŋ</i> 'help'	<i>tuluŋan</i> 'assistance'
<i>pikir</i> 'think'	<i>pikiran</i> 'thought'
<i>sakit</i> 'sick'	<i>pəñakit</i> 'sickness'
<i>ormat</i> 'respect'	<i>pəŋormatan</i> 'respect'
<i>deŋər</i> 'hear'	<i>pəndeŋəran</i> 'what is heard'
<i>liat</i> 'see'	<i>pəŋliatan</i> 'what is seen'
<i>bəñci</i> 'hate'	<i>pəmbəñcian</i> 'hate'
<i>kate</i> 'say'	<i>pəkataan</i> 'word'
<i>tañe</i> 'ask'	<i>pətañaan</i> 'question'
<i>rase</i> 'feel'	<i>pərasaan</i> 'feeling'
<i>buat</i> 'do, make'	<i>pəbuatan</i> 'deed'

Derived:

<i>buktiin</i> 'prove'	<i>pəmbuktian</i> 'proof'
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Sentences:

- (1) *Die mao mukul die, əŋga?*
he want hit he not
ade kəsangupan.
have ability
'He wants to hit him, but he doesn't have the ability.'
- (2) *Ape yaŋ jadi kəsukaan*
what which become desire/
thing-liked
oraŋ di Kampon Ketapan?
person at
'What do people at Kampong Ketapang like?'
- (3) *Kəbətulan die buaŋ sampe,*
by-chance she throw-away garbage
ade kəsəmpətan saye ambil.
have opportunity I take
'By chance she is throwing out the garbage, I have an opportunity to

take it.'

- (4) *Itu pəmbuktianne!*
that proof
'There is the proof!'
- (5) *Pikiran gue lagi pusiŋ*
thought I presently dizzy
ʔah.
(SPart.)
'My thoughts are confused.'
- (6) *Ye, kəsəlan gue si*
(intro.) anger I (SPart.)
lu əŋga? tao.
you not know
'You don't know my anger.'
- (7) *Pəñakit saye raseñe əŋga?*
illness I it-seems not
buru-buru baek.
quickly well
'It seems my illness will not soon be cured.'

7.2.1.4 "Institution" word formation analogy

WFA (4) [+V] > // >

+N
+derv.
+institution

WFA (4) states that for certain verbs there are corresponding nouns with the meaning 'the institution of doing or bringing about (V)'. Morphophonemic rules give such derived nouns the prefix *pəŋ-* and suffix *-an*. A few items are specified as exceptions to the morphophonemic rule giving the prefix *pəŋ-*, and specified as taking the prefix *pər-*, or taking *pər-* optionally. (See section 8.4, NMR (2), (4), (6).)

Examples:

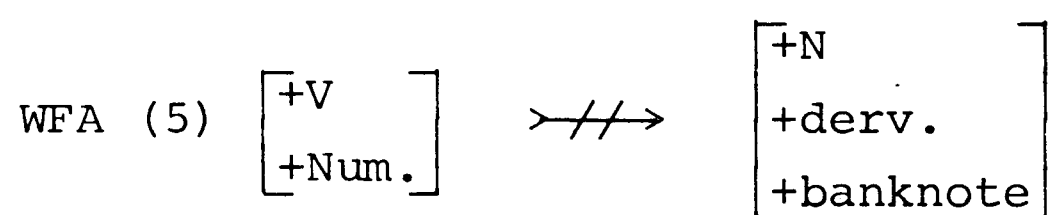
<i>cari</i> 'look for'	<i>pəñcarian</i> 'means of livelihood, way of making a living'
<i>kərje</i> 'work'	<i>(pə)kərjaan</i> 'job'
<i>kawin</i> 'married'	<i>pəkawinan</i> 'wedding, marriage'
<i>bərsi</i> 'clean'	<i>pəmbərsian</i> 'a cleaning'

Sentences:

(1) *Kalo ade pambarsian di*
 if/when exist cleaning at
jalan, tangkap ni anak ni.
 street catch this child this
 'When we have a street cleaning,
 let's catch this child.'

(2) *Pañcarian kite eman*
 making-a-living we really,
 of-course
mancin.
 fish
 'Our means of livelihood of course
 is by fishing.'

7.2.1.5 "Banknote" word formation analogy



WFA (5) states that for certain numerative verbs there are corresponding derived nouns referring to banknotes. This rule applies to just those numeratives which correspond to denominations of banknotes.

A morphophonemic rule gives such derived nouns the suffix *an* (see NMR (6)).

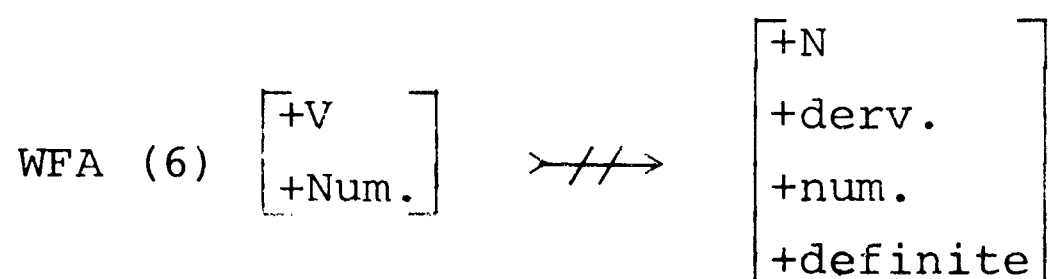
Examples:

<i>(sə)-ratus</i> '(one) hundred'	<i>(sə)ratusan</i> 'a hundred (banknote)'
<i>(sə)-ribu</i> '(one) thousand'	<i>(sə)ribuan</i> 'a thousand (banknote)'
<i>lime-ratus</i> 'five hundred'	<i>lime-ratusan</i> 'five hundred (banknote)'

Sentence:

(1) *Ade ratusan?*
 have hundred(banknote)
 'Do you have a hundred?'

7.2.1.6 Definite numerative noun word formation analogy



WFA (6) states that for certain numerative verbs there are corresponding derived numerative nouns which are definite. This rule generally applies to smaller numeratives.

A morphophonemic rule specifies that these forms are reduplicated and take the definite suffix *-ñe* (see NMR (8)).

Examples:

<i>satu</i> 'one'	<i>satu-satuñe</i> 'the one, the only one'
<i>due</i> 'two'	<i>due-dueñe</i> 'the two of them, both of them'
<i>tige</i> 'three'	<i>tige-tigeñe</i> 'the three of them'

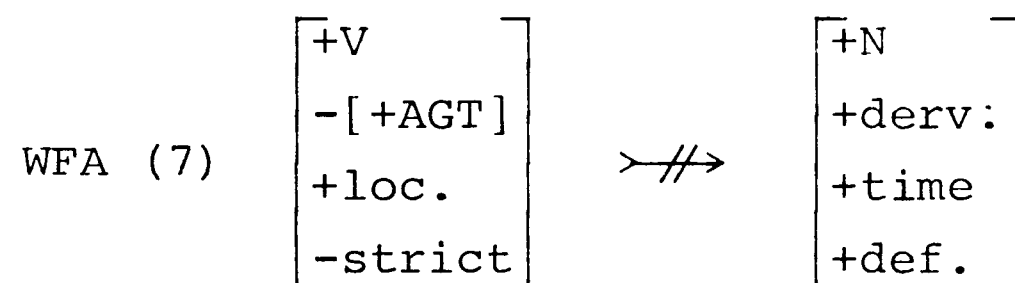
Sentences:

(1) *Gue liat due-dueñe*
 I see the-two-of-them
ude mati.
 already dead

'I saw both of them were dead.'

(2) *Tinggal satu-satuñe ini.*
 remain the-one this
 'This single one remains.'

7.2.1.7 Time point noun word formation analogy



WFA (7) states that for certain non-strict location verbs there are corresponding derived nouns meaning 'at the time of action of (V)'.
 Morphophonemic rules give such derived nouns the prefix *sə-* and definite suffix *-ñe* (see NMR (5), (8)).

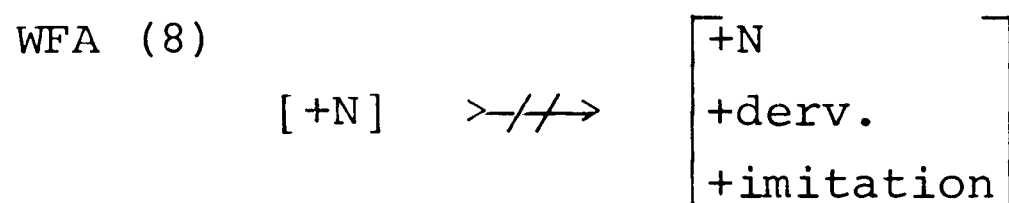
Examples:

<i>datəŋ</i> 'come'	<i>sədatəŋñe</i> 'at the time of coming'
<i>sampe</i> 'arrive'	<i>səsampeñe</i> 'at the time of arriving'
<i>pəgi</i> 'go'	<i>səpəgiñe</i> 'at the time of going'
<i>masuk</i> 'enter'	<i>səmasukñe</i> 'at the time of entering'

Sentences:

- (1) *Sədatəŋñe* die, saye pəgi.
at-time-coming he I go
 'When he came, I left.'
- (2) *Səmasukñe* die kə kamar,
at-the-entering he to room
 saye pəgi.
 I go
 'When he entered the room,
 I left.'

7.2.1.8 "Imitation" word formation analogy



WFA (8) states that for certain nouns there are corresponding derived nouns with the meaning 'imitation, toy, pseudo (N)'.

Morphophonemic rules reduplicate these forms, and give them the suffix *-an* (see NMR (1), (6)).

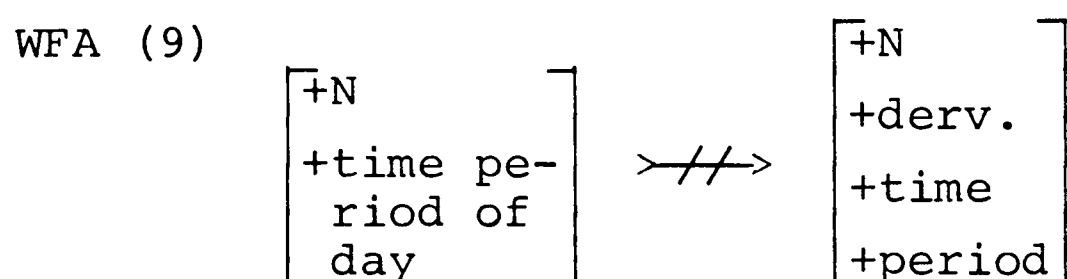
Examples:

<i>anak</i> 'child'	<i>anak-anakan</i> 'doll'
<i>mobil</i> 'car'	<i>mobil-mobilan</i> 'toy car'
<i>guru</i> 'teacher'	<i>guru-guruan</i> 'pseudo-teacher, imitation teacher'
<i>jago</i> 'champion'	<i>jago-jagoan</i> 'pseudo-champion, imitation champion'

Sentence:

- (1) *Bukan* saye *jago-jagoan*.
 not I *imitation-champion*
Jago bəner.
 champion real, true
 'I'm not an imitation champion.
 I'm a real champion.'

7.2.1.9 Time period noun word formation analogy



WFA (9) states that for certain nouns

representing a time period of the day there are corresponding derived time nouns meaning 'in the (time period of day)'. A morphophonemic rule reduplicates such derived nouns (see NMR (1)).

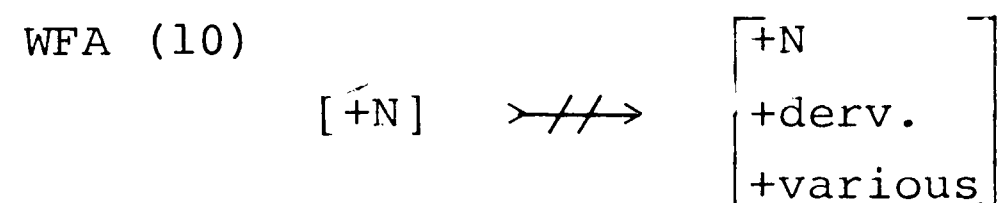
Examples:

<i>pagi</i> 'morning, early'	<i>pagi-pagi</i> 'in the early morning'
<i>siaŋ</i> 'afternoon, day'	<i>siaŋ-siaŋ</i> 'in the day, afternoon'
<i>sore</i> 'late after'	<i>sore-sore</i> 'in the late afternoon'
<i>maləm</i> 'evening, late, night'	<i>maləm-maləm</i> 'late at night, in the evening'

Sentences:

- (1) *Pagi-pagi* datəŋñe.
early-in-the morning coming
 (def./pos.)
 'You come early.'
- (2) *Maləm-maləm* baru die pulaŋ.
late-at-night newly he come-home
 'He comes home late at night.'

7.2.1.10 "Various" word formation analogy



WFA (10) states that for certain nouns there are corresponding derived nouns meaning 'various types of (N)'.

A morphophonemic rule reduplicates these forms (see NMR (7)).

Examples:

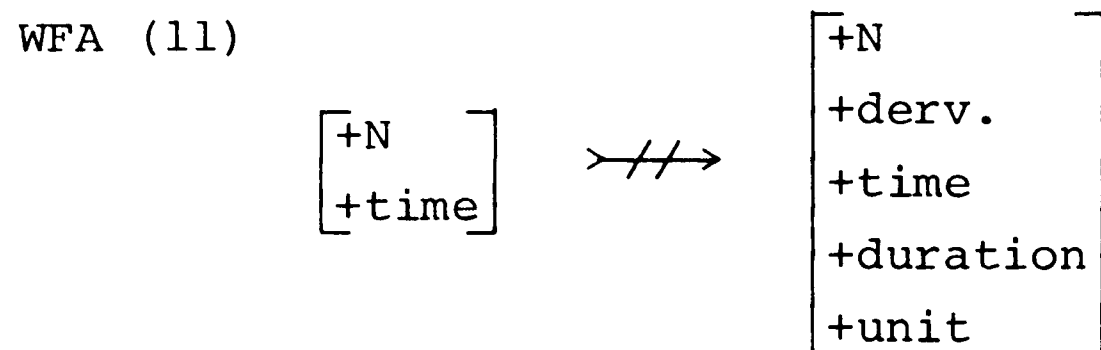
<i>təlor</i> 'egg'	<i>təlor-təlor</i> 'various kinds of eggs, i.e. fried, omelets, etc.'
<i>buntut</i> 'tail (bone)'	<i>buntut-buntut</i> 'various kinds of tail (bones) i.e. beef, lamb, etc.'

Sentences:

- (1) *Jual* *təlor-təlor*.
 sell *various-eggs*
 'He sells various kinds of egg dishes.'

- (2) *Ini buntut-buntut ape*
 this various-tailbones what
ni?
 this
 'What kinds of tailbones are these?'

7.2.1.11 Duration time noun word formation analogy



WFA (11) states that for certain nouns which represent periods of time there are corresponding derived nouns meaning 'for a whole (N)'.
 Morphophonemic rules give such derived nouns the prefix *sə-* and suffix *-an* (see NMR (5), (6)).

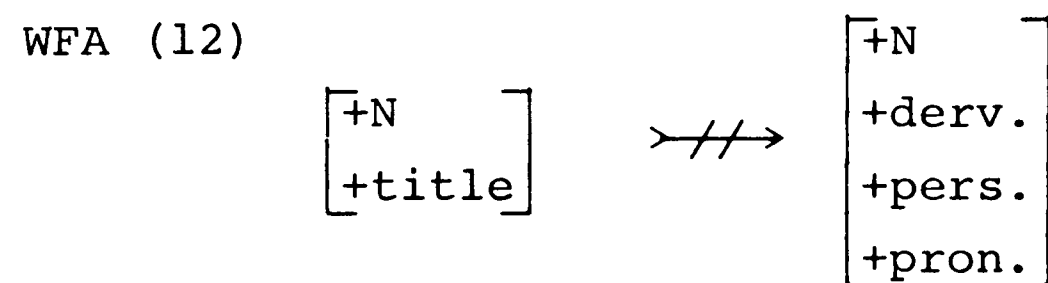
Examples:

<i>mingu</i> 'week'	<i>səminguan</i> 'for a (whole) week'
<i>bulan</i> 'month'	<i>səbulanan</i> 'for a (whole) month'
<i>maləm</i> 'night'	<i>səmalem-(malem)an</i> 'for a (whole) night'
<i>ari</i> 'day'	<i>səari-(ari)an</i> 'for a (whole) day'

Sentences:

- (1) *Aban-Miun lu ni səminguan*
 Miun you this for-a-week
əŋga? ade di rume.
 not present at house
 '(Your) Miun hasn't been home (now) for a week.'
- (2) *Saye cape, səarian jalan.*
 I tired for-a-day walk, go
 'I am tired, walking/going the whole day.'
- (3) *Gue ase səbulanan, əŋga?*
 I sharpen for-a-month not
bərenti-bərenti, lu tao.
 stop (distrib.) you know
 'I sharpened it for a month without stopping.'

7.2.1.12 Personal pronoun word formation analogy



WFA (12) states that for certain nouns which may be used as titles (see WFA (56)), there are corresponding derived personal pronouns. These derived personal pronouns function syntactically like inherent personal pronouns. They may occur directly before the passive verb, and the verb takes no prefix (see section 5.2).

Example:

- (1) *Baran itu ña? bawe.*
 thing that (pron.) take

+N +NM +THM	→	+N +AC +AGT
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 'Those things were taken by me.'

This type of construction occurs only with pronominal noun phrases. These pronouns refer to first, second, or third person. It would be possible to consider them all third person, and state that in Betawi it is customary to refer to oneself and the addressee in the third person. As stated in section 1, throughout the text English translations are provided in terms of the original context of the example.

These pronouns are derived from kin terms, or words describing types of people. Like other pronouns, they have important connotations for status and familiarity. As there is no change in phonological shape, no morphophonemic rule is needed.

Examples:

<i>ña?</i> 'mother'	<i>ña?</i> 'pronoun for older woman'
<i>ma?</i> 'mother'	<i>ma?</i> 'pronoun for older woman'

<i>ua?</i> 'uncle'	<i>ua?</i> 'pronoun for older man'
<i>(a)baŋ</i> 'older brother'	<i>(a)baŋ</i> 'pronoun for slightly older man'
<i>sodare</i> 'brother'	<i>sodare</i> 'pronoun for man of equal age'
<i>mpo?</i> 'older sister'	<i>mpo?</i> 'pronoun for slightly older woman'
<i>non(i)</i> 'European girl'	<i>non(i)</i> 'pronoun for European girl'
<i>tuan</i> 'European man'	<i>tuan</i> 'pronoun for European man'

satu 'one', as well as other numerals.

A morphophonemic rule gives such derived nouns the prefix *sə-* (see NMR (5)).

Examples:

Time:

<i>ari</i> 'day'	<i>səari</i> 'a day, a whole day'
<i>tadi</i> 'a time just past'	<i>sətadi</i> 'a period of time just past'
<i>kali</i> 'a time'	<i>səkali</i> 'one time'
<i>jam</i> 'hour'	<i>səjam</i> 'one hour'
<i>taon</i> 'year'	<i>sətaon</i> 'one year'
<i>bulan</i> 'month'	<i>səbulan</i> 'one month'
<i>mingu</i> 'week'	<i>səmingu</i> 'one week'

Place:

<i>kampung</i> 'area of city'	<i>səkampung</i> 'a whole kampung, one kampung'
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Money:

<i>ringgit</i> '2.50 rupiah'	<i>səringgit</i> 'one 2.50 rupiah (note)'
---------------------------------	---

Measure:

<i>gini</i> 'this (size)'	<i>səgini</i> 'a bit so big, this big'
<i>dikit</i> 'small (amt.)'	<i>sədikit</i> 'a little bit'
<i>potoŋ</i> 'slice'	<i>səpotoŋ</i> 'a slice'
<i>teŋe</i> 'middle'	<i>səteŋe</i> 'one half (hour, day)'
<i>paro</i> 'half'	<i>səparo</i> 'one half'
<i>pasi</i> 'section (of fruit)'	<i>səpasi</i> 'one section (of fruit)'
<i>letər</i> 'liter'	<i>səletər</i> 'one liter'

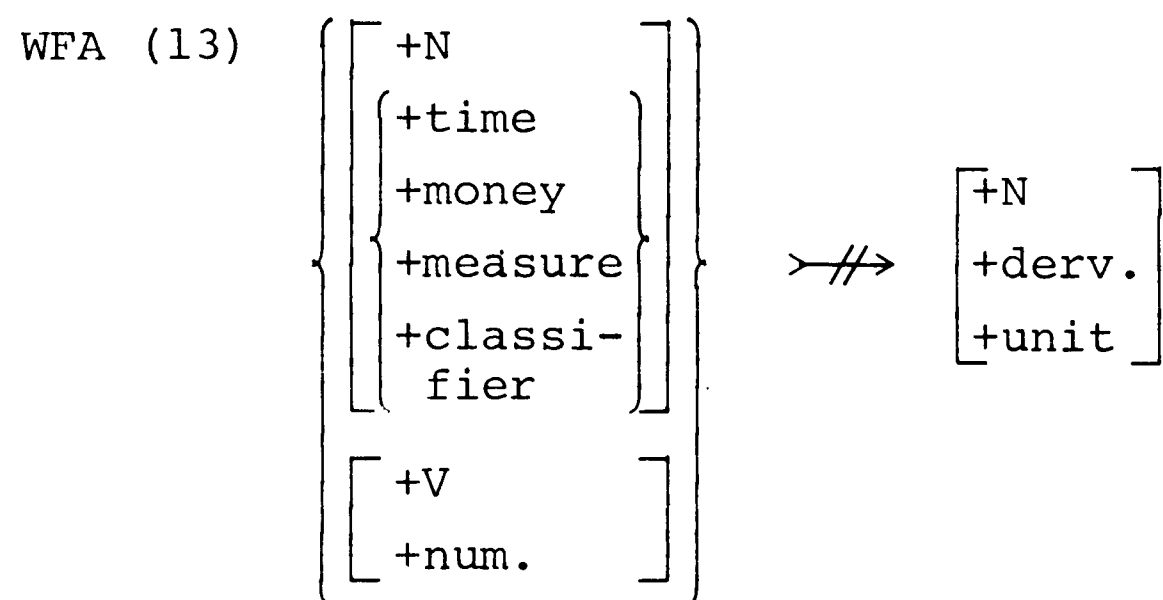
Classifier:

<i>oraŋ</i> 'person'	<i>səoraŋ</i> 'one person'
<i>biji</i> 'thing'	<i>səbiji</i> 'one thing'

Sentences:

- (1) *Ńa?* *juŋe* *əŋga?* *bise*
(pron.) also not can
nasehatin.
advise
'Even I can't advise him.'
- (2) *Abaŋ* *bətaŋe* *tərus-təraŋ*
(pron.) ask openly
ame *non* *ye.*
(prep.) (pron.) (SPart.)
'I ask openly of you.'
- (3) *Ua?* *miŋkin* *tue* *ni.*
(pron.) increasingly old this,
now
'He is getting older.'

7.2.1.13 "Unit" word formation analogy



WFA (13) states that for certain time, place, measure, money, or classifier nouns or numeratives, there is a corresponding derived noun with the meaning 'one, a single, a whole (N or num.)'. The nonbound countable nouns can also alternatively occur with the numerals

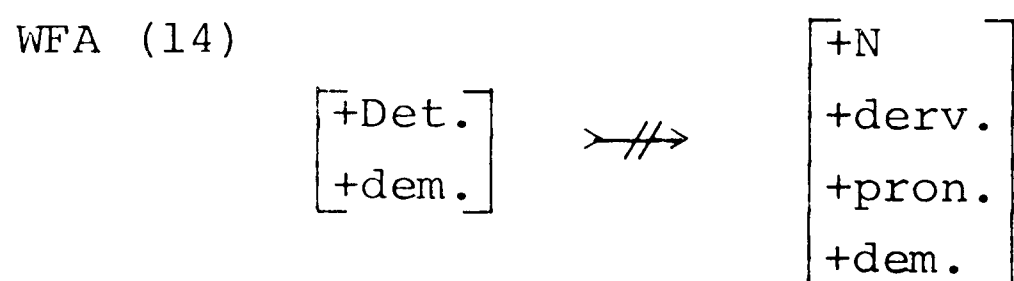
Numerative:

- <i>ratus</i>	<i>səratu</i>
'hundred'	'one hundred'
- <i>ribu</i>	<i>səribu</i>
'thousand'	'one thousand'
- <i>bəlas</i>	<i>səbəlas</i>
'-teen'	'eleven'

Sentences:

- (1) *Paling səjam saye kərje.*
at-most one-hour I work
'I'll work at most an hour.'
- (2) *Səkampon Jomponan ənti pade*
one-kampung Jomponan later all
datəŋ.
come
'All of Jomponan kampung will come.'
- (3) *Saye ude suru səkali.*
I already order one-time
'I already told you one time.'
- (4) *Memang di daləm səminggu*
really at inside one-week
ini, bole dikate saye makan
this may say (pas.) I eat
əŋga? napsu.
not have-appetite
'Really it may be said that all
this week I've had no appetite.'

7.2.1.14 Demonstrative pronoun word formation analogy



WFA (14) states for determiners there are corresponding derived demonstrative pronouns. Since there is no change in phonological shape, no morphophonemic rule is needed.

Determiner:

- (1) *Ade ape si tu buruŋ?*
have what (SPart.) that bird
'What is wrong with that bird?'
- (3) *Ke?, ni buruŋ nuñjukin*
(voc.) this bird show
ade pəti di atas air.
be-present box at top water

'This bird is showing us that there is a box on the water.'

Pronoun:

- (2) *Tu kətinggian.*
that too-high
'That is too high.'
- (4) *Ini bakal lu.*
this for you
'This is for you.'

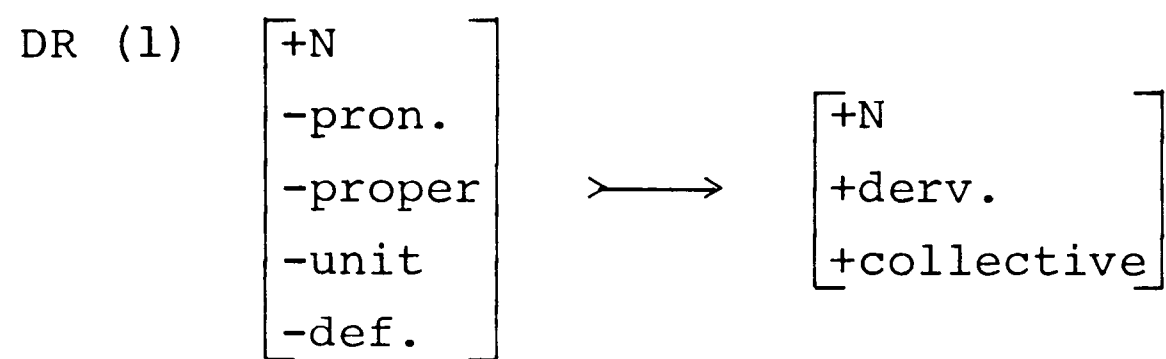
The demonstrative pronouns are often used in a very general way as time or location nouns, i.e. *ini* 'this (time, place) here, now' and *itu* 'that (time, place), there, then' much as English *here, now, there, and then* may be used in a very general sense.

Examples:

- (1) *Ni rupeñe ni,*
this, here it-seems this, here
dikasi persenan kali
be-given tip perhaps
ni ame nai.
this, here (prep.) (pron.)
'Here now, it seems he was given a tip by her.'
- (2) *Lu lagi kəcilin*
you presently get-smaller
ni.
this, here
'Now, here, you are getting smaller.'
- (3) *Ini gue sabən jalan*
this, here I every go
ronde, kətəmu lu di jalatan.
round meet you at street
'Now, every time I make my rounds I meet you on the street.'
- (4) *Tu, kəpukul de*
that, there hit (SPart.)
yaŋ satu.
which one
'There, one of them was hit.'
- (5) *Lu si kəitəman bənər*
you (SPart.) too-black really
tu si.
that, there (SPart.)
'There, you are really too dark.'

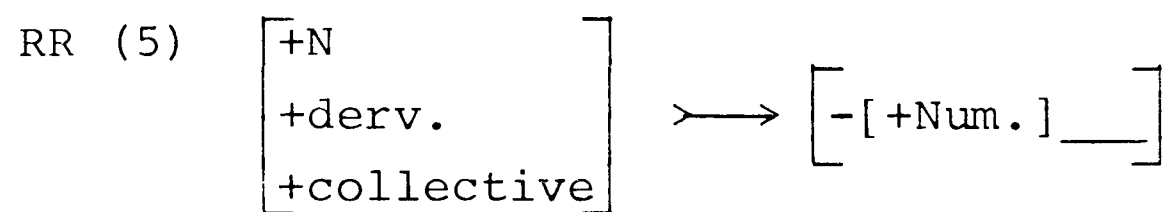
7.2.2 Completely productive noun derivation rules

7.2.2.1 Collective derivation rule



DR (1) states that given a noun which is not a pronoun, proper noun, unit noun (see WFA (12)) or definite noun (see DR (2)), there is a corresponding derived collective noun. This rule is completely productive and the meaning of the derived noun is completely predictable. However, forms which are already reduplicated are blocked from undergoing this rule (see section 7.1.1).

Underived nouns in Betawi are neither collective nor uncollective. By convention, glosses are generally given as English singular nouns. Collective nouns may not follow numerals in Betawi as specified by the following redundancy rule:



Examples:

<i>oraŋ</i>	<i>oraŋ-oraŋ</i>
'man/men'	'men'
<i>due oraŋ</i>	* <i>due oraŋ-oraŋ</i>
'two men'	'two men'

This redundancy rule states that a derived collective noun has the feature $\left[-[+\text{Num.}] ___ \right]$, that is, it may not occur after a numeral.

A morphophonemic rule reduplicates such derived nouns (see NMR (7)).

Examples:

<i>oraŋ</i>	<i>oraŋ-oraŋ</i>
'person'	'people'
<i>anak</i>	<i>anak-anak</i>
'child'	'children'
<i>rume</i>	<i>rume-rume</i>
'house'	'houses'
<i>duit</i>	<i>duit-duit</i>
'money'	'money (collective)'

<i>bir</i>	<i>bir-bir</i>
'beer'	'(bottles of) beer'

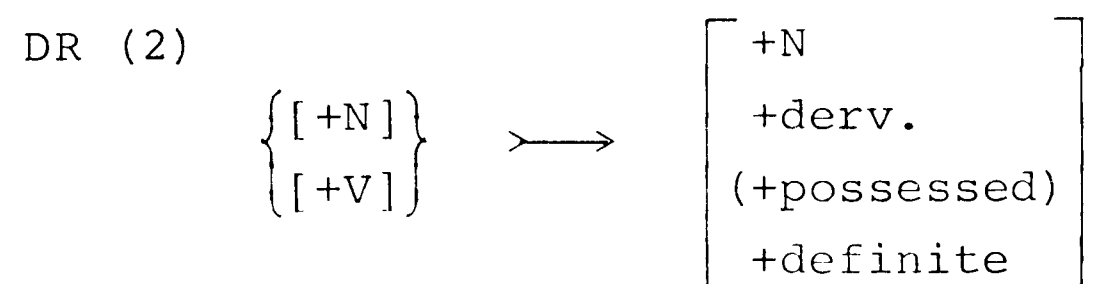
Derived:

<i>pakean</i>	<i>pakean-pakean</i>
'clothes'	'clothes (collective)'

Sentences:

- (1) *Jadi oraŋ-oraŋ pade kənal*
so people all know
ye.
(SPart.)
'So people all know you.'
- (2) *Anak-anak di mane səkarəŋ?*
children at where now
'Where are the children now?'
- (3) *Baŋak juŋe rume-rume di sini*
many also houses at here
səkarəŋ ye.
now (SPart.)
'There are many houses here now.'
- (4) *Duit-duit aje əŋga?*
money (collective) only not
ŋuduin.
forget
'He doesn't even forget my money.'
- (5) *Tu bir-bir əŋga?*
that (bottles-of) beer not
dikəluarin.
put-out
'You didn't put out those beers.'

7.2.2.2 Possessed-definite derivation rule



DR (2) states that given a noun or verb there is a corresponding derived noun which may be possessed and is specified as definite.

All nouns and verbs may be derived as either $\begin{bmatrix} +\text{possessed} \\ +\text{definite} \end{bmatrix}$ nouns or just $[+\text{definite}]$ nouns. This rule is completely productive and predictive, and applies to all nouns, including inherently definite ones (such as pronouns and proper nouns) and all verbs. The meaning of the noun derived from a verb is 'the/her/his

(etc.) action or state of (V)'. Where English uses sentences with verbs, Betawi often uses verbless sentences with such nouns derived from verbs as subjects.

A morphophonemic rule specifies that such derived nouns have the suffix *-ñe* (see NMR (8)).

Examples derived from verbs:

<i>bawe</i> 'bring'	<i>baweñe</i> 'bringing (def./pos.)'
<i>pəgi</i> 'go'	<i>pəgiñe</i> 'going (def./pos.)'
<i>ade</i> 'have'	<i>adeñe</i> 'having (def./pos.)'
<i>mare</i> 'angry'	<i>mareñe</i> 'being angry (def./pos.)'
<i>itam</i> 'black'	<i>itamñe</i> 'being black (def./pos.)'
<i>pəntiq</i> 'important'	<i>pəntiqñe</i> 'being important (def./pos.)'
<i>boto</i> 'pretty'	<i>botoñe</i> 'being pretty (def./pos.)'

Derived:

<i>mikiran</i> 'think about'	<i>mikiranñe</i> 'thinking about (def./pos.)'
<i>nəlor</i> 'lay (eggs)'	<i>nəlorñe</i> 'laying (eggs) (def./pos.)'

Sentences:

- (1) *Pəgiñe* waktu kapan?
going (def./pos.) time
'When did he go?'
- (2) *Mareñe* si
being-angry (def./pos.) (SPart.)
əŋga? səbrape.
not so-much
'He wasn't very angry.'
- (3) *Emaq adeñe* di
really having (def./pos.) at
taŋan siape ni?
hand who this
'Whose hand is it in?'
- (4) *Itamñe* tu
being-black (def./pos.) that
anak!
child
'How dark that child is!'

(5) *Səgitu botoñe.*
that-much being-pretty (def./pos.)
'She is so pretty.'

(6) *Nəlorñe* di mane aje
laying (def./pos.) at where just
ye?
(SPart.)
'Where do they lay their eggs?'

(7) *Saye bingung mikiriñe*
I confused thinking-about
(def./pos.)
ni ame anak.
this with child
'My thinking about my child
is confused.'

Examples derived from nouns:

<i>anak</i> 'child'	<i>anakñe</i> 'child (def./pos.)'
<i>oraŋ</i> 'man'	<i>oraŋñe</i> 'man (def./pos.)'
<i>ini</i> 'this'	<i>iniñe</i> 'this (def./pos.)'
<i>Siti</i> 'Siti'	<i>Sitiñe</i> 'Siti (def./pos.)'
<i>die</i> 'he/she/they'	<i>dieñe</i> 'he/she/they (def./pos.)'

Derived:

<i>pakean</i> 'clothes'	<i>pakeanñe</i> 'clothes (def./pos.)'
<i>anak-anak</i> 'children'	<i>anak-anakñe</i> 'children (def./pos.)'
<i>alaŋan</i> 'obstacle'	<i>alaŋanñe</i> 'obstacle (def./pos.)'
<i>kərjean</i> 'work'	<i>kərjeanñe</i> 'work (def./pos.)'
<i>pikiran</i> 'thought'	<i>pikiranñe</i> 'thought (def./pos.)'
<i>omoŋan</i> 'speech'	<i>omoŋanñe</i> 'speech (def./pos.)'
<i>kəmatian</i> 'death'	<i>kəmatianñe</i> 'death (def./pos.)'

Sentences:

- (8) *Ni rumeñe* siSamiun.
this house (def./pos.) Samiun
'This is Samiun's house.'
- (9) *Mao kə rume temenñe*
want to house friend (def./pos.)

ña? ye.
(pron.) (SPart.)

'I want to go to my friend's house.'

- (10) *Ape alanganñe?*
what obstacle (def./pos.)
'What is the obstacle?'
- (11) *Kerjeñe di pingir*
work (def./pos.) at edge
kali.
river
'The work is beside the river.'
- (12) *Pikiranñe pade*
thinking (def./pos.) all
kurang.
lacking
'He is a half-wit.'
- (13) *Gue percaye omonañe.*
I believe speech (def./pos.)
'I believe his words.'
- (14) *Ini soal kamatianñe*
this problem death (def./pos.)
ñai-Dasime.
Dasime
'This is the problem of Dasime's death.'
- (15) *Ini pakeañe*
this clothes (def./pos.)
bagus?
beautiful, nice
'Are these clothes nice?'
- (16) *SiDulo cari celaneñe*
Dulo look-for pants (def./pos.)
itu.
that.
'Dulo is looking for those pants.'
- (17) *Biarin de dieñe*
leave-it (SPart.) she (def./pos.)
mao maen.
want play
'Never mind, she wants to play.'
- (18) *Orañe anga? ade*
person (def./pos.) not present
di rume.
at home
'The person isn't home.'
- (19) *Haweñe diñin.*
weather (def./pos.) cold
'The weather is cold.'

7.2.2.3 Numerative noun derivation rule

DR (3)

$$\begin{bmatrix} +V \\ +num. \end{bmatrix} \longrightarrow \begin{bmatrix} +N \\ +deriv. \\ +num. \end{bmatrix}$$

DR (3) states that for a numerative verb there is a corresponding derived numerative noun. Since there is no change in phonological shape, no morphophonemic rule is needed.

Examples:

Verb:

- (1) *Bini gue due.*
wife I two
'My wives are two.'

Derived noun:

- (2) *Die lair taon due-pulu.*
she born year twenty
'She was born in '20.'

Derived quantifying adjective: (DR (11))

- (3) *Bole dibilañ ude due-pulu*
may say (pas.) already twenty
taon.
year
'It may be said, already twenty years.'

7.2.2.4 Familiar name derivation rule

DR (4)

$$\begin{bmatrix} +N \\ +proper \\ +animate \end{bmatrix} \longrightarrow \begin{bmatrix} +N \\ +deriv. \\ +proper \\ +animate \\ +familiar \end{bmatrix}$$

DR (4) states that given a proper animate name there is a corresponding derived familiar name. A morphophonemic rule gives such derived names the prefix *si* (see NMR (9)).

Example:

Dulo siDulo
(name) (name, familiar)

Sentence:

- (1) *Un, siDulo pan*
(name) (name, fam.) (SPart.)
ude lame nunguin lu.
already long await you

'Un, *Dulo* has been waiting for you a long time.'

7.3 Verb derivation rules

7.3.0 Introduction

The verb derivation rules posited for Betawi are discussed in two parts: 7.3.1. Word formation analogies, 7.3.2. Completely productive derivation rules. First rules deriving intransitive verbs, and then rules deriving transitive verbs will be given.

7.3.1 Word formation analogies

7.3.1.1 Intransitive verbs

7.3.1.1.1 "Possessing" word formation analogy

$$\text{WFA (14)} \quad \left[\begin{array}{c} +N \\ +\text{concrete} \end{array} \right] \xrightarrow{\text{WFA}} \left[\begin{array}{c} +V \\ +\text{deriv.} \\ +\text{possessing} \\ + \left(\begin{array}{c} +NM \\ +THM \end{array} \right) \end{array} \right]$$

WFA (14) states that for some concrete nouns there are corresponding derived intransitive verbs meaning 'to have, possess, or be characterized by (N)'.
A morphophonemic rule gives such derived verbs the prefix *bər-* (see VMR (6)).

Examples:

<i>bini</i> 'wife'	<i>bəbini</i> 'have a wife'
<i>rume</i> 'house'	<i>bərume</i> 'have a house'
<i>tiŋkat</i> 'level, story'	<i>bətiŋkat</i> 'have a second story, level'
<i>kumis</i> 'mustache'	<i>bəkumis</i> 'have a mustache'
<i>cambaŋ</i> 'beard, side-whiskers, sideburns'	<i>bəcambaŋ</i> 'have beard, side-whiskers, sideburns'
<i>jodo</i> 'partner for marriage'	<i>bəjodo</i> 'have a partner for marriage'

Sentence:

- (1) *Səkarəŋ ude bərume.*
now already have-house
'They have a house now.'

7.3.1.1.2 "Condition" word formation analogy

$$\text{WFA (15)} \quad \left[\begin{array}{c} +N \\ +\text{condition} \end{array} \right] \xrightarrow{\text{WFA}} \left[\begin{array}{c} +V \\ +\text{deriv.} \\ +\text{condition} \\ + \left(\begin{array}{c} +NM \\ +THM \end{array} \right) \end{array} \right]$$

WFA (15) states that for certain nouns which represent conditions there are corresponding derived intransitive verbs meaning 'to have or be in (condition)'.
A morphophonemic rule gives such derived verbs the suffix *-an* (see VMR (9)).

Examples:

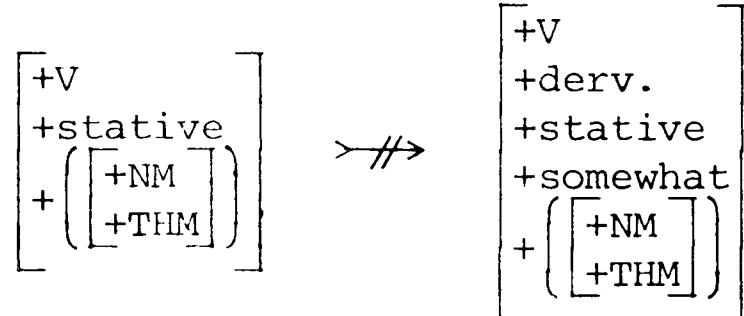
<i>coŋək</i> 'ear infection'	<i>coŋəkan</i> 'have an ear infection, deafness'
<i>kəriŋət</i> 'sweat'	<i>kəriŋətan</i> 'sweaty'

Sentences:

- (1) *Anak itu coŋəkan*
child that have-ear-infection
bəgini, əŋga? diobatin
like-that not give-medicine
(pas.)
kupiŋñe.
ear (def./pos.)
'That child has an ear condition like that and his ears haven't been treated!'
- (2) *Di sini gimane mao resik,*
here how will clean
ñəŋ abis kəriŋətan əŋga?
which after sweaty not
lap.
wipe
'How can it be clean here, where after people sweat, they don't wipe away the sweat.'

7.3.1.1.3 "Somewhat" word formation analogy

WFA (16)



WFA (16) states that for some stative verbs there are corresponding derived stative intransitive verbs with the meaning '(V)ish, somewhat (V)'.

Morphophonemic rules reduplicate such forms, and give them the optional prefix *kə-* and suffix *-an* (see VMR (2), (4), (9)).

Examples:

<i>mere</i>	<i>(kə)mere-merean</i>
'red'	'reddish'
<i>itəm</i>	<i>(kə)itəm-itəman</i>
'black'	'blackish'
<i>gile</i>	<i>(kə)gile-gilean</i>
'crazy'	'somewhat crazy'

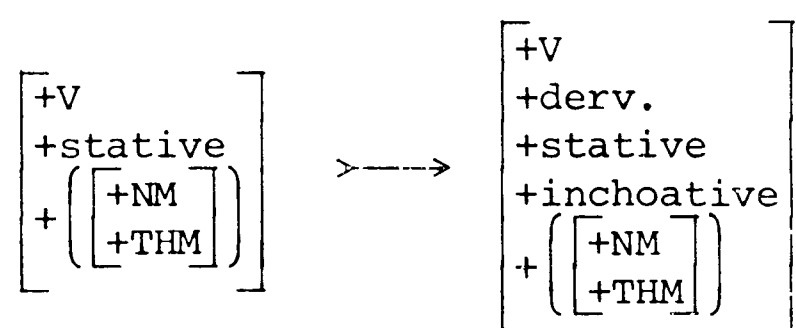
In context:

(1) *Ko?* *itəm-itəman* *tu* *rume.*
(SPart.) *blackish* that house
'That house is all dirty, black, spotted.'

(2) *Anak* *yaŋ* *satu,* *yaŋ* *səkarəŋ*
child which one which now
gile-gilean.
somewhat-crazy
'The other child, the one that is somewhat crazy.'

7.3.1.1.4 Inchoative word formation analogy

WFA (17)



WFA (17) states that for some stative intransitive verbs there are corresponding derived verbs with the meaning 'to become (V) or more (V)'.

Morphophonemic rules give such derived verbs the optional prefix *ŋ-* and suffix *-in* (see VMR (1), (3)).

Examples:

<i>kəcil</i>	<i>ŋəcilin/kəcilin</i>
'small'	'become smaller'
<i>bəsar</i>	<i>(ŋə)bəsarin</i>
'big'	'become bigger'
<i>bodo</i>	<i>(ŋə)bodoŋin</i>
'stupid'	'become more stupid'
<i>sədi</i>	<i>ŋədəiin/sədəiin</i>
'sad'	'become sadder'
<i>səpi</i>	<i>ŋəpiin/səpiin</i>
'lonely'	'become lonelier'
<i>ləməs</i>	<i>(ŋə)ləməsin</i>
'weak, soft'	'become weaker, softer'

Sentences:

(1) *Lu* *lagi* *ŋəcilin*
you presently *become-smaller*
ni.
now
'You are getting smaller.'

(2) *Masi* *mao* *bəsarin*
still want/will *become-bigger*
lagi.
more
'You will still get bigger.'

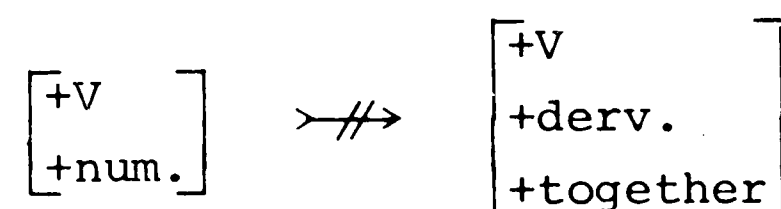
(3) *Otak* *lu* *bodoŋin*
brain you *become-more-stupid*
aje *si.*
only (SPart.)
'Your mind is getting more stupid.'

(4) *Səŋət-lu,* *ati* *gue*
when-remember-you heart I.
ŋədəiin *məlulu.*
become-sadder only
'When I think of you, my heart becomes sad.'

(5) *Badan* *lu* *ləməsin*
body you *become-soft, weak*
aje.
only
'Your body is getting weaker, lazier.'

7.3.1.1.5 "Together" word formation analogy

WFA (18)



WFA (18) states that for some numerative verbs there are corresponding derived verbs meaning 'to be (num.) together'.

A morphophonemic rule gives such derived

verbs the prefix *bər-* (see VMR (6)).

Examples:

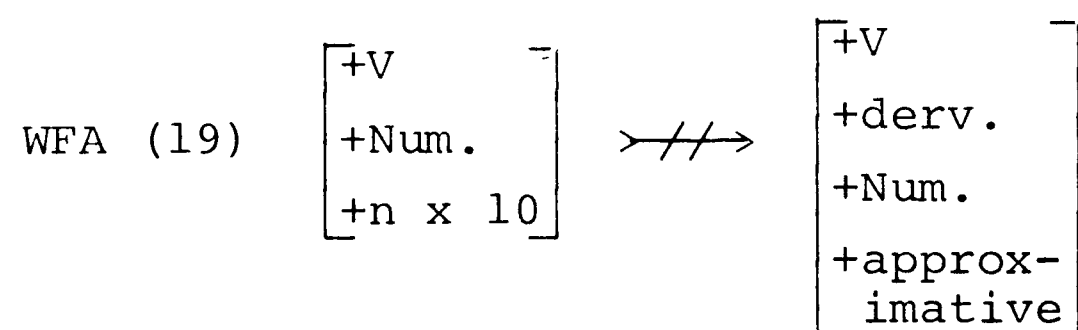
<i>satu</i> 'one'	<i>bəsatu</i> 'be one, together, united'
<i>due</i> 'two'	<i>bədue</i> 'be two together'
<i>tige</i> 'three'	<i>bətige</i> 'be three together'
<i>empat</i> 'four'	<i>bərəmpat</i> 'be four together'

Sentences:

(1) *Səkarəŋ romboŋan itu ude*
now group that already
bəsatu.
bə-one-together
'Now that group is united.'

(2) *Sodare bətige, saye*
(pron.) *bə-three-together, I*
səndiri.
alone
'You are three, I am alone.'

7.3.1.1.6 Approximative word formation analogy



WFA (19) states that for a numerative verb which is a multiple of ten there are corresponding derived verbs meaning 'to be about (num.)', 'to be in decade of (num.)'.

A morphophonemic rule gives such derived verbs the suffix *-an* (see VMR (9)).

Examples:

<i>due-pulu</i> 'twenty'	<i>due-puluan</i> 'to be in the twenties, around twenty'
<i>tige-pulu</i> 'thirty'	<i>tige-puluan</i> 'to be in the thirties, around thirty'

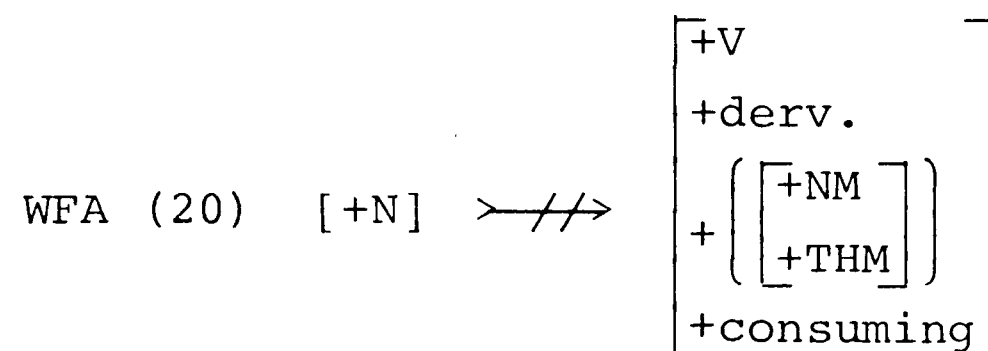
Sentences:

(1) *Umurñe due-puluan.*
age (def./pos.) *twenties,*
about-twenty
'She is in her twenties, about twenty.'

Further derived as adjective (See DR (11)):

(2) *Bole dibilaŋ ude*
may say (pas.) already
due-puluan taon.
around-twenty year
'It may be said, around twenty years.'

7.3.1.1.7 "Consuming" word formation analogy



WFA (20) states that for certain nouns there are corresponding derived intransitive verbs meaning 'to consume (N)'. This rule applies to nouns representing something edible or drinkable.

A morphophonemic rule gives such derived verbs the prefix *ŋ-* (see VMR (1)).

Examples:

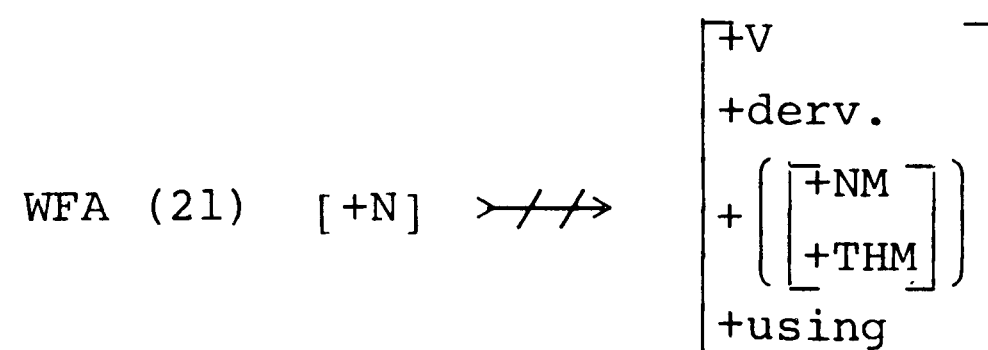
<i>sayur</i> 'vegetable'	<i>ñayur</i> 'to eat vegetables'
<i>kopi</i> 'coffee'	<i>ŋopi</i> 'to drink coffee'
<i>te</i> 'tea'	<i>ŋəte</i> 'to drink tea'

Sentences:

(1) *Lu ude ñayur*
you already eat-vegetable
belun?
not-yet
'Have you had vegetables yet or not?'

(2) *Lu abis ñañi, ŋəte.*
you after sing, drink-tea
'After singing, drink tea.'

7.3.1.1.8 "Using" word formation analogy



WFA (21) states that for certain nouns there are corresponding derived intransitive verbs meaning 'to use (N)'. It applies to nouns representing things which can be used as tools.

A morphophonemic rule gives such derived verbs the prefix η - (see VMR (1)).

Examples:

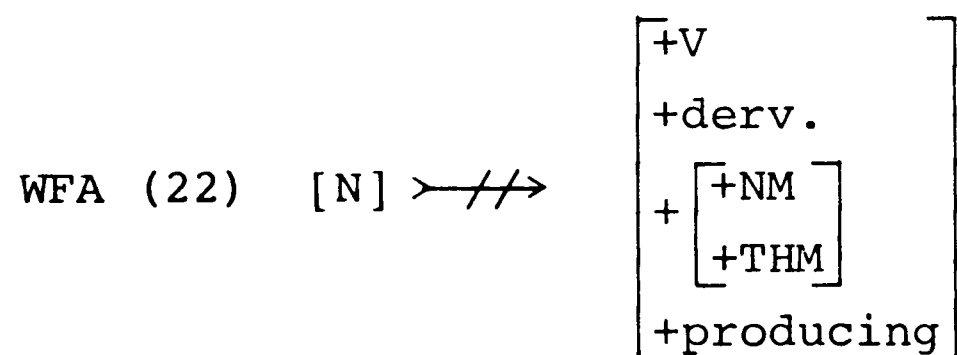
<i>sapu</i>	<i>ñapu</i>
'broom'	'sweep'
<i>pacul</i>	<i>macul</i>
'hoe'	'hoe'

Sentences:

- (1) *E ude pagi, lu*
(intro.) already morning you
mao macul əŋga??
want hoe not
'It is already morning, do you want to hoe or not?'

- (2) *Lagi ñapu mpo?*
presently sweep (voc.)
'I am sweeping.'

7.3.1.1.9 "Producing" word formation analogy



WFA (22) states that for certain nouns there are corresponding derived intransitive verbs meaning 'to produce (N)'. A morphophonemic rule gives such derived verbs the prefix *bər*- (see VMR (6)).

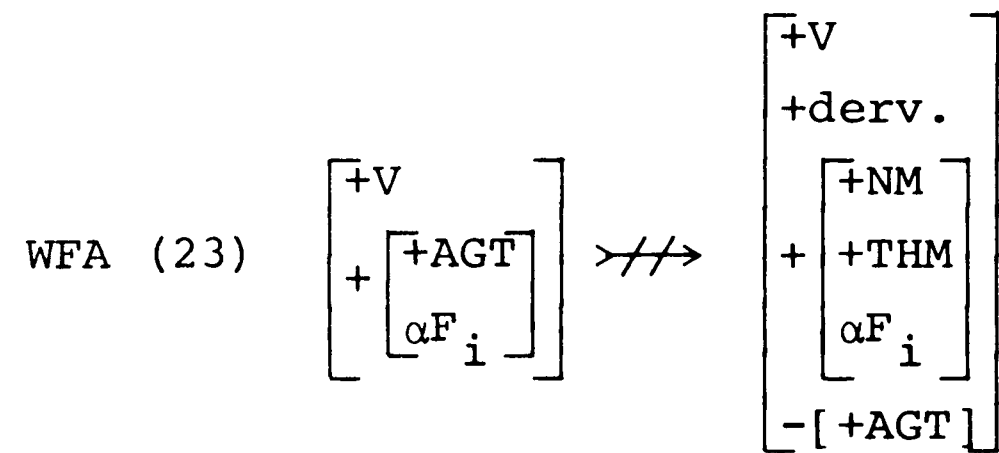
Examples:

<i>təlor</i>	<i>bətəlor</i>
'egg'	'to lay an egg'
<i>anak</i>	<i>bəranak</i>
'child'	'to bear a child'

Sentences:

- (1) *O eman ude bətəlor.*
oh really already lay-egg
'Oh, it has laid an egg.'
- (2) *Siape yaŋ bəranak?*
who which give-birth
'Who is having a baby?'

7.3.1.1.10 Intransitivizing word formation analogy



(F_i refers to semantic features.)

WFA (23) states that for certain agentive verbs there are corresponding derived intransitive verbs. The subject of the derived verb has the same set of permitted semantic features as the agentive actant of the source verb.

A morphophonemic rule gives such derived verbs the prefix *bər*- (see VMR (6)).

Examples:

<i>aŋkat</i>	<i>bəraŋkat</i>
'lift'	'depart, leave (intrans.)'
<i>pikir</i>	<i>bəpikir</i>
'think'	'think (intrans.)'

Derived:

<i>iasin</i>	<i>bərias</i>
'decorate, dress, make up'	'dress, make up (intrans.)'
<i>dandanin</i>	<i>bədandan</i>
'decorate, dress, make up'	'dress, make up (intrans.)'

Sentences:

Transitive source verb:

- (1) *Ni baraŋ berat bənər.*
this thing heavy very
əŋga? bise diaŋkat səndiri.
not can lift alone
'This is very heavy. I can't lift it myself.'

Intransitive derived verb:

- (2) *Tu pade mao bəraŋkat*
that all will leave
kə mane?
to where
'Where are you all going?'

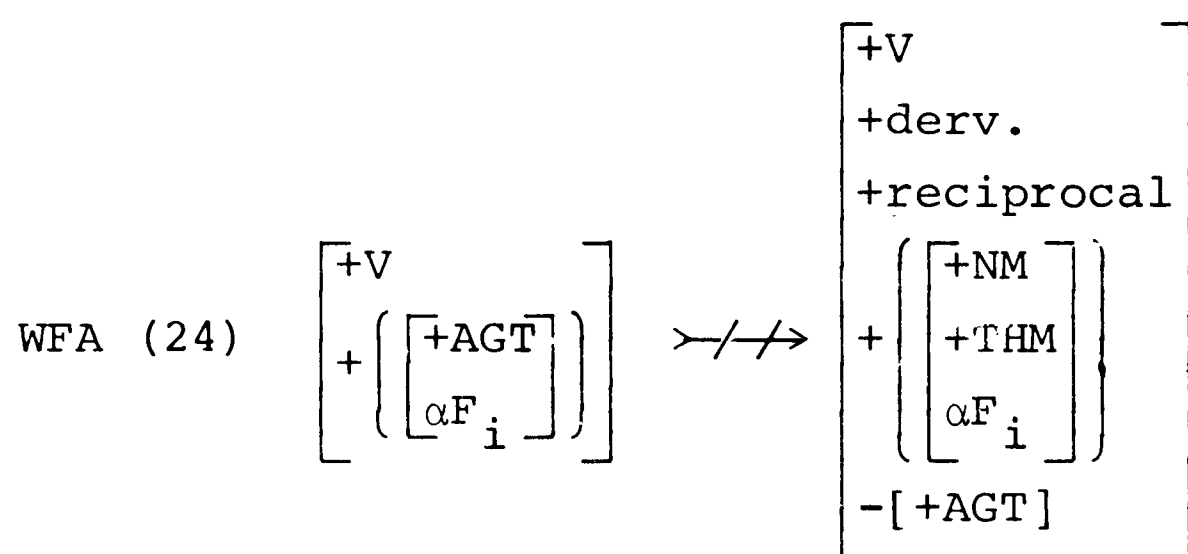
Transitive source verb:

- (3) *Lagi iasin rumeñe*
 presently decorate house
 (def./pos.)
bakal tarime tamu.
 for receive guest
 'She is *decorating, fixing up*
 the house to receive guests.'

Intransitive derived verb:

- (4) *Die lagi barias.*
 she presently dress, make up
 'She is getting dressed, made
 up.'

7.3.1.1.11 Reciprocal word formation analogy



WFA (24) states that for certain agentive verbs there are corresponding derived intransitive verbs with the meaning 'to mutually (V)'. The subject of the derived verb has the same set of permitted semantic features as the agentive actant of the source verb.

The subject of a reciprocal verb which does not have a comitative actant is interpreted as plural.

There are some verbs which appear to be derived by this rule for which there are no source verbs in the lexicon.

A morphophonemic rule gives such derived verbs the prefix *bər-* (see VMR (6)).

Examples:

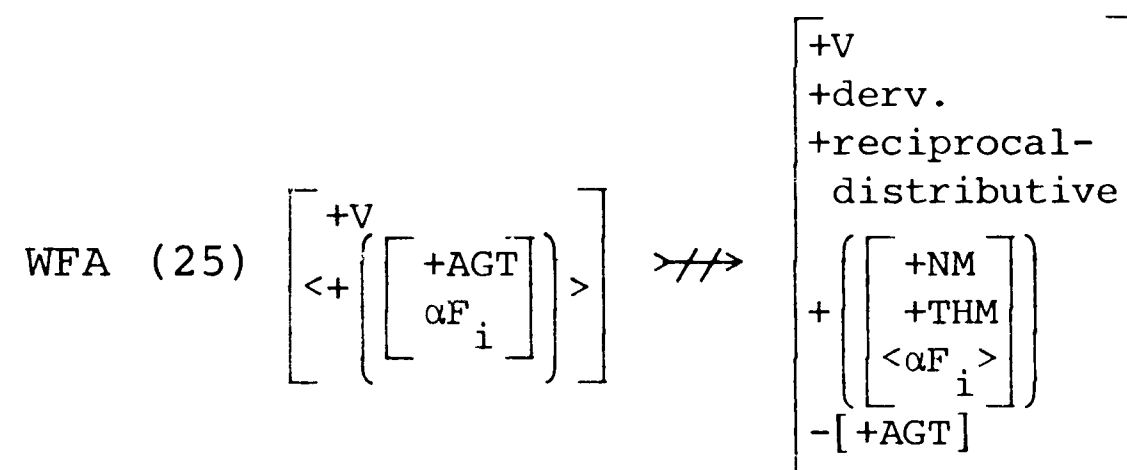
<i>pukul</i>	<i>bəpukul</i>
'hit'	'hit (recip.)'
<i>cium</i>	<i>bəcium</i>
'kiss'	'kiss (recip.)'
	<i>bərantəm</i>
	'fight (recip.)'
	<i>bə(ŋ)kəlai</i>
	'fight (recip.)'
	<i>bəgaul</i>
	'socialize (recip.)'

Sentences:

- (1) *Jadi tuan ude tao*
 so (pron.) already know
ñan saye səriŋ bəgaul
 that I often socialize
 (recip.)
ame anakñe Neli.
 (prep.) child (def./pos.) Neli
 'So he knows that I am seeing his
 daughter Neli.'

- (2) *A, lu pikir gue əŋga?*
 ah you think I not
bərani bəŋkəlai.
 brave, dare fight (recip.)
 'Ah, you think I don't dare
 fight with him.'

7.3.1.1.12 Reciprocal-distributive word formation analogy



WFA (25) states that for certain verbs there are corresponding derived intransitive verbs with the meaning 'to mutually do/be (V) repetitively or for an extended period of time'.

When the source verb is transitive, the subject of the derived verb has the same set of permitted semantic features as the agentive actant of the source verb. The subject of a reciprocal verb which does not have a comitative actant is interpreted as plural.

Morphophonemic rules give the form *maen* (from *maen* 'play') optionally before derived distributive reciprocal verbs. Such derived verbs are reduplicated and given the suffix *-an* (see VMR (2), (3), (9)).

Examples:

<i>cium</i>	<i>(maen)-cium-ciuman</i>
'kiss'	'keep kissing (recip.)'
<i>tubruk</i>	<i>(maen)-tubruk-tubrukan</i>
'collide'	'keep colliding (recip.)'

<i>tarik</i> 'pull'	(<i>maen</i>)- <i>tarik-tarikan</i> 'keep pulling (recip.)'
<i>tulun</i> 'help'	(<i>maen</i>)- <i>tulun-tulungan</i> 'keep helping (recip.)'
<i>pukul</i> 'hit'	(<i>maen</i>)- <i>pukul-pukulan</i> 'keep hitting (recip.)'
<i>bəñci</i> 'hate'	(<i>maen</i>)- <i>bəñci-bəñcian</i> 'hate (recip.)'
<i>liat</i> 'see'	(<i>maen</i>)- <i>liat-liatan</i> 'keep looking at (recip.)'
<i>cari</i> 'look for'	(<i>maen</i>)- <i>cari-carian</i> 'look for (recip.), play hide and seek'
<i>jujur</i> 'honest'	(<i>maen</i>)- <i>jujur-jujuran</i> 'be honest (recip.)'
<i>asik</i> 'absorbed'	(<i>maen</i>)- <i>asik-asikan</i> 'be absorbed (recip.)'
<i>baik</i> 'good'	(<i>maen</i>)- <i>baik-baekan</i> 'be good to (recip.)'
<i>mare</i> 'angry'	(<i>maen</i>)- <i>mare-maraan</i> 'be angry (recip.)'

Sentences:

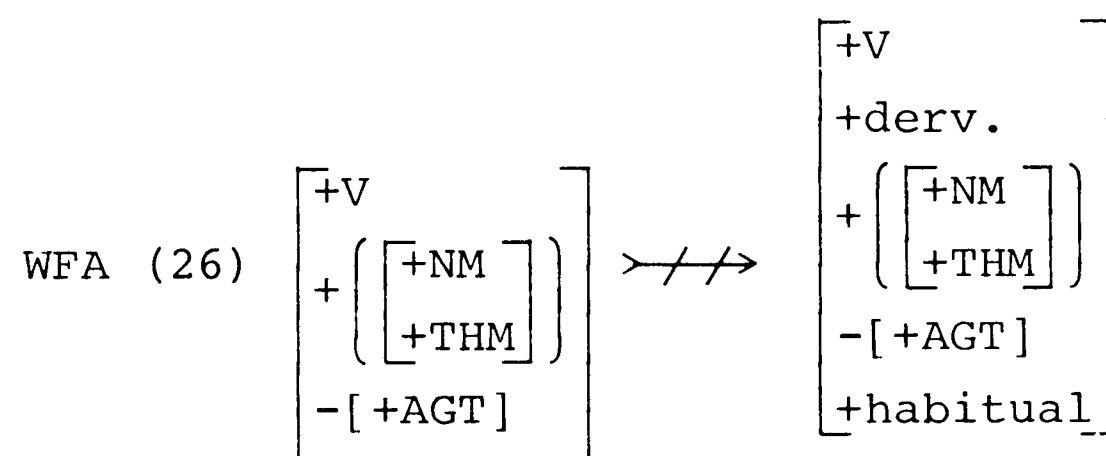
- (1) *Tadi maen-mara-maraan. Səkarang*
before mutually-angry now
die ude maen-baik-baekan
he already good-to (recip.)
tu.
that
'Before they were always angry at
each other. Now they are friendly
to each other again.'
- (2) *O, lagi ciun-ciuman.*
oh presently keep-kissing (recip.)
'Oh, they are kissing.'
- (3) *E, tu anak kənape*
(intro.) that child why
de tubruk-tubrukan
(SPart.) keep colliding (recip.)
bəgitu.
like-that
'Why do those children keep
running into each other like
that?'
- (4) *Lu maen-jujur-jujuran ame*
you be-honest (recip.) with
gue.
me
'You be honest with me in return.'
- (5) *Ko? lu tarik, saye tarik,*
(SPart.) you pull, I pull
ko?
(SPart.) maen-tarik-tarikan.
keep-pulling (recip.)

'You are pulling, I am pulling,
we are pulling against each
other.'

- (6) *Tulunin die, kalo ude,*
help he, if/when already,
baru die tulun lu.
just-completed he help you
Itu nameñe
that name (def./pos.)
maen-tulun-tulungan.
help (recip.)

'You help him and when you finish,
he helps you. That is what is
called helping each other.'

7.3.1.1.13 Habitual word formation analogy



WFA (26) states that for certain in-
transitive verbs there are corresponding de-
rived intransitive habitual verbs meaning 'to
(V) habitually'.

Morphophonemic rules reduplicate such
derived verbs and give them the suffix *-an*.
A few such verbs must be individually speci-
fied as exceptions to the reduplicating
morphophonemic rule (see VMR (2), (9)).

Examples:

<i>tidur</i> 'sleep'	<i>tidur-tiduran</i> 'sleep all the time, lie around'
<i>enak</i> 'pleasant, enjoy self'	<i>enak-enakan</i> 'always just enjoy yourself'

Derived:

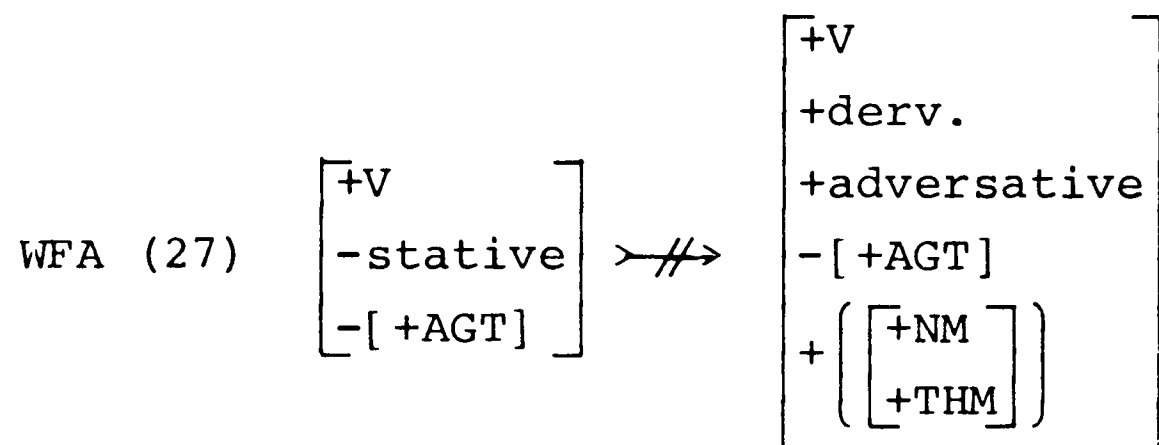
<i>bədue</i> 'to be two together'	<i>bəduaan</i> 'to be two always to- gether (usually refers to romantic link or marriage)'
---	--

Sentences:

- (1) *Lu enak-enakan.*
you just-enjoy-yourself

- (1) 'You just enjoy yourself.'
- (2) *o səkarəŋ die ude*
oh now he already
bəduaən de.
two-always-together (SPart.)
'Oh now they are "going together".'

7.3.1.1.14 Adversative noninstrumental verb word formation analogy



WFA (27) states that for certain nonstative nonagentive verbs, there are corresponding derived intransitive verbs meaning 'to suffer, undergo (V)'. The action of the derived verb is usually adversative, unintentional, and unexpected.

If the source verb is an atmospheric verb, the subject is a new addition to its case frame, as the atmospheric verb is subjectless. If the source verb is intransitive its case frame is unchanged.

Morphophonemic rules give such derived verbs the prefix *kə-* and suffix *-an* (see VMR (4), (9)).

Examples:

Atmospheric:

<i>ujan</i>	<i>kəujanən</i>
'rain'	'get caught in the rain'
<i>panas</i>	<i>kəpanasən</i>
'hot'	'get hot, suffer heat'
<i>diŋin</i>	<i>kədiŋinən</i>
'cold'	'get cold, suffer cold'

Intransitive:

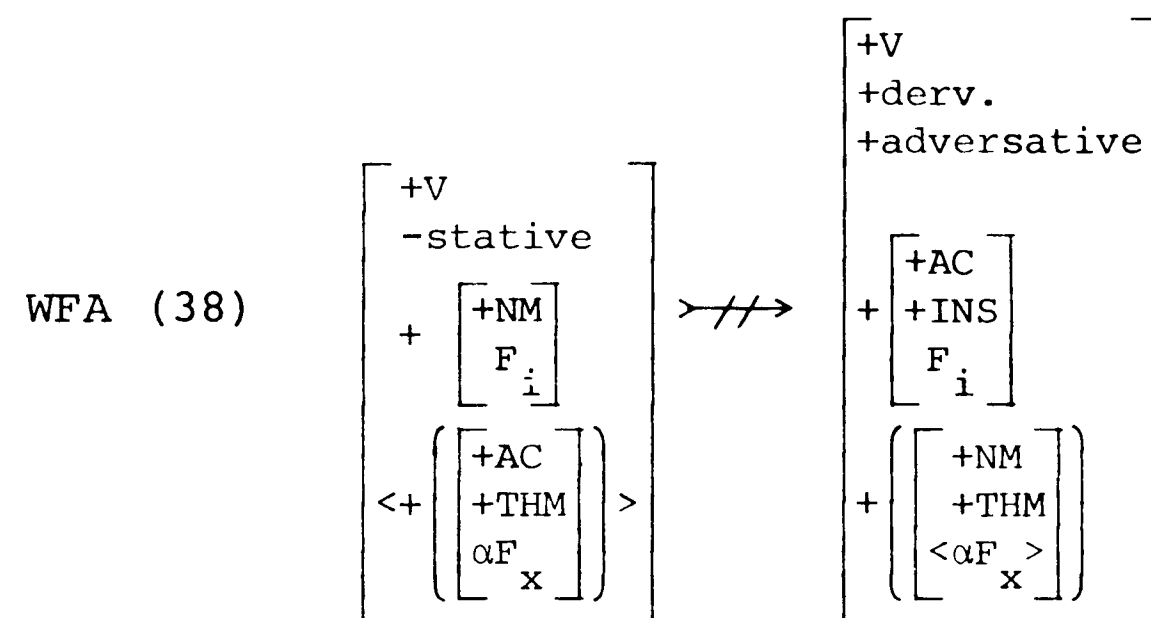
<i>tidur</i>	<i>kətidurən</i>
'sleep'	'fall asleep unintentionally'

Sentences:

- (1) *Ua?* *kəujanən.*
(pron.) *get-caught-in-rain*
'He was caught in the rain.'

- (2) *Emaŋ lu ude kədiŋinən*
really you already *get-cold*
bəgini.
like-this
'You really got cold.'
- (3) *Ni anak ude kətidurən*
this child already *fall-asleep*
di sini.
at here
'The child fell asleep here.'

7.3.1.1.15 Adversative instrumental word formation analogy



WFA (38) states that for certain nonstative nonatmospheric verbs there are corresponding derived verbs meaning 'to suffer; undergo (V)' which allow accusative instrumental actants. The action of the derived verb is usually adversative, unintentional, and unexpected. The instrumental actant of the derived verb has the same permitted semantic features as the subject of the source verb. If the source verb has an accusative theme actant, the subject of the derived verb has the same permitted set of semantic features as the accusative theme actant of the source verb. If the source verb does not have an accusative theme actant, the derived verb has a subject whose features are not predictable from those of the source verb.

Redundancy rules specify that if the instrumental actant of the derived verb is not realized in the accusative case, it may be realized in the comitative case form (see Appendix B). Morphophonemic rules give these derived verbs the prefix *kə-* and suffix *-an*. A few terms are individually specified as not taking the suffix *-an* or taking it optionally (see VMR (4), (9)).

Contradictive: 'so (V) as one is, so/as much as one does (V)'.

For transitive verbs, WFA (29) is intransitivizing. The subject of the derived verb has the same set of permitted semantic features as the subject of the source verb. Semantically this seems to mean that while the source verb involves an actor and an object, in the derived verb the action of the verb is not applied to any clear cut object. It has just done as well or as much as possible under the circumstances.

Morphophonemic rules reduplicate such derived verbs, and give them the prefix *sə-* and suffix *-ñe* (see VMR (2), (5), (8)). A few items must be specified as not allowing reduplication, or allowing it optionally. Examples:

"Possibilitive":

<i>gəde</i> 'big'	<i>səgəde-gədeñe</i> 'be as big as possible'
<i>jəlas</i> 'clear'	<i>səjəlas-jəlasñe</i> 'be as clear as possible'
<i>aŋkat</i> 'lift'	<i>səaŋkat-aŋkatñe</i> 'lift as much as possible'
<i>bantu</i> 'help'	<i>səbantu-bantuñe</i> 'help as much as possible'
<i>goreŋ</i> 'fry'	<i>səgoreŋ-(goreŋ)ñe</i> 'fry as much as possible'
<i>tao</i> 'know'	<i>sətao-taoñe</i> 'as much as one knows'
<i>ade</i> 'have, be'	<i>səade-adeñe</i> 'do with what there is, do with what one has'

Sentences:

- (1) *Saye manciŋ, biar dapət yaŋ*
I fish let get which
səgəde-gədeñe.
as-big-as-possible
'When I fish, may I get one as big as possible.'
- (2) *Səjəlas-jəlasñe de,*
as-clear-as-possible (SPart.)
asal mao bilaŋin.
when want speak
'Be as clear as possible when you want to speak.'

- (3) *Səbantu-bantuñe die*
help-as-much-as-possible she
de, die lagi
(SPart.) *she presently*
kuraŋ sehat.
not-enough healthy
'She helps as she can. She is not well.'

- (4) *Səaŋkat-aŋkatñe aje*
lift-as-much-as-possible only
de, sədapətñe.
(SPart.) *as-much-as-able*
'Just lift what you can, as much as you are able.'

- (5) *Ye səgoreŋñe*
(intro.) *fry-as-much-as-possible*
aje.
only
'Just fry as much as you can, as much as you are able.'

- (6) *Sətaoñe saye, die mao*
as-far-as-know I he will
datəŋ.
come
'As far as I know, he is coming.'

- (7) *Səkaraŋ si die*
now (SPart.) she
səade-adeñe aje.
do-with-what-there-is, only
do-with-what-she-has
'Now she just does with what she has.'

"Careless"

<i>belok</i> 'turn'	<i>səbelok-belokñe</i> 'to turn aimlessly, every-which-way'
<i>deŋər</i> 'hear'	<i>sədeŋər-deŋərñe</i> 'to listen carelessly'
<i>pinjəm</i> 'borrow'	<i>səpinjəm-pinjəmñe</i> 'to borrow from anyone'
<i>liat</i> 'see'	<i>səliat-liatñe</i> 'to see in passing'
<i>pukul</i> 'hit'	<i>səpukul-(pukul)ñe</i> 'to hit randomly'
<i>mao</i> 'want'	<i>səmao-(mao)ñe</i> 'just do what one wants'
<i>enak</i> 'pleasant, enjoying self'	<i>səenakñe</i> 'just do what pleases one'

Sentences:

(8) *Lu səlīat-liatñe aje, bañak*
 you see-carelessly only many
oraŋ yaŋ same.
 people which same
 'You just saw her in passing.
 Many people look the same.'

(9) *Gue si səpukulñe*
 I (SPart.) hit-carelessly
aje ke?, kəna əŋga?
 only (SPart.) hit not
ke?.
 (SPart.)
 'I just hit randomly, I don't
 care whether I get anything.'

(10) *Lu səmaoñe aje.*
 you want-carelessly only
 'You just do as you like.'

(11) *Lu suke sədeŋər-deŋərñe*
 you habitually listen-carelessly
aje de, kalo bəner die
 only (SPart.) if true he
ŋomoŋ, kalo əŋga?, sale
 speak if not wrong
de nanti.
 (SPart.) later
 'You usually just listen carelessly.
 If he really said that ... if not,
 we'll be wrong.'

(12) *Ye səpinjem-pinjemñe*
 (intro.) borrow-carelessly
ame oraŋ.
 (prep.) person
 'You borrow from anyone.'

"Contradictive":

mare səmare-mareñe
 'angry' 'so angry, as angry
 as one is'

diəm sədiəm-diəmñe
 'quiet' 'so quiet as one is'

jəlek səjəlek-jəlekñe
 'ugly' 'so ugly, as ugly as
 (someone or something)
 is'

cəpət səcəpət-cəpətñe
 'fast' 'so fast, as fast as
 (someone or something)
 is'

bodo səbodo-bodoñe
 'stupid' 'so stupid, as stupid
 as one is'

tue sətue-tueñe
 'old' 'so old, as old as
 one is'

longar səlongar-longarñe
 'loose' 'so loose, as loose
 as (something) is'

boto səboto-botoñe
 'pretty' 'so pretty, as pretty
 as one is'

ribut səribut-ributñe
 'make noise,
 argue' 'as noisy as one is,
 as much as one argues'

Sentences:

(13) *Ude səmare-mareñe ame*
 already as-angry (prep.)
tətange, əŋga bole bəgitu.
 neighbor not allow like-that
 'As angry as you are at the
 neighbors, you may not do that.'

(14) *Sədiəm-diəmñe anak itu, biar*
 as-quiet child that let
dilaraŋ ame
 forbidden (pas.) (prep.)
oraŋ-tue, pəgi juge.
 parents go also
 'As quiet as the child is, when
 he is forbidden by his parents,
 he still goes out.'

(15) *Səjəlek-jəlekñe juge kan*
 as-ugly also (SPart.)
masi bagus juge.
 still good also
 'As ugly as it is, it still
 isn't bad.'

(16) *Səcəpət-cəpətñe, mao cəpət*
 as-fast want fast
pəgimane, əŋga? ade kəndaraan.
 how not have vehicle
 'As fast as we are, how can we
 be fast, with no car.'

(17) *Səlongar-longarñe pake juge*
 as-loose wear also
de.
 (SPart.)
 'As loose as it is, wear it
 anyway.'

(18) *Səbodo-bodoñe die, masi*
 as-stupid he still
kəna diajar,
 suffer/contact teach (pas.)
tu anak.
 that child
 'As stupid as he is, the child
 can still be taught.'

(19) *Sətue-tueñe die, masi dapət*
 as-old he still can

kərje.
work
'As old as he is, he still
can work.'

- (20) *Səboto-botoñe die, ade*
as-pretty she exist
lagi yaŋ botoan.
more which prettier
'As pretty as she is, there
are others prettier.'

- (21) *Səribut-ributñe ame*
as-much-argue (prep.)
oraŋ satu rume, tapi nanti
person one house but later
baek lagi.
fine again
'As much as you argue with
people in the same house, in
the end you'll make up.'

7.3.1.2 Transitive verbs

7.3.1.2.0 Introduction

The word formation analogies in this section derive agentive verbs. Redundancy rules specify these verbs as active. A passive verb may be derived from any active verb by DR (8), (9) or (10). Therefore examples of sentences with verbs which are further derived as passive are also given in this section.

A morphophonemic rule gives all active agentive verbs except imperatives the optional prefix *ŋ-*. Rather than specify optional forms in each case, examples are listed without the optional prefix. In the sentence examples provided, which are taken from natural speech, active verbs sometimes have the prefix *ŋ-* and sometimes do not.

A morphophonemic rule gives all derived agentive verbs the suffix *-in* (see VMR (3)). This will not be restated in each section: examples are listed with this obligatory suffix.

7.3.1.2.1 "Removing" word formation analogy

WFA (30) [+N] \rightarrow $\left[\begin{array}{l} +V \\ +\text{deriv.} \\ +([+AGT]) \\ +\text{removing} \end{array} \right]$

WFA (30) states that for certain nouns there are corresponding derived agentive verbs meaning 'to take (N) out of something'. These verbs are derived from nouns which represent items which are undesirable in some context.

Examples:

<i>bulu</i> 'feather'	<i>buluin</i> 'to defeather'
<i>kulit</i> 'skin'	<i>kulitin</i> 'to skin'
<i>kutu</i> 'louse'	<i>kutuin</i> 'to delouse'
<i>jangut</i> 'beard'	<i>jangutin</i> 'to pull out beard hairs'
<i>uban</i> 'gray hair'	<i>ubanin</i> 'pull out gray hairs from'

Sentences:

- (1) *Mari lu. Gue kutuin.*
come-here you I delouse
'Come here, I'll delouse you.'

- (2) *O lu lagi*
oh you presently
ubanin kəpale.
pull-out-gray-hairs-from head
'Oh you are pulling out gray
hairs.'

7.3.1.2.2 "Providing" word formation analogy

WFA (31) [+N] \rightarrow $\left[\begin{array}{l} +V \\ +\text{deriv.} \\ +([+AGT]) \\ +\text{providing} \end{array} \right]$

WFA (31) states that for certain nouns there are corresponding derived agentive verbs meaning 'to provide something or someone with (V)'. These verbs are derived from nouns which represent nouns which are desirable in some context.

Examples:

<i>sayur</i> 'vegetables'	<i>sayurin</i> 'provide vegetables'
<i>kopi</i> 'coffee'	<i>kopin</i> 'serve coffee to'
<i>te</i> 'tea'	<i>tein</i> 'serve tea to'

<i>air</i> 'water'	<i>airin</i> 'to water'
<i>rume</i> 'house'	<i>rumein</i> 'to house'
<i>atəp</i> 'roof'	<i>atəpin</i> 'to roof'
<i>tajin</i> 'starch'	<i>tajinin</i> 'to starch'
<i>rawat</i> 'care'	<i>rawatin</i> 'care for, take care of'
<i>obat</i> 'medicine'	<i>obatin</i> 'treat, give medicine to'

Examples:

<i>kantəŋ</i> 'pocket'	<i>kantəŋin</i> 'to pocket'
<i>kotak</i> 'box'	<i>kotakin</i> 'to put in a box'
<i>karuŋ</i> 'bag'	<i>karuŋin</i> 'to put in a bag'
<i>dindiŋ</i> 'wall'	<i>dindiŋin</i> 'to wall (in)'
<i>kuruŋ</i> 'cage'	<i>kuruŋin</i> 'to cage'
<i>botol</i> 'bottle'	<i>botolin</i> 'to put in a bottle'
<i>kəranjaŋ</i> 'basket'	<i>kəranjaŋin</i> 'to put in a basket'

Sentences:

- (1) *Tuluŋin de baŋ,*
help (SPart.) (voc.)
atəpin rume saye.
roof house I
'Help roof my house.'

Passive:

- (2) *Ni anak makan, kalo*
this child eat if
əŋga? bise disayurin
not can provide-vegetables
əŋga? bise makan.
not can eat (pas.)
'When this child eats, if he
isn't given vegetables, he
can't eat.'

- (3) *Ude dikopiin*
already serve-coffee (pas.)
bəlun?
not-yet
'Have they been served coffee
yet or not?'

7.3.1.2.3 "Putting" word formation analogy

WFA (34)	[+N]	\rightarrow/\leftarrow	<table border="1"> <tr><td>+V</td></tr> <tr><td>+derv.</td></tr> <tr><td>+([+AGT])</td></tr> <tr><td>+putting</td></tr> </table>	+V	+derv.	+([+AGT])	+putting
+V							
+derv.							
+([+AGT])							
+putting							

WFA (34) states that for certain nouns there are corresponding derived verbs meaning 'to put something in (N)'. These verbs are derived from nouns which represent something which can act as a container or enclosure.

Sentences:

- (1) *Kuruŋin tu buruŋ.*
cage that bird
'Cage that bird.'

Passive:

- (2) *SiArun kalo die datəŋ bəarti*
Arun if he come mean
jiweŋe gue
life (def./pos.) I
kantəŋin.
pocket (pas.)
'If Arun comes, I'll pocket
his life.'

7.3.1.2.4 "Using" word formation analogy

WFA (32)	[+N]	\rightarrow/\leftarrow	<table border="1"> <tr><td>+V</td></tr> <tr><td>+derv.</td></tr> <tr><td>+([+AGT])</td></tr> <tr><td>+using</td></tr> </table>	+V	+derv.	+([+AGT])	+using
+V							
+derv.							
+([+AGT])							
+using							

WFA (32) states that for certain nouns there are corresponding derived agentive verbs meaning 'to use (N) on'. These verbs are derived from nouns which represent tools.

Examples:

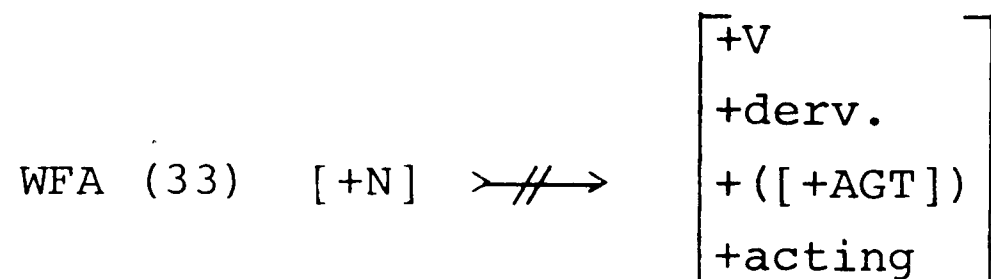
<i>pacul</i> 'hoe'	<i>paculin</i> 'to hoe'
<i>sapu</i> 'broom'	<i>sapuin</i> 'to sweep'

Sentences:

- (1) *Tu lagi maculin di*
that presently hoe at
bəlakaŋ de.
back (SPart.)
'He's hoeing at the back.'

- (2) *Tu bañak lagi nasi,*
that much more rice,
sapuin!
sweep
'There is much more rice,
sweep it!'

7.3.1.2.5 "Acting" word formation analogy



WFA (33) states that for certain nouns there are corresponding derived agentive verbs meaning 'to act like (N) to'.

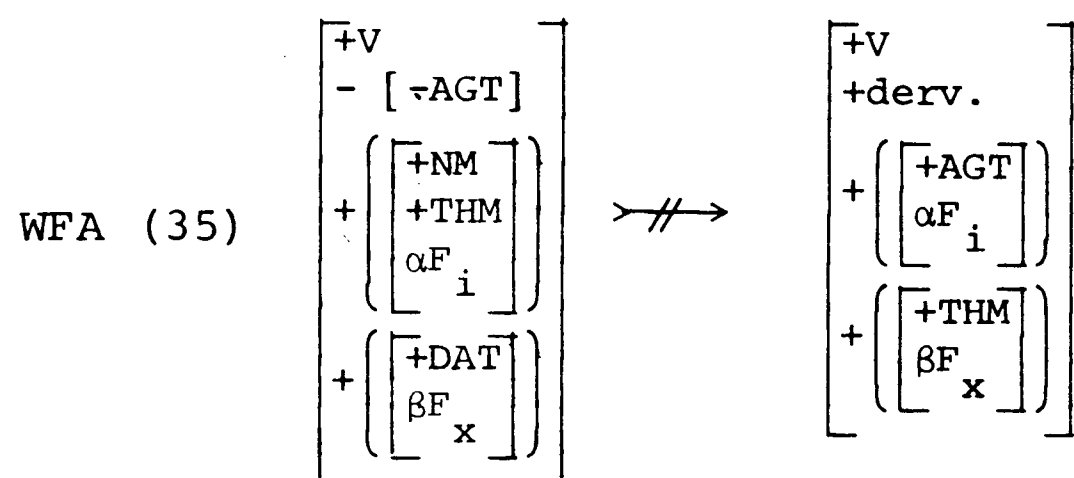
Examples:

<i>buntut</i> 'tail'	<i>buntutin</i> 'follow'
<i>kəpale</i> 'head'	<i>kəpalain</i> 'lead'
<i>dukun</i> 'traditional doctor'	<i>dukunin</i> 'to act as <i>dukun</i> to'
<i>bidan</i> 'midwife'	<i>bidanin</i> 'to act as midwife to'
<i>musu</i> 'enemy'	<i>musuin</i> 'oppose'
<i>guru</i> 'teacher'	<i>guruin</i> 'to act as teacher to'

Sentences:

- (1) *Yan nepalain siape ni?*
which head, lead who
'Who is the head here?'
- (2) *Janan suke buntutin*
don't habitually follow
gue.
I
'Don't always follow me.'

7.3.1.2.6 Transitivity word formation analogy



WFA (35) states that given an intransitive verb which allows a dative actant in its case frame there is a corresponding agentive verb. The derived agentive verb has an agentive actant which has the same permitted set of semantic features as the theme actant of the source verb, and a theme actant which has the same set of permitted features as the dative actant of the source verb. This reflects a change in the meaning of the derived verb. The derived verb implies an action rather than just an emotion, such as, for example *marain* 'to get angry at' implying at least a verbal act, such as scolding, and *ormatin* 'to honor' implying certain actions.

Examples:

<i>mare</i> 'angry'	<i>marain</i> 'get angry at, scold'
<i>bəñci</i> 'hate'	<i>bəñciin</i> 'hate'
<i>ormat</i> 'respect, honor'	<i>ormatin</i> 'respect, honor'
<i>bohoḡ</i> 'lie, be false'	<i>bohoḡin</i> 'lie to, fool, deceive'

Sentences:

Source verbs:

- (1) *Die mare ame gue.*
he angry (prep.) I
'I am angry at/with him.'
- (2) *Die bəñci ame gue.*
he hate (prep.) I
'I hate him.'

Derived verbs:

Active:

- (3) *Die marain gue.*
he get-angry-at, scold I
'He got angry at, scolded me.'

Passive:

- (4) *Gue dimarain (ame) die.*
I angry (pas.) (prep.) he
'I was scolded by him.'

Active:

- (5) *Die bəñciin gue.*
he hate I

(5) 'I hate him.'

Passive:

(6) *Gue dibəñciin (ame) die.*
 I hate (pas.) (prep.) he
 'I am hated by him.'

Source verbs:

(7) *Gue ormat ame die.*
 I respect (prep.) he
 'I respect him.'

(8) *Lu jañan bohon.*
 you don't lie
 'Don't lie.'

Derived verbs:

Active:

(9) *Gue ormatin die.*
 I respect he
 'I respect him.'

Passive:

(10) *Die diormatin (ame)*
 he respect (pas.) (prep.)
saye.
 I
 'He is respected by me.'

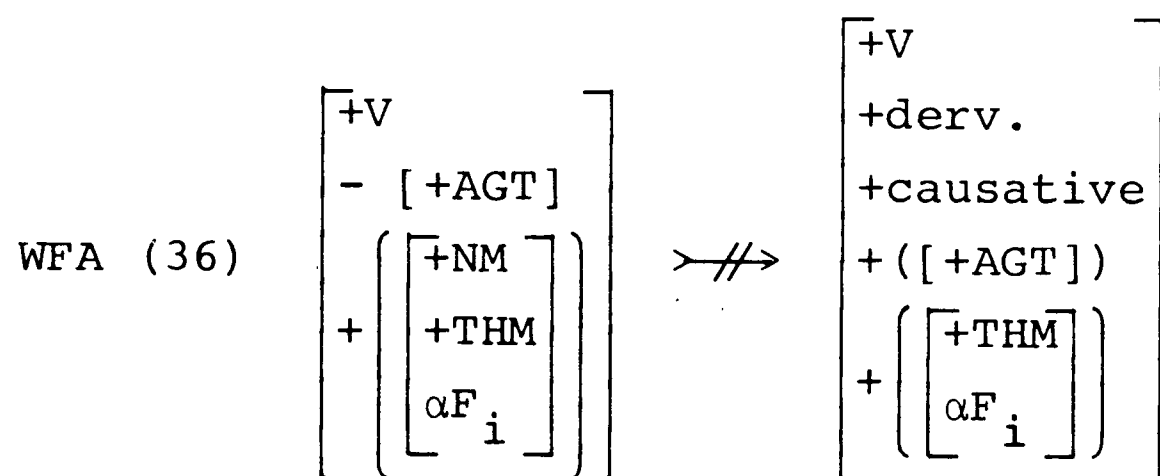
Active:

(11) *Lu bohonin siape, lu?*
 you lie-to, fool who you
 'Who did you fool?'

Passive:

(12) *Siape yañ dibohonin?*
 who which lied-to, fooled
 'Who was fooled?'

7.3.1.2.7 Causative word formation analogy



WFA (36) states that for certain intransitive verbs there are corresponding derived agentive verbs meaning 'to cause the action

or state of the verb to come about'. The derived verb has an agentive actant with semantic features not predictable from those of the subject of the source verb, and a theme actant which has the same permitted set of semantic features as the subject of the source verb.

Examples:

bañun 'wake up (self)' *bañunin* 'wake up (someone)'

turun 'go down' *turunin* 'hand down, move down'

dandan 'dress, make-up (self)' *dandanin* 'dress, make-up (someone), decorate (something)'

sampe 'arrive' *sampein* 'take, bring'

mandi 'bathe (self)' *mandiin* 'bathe (someone)'

datəŋ 'come' *datəŋin* 'make come, bring'

kawin 'married' *kawinin* 'marry off, arrange a marriage'

kəcil 'small' *kəcilin* 'make small'

beres 'neat, orderly, arranged' *beresin* 'arrange, order'

səlamət 'safe' *səlamətin* 'save'

rapi 'neat' *rapiin* 'clean up, neaten'

jəlas 'clear' *jəlasin* 'make clear, clarify'

mati 'dead' *matin* 'kill'

Sentences:

(1) *Babe yañ kawinin ame*
 father which marry-off (prep.)

oraŋ kampon.
 person kampong

'It was father who married me to a person from this kampong.'

(2) *Beresin waruŋ, lu.*
 clean-up shop you

'Clean up the shop.'

Passive:

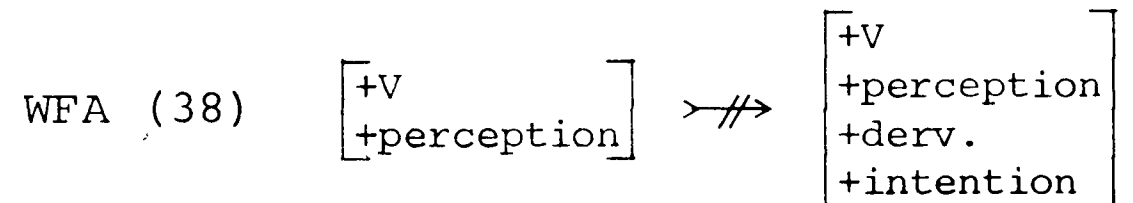
(3) *Aye jañan dimatin baŋ.*
 I don't kill (pas.) (voc.)

- (3) 'Don't kill me.'
- (4) *Untuḡ masi dapət disəlamətin*
 lucky still can save (pas.)
same ni kaen.
 with this cloth
 'It was lucky I could be saved
 by this cloth.'

'What is wrong with that child,
 he keeps crying, is someone
 hitting him or what?'

7.3.1.2.9 Intention word formation analogy

- (5) *Ini ilmu yan*
 this knowledge which
diturunin ame diri
hand-down (pas.) (prep.) self
saye.
 I
 'This is the knowledge which
 was handed down by me.'

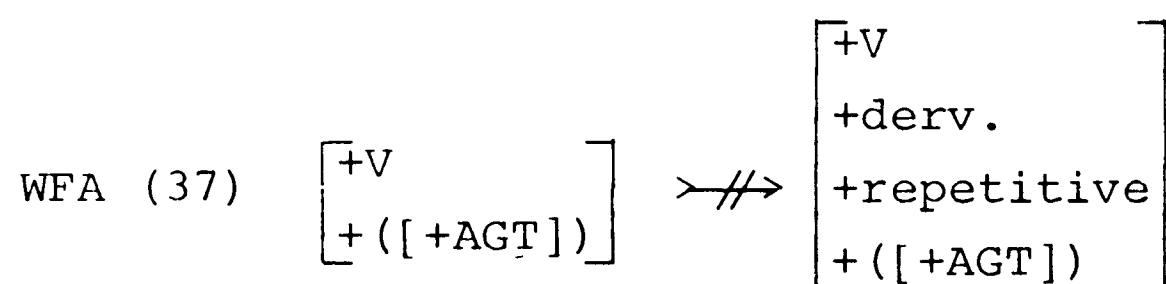


WFA (38) states that for some verbs of
 perception, there are corresponding derived
 verbs meaning 'to (V) intentionally'.

Examples:

<i>liat</i>	<i>liatin</i>
'see'	'look at'
<i>deḡər</i>	<i>deḡərin</i>
'hear'	'listen to'
<i>rəse</i>	<i>rasain</i>
'feel'	'feel, touch'

7.3.1.2.8 Repetitive word formation analogy



WFA (37) states that for certain agentive
 verbs there is a corresponding derived verb
 with the meaning '(V) repeatedly'.

Examples:

<i>pukul</i>	<i>pukulin</i>
'hit'	'hit repeatedly'
<i>cium</i>	<i>ciumin</i>
'kiss'	'kiss repeatedly'

Sentences:

- (1) *Ko lu ṅiumin*
 (SPart.) you kiss-repeatedly
ni anak.
 this child
 'You keep kissing the child!'

Passive:

- (2) *E tu anak kənape,*
 (intro.) that child why
naḡis aje, dipukulin
 cry only hit-repeatedly
ape.
 what

Sentences:

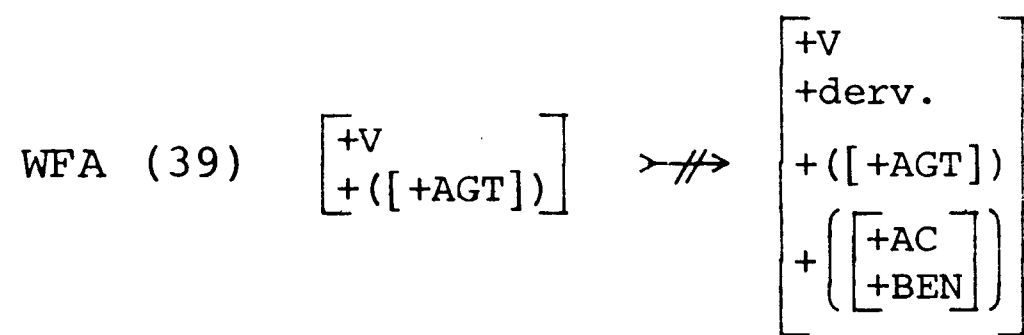
Source verbs:

- (1) *O gue deḡər juḡe si.*
 oh I hear too (SPart.)
 'Oh, I heard it.'
- (2) *Emaḡ mpo? ude liat*
 really (pron.) already see
baḡ-Miun kawin lagi?
 Miun marry again
 'Have you seen that he is married
 again?'

Derived "intention" verbs:

- (3) *Ni, deḡərin ni, ua?*
 this, listen-to this (pron.)
ṅaṅi.
 sing
 'Now, listen to this, I'll sing.'
- (4) *Gue liatin aje dari jaoan,*
 I look only from far,
deḡərin aje, jaḡan ampe die
 listen only, don't let he
ambək-ambəkan aje.
 angry only
 'I just look from far off, and
 listen, so he isn't angry.'

7.3.1.2.10 Benefactive word formation analogy



WFA (39) states that for certain agentive verbs there are corresponding derived verbs which allow a benefactive actant in the accusative case form.

These verbs are understood to imply a benefactive actant if one is not mentioned. Redundancy rules specify that if the benefactive actant is not realized in the accusative case form, it may be realized in the benefactive case form, and that if it is realized in the accusative case form, it must directly follow the verb. The nonderived verbs which serve as source verbs do not allow benefactive actants in the accusative case form (see example (7)).

Examples:

<i>masak</i>	<i>masakin</i>
'cook'	'cook (ben.)'
<i>bəli</i>	<i>bəliin</i>
'buy'	'buy (ben.)'
<i>jual</i>	<i>jualin</i>
'sell'	'sell (ben.)'
<i>tulis</i>	<i>tulisin</i>
'write'	'write (ben.)'

Sentences:

Source verbs:

- (1) *O lu (ŋə)jual barəŋ*
oh you sell things
səkaraŋ?
now
'Oh, you are selling things now?'
- (2) *Tuluŋ jualin ni*
help sell (ben.) this
barəŋ ni.
thing this
'Please sell these things (for me).'

- (3) *Non kə pasar bəli ape?*
(pron.) to market buy what
'What are you going to buy at the market?'

- (4) *Non kə pasar bəliin*
(pron.) to market buy (ben.)
ape?
what
'What are you going to buy (for her) at the market?'

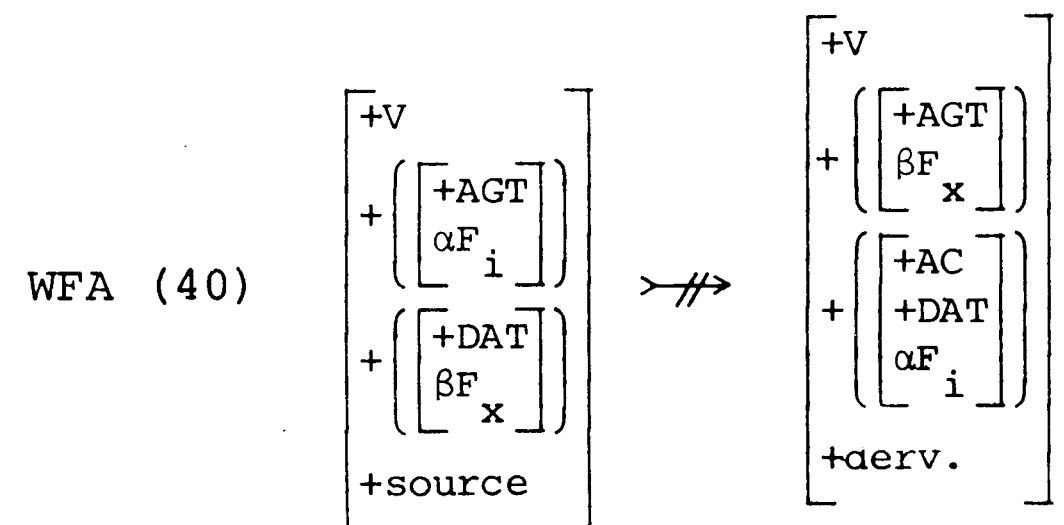
- (5) *Die masak nasi buat*
she cook rice for
ma'ñe.
mother (def./pos.)
'She cooked rice for her mother.'

- (6) *Die masakini nasi buat*
she cook (ben.) rice for
ma'ñe.
mother (def./pos.)
'She cooked rice for her mother.'

- (7) **Die masak ma'ñe*
she cook mother (def./pos.)
nasi.
rice
'She cooked rice for her mother.'
(lit: 'She cooked her mother rice.')

- (8) *Die masakini ma'ñe*
she cook (ben.) mother (def./pos.)
nasi.
rice
'She cooked rice for her mother.'
(lit: 'She cooked her mother rice.')

7.3.1.2.11 Dative-object word formation analogy



WFA (40) states that for certain agentive source verbs there are corresponding derived agentive verbs which allow dative actants in the accusative case. These verbs are speci-

fied by a redundancy rule as [+goal] verbs. The derived verb has an agentive actant with the same set of permitted semantic features as the dative actant of the source verb, and a dative actant with the same set of permitted semantic features as the agentive actant of the source verb.

Redundancy rules specify that if the dative actant is not realized in the accusative case form, it may be realized in the comitative case form, and that if it is realized in the accusative case form, it must follow the verb directly.

The derived verbs which serve as source verbs do not allow dative actants in the accusative case form (see example (3)).

Examples:

<i>pinjəm</i> 'borrow'	<i>pinjəmin</i> 'lend'
<i>kontrak</i> 'contract'	<i>kontrakin</i> 'contract out'
<i>sewe</i> 'rent'	<i>sewein</i> 'rent out'

Sentences:

Source verbs:

- (1) *Ayati minjəm uən ame*
Ayati borrow money (prep.)
Puase.
Puase
 'Ayati borrowed money from Puase.'

Derived verbs:

- (2) *Puase minjəmin uən ame*
Puase lend money (prep.)
Ayati.
Ayati
 'Puase lent money to Ayati.'

Source verbs:

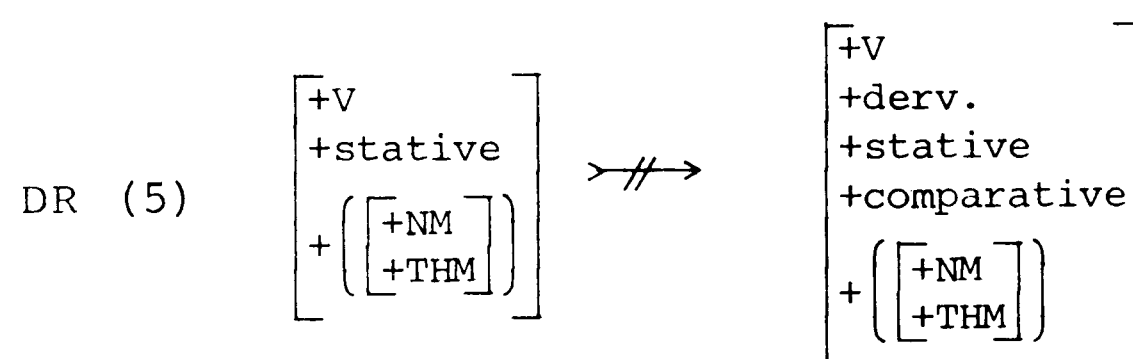
- (3) **Ayati minjəm Puase uən.*
Ayati borrow Puase money
 *'Ayati borrowed Puase money.'

Derived verbs:

- (4) *Puase minjəmin Ayati uən.*
Puase lend Ayati money
 'Puase lent Ayati money.'

7.3.2 Completely productive verb derivation rules

7.3.2.1 Comparative verb derivation rule



DR (5) states that given a stative intransitive verb there is a corresponding derived stative intransitive verb with the meaning 'more, very (V)'. The meaning 'more' and 'very' which are always distinguished in English and Bahasa Indonesia, are both covered by this form in Betawi. This rule is completely productive, and the meaning of the derived verb is completely predictable.

A morphophonemic rule gives such derived verbs the suffix *-an* (see VMR (9)).

Examples:

- (1) *Oraṅñe yaṅ*
 person (def./pos.) which
kəcilan, yaṅ gədean?
more-small, which more-big?
 'The smaller person or the bigger one?'
- (2) *Biar sənəṅan.*
 let more-happy
 'Cheer up.'
- (3) *Ni ari ame kəmarin,*
 this day (prep.) yesterday,
təraṅan kəmarin.
more-clear yesterday
 'Yesterday was clearer than today.'
- (4) *Pəlanan sədikit baṅ.*
more-slow a-little term-of-ad.
 'Go a little more slowly.'
- (5) *Tu anak due, pintəran*
 that child two, more-clever
die satu.
 he one
 'Of those two children, that one is more intelligent.'

- (6) *Die ame die botoan*
she (prep.) she more-pretty
situ.
she
'Between them, that one is prettier.'
- (7) *Tuaan die ame saye.*
more-old he (prep.) I
'He is older than I.'
- (8) *Mudaan biniñe.*
more-young wife (def./pos.)
'His wife is younger.'
- (9) *Pake baju yaŋ lamaan.*
wear dress which more-old
'Wear the older dress.'
- (10) *Biar asinan sɛdikit.*
let more-sour a-little
'Make it a little more sour.'
- (11) *Datəŋñe buruan.*
coming (def./pos.) more-fast
'He came in a hurry.'
- (12) *Dəkətan rume saye ame*
more-close house I (prep.)
rume non.
house (pron.)
'My house is closer than yours.'
- (13) *Die si ude gədean*
she (SPart.) already more-big
səkaraŋ ni.
now this
'She is bigger now.'
- (14) *Itu yaŋ itəman anak*
that which more-black child
siape?
who
'Whose child is the darker one?'
- (15) *Biar kərasan omoŋanñe.*
let more-loud speaking
(def./pos.)
'Speak more loudly.'
- (16) *Burukan bənər, ni meje.*
more-ugly very, this table
'The table is very ugly.'
- (17) *Cəpətan doŋ kərjeanñe.*
more-fast (SPart.) work
(def./pos.)
'Work faster.'

7.3.2.2 Excessive verb derivation rule

$$\text{DR (6)} \quad \left[\begin{array}{l} +V \\ +\text{stative} \\ + \left(\begin{array}{l} +\text{NM} \\ +\text{THM} \end{array} \right) \end{array} \right] \Rightarrow \left[\begin{array}{l} +V \\ +\text{derv.} \\ +\text{stative} \\ +\text{excessive} \\ + \left(\begin{array}{l} +\text{NM} \\ +\text{THM} \end{array} \right) \end{array} \right]$$

DR (6) states that given a stative intransitive verb there is a corresponding derived stative intransitive verb with the meaning 'excessively, very (V)'. The meanings 'too' and 'very' which are always distinguished in English and Bahasa Indonesia are both covered by this form in Betawi. This rule is completely productive and the meaning of the derived verb is completely predictable.

Morphophonemic rules give these derived verbs the prefix *kə-* and suffix *-an* (see VMR (4), (9)).

Examples:

- (1) *Kətəraŋan ini, gue mao tidur.*
too-bright this I want sleep
'This is too bright, I want to sleep.'
- (2) *Gue kələməsan, gue əŋga?*
I *too-weak, tired* I not
kərje.
work
'I am too weak, tired to work.'
- (3) *Kəpəlanaŋ ni baŋ, saye*
too-slow this (voc.) I
ade pərlu.
have need
'This is too slow. I have something to do.'
- (4) *Jaŋan kəkərasan bicareñe*
don't *too-loud speaking*
(def./pos.)
doŋ.
(SPart.)
'Don't speak too loudly.'
- (5) *Kəgampaŋan bənər lu.*
too-easy really you
'You are too easy.'
(=too quick to agree, too easy to persuade, etc.)

- (6) Lu kədəkətan bənər.
you too-close really
'you are *too close*.'
- (7) Ude kəgədean, bəlun
already too-big not-yet
ade yaŋ mao.
exist which want
'She is already *too old*, no
one wants her yet.'
- (8) Lu si kəitəman bənər
you (SPart.) too-black really
tu si
that (SPart.)
'You are really *too dark*.'
- (9) Kəkəcilan tu, potonñe.
too-small that cut (def./pos.)
'You are cutting it *too small*.'
- (10) Kəkərasan, cari yaŋ
too-hard look-for which
lembekan.
more-soft
'That is *too hard*, look for
a softer one.'
- (11) Baju ini kəlongaran.
dress this too-loose
'This dress is *too big*.'
- (12) Eman kəpanasan, teñe.
really too-hot tea (def./pos.)
'The tea is *too hot*.'
- (13) Tu kətinggian, biar pendekan
that too-high, let more-low
sədikit.
a-little
'That is *too high*, lower it a
little.'
- (14) Die kəsədian.
she too-sad
'She is *too sad*, very sad.'
- (15) Lu lagi kəsənəŋan
you presently too-happy
ye.
(SPart.)
'You are *very happy*.'
- (16) Jaŋan kəbodoan, biar
don't too-stupid, let
kəpintəran sədikit.
too-clever a-little
'Don't be *so stupid*, be a
little clever.'

7.3.2.3 Distributive verb derivation rule

$$\text{DR (7) } [+V] \rightarrow \begin{array}{|l} +V \\ +\text{derv.} \\ +\text{distributive} \end{array}$$

DR (7) states that given a verb there is a corresponding derived distributive verb. The meaning of a distributive verb is that the action or state described by the verb is multiple or distributed over a number of subjects, objects, locations, or times, or an extended period of time, or is directed at a number of locations: is randomized, or is accompanied by other activities. Perhaps a more detailed study of this type of verb would be able to distinguish parameters which predict which type of distributive meaning a particular type of verb will have. This rule is completely productive.

Verbs derived by this rule are reduplicated by a morphophonemic rule (see VMR (2)). Examples:

Multiple action:

- (1) Kənape lu gangu-gangu
why you bother (dist.)
pərempuan?
girl
'Why are you *bothering* girls?'
- (2) Aye bukan ñuru-ñuru babe.
I not order (dist.) (pron.)
'I am not *ordering* you.'
- (3) Gue kədatəŋ-datəŋan Ali.
I be-come-upon (dist.) Ali
(see WFA (28), Adversative instrumental.)
'I was *repeatedly visited* by Ali.'
- (4) Biar in dibawe-bawe
let take (dist.) (pas.)
de.
(SPart.)
(See DR (7), Passive.)
'Just *take it along* with you
(to several places).'
- (5) Rume lu gue rusak-rusak.
house you I wreck (dist.) (pas.)
(See DR (7), Passive.)
'Your house will *be wrecked* by me.'

Nouns derived from multiple action verbs:

- (6) Bawe-baweñe
thing-carry (dist.) (def./pos.)
ape-ape?
what (collective)
 (See DR (2), Definite/possessed.)
 'What all did you bring?'
- (7) Pəmbawe-bawe *si*
one-who-bring (dist.) (SPart.)
ade juge.
present also
 (See WFA (2), Person.)
 'There is someone to carry all of it.'
- (8) Itu pəmintə-mintə.
that person-who-beg (dist.)
 (See WFA (2), Person.)
 'He is a beggar.'

Multiple action or extended period of time:

- (9) Tidur-tidur *məlulu*
sleep, lie-down (dist.) only
ni anak.
this child
 'This child sleeps, lies about all the time.'
- (10) Oranñe *əŋga?*
person (def./pos.) not
datəŋ-datəŋ.
come (dist.)
 'He doesn't come./He still hasn't come.'
- (11) Lagi dipikir-pikir
presently think (dist.) (pas.)
aje.
only
 (See DR (7), Passive.)
 'I think about it only.'
- (12) Die diəm-diəm *aje.*
he quiet (dist.) only
 'He is always quiet.'

Multiple subject:

- (13) Dulu ceriteñe
before story (def./pos.)
bagus-bagus ye.
good (dist.) (SPart.)
 'The stories used to be good.'

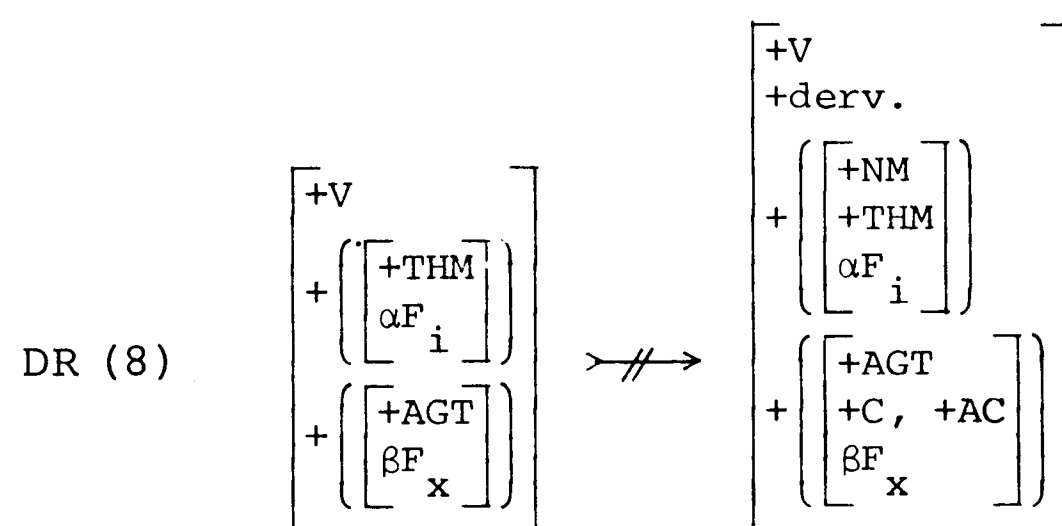
In various places:

- (14) Rume gue rusak-rusak.
house I ruined (dist.)
 'My house is all ruined.'

To do in a relaxed way, accompanied by other activities:

- (15) Lu ñañi-ñañi, *gue əŋga?*
you sing (dist.) I not
laraŋ.
forbid
 'You are singing, I don't forbid it.'
- (16) Ayo de, *ŋopi-ŋopi.*
come-on (SPart.) drink-coffee
(dist.)
 'Come on, have some coffee.'

7.3.2.4 Direct passive verb derivation rule



DR (8) states that given an agentive verb there is a derived verb with a theme actant in the nominative case form and an agentive actant in the comitative or accusative case form. This rule is completely productive and predicative.

A morphophonemic rule gives such derived verbs the prefix *di-*, unless they are preceded by an agentive actant in the accusative case form (see VMR (7)). Examples with various types of derived verbs are provided in section 7.3.1.2.

Examples:

<i>sewe</i>	<i>disewe</i>
'rent'	'rented'
<i>pili</i>	<i>dipili</i>
'choose'	'chosen'
<i>liat</i>	<i>diliat</i>
'see'	'seen'
<i>bawe</i>	<i>dibawe</i>
'bring'	'brought'

Sentences:

(1) *Rume itu ude disewe.*
house that already rented
'That house is already rented.'

(2) *Yan-mane yan dipili.*
which which chosen
'Which one did you choose?'
(lit: 'Which is the one which was chosen?')

(3) *Dipikir dulu ni,*
thought first this
kərjaanñe abis ape
work (def./pos.) finished or
əŋga??
not
'I'll think about it first, is my work finished or not?'
(lit: 'It will be thought about first, is my work finished or not?')

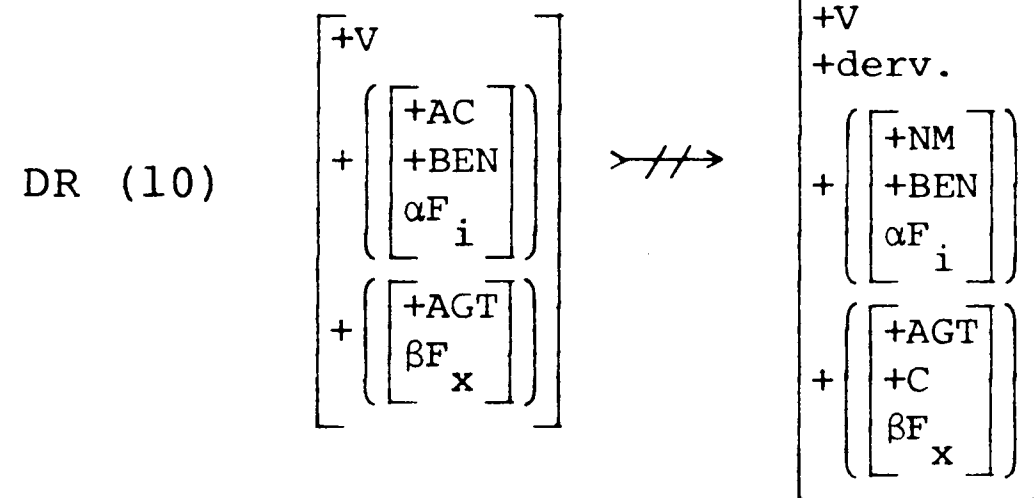
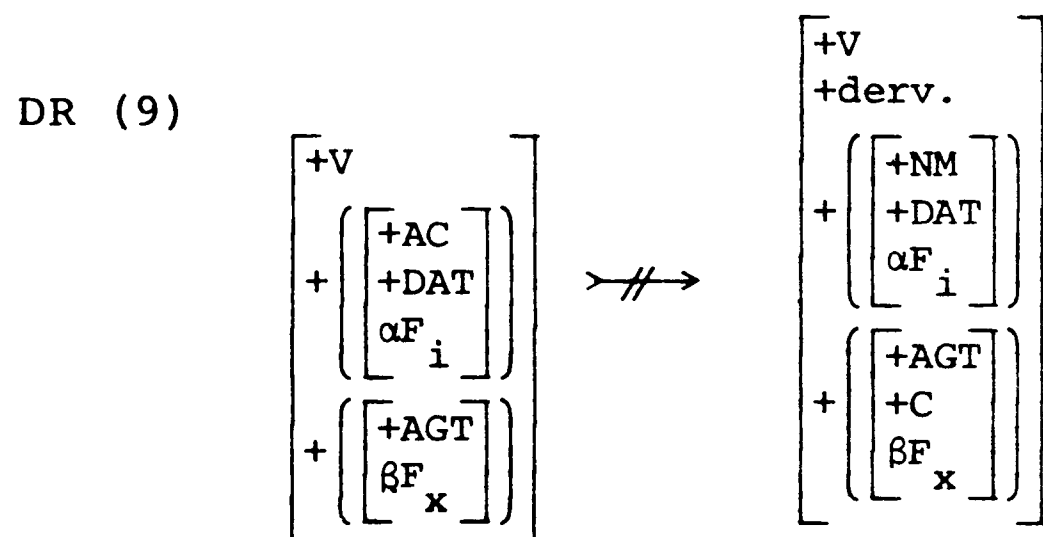
With pronominal agentive accusative before the verb:

(4) *Ape yan lu liat?*
what which you see
'What do you see?'
(lit: 'What is seen by you?')

Further derived as noun:

(5) *Dibaweñe*
bringing (pas.) (def./pos.)
pəgimane?
how
'How did you take it?'
(lit: 'How was it being brought?')

7.3.2.5 Indirect passive verb derivation rules



DR (9) states that given a verb which allows an object in the dative case relation, there is a corresponding derived verb with a subject in the dative case relation. The derived verb has a dative actant in the nominative case form with the same set of required semantic features as the dative actant of the source verb, and an agentive actant in the comitative case form with the same set of required semantic features as the agentive actant of the source verb.

DR (10) states that given a verb which allows an object in the benefactive case relation, there is a corresponding derived verb with a subject in the benefactive case relation. The derived verb has a benefactive actant in the nominative case form with the same set of required semantic features as the dative actant of the source verb, and an agentive actant in the comitative case frame with the same set of required semantic features as the agentive actant of the source verb.

A morphophonemic rule gives such derived verbs the prefix *di-*, unless they are preceded by an agentive actant in the accusative case form (see VMR (7)).

Examples:

Dative-object:

<i>kasi</i>	<i>dikasi</i>
'give'	'given'
<i>kirim</i>	<i>dikirim</i>
'send'	'sent'

<i>pinjəmin</i> 'lend'	<i>dipinjəmin</i> 'lent'
<i>səwain</i> 'rent out'	<i>disəwain</i> 'rented out'

Benefactive:

<i>bəliin</i> 'buy (ben.)'	<i>dibəliin</i> 'bought (ben.)'
<i>jualin</i> 'sell (ben.)'	<i>dijualin</i> 'sold (ben.)'

Sentences:

Dative-object source verb:

- (1) *Ayati pinjəmin Puase uaŋ./*
Ayati lend Puase money/
Ayati pinjəmin uaŋ ame
Ayati lend money to
Puase.
Puase
 'Ayati lent Puase money.'
 'Ayati lent money to Puase.'

Derived indirect passive:

- (2) *Puase dipinjəmin uaŋ*
Puase lend (pas.) money
ame Ayati.
(prep.) Ayati.
 'Puase was lent money by
 Ayati.'

Benefactive source verb:

- (3) *Ma?-Buyuŋ bəliin Ma?-Leha ikan./*
Ma-Buyung buy Ma-Leha fish/
Ma?-Buyuŋ bəliin ikan bakal
Ma-Buyung buy fish for
Ma?-Leha.
Ma-Leha
 'Ma Buyung bought Ma Leha fish.'
 'Ma Buyung bought fish for Ma Leha.'

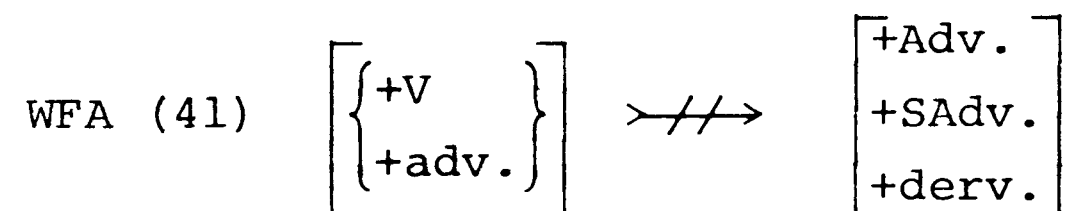
Derived indirect passive:

- (4) *Ma?-Leha dibəliin ikan*
Ma-Leha buy (pas.) fish
ame Ma?-Buyuŋ.
(prep.) Ma-Buyung
 'Ma Leha was bought fish by
 Ma Buyung.'

7.4 Other derivation rules

7.4.1 Word formation analogies

7.4.1.1 Sentence adverb word formation analogy



WFA (41) states that for certain verbs and adverbs, there are corresponding derived sentence adverbs.

Morphophonemic rules give such derived adverbs the prefix *sə-* optionally and the suffix *-ñe* obligatorily. A few items are specified as not taking the prefix *sə-* (see AMR (2), (3)).

Examples:

Verbs:

<i>bənər</i> 'actual, true, correct'	<i>(sə)bənərñe</i> 'actually, truly'
<i>bətul</i> 'actual, true, correct'	<i>(sə)bətulñe</i> 'actually, truly'
<i>laen</i> 'different'	<i>(sə)laenñe</i> 'moreover, besides'
<i>baek</i> 'good'	<i>(sə)baekñe</i> 'it would be best if ...'
<i>bagus</i> 'good'	<i>bagusñe</i> 'luckily'
<i>rase</i> 'feel'	<i>(sə)raseñe</i> 'it seems, seemingly'
<i>kire</i> 'think'	<i>(sə)kireñe</i> 'it seems'
<i>rupe</i> 'appear'	<i>rupeñe</i> 'it appears'
<i>arus</i> 'have to'	<i>(sə)arusñe</i> 'it should be that ...'
<i>məsti</i> 'have to, must'	<i>(sə)məstiñe</i> 'it must be that ...'
<i>kəliatan</i> 'visible'	<i>kəliatanñe</i> 'apparently'

Derived:

Adverb:

<i>emaŋ</i> 'really'	<i>emaŋñe</i> 'really, truly'
-------------------------	----------------------------------

Sentences:

- (1) *Səbənərñe* *urusan* *bəgini*
actually *problem* *like-this*
ni.
now
 'Now, *actually* the problem is like this.'
- (2) *Bənərñe* *si* *əŋga?*
actually (SPart.) *not*
sakit.
sick
 'Actually I'm not sick.'
- (3) *Səbaekñe* *lu* *tidur* *di*
it-would-be-best *you* *sleep* *at*
situ *de.*
there (SPart.)
 'You'd *better* sleep there.'
- (4) *Raseñe* *dapet* *duit* *bañak*
it-seems *get* *money* *much*
ni.
here, now
 'Here now, *it seems* you got much money.'
- (5) *Ni* *rupeñe* *ni*
here, now *it-seems* *here, now*
dikasi *pərsenan* *kali*
give (pas.) *tip* *perhaps*
ni *ame* *ñai.*
here, now (prep.) (pron.)
 'Now, *it seems* he got a tip from her.'
- (6) *Emaññe* *ade* *ape?*
really *have* *what*
 'Really what is the matter?'

7.4.1.2 Frequency adverb word formation analogy

$$\text{WFA (42)} \quad \left\{ \begin{array}{l} [+V] \\ [+N] \end{array} \right\} \rightsquigarrow \left[\begin{array}{l} +\text{Adv.} \\ +\text{derv.} \\ +\text{frequency} \end{array} \right]$$

WFA (42) states that for certain verbs and nouns there are corresponding derived frequency adverbs.

Morphophonemic rules reduplicate such derived forms, and give them the prefix *sə-* and suffix *-ñe* (see AMR (1), (2), (3)). Some items are individually specified as taking the prefix *sə-* before reduplication, not taking reduplication, or not taking the suffix *-ñe*.

Examples:

Nouns:

<i>ari</i> 'day'	<i>sari-sariñe</i> 'daily'
	<i>sari-ari</i> 'daily'
	<i>sari-sari</i> 'daily'
<i>bulan</i> 'month'	<i>səbulan-səbulan</i> 'monthly'
<i>dikit</i> 'a little'	<i>sədikit-sədikit</i> 'a little, sometimes'
<i>kali</i> 'a time'	<i>səkali-kali</i> 'a single time (neg.), ever'
	<i>səkali-səkali</i> 'sometimes'
<i>mingu</i> 'week'	<i>səmingu-səmingu</i> 'weekly'
<i>tempo</i> 'time'	<i>sətempo-sətempo</i> 'sometimes'
<i>waktu</i> 'time'	<i>səwaktu-waktu</i> 'sometimes'
	<i>səwaktu</i> 'sometimes'

Derived:

<i>kalian</i> 'all of them'	<i>səkalian</i> 'all at once'
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Verbs:

<i>lalu</i> 'pass'	<i>səlalu</i> 'always'
<i>lame</i> 'long, old'	<i>səlame-lameñe</i> 'continually, forever'
<i>tərus</i> 'continue'	<i>sətərus-tərusñe</i> 'continuously'

Sentences:

- (1) *Saye* *kərje* *səlame-lameñe* *ame*
 I *work* *continually* (prep.)
non.
 (pron.)
 'I *always* worked for her.'
- (2) *Səwaktu-waktu* *die* *datəŋ.*
sometimes *he* *come*
 'Sometimes he comes.'
- (3) *Lu* *janan* *səkali-kali* *kə*
 you *don't* *ever* *to*
rume *gue.*
 house I

'Don't you ever come to my house.'

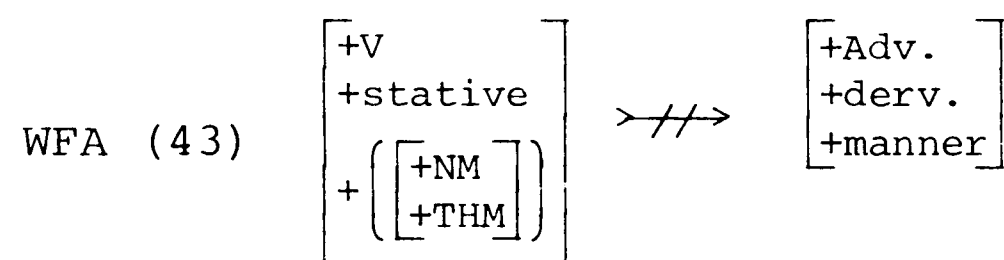
- (4) *Lu kan sədikit-sədikit*
 you (SPart.) *sometimes, a little*
səmbayan.
 pray
 'You pray a little, sometimes.'

- (5) *Sari-sari kalo pulan,*
daily when/if come-home
sadoñe ude
 horsecart (def./pos.) already
ade.
 present
 'When he comes home every day his horsecart is here.'

- (6) *Bəli de səkalian.*
 buy (SPart.) *all-at-once*
 'Buy it all at once.'

- (7) *Səwaktu die datən,*
sometimes he come,
səwaktu əŋga?
sometimes not
 'Sometimes he comes, sometimes not.'

7.4.1.3 Manner adverb word formation analogy



WFA (43) states that for certain stative intransitive verbs there are corresponding derived manner adverbs. A morphophonemic rule reduplicates such derived adverbs (see AMR (1)).

Examples:

<i>pəlan</i> 'slow, soft (of sound)'	<i>pəlan-pəlan</i> 'slowly, softly (of sound)'
<i>kəñcəŋ</i> 'loud, fast tight'	<i>kəñcəŋ-kəñcəŋ</i> 'loudly, fast, tightly'
<i>kəras</i> 'loud, hard strong'	<i>kəras-kəras</i> 'loudly, strongly, hard'
<i>təlat</i> 'late'	<i>təlat-təlat</i> 'late'
<i>bətul</i> 'true'	<i>bətul-bətul</i> 'truly'

<i>rame</i> 'crowded, festive, noisy'	<i>rame-rame</i> 'noisily, crowded, festively'
<i>diəm</i> 'quiet'	<i>diəm-diəm</i> 'quietly, stealthily'
<i>təraŋ</i> 'clear'	<i>təraŋ-təraŋ</i> 'clearly'
<i>bənər</i> 'true'	<i>bənər-bənər</i> 'truly'
<i>dəkət</i> 'close'	<i>dəkət-dəkət</i> 'close'
<i>tao</i> 'know'	<i>tao-tao</i> 'unknowingly'
<i>lame</i> 'old'	<i>lame-lame</i> 'eventually'

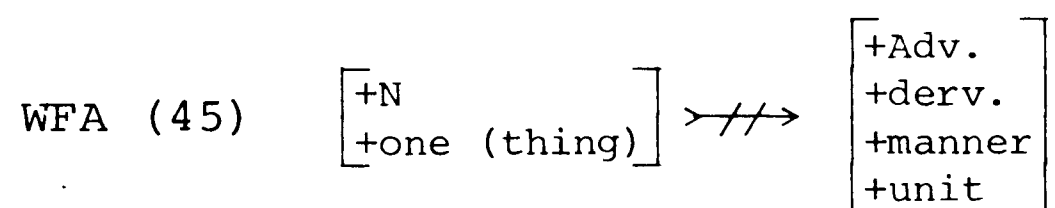
Sentences:

- (1) *Rame-rame baŋ-Miun*
festively, crowded Miun
juge əntar pəgi.
 also later go
 'Miun will go with many people, festively.'

- (2) *Ini bətul-bətul lu mao*
 this really you want
nonton.
 watch
 'You really want to watch.'

- (3) *Lame-lame mase*
eventually how-could-it-be
kite əŋga? bise.
 we not able
 'Eventually we will be able to do it.'

7.4.1.4 "Unit" manner adverb word formation analogy



WFA (45) states that for certain nouns meaning 'one (thing)' there are corresponding derived manner adverbs meaning '(N) by (N)'. Morphophonemic rules reduplicate such derived adverbs, and give them the prefix sə-, unless specified as exceptions (see AMR (1), (2)).

Examples:

<i>satu</i> 'one'	<i>satu-satu</i> 'one by one'
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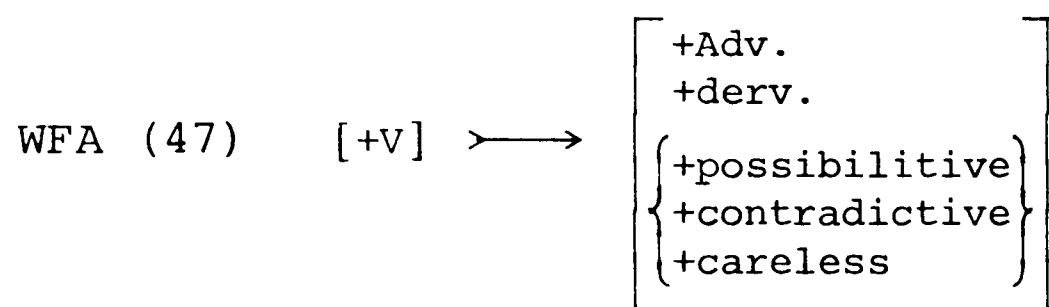
Derived:

<i>sədikit</i>	<i>sədikit-sədikit</i>
'a little'	'little by little'
<i>səoraŋ</i>	<i>səoraŋ-səoraŋ</i>
'one person'	'person by person'

Sentence:

- (1) *Satu-satu aje de*
one-by-one only, just (SPart.)
jaŋan digabuŋ
don't mix, bunch (pas.)
bəgitu.
like-that
'One by one, not all together
like that.'

7.4.1.5 "Possibilitive", "contradictive" and "careless" adverb word formation analogy



WFA (47) states that for certain verbs there are corresponding derived "possibilitive", "contradictive" and "careless" adverbs.

Morphophonemic rules reduplicate these forms and give them the prefix *sə-* and suffix *-ñe*. A few items are individually specified as being reduplicated optionally (see AMR (1), (2), (3)).

Examples:

"Possibilitive":

<i>asik</i>	<i>səasik-asikñe</i>
'absorbed pleasantly'	'as pleasantly absorbed as possible'
<i>təraŋ</i>	<i>sətəraŋ-təraŋñe</i>
'clear'	'as clear as possible'
<i>kəcil</i>	<i>səkəcil-kəcilñe</i>
'small'	'as small as possible'
<i>gəde</i>	<i>səgəde-gədeñe</i>
'big'	'as big as possible'
<i>aŋkat</i>	<i>səaŋkat-aŋkatñe</i>
'life'	'as much as one can lift'
<i>ade</i>	<i>səade-adeñe</i>
'have, be'	'as much as one has, as much as there is'
<i>tao</i>	<i>sətao-taoñe</i>
'know'	'as much as one knows'

Sentences:

- (1) *Saye tidur səasik-asikñe,*
 I sleep *as-soundly-as-possible*
e, lu baŋunin.
 (intro.) you wake-up
'I was sleeping as soundly as possible and you woke me up.'
- (2) *Sətəraŋ-təraŋñe de*
as-clear-as-possible (SPart.)
lu bilaŋin.
 you tell
'You tell it as clearly as possible.'
- (3) *Saye iris səkəcil-kəcilñe.*
 I cut *as-small-as-possible*
'I cut it as small as possible.'
- (4) *Lu ŋomona səgəde-gədeñe.*
 you talk *as-big-as-possible*
'You talk as big as possible.'
- (5) *Die bawain baran itu*
 she bring thing that
səaŋkat-aŋkatñe.
as-much-as-can-carry
'She brought as many of those things as she could carry.'
- (6) *Kite makan*
 we eat
səadeñe saje.
as-much-as-good-as-we-have only
'Let's eat, just what we have.'
- (7) *Saye kasi-tao sətəo-təoñe.*
 I tell *as-much-as-I-know*
'I told him, as much as I knew.'

"Careless":

<i>adil</i>	<i>səadil-adilñe</i>
'in detail'	'carelessly as to detail'
<i>mao</i>	<i>səmao-(mao)ñe</i>
'want'	'as one wants'

Sentences:

- (8) *Gue tañe səadil-adilñe,*
 I ask *carelessly-as-to-detail,*
əŋga? tañe adil bənər.
 not ask in-detail very
'I am not asking in such detail.'
- (9) *Die ŋomona səmao-maoñe.*
 he speak *as-he-wants*
'He just says whatever he wants to.'

"Contradictive":

<i>jao</i> 'far'	<i>səjao-jaoñe</i> 'so far as, although far'
<i>cəpət</i> 'fast'	<i>səcəpət-cəpətñe</i> 'so fast as, although fast'
<i>ribut</i> 'make noise, argue'	<i>səribut-ributñe</i> 'although so noisy, although so argumentative'

Sentences:

- (10) *Səjaoñe juge gue bawe lu,*
so-far also I take you,
juge əŋga? bəgitu jao,
also not so, very far,
rumeñe.
house (def./pos.)
'Although I have brought you
as far as I have, the house
is not so very far.'

- (11) *Səcəpət-cəpətñe die jalan,*
so-fast she walk,
tapi nanti təlāt juge.
but later late too
'As fast as she walks she will
be late.'

7.4.1.6 Preposition word formation analogy

$$\text{WFA (48)} \quad \left[\begin{array}{c} +V \\ +N \end{array} \right] \rightsquigarrow \left[\begin{array}{c} +\text{Prep.} \\ +\text{deriv.} \end{array} \right]$$

WFA (48) states that for certain verbs and certain nouns there are corresponding derived prepositions. In most cases there is no change in phonological form. However, in two cases there is loss of initial *s* in the preposition. The optional loss of initial *s* occurs in a number of lexical items in Betawi.

(*Siti/Iti* 'Siti', *sude/ude* 'already', *saye/aye* 'I') In the derived prepositions (*s*)*ampe* and (*s*)*ame*, the initial *s* is optional for some speakers. For my primary informant, *ame* was the only pronunciation accepted for the preposition. In the source verbs, the initial *s* is never lost. This supports the claim that these must be treated as separate though related lexical items.

Examples:

Verbs:

<i>same</i> 'the same, alike'	<i>(s)ame</i> 'with, by'
<i>pake</i> 'use'	<i>pake</i> 'with, by'
<i>naek</i> 'go up, ride'	<i>naek</i> 'by' (transport)
<i>kəna</i> 'suffer, hit, contact, strike, undergo'	<i>kəna</i> 'by' (cause)
<i>buat</i> 'make'	<i>buat</i> 'for'
<i>sampe</i> 'arrive'	<i>(s)ampe</i> 'until'
<i>bagi</i> 'divide'	<i>bagi</i> 'for'
<i>lewat</i> 'pass'	<i>lewat</i> 'past'

Noun:

<i>bakal</i> 'material, supplies'	<i>bakal</i> 'for'
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Sentences:

Source nouns or verbs:

- (1) *Itu same juge.*
that same just
'It's all the same.'

Derived prepositions:

- (2) *Ame siape lu pəgi?*
with who you go
'Who did you go with?'

Source nouns or verbs:

- (3) *Kalo ade duit lu mari*
if exist money you here
de, gue pake dulu.
(SPart.) I use for-now, before
'If you have money, come on, I'll
use it for now.'

Derived prepositions:

- (4) *Saye buke pintu pake konci.*
I open door with key
'I opened the door with a key.'

Source nouns or verbs:

- (5) *Lu narti Apollo naek*
 you understand Apollo go-up
kə bulan.
 to moon
 'You know the Apollo went to
 the moon.'

Derived prepositions:

- (6) *Kalo masi ade karcis, saye*
 if still have ticket I
bəraŋkat kə bulan naek Apollo
 go to moon by Apollo
tuju-bəlas.
 seventeen
 'If there were tickets left I
 would have gone to the moon on
 Apollo 17.'

Source nouns or verbs:

- (7) *Anak itu masi kəna*
 child that still contact, suffer
diajar.
 teach (pas.)
 'That child can still be taught.'

Source nouns or verbs:

- (8) *Bole itu kəna pohon.*
 ball that hit tree
 'The ball hit the tree.'

Derived prepositions:

- (9) *Die luke kəna paku.*
 he wounded by nail
 'He was cut by a nail.'

Source nouns or verbs:

- (10) *Die buat rume itu səndiri.*
 he make house that alone
 'He built the house himself.'

Derived prepositions:

- (11) *Pokokñe kərak-təlor aye*
 the-point-is (kind-of-food) I
pərluin buat Ma?
 need (pas.) for mother
 'The thing is I need "kerak-telor"
 for mother.'
 (lit: 'The thing is, "kerak-telor"
 is needed by me for mother.')

Source nouns or verbs:

- (12) *Die bəlun sampe.*
 he not-yet arrive
 'He has not arrived yet.'

Derived prepositions:

- (13) *Die maen ampe maləm.*
 she play until night, late
 'She played until late.'

Source nouns or verbs:

- (14) *Ude dibagi-bagi.*
 already divide (pas.) (dist.)
 'It is already divided up.'

Derived prepositions:

- (15) *Ini bagi Siti.*
 this for Siti
 'This is for Siti.'

Source nouns or verbs:

- (16) *Die lewat rume.*
 he pass house
 'He passed the house.'

Derived prepositions:

- (17) *Pulaŋñe lewat jam due.*
 come-home past hour two
 'He came home past two.'

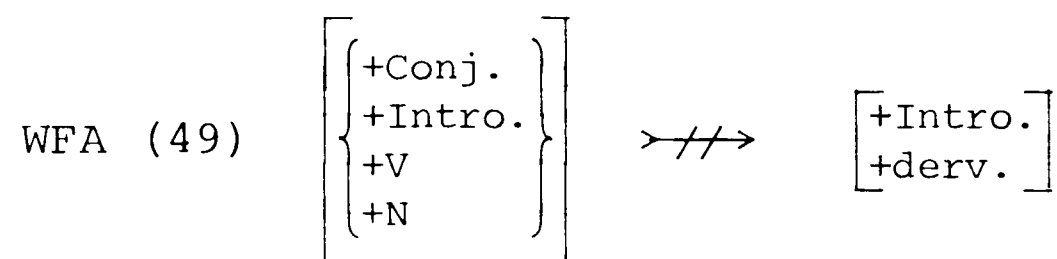
Source nouns or verbs:

- (18) *Buat bakal maen cəki,*
 for material play gambling
ni.
 this
 'This is (a fund) to play
 "ceki".'

Derived prepositions:

- (19) *Kan enak, bəli*
 (SPart.) pleasant buy
siri bakal gue.
 betelnut for I
 'That's all right, it buys
 betelnut for me.'

7.4.1.7 Introducer word formation analogy



WFA (49) states that for certain conjunctions, introducers, verbs and nouns there are derived introducers. A morphophonemic rule gives such derived introducers the suffix *-ñe* (see SConj./Intro. MR (1)).

Examples:

Conjunction:

tapi 'but' *tapiñe* 'but'

Introducer:

mañke 'therefore' *mañkeñe* 'therefore, that's why'

Verb/introducer:

jadi 'become, therefore' *jadiñe* 'therefore, so'

Verbs:

abis 'finished, gone' *abisñe* 'so, then'
laen 'different' *laenñe* 'moreover, on the other hand'
tarus 'go on, continue' *tarusñe* 'then, continue, after that'
pokok 'main' *pokokñe* 'the point is'

Nouns:

name 'name' *nameñe* 'that is, that means'
ahir 'end' *ahirñe* 'finally'

Sentences:

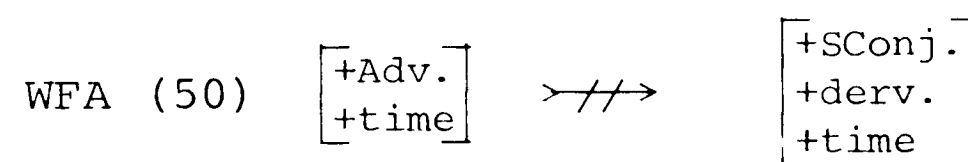
(1) *Tapiñe, eman sifatñe.*
but really character (def./pos.)
 'But, that's the way he is.'

(2) *Mañkeñe* *ua?*
that's why, therefore (pron.)
tañe, ape sakitñe.
ask what illness (def./pos.)
 'That's why/therefore I ask you, what is your illness.'

(3) *Jadiñe,* *aye pura-pura*
so, therefore I pretend
sakit, padahal si engga?
sick actually (SPart.) not
 'So I pretended to be sick, but actually I'm not.'

(4) *Nameñe,* *ma?* *kan*
that means (pron.) (SPart.)
masi sayan.
still love
 'So that means you still love me.'

7.4.1.8 Subordinate conjunction word formation analogy



WFA (50) states that for certain time adverbs there are corresponding derived subordinate time conjunctions. Morphophonemic rules give such derived subordinate conjunctions the prefix *sə-* and suffix *-ñe* (see subcon. MR (1) subcon./Intro. MR (1)). Some items are specified as taking *-ñe* optionally. Examples:

<i>kapan</i> 'when'	<i>səkapanñe</i> 'when'
<i>(s)ude</i> 'already'	<i>sə(s)udeñe</i> 'after'
<i>bəlung</i> 'not yet'	<i>səbəlungñe</i> 'before'
<i>lagi</i> 'again'	<i>səlagi(ñe)</i> 'while'
<i>abis</i> 'finished'	<i>səabis(ñe)</i> 'after'
<i>lame</i> 'long'	<i>səlame(ñe)</i> 'while'

Derived:

<i>lame-lame</i> 'eventually, for a long time'	<i>selame-lame(ñe)</i> 'all the while'
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Sentences:

- (1) *Səbəlunñe* saye datəŋ kə mari,
before I come to here,
kapən die ude bilanin,
(SPart.) he already say
saye mao datəŋ.
I will come
'Before I came here, he said
I would come.'

- (2) *Səlagi die mao makan, biar*
while he want eat let
de die makan.
(SPart.) he eat
'While he wants to eat, let
him eat.'

- (3) *Səlameñe non pəgi,*
while (pron.) go
rumeñe dititip
house (def./pos.) keep (pas.)
ame saye dulu.
(prep.) I before/for-now
'While she is gone, her house
is being kept by me for the
time being.'

- (4) *Səsudeñe die pəgi, saye*
after he go I
si tao.
(SPart.) know
'After he went, I knew.'

- (5) *Səlame-lameñe saye kerje di*
all-the-while I work at
sini, əŋga? ade yaŋ
here not exist which
ganġu.
bother
'All the while I've worked here,
no one has bothered me.'

7.4.1.9 Indefinite word formation analogy

WFA (51) $\left[\begin{array}{c} +\text{inter-} \\ \text{rogative} \end{array} \right] \rightsquigarrow \left[\begin{array}{c} +\text{indefinite} \\ -\text{interrogative} \\ +\text{derived} \end{array} \right]$

WFA (51) states that for an interrogative lexical item there is a corresponding derived indefinite lexical item. A morphophonemic rule gives such derived items the form *-(s)aje* from *(s)aje* 'only' (see Indef. MR (1)).

Examples:

kapən *kapən-(s)aje*
'when' 'whenever, at any time'

<i>siape</i>	<i>siape-(s)aje</i>
'who'	'whoever, anyone'
<i>bərape</i>	<i>bərape-(s)aje</i>
'how much'	'any amount, whatever amount'
<i>mane</i>	<i>mane-(s)aje</i>
'where, which'	'wherever, whichever, anywhere, any one'
<i>ape</i>	<i>ape-(s)aje</i>
'what'	'whatever, anything'
<i>(pə)gimane</i>	<i>(pə)gimane-(s)aje</i>
'how'	'however, any way'

Sentences:

- (1) *Ambil-ambil de yaŋ*
take (dist.) (SPart.) which
mane-aje!
whichever, any one
'Take some, any of them!'
- (2) *Kapan-saje de!*
whenever, any-time (SPart.)
'Any time!'

7.4.1.10 "And" verb compound word formation analogy

WFA (52) $[+V] + [+V] \rightsquigarrow \left[\begin{array}{c} +V \\ +\text{deriv.} \\ +\text{and} \end{array} \right]$

WFA (52) states that some pairs of verbs have corresponding derived compound verbs meaning '(verb) and (verb)'.

Examples:

<i>panjaŋ</i>	<i>lebar</i>	<i>panjaŋ-lebar</i>
'long'	'wide'	'long, expansive'
<i>kasi</i>	<i>sayaŋ</i>	<i>kasi-sayaŋ</i>
'love'	'care for, be sympathetic'	'love'

Sentences:

- (1) *Gue si əŋga? mao*
I (SPart.) not want
panjaŋ-lebar.
long
'I don't want to be long
(in speaking).'
- (2) *Bətul-bətul Neli ŋaku*
really Neli admit
kasi-sayaŋñe ame
love (def./pos.) (prep.)
oraŋ-tue yaŋ ude məninaŋ?
parent who already die

- (2) 'Do you really admit your love for your mother who died?'

7.4.1.11 "And" noun compound word formation analogy

WFA (53) [+N] + [+N] \rightarrow $\left[\begin{array}{l} +N \\ +deriv. \\ +and \end{array} \right]$

WFA (53) states that some pairs of nouns have corresponding derived compound nouns meaning '(noun) and (noun)'.

Examples:

<i>ibu</i> 'mother'	<i>bape</i> 'father'	<i>ibu-bape</i> 'parents'
<i>sian</i> 'day'	<i>maləm</i> 'night'	<i>sian-maləm</i> 'day and night'

Sentences:

- (1) *o jadi baŋ-aji bəriŋsaŋ*
oh so Haji worry

sian-maləm.
day-and-night

'Oh, so you worry day and night.'

- (2) *Ibu-bape saye tingal di*
parents I live at

sane.
there

'My parents live there.'

7.4.1.12 "Or" verb compound word formation analogy

WFA (54) [+V] + [+V] \rightarrow $\left[\begin{array}{l} +V \\ +deriv. \\ +or \end{array} \right]$

WFA (54) states that for certain pairs of verbs there are corresponding derived compound verbs meaning '(verb) or (verb)'.

Examples:

<i>jəlek</i> 'ugly, bad'	<i>bağus</i> 'good, beautiful'	<i>jəlek-bağus</i> 'good or bad, ugly or beautiful'
<i>kəcil</i> 'small'	<i>gəde</i> 'big'	<i>kəcil-gəde</i> 'big or small'
<i>due</i> 'two'	<i>tige</i> 'three'	<i>due-tige</i> 'two or three'

Sentences:

- (1) *Lu kəcil-gəde, emaŋ*
you small-or-big really
dasar anak.
basis child

'Big or small, you are my child.'

- (2) *Ńa? jələk-bağus, kan*
(pron.) bad-or-good (SPart.)
oraŋ-tue lu.
parent you

'Good or bad, I'm your parent.'

- (3) *Ua? lu əŋga? due-tige*
(pron.) you not two-or-three
at here

'I am not two or three.'
(='There is only one like me.')

7.4.1.13 Adversative compound word formation analogy

WFA (55) $\left[\begin{array}{l} +V \\ X_1 \end{array} \right] + \left[\begin{array}{l} +N \\ +concrete \\ +THM \\ X_2 \end{array} \right] \rightarrow \left[\begin{array}{l} +V \\ +deriv. \\ + \left(\begin{array}{l} +NM \\ +THM \end{array} \right) \\ X_1 - X_2 \\ +adversative \end{array} \right]$

(X_1 and X_2 refer to phonological representations.)

WFA (55) states that for certain pairs of verbs and concrete nouns in the theme case relation there are corresponding derived verbs with the meaning 'to suffer, undergo (V) of (N)'. Only a few verbs serve as source verbs for this rule but they combine freely with concrete nouns.

A morphophonemic rule gives such derived verbs the prefix *kə-* and suffix *-an* on the source verb part of the compound (see VMR (4), (9)).

Examples:

<i>curi</i> 'steal'	<i>səpede</i> 'bicycle'	<i>kəcurian-səpede</i> 'to suffer theft of a bicycle, to have one's bicycle stolen'
<i>ilaŋ</i> 'lost'	<i>buku</i> 'book'	<i>kəilaŋan-buku</i> 'to suffer loss of a book, to lose a book'

Sentences:

- (1) *Soal* *saye* *kəilaŋan-kaki*
 problem I *suffer-loss-leg*
ni, *itu* *sude* *lumre*
 this, now that already usual
kite ləlaki.
 we man
 '(As to) the problem of losing
 my leg, that we men are used
 to.'

7.4.1.14 Title name compound word formation analogy

$$\text{WFA (56)} \quad \left[\begin{array}{c} +N \\ +\text{title} \end{array} \right] + \left[\begin{array}{c} +N \\ +\text{human} \\ +\text{proper} \end{array} \right] \Rightarrow \left[\begin{array}{c} +N \\ +\text{deriv.} \\ +\text{human} \\ +\text{proper} \end{array} \right]$$

WFA (56) states that for pairs of certain nouns which are titles and proper human names there are corresponding derived proper names. The nouns which are titles may be job titles, family positions (used also to refer to one of the age and status of such family positions) or other roles such as Chinese employer, European man, European girl, etc. This rule does not apply to all nouns referring to job titles or family positions.

Examples:

Kin terms:	Proper names:	
<i>mpo?</i> 'older sister'	<i>Dije</i>	<i>Mpo?-Dije</i>
<i>ma?</i> 'mother'	<i>Buyuŋ</i>	<i>Ma?-Buyuŋ</i>
<i>(a)baŋ</i> 'older brother'	<i>Idin</i>	<i>Baŋ-Idin</i>
<i>ua?</i> 'uncle'	<i>Lihun</i>	<i>Ua?-Lihun</i>
<i>(i)bu</i> 'mother'	<i>Siti</i>	<i>Bu-Siti</i>
<i>sodare</i> 'brother'	<i>Arun</i>	<i>Sodare-Arun</i>
<i>pa?</i> 'father'	<i>Junus</i>	<i>Pa?-Junus</i>

Job titles and other roles:

<i>Letnan</i> 'lieutenant'	<i>A</i>	<i>Letnan-A</i>
<i>toke</i> 'Chinese employer'	<i>Giok</i>	<i>Toke-Giok</i>

<i>mandor</i> 'foreman'	<i>Boni</i>	<i>Mandor-Boni</i>
<i>tuan</i> 'European man'	<i>W</i>	<i>Tuan-W</i>
<i>ñai</i> 'native wife of European'	<i>Dasime</i>	<i>Ñai-Dasime</i>
<i>non(i)</i> 'European girl'	<i>Neli</i>	<i>Noni-Neli</i>

7.4.2 Completely productive derivation rules

7.4.2.1 Adjective derivation rule

$$\text{DR (11)} \quad \left[\begin{array}{c} +V \\ +\text{stative} \\ + \left(\left[\begin{array}{c} +NM \\ +THM \end{array} \right] \right) \end{array} \right] \rightarrow \left[\begin{array}{c} +\text{Adj.} \\ +\text{derived} \end{array} \right]$$

DR (11) states that given a stative intransitive verb there is a corresponding derived adjective. An adjective follows or (if it is quantifying) precedes a noun in a noun phrase (see section 3.2.6). This rule is completely productive and predictive. There is no change in phonological shape so no morphophonemic rule is needed.

Examples:

- (1) *Ade* *jago* *mude* *dari*
 exist champion *young* from
Bəkasi.
 Bekasi
 'There is a *young* champion from Bekasi.'
- (2) *Lu* *anak* *tolol.*
 you child *stupid*
 'You are a *stupid* child.'
- (3) *Ade* *oraŋ* *baru.*
 there-is person *new*
 'There is a *new* person.'
- (4) *Saye* *kə* *luar* *dari* *təmpat*
 I to outside from place
ini, ñari *guru-guru*
 this look-for teacher (collective)
laen.
different
 'I left this place, looking for other teachers.'
- (5) *Ude* *due-pulu* *taon.*
 already *twenty* years

(5) 'It is already 20 years.'

(6) *Di sono bañak oraᅇ*
 at there many person
bəlande.
 Dutch/foreign
 'Many Dutchmen/foreigners
 are there.'

7.4.2.2 "Together" manner adverb derivation rule

DR (12) $\left[\begin{array}{l} +V \\ +\text{derv.} \\ +\text{together} \end{array} \right] \longrightarrow \left[\begin{array}{l} +\text{Adv.} \\ +\text{derv.} \\ +\text{manner} \\ +\text{together} \end{array} \right]$

DR (12) states that for derived "together" verbs (section 7.3.1.15) there are corresponding derived manner adverbs with the meaning '(num.) together'. Since there is no change in form, no morphophonemic rule is needed.

Examples:

<i>bədue</i> 'be two'	<i>bədue</i> 'two together'
<i>bətige</i> 'be three'	<i>bətige</i> 'three together'
<i>bərəmpat</i> 'be four'	<i>bərəmpat</i> 'four together'

Sentences:

(1) *Maen cari-carian bədue.*
 play hide-and-peek two-together
 'They are playing hide and seek together.'

(2) *Saye kan abis nagı*
 I (SPart.) just collect
pajək ni bədue
 tax this two-together
ame Komeng.
 (prep.) Komeng
 'I was just collecting taxes together with Komeng.'

7.4.2.3 Quote noun derivation rule

DR (13) $\left[\quad \right] \longrightarrow \left[\begin{array}{l} +N \\ +\text{derv.} \\ +\text{quote} \\ +AC \\ +THM \end{array} \right]$

DR (13) states that for any quotable

sound there can be a corresponding derived noun which serves as a direct "quotation" object. Some verbs are specified as quote verbs with the features $\left[+ \left[\begin{array}{l} +N \\ +\text{quote} \end{array} \right] \right]$. This specifies that such actants may follow the verb. Other verbs are specified as not allowing such objects by the redundancy rule:

RR (9) $\left[+V \right] \longrightarrow \left[- \left[\begin{array}{l} +N \\ +\text{quote} \end{array} \right] \right]$

Such a constraint is probably universal (see Starosta 1973b:103).

Examples:

(1) *Lantas anak raja tañe*
 then child king ask

$\left[\begin{array}{l} +N \\ +NM \\ +AGT \end{array} \right]$

"Mao kə mane ratu pərempuan?"
will to where queen lady

$\left[\begin{array}{l} +N \\ +\text{derv.} \\ +\text{quote} \\ +AC \\ +THM \end{array} \right]$

'Then the prince asked "Where are you going, Lady Queen?"'

(2) *Bañak oraᅇ kasi-tao ame*
 many person tell (prep.)

$\left[\begin{array}{l} +N \\ +NM \\ +AGT \end{array} \right]$ $\left[\begin{array}{l} +P \\ +C \end{array} \right]$

aye ni,
 I this

$\left[\begin{array}{l} +N \\ +AC \\ +DAT \end{array} \right]$ $\left[\begin{array}{l} +N \\ +AC \\ +THM \end{array} \right]$

die ude bətamən ame siPuase
he already friendly (prep.) Puase

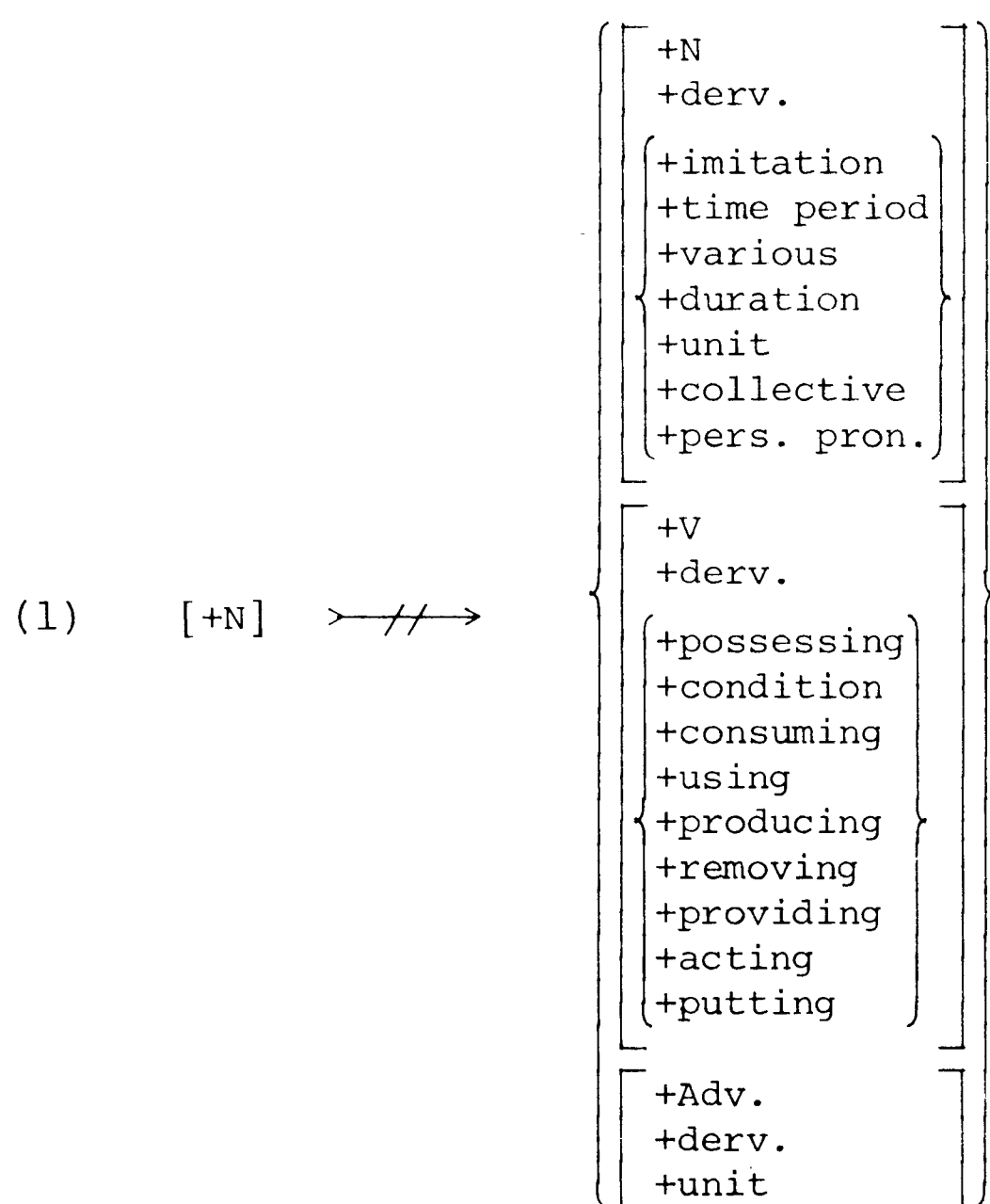
$\left[\begin{array}{l} +N \\ +\text{derv.} \\ +\text{quote} \\ +AC \\ +THM \end{array} \right]$

de.
 (SPart.)

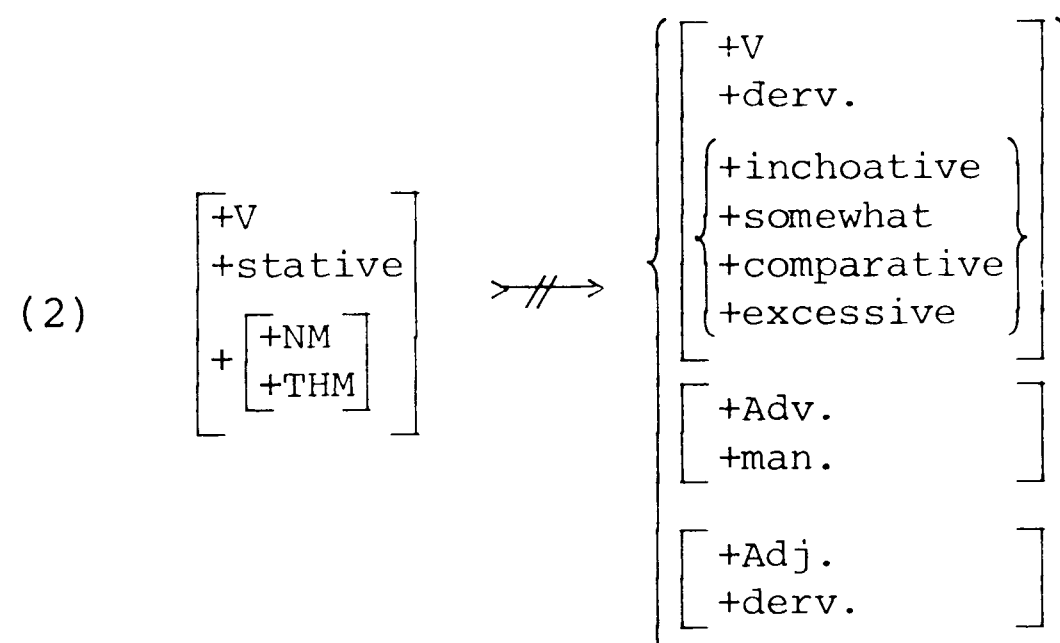
(2) 'Many people tell me this, *he is friendly with Puase.*'

7.5 Some derivation rules which may be collapsed: patterns of derivation of major categories

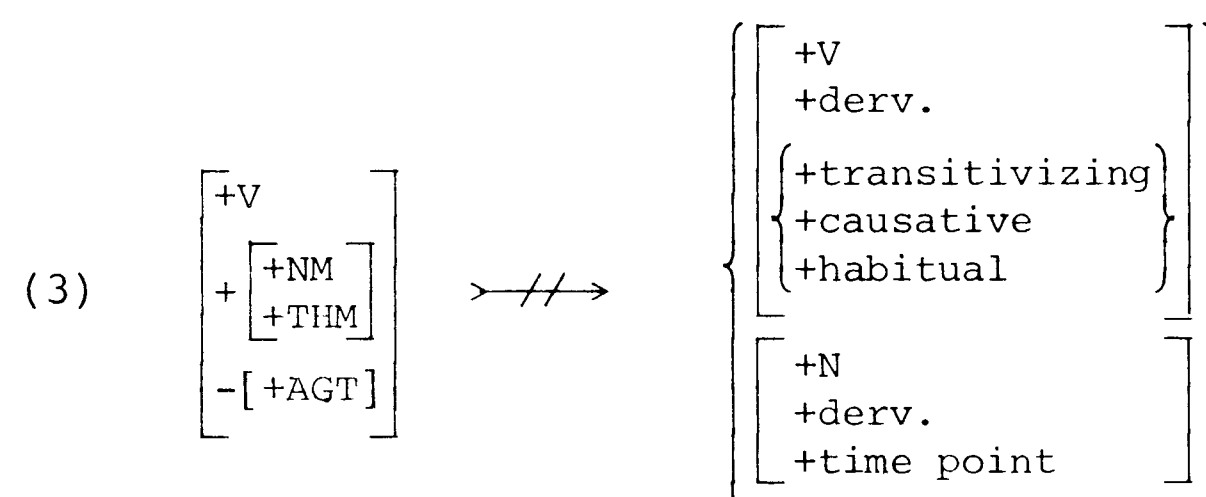
In this section some rules which apply to major categories are collapsed. The importance of categories such as noun and verb is confirmed by their appearing in the description of the class of items which may serve as source items for many derivation rules. In addition, some categories based on case frame, and semantic features such as "stative" repeatedly function in the description of the source items for derivational rules. The different patterns of derivation of these types of lexical items are shown by collapsing the rules which apply only to them, ignoring the finer subcategorization features, such as [+concrete], [+time], etc. which appear in only one or two rules.



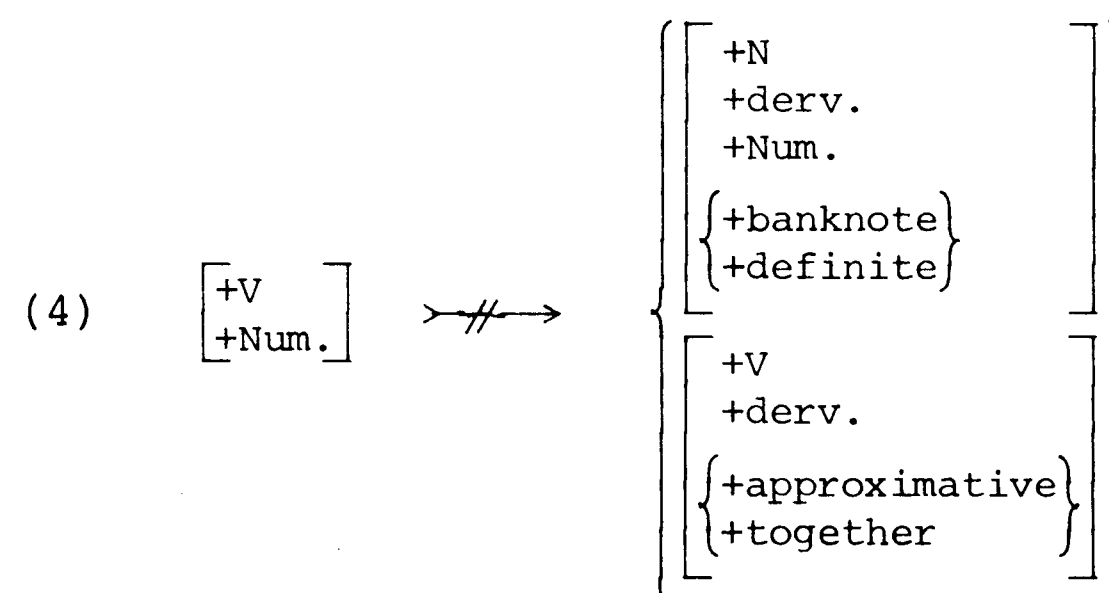
This rule is a summary of many rules. It ignores the finer features of subcategorization of nouns which serve as input to some rules. It shows the pattern of noun derivation. Not all nouns may be derived as all the types of derived items listed above, but any item which serves as a source item for any of the rules included in this rule is a noun.



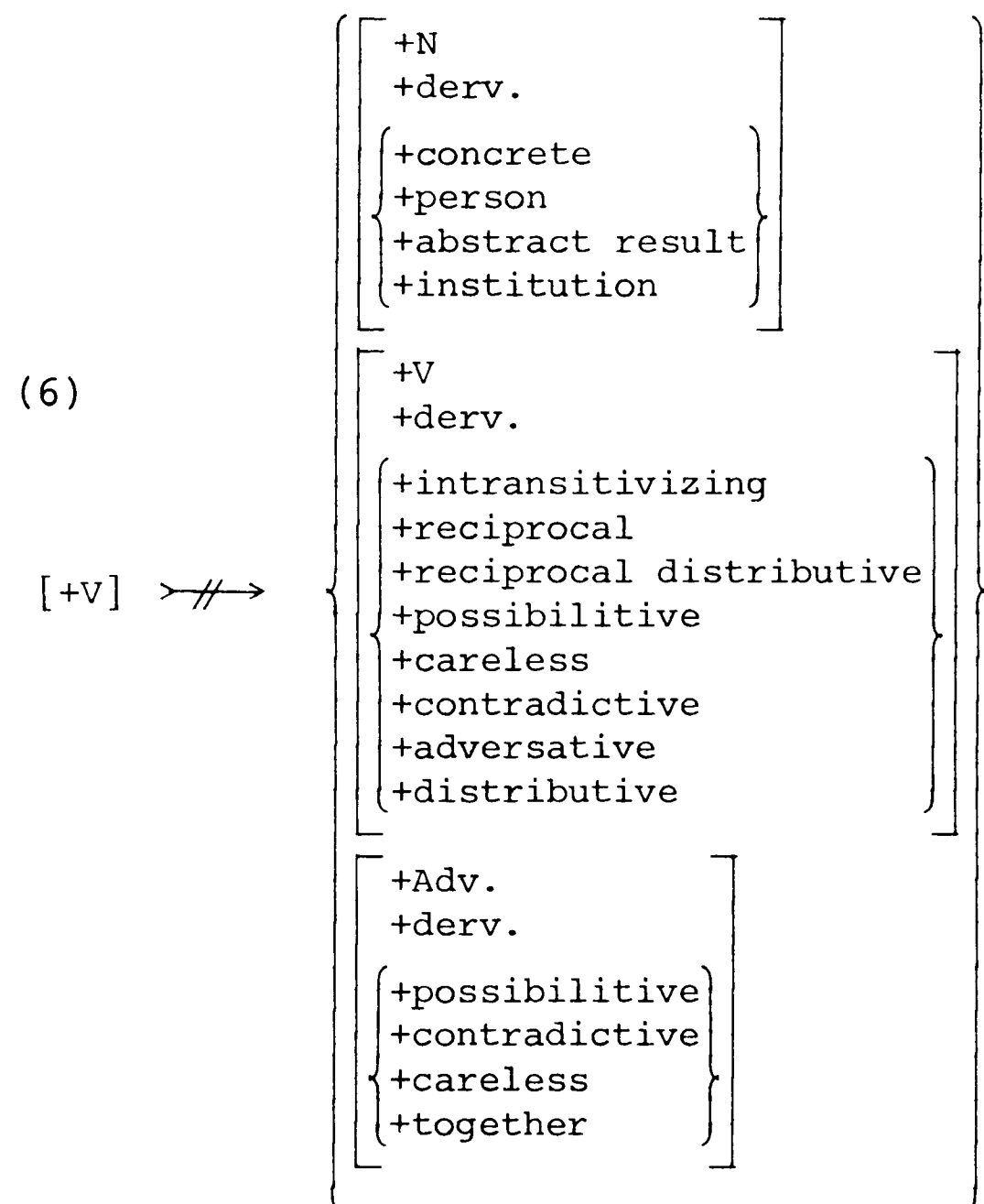
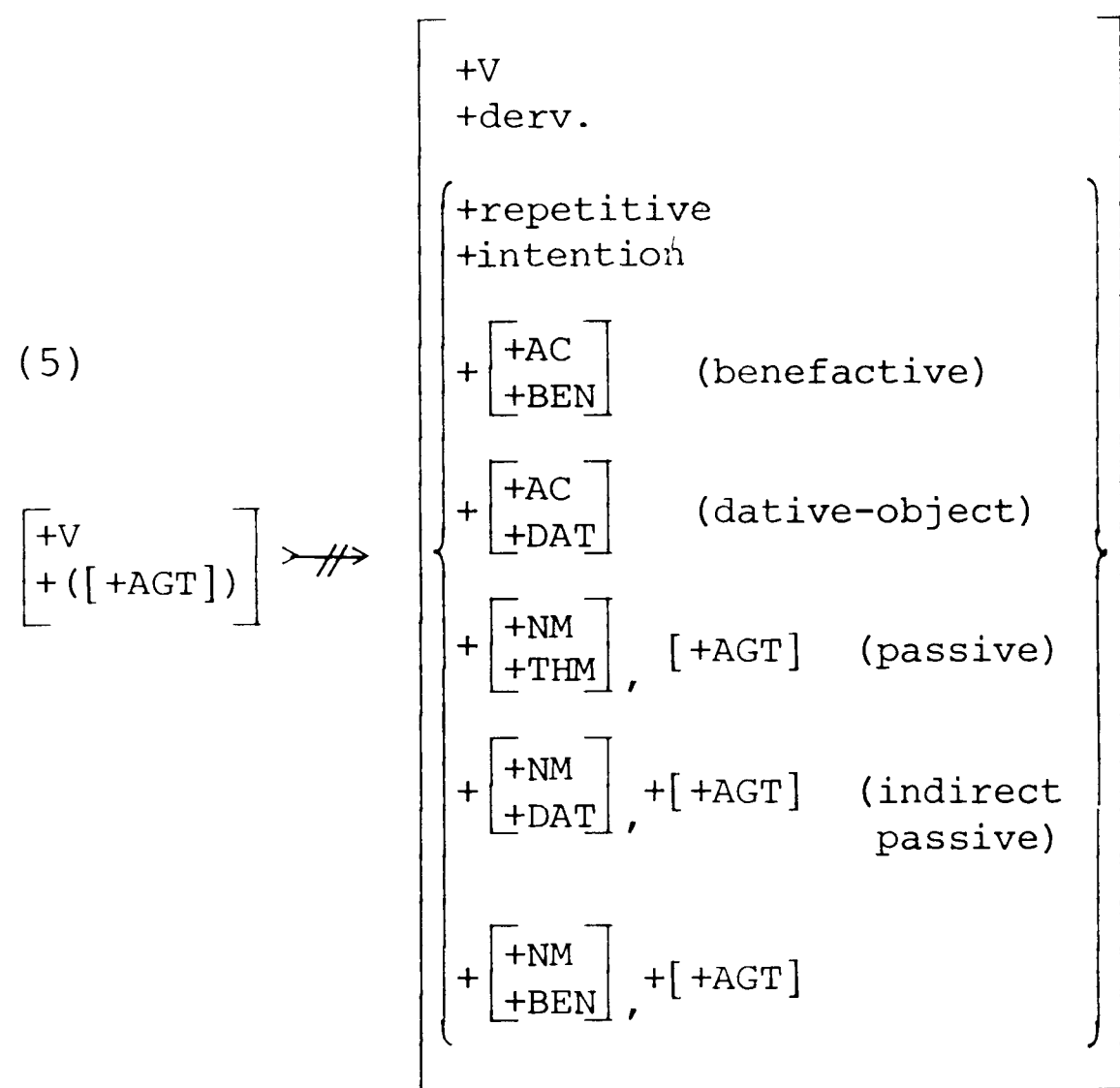
This rule is a summary of several rules. It shows the distinctive pattern of derivation of stative intransitive verbs. An item which serves as a source item for the rules included in this rule is a stative intransitive verb.



This rule is a summary of several rules. It shows the distinctive pattern of derivation of intransitive verbs (those restricted to stative intransitive verbs above may also be added). Not all intransitive verbs may serve as source verbs for all of the rules summarized, but any item which serves as source item for one of these rules is an intransitive verb.



This rule is a summary of rules applying only to numerative verbs.



This rule is a summary of several rules. It ignores some finer features of subcategorization of the source verbs for some rules. Not all agentive verbs may be derived by all of the rules summarized. But any item which serves as a source item for any of these rules is an agentive verb.

This rule is a summary of many rules. It shows the distinctive pattern of derivation of verbs (those restricted to stative, intransitive, and agentive verbs shown on the previous pages may be included). Not all verbs can serve as source items for all the derivations included. But any item which serves as a source item for any of the rules included in this rule is a verb.

* * *

MORPHOPHONEMIC RULES

8.0 Introduction

Morphophonemic rules specify the phonological shape of a form which has certain syntactic or morphological features. In this section, the morphophonemic rules for Betawi are stated. These rules are all derivational (see section 7.1.1). Derivational morphophonemic rules apply whenever an associated derivational rule has applied. In the case of a morphophonemic rule associated with a WFA, the rule simply states a generalization about lexical items which are listed in the lexicon. In the case of a morphophonemic rule associated with a productive derivation rule, the rule specifies the phonological shape of the lexical entries predicted by the abbreviated lexical items and the derivation rule.

So for example, both a verb /baek/ 'good' and a derived noun /kə=baek + an/ 'goodness' are listed in the lexicon. A WFA and associated morphophonemic rule state the generalization that verbs may be derived as "abstract result" nouns with the prefix /kə/ and suffix /an/.

However, the definite noun /kə=baek+an+ñe/ 'his, her, the, etc. goodness' does not have to be listed as item in the lexicon. It is predicted on the basis of the lexical item /kə=baek+an/ 'goodness', the productive definite/possessed derivation rule, and its associated morphophonemic rule which gives derived definite nouns the suffix /ñe/.

A restriction is needed to block morphophonemic rules from reapplying to their own output, and to prevent prefix rules from applying to forms which already have prefixes. I do not know how to formalize such restrictions.

Noun morphophonemic rules are given in 8.1, verb morphophonemic rules in 8.2, and

other morphophonemic rules in 8.3. Examples in sentences are given under the associated derivation rules in section 7 above.

8.1 Noun morphophonemic rules

$$\text{NMR (1)} \quad N[X]_N \longrightarrow N[X-X]_N \quad \left\{ \begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{imitation} \\ +\text{time period} \end{array} \right\} \\ \left[\begin{array}{l} +\text{num.} \\ +\text{definite} \end{array} \right] \end{array} \right\}$$

This rule reduplicates derived definite numerative, imitation, and time period nouns. It must be ordered before NMR (6) and NMR (8). Examples:

imitation:

mobil-mobilan
'toy car'

time period:

pagi-pagi
'early morning'

definite numerative:

satu-satuñe
'the only one'

$$\text{NMR (2)} \quad N^{\lceil} \longrightarrow N^{\lceil pəŋ=} \quad \left\{ \begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{person} \\ +\text{institution} \end{array} \right\} \\ \left[\begin{array}{l} +\text{concrete} \\ +\text{NMR 2} \end{array} \right] \\ \left[\begin{array}{l} +\text{abstract result} \\ +\text{NMR 2} \end{array} \right] \end{array} \right\}$$

This rule gives the prefix *pəŋ-* to derived person and institution nouns, and to derived concrete and abstract result nouns only if they are specified as taking this rule.

Examples:

concrete:

pəmbawaan
'thing brought or to bring'

institution:

pəñcarian
'way of making a living'

person:

pəŋaco
'person who causes confusion'

abstract result:

pəmbəñcian
'hate'

NMR (3) $N[\longrightarrow N[kə= \left[\begin{array}{l} +deriv. \\ +abstract\ result \end{array} \right]$

This rule gives the prefix *kə-* to derived abstract result nouns.

Example:

kəbaekan
'goodness'

NMR (4) $N[\longrightarrow N[pər= \left[\begin{array}{l} +deriv. \\ \left[\begin{array}{l} +abstract\ result \\ +NMR\ 4 \end{array} \right] \\ \left[\begin{array}{l} +institution \\ +NMR\ 4 \end{array} \right] \end{array} \right]$

This rule gives the prefix *pər-* to derived abstract result and institution nouns which are specified as taking this rule.

Examples:

abstract result:

pərasaan
'feeling'

institution:

pəkawinan
'wedding, marriage'

NMR (5) $N[\longrightarrow N[sə= \left[\begin{array}{l} +deriv. \\ \left[\begin{array}{l} +unit \\ +duration \\ +time\ point \end{array} \right] \end{array} \right]$

This rule gives the prefix *sə-* to derived time point, duration and unit nouns.

Examples:

unit:

səletər
'one liter'

duration:

səarian
'one day, a whole day'

time point:

sədatəŋñe
'at the coming'

NMR (6) $]_N \longrightarrow +an]_N \left[\begin{array}{l} +deriv. \\ +concrete \\ \left[\begin{array}{l} +person \\ +NMR\ 6 \end{array} \right] \\ +abstract\ result \\ +institution \\ +imitation \\ +banknote \\ +duration \end{array} \right]$

This rule gives the suffix *-an* to derived concrete, abstract result, institution, bank-note, imitation, and duration nouns, and derived person nouns which are specified as taking this rule.

Examples:

concrete:

maenan
'toy'

person:

pəŋopian
'coffee addict'

abstract result:

kəbaekan
'goodness'

imitation:

mobil-mobilan
'toy car'

banknote:

səratusan
'a hundred (bill)'

duration:

səarian
'a whole day'

NMR (7) $N[X]_N \longrightarrow N[X-X]_N$ $\left[\begin{array}{l} +\text{deriv.} \\ +\text{collective} \\ +\text{various} \end{array} \right]$

This rule reduplicates derived various and collective nouns. It must be ordered after NMR (2)-(6).

Examples:

various:

təlor-təlor
'various kinds of eggs'

collective:

pəŋaco-pəŋaco
'people who confuse things'

pəñcarian-pəñcarian
'ways of making a living'

kəbaekan-kəbaekan
'goodness, kindness'

maenan-maenan
'toys'

NMR (8) $]_N \longrightarrow +\tilde{n}e]_N$ $\left[\begin{array}{l} +\text{deriv.} \\ +\text{definite} \end{array} \right]$

This rule gives the suffix *-ñe* to derived definite nouns. It must be ordered after NMR (1)-(6).

Examples:

haweñe
'weather (def./pos.)'

mobil-mobilanñe
'toy car (def./pos.)'

pəŋacoñe
'person who causes confusion (def./pos.)'

pəñcarianñe
'way of making a living (def./pos.)'

kəbaekanñe
'goodness (def./pos.)'

bəliñe
'buying (def./pos.)'

dibəliñe
'being bought (def./pos.)'

NMR (9) $N[\longrightarrow N[si=$ $\left[\begin{array}{l} +\text{deriv.} \\ +\text{familiar} \end{array} \right]$

This rule gives the prefix *si* to derived familiar names.

Example:

siDulo
'(name, familiar)'

8.2 Verb morphophonemic rules

VMR (1) $v[\longrightarrow v[\eta=$ $\left[\begin{array}{l} +\text{deriv.} \\ +\text{inchoative} \\ +\text{using} \\ +\text{consuming} \\ + \left[\begin{array}{l} +\text{NM} \\ +\text{AGT} \end{array} \right] \\ -\text{imperative} \end{array} \right]$

This rule gives the prefix *η-* to verbs derived as inchoative, using, and consuming verbs, and to nonimperative active agentive verbs.

Examples:

inchoative:

ŋəcilin/kəcilin
'become small'

using:

maeul
'use a hoe'

consuming:

ŋopi
'drink coffee'

nonimperative agentive active:

mukul/pukul
'hit'

VMR (2) $[X]_V \longrightarrow [X-X]_V$ $\left[\begin{array}{l} +\text{deriv.} \\ +\text{somewhat} \\ +\text{habitual} \\ +\text{possibilitive} \\ +\text{contradictive} \\ +\text{careless} \\ +\text{distributive} \\ +\text{reciprocal dis-} \\ \text{tributive} \end{array} \right]$

This rule reduplicates derived habitual, somewhat, possibilitive contradictive, careless, distributive, and reciprocal-distributive verbs.

Examples:

somewhat:

(kə)mere-merean
'reddish'

habitual:

tidur-tiduran
'lie around all the time'

possibilitive:

səgəde-gədəñe
'as big as possible'

contradictive:

səboto-botoñe
'as pretty as she is'

careless:

səbelok-belokñe
'turn aimlessly'

reciprocal-distributive:

maen-mare-marean
'be angry at each other constantly'

distributive:

maen-maen
'play (dist.)'

ñari-ñari
'look for (dist.)'

(ŋə)bəli-bəliin
(see P rule XIII)
'buy (dist.)'

$$\text{VMR (3) }]_V \longrightarrow +in]_V \left\{ \begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{inchoative} \\ +([\text{+AGT}]) \end{array} \right\} \\ +([\text{+AGT}]) \end{array} \right\}$$

This rule gives the suffix *-in* to derived inchoative verbs and agentive verbs and to underived agentive verbs. It is optional for underived verbs.

Examples:

inchoative:

gədein
'become big'

agentive:

derived:

removing:

kutuin
'delouse'

providing:

obatin
'give medicine, treat'

acting:

musuin
'oppose, act as enemy'

using:

sapuin
'sweep'

putting:

kantoin
'pocket'

transitivized:

marein
'get angry at, scold'

causative:

mandiin
'bathe (someone)'

repetitive:

pukulin
'hit repeatedly'

intention:

liatin
'look at'

benefactive:

bəliin
'buy (ben.)'

dative-object:

pinjəmin
'lend'

underived:

bunu/bunuin
'kill'

VMR (4) $v^{\lceil} \longrightarrow v^{\lceil}maen-$ $\left[\begin{array}{l} +deriv. \\ +reciprocal- \\ distributive \end{array} \right]$

This rule gives derived reciprocal distributive verbs the form *maen-*. The verb *maen* means 'play', but in these derived verbs the meaning 'play' is not longer necessarily present.

Example:

maen-mare-marean
'be angry at each other constantly'

VMR (5) $v^{\lceil} \longrightarrow v^{\lceil}kə=$ $\left[\begin{array}{l} +deriv. \\ \left\{ \begin{array}{l} +somewhat \\ +excessive \\ +adversative \end{array} \right\} \end{array} \right]$

This rule gives the prefix *kə-* to derived adversative, "somewhat", and excessive verbs. It is optional for derived somewhat verbs.

Examples:

somewhat:

(kə)mere-merean
'reddish'

excessive:

kəgədean
'too big'

adversative:

kəjatoan
'fallen on'

VMR (6) $v^{\lceil} \longrightarrow v^{\lceil}sə=$ $\left[\begin{array}{l} +deriv. \\ \left\{ \begin{array}{l} +possibilitive \\ +contradictive \\ +careless \end{array} \right\} \end{array} \right]$

This rule gives the prefix *sə-* to derived possibilitive, contradictive, and careless verbs.

Examples:

possibilitive:

səgəde-gədeñe
'as big as possible'

contradictive:

səboto-botoñe
'as pretty as (she) is'

careless:

səbelok-belokñe
'turn aimlessly'

VMR (7) $v^{\lceil} \longrightarrow v^{\lceil}bər=$ $\left[\begin{array}{l} +deriv. \\ + \left[\begin{array}{l} +NM \\ +THM \end{array} \right] \\ - [+AGT] \end{array} \right]$

This rule gives the prefix *bər-* to derived intransitive verbs which do not take other prefixes (*sə-*, *kə-*, or *ŋ-*, as specified above).

Examples:

possessing:

bəbini
'to have a wife'

together:

bədue
'to be two together'

producing:

bətəlor
'to lay an egg'

intransitivized:

bəpikir
'to think, be thinking'

reciprocal:

bəpukul
'to hit each other'

VMR (8) $v^{\lceil} \longrightarrow v^{\lceil}di=$ $\left[\begin{array}{l} +deriv. \\ +([+AGT]) \\ - \left[\begin{array}{l} +NM \\ +AGT \end{array} \right] \\ - \left[\begin{array}{l} +pron. \\ +AC \\ +AGT \end{array} \right] \end{array} \right]$

This rule gives the prefix *di-* to derived passive agentive verbs, except when preceded by pronominal agentive actants in the accusative case form.

Examples:

direct passive:

dibəli
'bought'

indirect passive:

dibəliin
'bought (ben.)'

VMR (9) $]_V \longrightarrow +\tilde{n}e]_V$ $\left[\begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{possibilitive} \\ +\text{contradictive} \\ +\text{careless} \end{array} \right\} \end{array} \right]$

This rule gives the suffix *-ñe* to derived possibilitive, contradictive, and careless verbs.

Examples:

possibilitive:

səgəde-gədəñe
'as big as possible'

contradictive:

səboto-botoñe
'as pretty as (she) is'

careless:

səbelok-belokñe
'turn aimlessly'

VMR (10) $X_1]_V \longrightarrow X_1+an]_V$ $\left[\begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{condition} \\ +\text{somewhat} \\ +\text{approximative} \\ +\text{reciprocal} \\ \text{distributive} \\ +\text{habitual} \\ +\text{adversative} \\ +\text{comparative} \\ +\text{excessive} \end{array} \right\} \end{array} \right]$

This rule gives the suffix *-an* to derived condition, somewhat, approximative, reciprocal distributive, habitual, adversative, approximative, comparative and excessive verbs.

Examples:

condition:

coŋekan
'have an ear infection'

somewhat:

kəməre-merean
'reddish'

approximative:

due-puluan
'around twenty'

reciprocal distributive:

maen-mare-marean
'be angry at each other constantly'

habitual:

tidur-tiduran
'lie around all the time'

adversative:

kəilaŋan
'lost, have something lost'

kəilaŋan-buku
'have a book lost'

comparative:

gədean
'bigger'

excessive:

kəgədean
'too big'

8.3 Other morphophonemic rules

AMR (1) $\text{Adv.}[X]_{\text{Adv.}} \longrightarrow \text{Adv.}[X-X]_{\text{Adv.}}$ $\left[\begin{array}{l} +\text{deriv.} \\ \left\{ \begin{array}{l} +\text{frequency} \\ +\text{manner} \\ +\text{unit} \\ +\text{possibilitive} \\ +\text{contradictive} \\ +\text{careless} \end{array} \right\} \end{array} \right]$

This rule reduplicates derived frequency, manner, unit, possibilitive, contradictive and careless adverbs. This rule must be ordered before AMR (2) and AMR (3).

Examples:

frequency:

sari-sariñe
'daily'

manner:

baek-baek
'carefully'

unit:

satu-satu
'one by one'

possibilitive:

səgəde-gədəñe
'as big as possible'

contradictive:

səjao-jaoñe
'as far as, although far'

careless:

səmao-maoñe
'as one wants'

AMR (2) Adv. [] → Adv. [sə= $\left. \begin{array}{l} +\text{deriv.} \\ +\text{frequency} \\ +\text{unit} \\ +\text{possibilitive} \\ +\text{contradictive} \\ +\text{careless} \end{array} \right\}$]

This rule gives the prefix *sə-* to derived frequency, possibilitive, contradictive and careless, and sentence adverbs. This rule is optional for sentence adverbs.

Examples:

frequency:

səwaktu-waktu
'sometimes'

possibilitive:

səgəde-gədəñe
'as big as possible'

contradictive:

səjao-jaoñe
'as far as, although far'

careless:

səmao-maoñe
'as one wants'

sentence adverb:

(sə)bətulñe
'actually'

AMR (3)]_{Adv.} → +ñe] _{Adv.}

$\left. \begin{array}{l} +\text{deriv.} \\ +\text{SAdv.} \\ +\text{frequency} \\ +\text{possibilitive} \\ +\text{contradictive} \\ +\text{careless} \end{array} \right\}$

This rule gives the suffix *-ñe* to derived frequency, possibilitive, contradictive, careless and sentence adverbs.

Examples:

frequency:

sari-sariñe
'daily'

possibilitive:

səgəde-gədəñe
'as big as possible'

contradictive:

səjao-jaoñe
'as far as, although far'

careless:

səmao-maoñe
'as one wants'

sentence adverb:

səbətulñe
'actually'

subcon. MR (1) subcon. [] → subcon. [sə= / [+deriv.]]

This rule gives the prefix *sə-* to derived subordinating conjunctions.

Example:

səbəlunñe
'before'

subcon./Intro. MR (1)

] _{subcon./Intro.} → +ñe] _{subcon./Intro.} / [+deriv.]

This rule gives derived subordinating conjunctions and introducers the suffix *-ñe*.

Examples:

subcon:

səbəlunñe
'before'

Intro:

jadiñe
'therefore'

Indef. N, V, Adv., MR (1)

$]_{N/V/Adv.} \longrightarrow -(s)aje]_{N/V/Adv.} \left[\begin{array}{l} +deriv. \\ +indefinite \end{array} \right]$

This rule gives derived indefinite nouns,

adverbs, and verbs the form *-(s)aje*.

Examples:

noun:

ape-(s)aje
'anything'

adverb:

pəgimane-(s)aje
'any way, any how'

verb:

bərape-(s)aje
'be any amount'

* * *

PHONOLOGY

9.0 Introduction

The phonological component is one of the basic components of a grammar in the lexibase framework as in other generative frameworks (see section 2.1). The standard work on theory of phonology in generative grammar on which the following discussion is based is Chomsky and Halle (1968). In addition, the concept and conventions of the variable rules as proposed by Labov (e.g. Labov 1972) are adopted (see section 9.4).

Muhadjir (1964) and Kähler (1966) give phonemic inventories for Betawi. The differences between their analyses are dealt with in Muhadjir (1972). Hakim (1969) discusses the distribution of [h] in Betawi. These works provide a valuable introduction to the phono-

logy.

The theory of generative phonology and of variable rules, however, make a more adequate description possible, especially for the vowel system and the distribution of the laryngeals. It will be shown that the framework used here is helpful in dealing with these areas.

In this section, first a table of the underlying sounds of Betawi and their distinctive features will be given. Rules relating to vowels and laryngeals, and then other rules will be discussed. Finally I will explain differences from previous descriptions. In 9.7 morpheme structure conditions (MS conditions) and phonological rules (P rules) are formally stated.

Table 3

Distinctive feature composition of sounds of Betawi¹

	h	ʔ	y	w	i	u	e	o	a	ə	r	l	p	b	m	t	d	n	s	c	j	ñ	k	g	ŋ
son.	-	-	+	+	+	+	+	+	+	+	+	+	-	-	+	-	-	+	-	-	-	+	-	-	+
syl.	-	-	-	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cons.	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
cor.	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	+	+	+	+	+	+	+	+
ant.	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-
high	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
low	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
back	-	-	-	+	-	+	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
round	-	-	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
voice	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+	-	+	+	-	-	+	+	-	+	+
cont.	+	-	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	+	-	-	-	-	-	-
nasal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	-	+
lateral	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
strid.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-
tense	-	-	-	-	+	+	+	+	+	-	-	-	+	-	-	+	-	-	+	+	-	-	+	-	-
dist.	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	+	+	+	+	+	+	+
del. rel.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-

9.1 The vowel system

Betawi has six underlying vowels: /i/, /e/, /u/, /o/, /a/, /ə/. The surface vowel inventory contains 14 vowels: [ə], [i], [e], [u], [o], [a]; the lax counterparts of the nonlow tense vowels [I], [E], [U], [O]; and the nonlow tense vowels with offglides: [iy], [ey], [uw], [ow].

Four rules operate on underlying forms to give the 14 surface vowels: (1) the vowel laxing rule, (2) the lax vowel assimilation rule, (3) the tense vowel offglide rule, (4) the 'final /a/' rule. These rules are discussed below. (In addition there are rules of shwa epenthesis and deletion. Since these rules do not affect the surface vowel inventory, and are connected with rules related to prefixes, they are discussed in section 9.3.)

9.1.1 Vowel laxing and laxing assimilation rules

Nonlow vowels may optionally be lax in closed syllables (P rule II). The degree of laxing may vary. Vowel laxing accounts for the lax vowels in the following examples:

Underlying form:	(Optional) surface form:	Gloss:
/titip/	[titIp]	'keep (for someone)'
/pukul/	[pukUl]	'hit'
/tulis/	[tulIs]	'write'
/moñet/	[moñEt]	'monkey'
/ekor/	[ekOr]	'tail'
/campur/	[campUr]	'mix'
/bintaŋ/	[bIntaŋ]	'star'
/lonte/	[lOnte]	'prostitute'

The addition of a suffix may open a syllable, as in the following example.

Underlying form:	Surface forms:	Gloss:
/pilih/	[pilih], [pilIh]	'choose'
/pilih+an/	[pilihan] but not *[pilIhan]	'choice'

A mid vowel is obligatorily assimilated in laxness to a following lax vowel which is identical in all other features (P rule III). This accounts for lax vowels in open syllables in examples like the following:

Underlying form:	surface forms:	Gloss:
/bohoŋ/	[bOhOŋ], [bohoŋ]	'lie'
/beres/	[bErEs], [beres]	'arranged'

High vowels or vowels which are not identical in other features do not assimilate in laxness as shown by the previous examples.

The laxing assimilation rule must be ordered after the vowel laxing rule to give the correct results.

9.1.2 Tense vowel offglide rule

Nonlow tense vowels may optionally have an offglide in word final position (P rule IV). While a very slight offglide is sometimes heard on a tense vowel in any environment, it is only in word final position that it is clearly pronounced. The tense vowel offglide rule accounts for the offglide in the following examples:

Underlying form:	(Optional) surface form:	Gloss:
/soto/	[sotow]	'kind of soup'
/sate/	[satey]	'kind of meat dish'
/satu/	[satuw]	'one'
/isi/	[isiy]	'contents'

The offglide rule must be ordered after the vowel laxing rule, as a final offglide does not cause laxing of the preceding vowels.²

9.1.3 The final /a/ rule

Underlying final /a/ may optionally be pronounced as either [a] or [e] at morpheme boundary before a consonant or word finally.

Examples:

Underlying form:	Surface forms: (most frequent pronunciation first)	Gloss:
/apa/	[ape] ([apa])	'what'
/apa+ña/	[apeñe] ([apaña])	'what is it?'
/ŋ=apa+in/	[ŋapain]	'what are you doing?'
/apa+an/	[apaan]	'what is it?' (ref. to concrete object)

In the Kebon Pala district of Jakarta, the final /a/ is raised but not fronted, giving the characteristic final shwa of Kebon Pala:

Examples:

Underlying form:	Surface forms: (most frequent pronunciation first)	Gloss:
/apa/	[apə] ([apa])	'what'
/apa+ña/	[apəñə] ([apaña])	'what is it?'
/ŋ=apa+in/	[ŋapain]	'what are you doing?'
/apa+an/	[apaan]	'what is it?' (ref. to concrete object)

The final /a/ rule must be ordered after the tense vowel offglide rule, as words with underlying final /a/ do not take an offglide.

Example:

Underlying form:	/gule/	/gula/
	'kind of soup'	'sugar'
Offglide rule:	guley	-
Final /a/ rule:	-	gule
Surface form:	[guley]	[gule]

This accounts for contrasts like the following:

Underlying form:	(Optional) surface form:	Gloss:
/gule/	[guley]	'kind of soup'
/gula/	[gule]	'sugar'
/bole/	[boley]	'allowed'
/bola/	[bole]	'ball'

Since the offglide rule is optional, the surface contrast is potential, and the different underlying forms may also be pronounced identically with surface final [e].

9.2 The laryngeals

The distribution of /h/ and glottal stop in Betawi will be discussed in relation to initial, medial, and final position.

9.2.1 Initial position

/h/ does not normally occur in initial position. In this it is like the other continuant glides /w/ and /y/. There are these exceptions in my data:

Underlying form:	Surface form:	Gloss:
/h/:		
/hah/	[hah]	'aha' (exclamation)
/he/	[he]	'hey!'
/hektar/	[hEktar]	'hectare'
/haram/	[haram]	'forbidden'
/y/:		
/ayo/	[yo] ([ayo], [ño])	'come on'
/yaŋ/	[yaŋ] ([ñaŋ])	'which'
/yakin/	[yakIn]	'sure'
/w/:		
/wadu/	[wadu] ([adu])	(exclamation of dismay)
/waris/	[warIs]	'inheritance'
/wuwuŋan/	[wuwuŋan]	'ceiling, house ridge'

Most of these words fall into the marginal categories of exclamations (/hah/, /he/, /ayo/, /wadu/), or borrowed words (/hektar/ from Dutch, /haram/, /hajar/ from Arabic). These items must be specified in the lexicon as exceptions to the general rule that glides do not occur initially (MS condition II).

Glottal stop occurs initially in all words which do not begin with another glide or con-

sonant. Since it is predictable this information is provided by a phonological rule (P rule VIII) rather than being specified in the underlying form.

Examples:

Underlying form:	Surface form:	Gloss:
/isi/	[ʔisi]	'contents'
/ekor/	[ʔekor]	'tail'
/use/	[ʔuse]	'have to'
/ogah/	[ʔogah]	'don't want'
/apa/	[ʔape]	'what'

9.2.2 Medial position

/h/ and glottal stop may occur between like vowels. However, unlike /w/ and /y/, they usually do not occur between unlike vowels. There are these exceptions in my data:

Underlying form:	Surface form:	Gloss:
/h/:		
/paha/	[pahe]	'thigh'
/jahe/	[jahe]	'ginger'
/nasehat/	[nasehat]	'advice'
/ahir/	[ʔahir]	'end'
/ʔ/:		
/soʔal/	[soʔal]	'problem'
/doʔa/	[doʔa]	'prayer'

Glides usually do not occur in clusters with other glides or with consonants. There are these exceptions in my data:

Underlying form:	Surface form:	Gloss:
/maʔlum/	[maʔlum]	'understand'
/raʔyat/	[raʔyat]	'people'

Most of these are borrowed words (Arabic /nasehat/, /ahir/, /soʔal/, /doʔa/, /maʔlum/, /raʔyat/). These words must be specified in the lexicon as exceptions to the general rules that glides do not occur in clusters with other glides or with consonants (MS condition III) and glottal stop and /h/ do not occur

between unlike vowels (MS condition IV).

9.2.3 Final position

9.2.3.1 Underlying final /h/

Underlying morpheme final /h/ in Betawi is usually deleted (P rule I). However, deletion is variable. It is deleted more often before a suffix beginning with a vowel than before a suffix beginning with a consonant or word finally, and more often between like vowels than between unlike vowels (see section 9.4, Variable rules).

Examples:

Underlying forms:	(Optional) surface forms:	Gloss:
/marah/	[mare] ([marah])	'angry'
/marah+ña/	[mareña] ([marahña])	'anger (def./pos.)'
/marah+in/	[marain] ([marahin], [marein])	'get angry at, scold'
/marah+an/	[marahan] ([maraan], [marean])	'very angry, anger'

This example also shows that when /h/ is deleted, an underlying /a/ which is then in final position may be raised and fronted to [e] by the final /a/ rule. Thus the final /a/ rule must be ordered after the /h/ deletion rule.

Underlying word final /h/ closes the syllable, causing laxing of the vowel in the final syllable. If the /h/ is deleted, the vowel is not lax. Thus the vowel laxing rule (P rule II) must also be ordered after the /h/ deletion rule (P rule I).

Example:

Underlying form:	Surface forms:	Gloss:
/bodoh/	/bOdOh/, /bodo/	'stupid'

There are a few words which have invari-

able final /h/. These are either negatives or expressive particles. The same word classes are exceptional in having invariable final glottal stop (see section 9.2.3.2). They must be specified in the lexicon as exceptions to the /h/ deletion rule.

Examples:

Underlying form:	Surface form:	Gloss:
/ogah/	[ogah]	'don't want, no'
/ʔah/	[ʔah]	(particle expressing discomfort)

9.2.3.2 Underlying final glottal stop

There are a few words which have an invariable final glottal stop. They may be classed as negatives, expressive particles, and kin terms which are also used as terms of address and reference. These words must be listed in the lexicon with underlying final glottal stop.

Underlying form:	Surface form:	Gloss:
/kagaʔ/	[kagaʔ]	'no'
/əŋgaʔ/	[(ə) ŋgaʔ]	'not'
/koʔ/	[kOʔ]	(particle expressing surprise)
/keʔ/	[kEʔ]	(particle expressing indifference)
/paʔ/	[paʔ]	'father'
/maʔ/	[maʔ]	'mother'
/ñaʔ/	[ñaʔ]	'mother'
/uaʔ/	[uaʔ]	'uncle'
/adeʔ/	[(a) dEʔ]	'younger sibling'
/əmpoʔ/	[((ə)m) pOʔ]	'older sister'

The final glottal stop of kin terms was noted as a "vocative suffix" in PAN by Dempwolf (1934:153). Negatives and expressive words seem to be classes of words which tend to contain sounds which are rare or nonphone-

mic in a language, e.g. English [ũʔũh] 'no' with glottal stop and phonemic vowel nasalization, Javanese [lho] '(exclamation)' with "heavy" (lowered larynx) [lh] (Uhlenbeck 1963:75).

9.2.3.3 Underlying final vowel

Forms which have underlying final vowels (or deleted final /h/) in Betawi may optionally have surface word final offglide (if nonlow tense vowels), glottal stop, or [h] release (P rules IV, VI and VII). The glottal stop and [h] release are not very strongly or frequently pronounced by my primary informant, Bu Siti. She felt that very distinct and frequent glottal stop or [h] release sounded typical of outlying areas of Jakarta. This is also indicated by Muhadjir (1972:2). The speech of outlying areas of Jakarta was not investigated in this study. But such geographical factors could be incorporated into the description by weighting geographical factors in variable rules.

An epenthetic glottal stop variable appears finally in a form ending in a vowel at morpheme boundary (P rule VI). The glottal stop appears more frequently between like vowels than between unlike vowels and more frequently before a vowel than before a consonant or at word boundary. However, word finally after [a], a glottal stop is more likely to occur than in any other environment except between like vowels. These regularities may be expressed in a variable rule. Their possible phonetic basis is discussed in section 9.4.

Thus three P rules (IV, VI and VII), giving variable glottal stop at morpheme boundary, and optional offglide and [h] release word finally will account for the alternate pronunciations of forms with underlying final vowels in Betawi, as in the following examples.

Examples:

Underlying form:	Surface forms (most frequent pronunciation first):	Gloss:
/mandi/	[mandi] ([mandiʔ], [mandiy], [mandih])	'bathe'
/mandi+ñe/	[mandiñe] ([mandiʔñe])	'bathing (def./pos.)'
/mandi+in/	[mandiʔin] ([mandiin])	'bathe (someone)'
/apa/	[ʔapaʔ], ([ʔapa], [apah])	'what'
/apa+an/	[ʔapaʔan] ([apaan])	'what is it?'
/ŋ=apa+in/	[ŋapain] ([ŋapaʔin])	'what are you doing?'

Forms with underlying final vowels may be contrasted with forms with underlying final /h/ (discussed in section 9.3.3.1) in two ways: 1) Forms with underlying final vowels do not allow [h] at morpheme boundary before a suffix.

Examples:

Underlying forms:	Surface forms:	Gloss:
/mandi+in/	[mandiʔin] /[mandiin] but not *[mandihin]	'bathe (someone)'
/pilih+in/	[piliʔin] /[piliin] /[pilihin]	'choose'

2) Even when forms with underlying final vowels have an [h] release at word boundary, the vowel in the final syllable may not be lax.

Examples:

Underlying forms:	Surface forms:	Gloss:
/mandi/	[mandi] /[mandiy] /[mandiʔ] /[mandih] but not *[mandih]	'bathe'
/pilih/	[pili] /[piliy] /[piliʔ] /[pilih] /[pilih]	'choose'

Although there are not many forms with

underlying final glottal stop (discussed in section 9.2.3.2), they may be contrasted with forms with underlying final vowels in the following ways: (1) Underlying final glottal stop is invariable, (2) Underlying final glottal stop causes laxing of nonlow tense vowels in final syllables.

Examples:

Underlying form:	Surface forms:	Gloss:
/soto/	[soto], [sotow], [sotoh], [sotoʔ] but not *[sot0ʔ]	'kind of soup'
/koʔ/	[k0ʔ]	(particle expressing surprise)

In addition, underlying final glottal stop occurs only in particular classes of words (see 9.3.3.2).

The [h] release and final glottal stop rules must be ordered after the vowel laxing rule, as neither cause laxing of the vowel in the final syllable.

The final glottal stop rule must also be ordered after the final /a/ rule, because the final glottal stop rule operates more frequently after *surface* word final [a] (see section 9.4, Variable rules).

9.3 Other rules

9.3.1 Shwa epenthesis, nasal assimilation, and consonant loss

There are several rules in Betawi which apply to the verbal prefix /ŋ/ and the nominal prefix /pəŋ/. Since there are no other prefixes ending in a nasal, these rules may be stated as applying to a nasal at prefix boundary. The symbol = will be used to symbolize a prefix boundary. The surface forms of these prefixes may be predicted with four ordered rules: shwa epenthesis, nasal assimilation, consonant loss I and consonant loss II (P rules IX-XII).³

At a prefix boundary before a vowel, none of the rules apply.

Examples:

Underlying form:	Surface form:	Gloss:
/ŋ=ajar/	[ŋajar]	'teach'
/ŋ=ikət/	[ŋikət]	'tie'
/ŋ=omɔŋ/	[ŋomɔŋ]	'say'
/ŋ=uban+in/	[ŋubanin]	'remove grey hairs'
/ŋ=elak/	[ŋelak]	'evade'
/ŋ=ərti/	[ŋərti]	'understand'
/pəŋ=alaŋ+an/	[pəŋalaŋan]	'obstacle'
/pəŋ=ormat/	[pəŋormat]	'respect'

After the verbal prefix /ŋ/, shwa epenthesis applies before a voiced obstruent or liquid, blocking the following rule, nasal assimilation. Shwa epenthesis also applies before a (consonant-initial) monosyllabic stem (there are very few of these).

Examples:

Underlying form:	Surface form:	Gloss:
/ŋ=bohɔŋ/	[ŋəbɔhɔŋ]	'lie'
/ŋ=dorɔŋ/	[ŋədɔrɔŋ]	'push'
/ŋ=jaet/	[ŋəjaet]	'sew'
/ŋ=ganti/	[ŋəganti]	'change'
/ŋ=lamun/	[ŋəlamun]	'daydream'
/ŋ=rasa/	[ŋərəsə]	'feel'
/ŋ=teh/	[ŋətEh]	'tea'

Nasal assimilation applies to the nominal prefix /pəŋ/ before voiced obstruents, although not before liquids.

Examples:

Underlying form:	Surface form:	Gloss:
/pəŋ=bohɔŋ/	[pəmbɔhɔŋ]	'liar'
/pəŋ=diəm/	[pəndiəm]	'quiet person'
/pəŋ=jual/	[pəŋjual]	'seller'
/pəŋ=ganti/	[pəŋganti]	'replacement'
/pəŋ=liat+an/	[pəŋliatan]	'what is seen'

Nasal assimilation also applies to both prefixes before voiceless obstruents and nasals followed by loss of the initial consonant

of the stem.

Examples:

Underlying form:	Surface form:	Gloss:
/ŋ=pukul/	[mukUl]	'hit'
/ŋ=tulis/	[nulIs]	'write'
/ŋ=sapu/	[ŋapu]	'sweep'
/ŋ=cari/	[ŋari]	'look for'
/ŋ=kasi/	[ŋasi]	'give'
/ŋ=masak/	[masak]	'cook'
/ŋ=naek/	[naek]	'go up'
/ŋ=ŋaŋi/	[ŋaŋi]	'sing'
/ŋ=ŋəri/	[ŋəri]	'horrify'
/pəŋ=takut/	[pənakUt]	'coward'
/pəŋ=sakit/	[pəŋakIt]	'illness'
/pəŋ=kaco/	[pəŋaco]	'one who causes confusion'
/pəŋ=marah/	[pəmare]	'angry person'

The exception to initial consonant loss is /c/ after /pəŋ/.

Examples:

Underlying form:	Surface form:	Gloss:
/pəŋ=cari+an/	[pəŋcarian]	'livelihood'

The differences in the behavior of the verbal prefix /ŋ/ and the nominal prefix /pəŋ/ seem explainable in terms of morpheme structure. The differences are that after the verbal prefix /ŋ/ there is epenthetic shwa before voiced obstruents or liquids and the voiceless affricate /c/ is deleted. These additional processes associated with the verbal prefix /ŋ/ seem to act as a "conspiracy" to avoid creating initial clusters of nasal and consonant which contradict the morpheme structure condition in Betawi (MS condition I) that there are no initial consonant clusters. The morpheme structure condition is not contradicted in the case of the nominal prefix /pəŋ/ because the nasal is preceded by the rest of the prefix, i.e. it is not initial. So in stating the epenthetic shwa rule and consonant loss I, the initial position of the nasal is specified, so that application to /pəŋ/ is blocked.

An aspect of the nasal assimilation rule which requires further comment is the assimilation of /ŋ/ to /s/, discussed below.

9.3.1.1 Assimilation of /ŋ/ to /s/

An aspect of the behavior of the prefixes /ŋ/ and /pəŋ/ which at first appears anomalous in Betawi, is the change of /ŋ/ to [ɲ] before /s/. The usual phonemic charts, such as that given by Kähler (1961:V) list /ɲ/ with a palatal series and /s/ with an alveolar series. This type of chart would make the change of /ŋ/ to [ɲ] before /s/ appear to be the only case in which the prefix cannot be treated as assimilating regularly before a voiceless obstruent.

An examination of the articulatory features of the sounds of Betawi makes the behavior of /ŋ/ before /s/ seem less anomalous. Betawi has a single sibilant. It is a blade-alveolar fricative, articulated with the tongue-tip down behind the lower teeth. This may be contrasted with the English alveolar fricative which for many speakers is produced with the tongue tip raised to the alveolar ridge (Smalley 1964:20-21). In the feature theory of Chomsky and Halle (1968), tip versus blade alveolar sounds are distinguished by the feature "distributed". Distributed sounds are produced with a construction that extends for a considerable distance along the direction of the air flow (Chomsky and Halle 1968:312). Tip-alveolar sounds are [-distributed] and blade-alveolar sounds are [+distributed].

The sounds symbolized here as /c/ and /j/ in Betawi are affricates. Like /s/, they are pronounced with blade-alveolar articulation, the tongue tip being kept down at the lower teeth. This may be contrasted to the English palatoalveolar affricates which are usually pronounced with tongue tip articulation for the stop, dropping the tip for the fricative (Smalley 1964:275), and are also pronounced farther back in the mouth.

/ɲ/ in Betawi has the same point of articulation features as those of /s/ and the affricates.

The sounds /ɲ/, /s/, /c/, and /j/ in Betawi are thus all blade-alveolar sounds, while /n/, /d/, and /t/ are tip-alveolar or tip-dental (/t/, and /n/ before /t/). On the basis of these articulatory features, the change of /ŋ/ to [ɲ] before /s/ appears to be a regular case of assimilation.

9.3.2 ɲə- loss

An additional rule which applies to the prefix ɲ- is ɲə- loss which applies to reduplicated forms where the prefix ɲ is not assimilated and the epenthetic shwa rule has applied (P rule XIII). The motivation for this rule appears to have to do with the length of the reduplicated form which results when ɲ- is not assimilated, but forms an additional syllable with an epenthetic shwa.

Example:

		Gloss:
Underlying form:	/ɲ=bəli-ɲ=bəli/	'buy (dist.)'
Shwa epenthesis:	ɲə=bəli-ɲə=bəli	
ɲə- loss	ɲə=bəli-bəli	
Surface form:	[ɲəbəli-bəli]	

It might seem that the prefix ɲ- should simply not be copied by the reduplication rule. But ɲ- is copied when it assimilates, and other prefixes are also reduplicated with the stem.

Examples:

Underlying forms:	Surface forms:	Gloss:
/ɲ=cari-ɲ=cari/	[ɲari-ɲari]	'look for (dist.)'
/kə=baek+an-kə=baek+an/	[kəbaekan-kəbaekan]	'kindness'

9.3.3 /r/ loss

The prefixes /bər/ and /pər/ lose /r/ before consonants. (There are no examples available before glides, as they normally do not occur initially.) As these are the only

prefixes ending in /r/, the rule may be stated as applying at prefix boundary before a consonant (P rule XIV).

Examples:

Underlying form:	Surface form:	Gloss:
/bər=anak/	[bəranak]	'give birth to a child'
/bər=təlor/	[bətəlor]	'lay an egg'
/pər=anak+an/	[pəranakan]	'one of (part) native descent'
/pər=buat+an/	[pəbuatan]	'deed'

9.3.4 Shwa deletion

Shwa may be optionally deleted between an initial consonant and a following liquid, or an initial /s/ and a following nasal or nonstrident voiceless consonant (P rule IV).

Examples:

Underlying form:	(Optional) surface form:	Gloss:
/pərəmpuan/	[prɛmpuan]	'woman'
/kələpa/	[klape]	'coconut'
/bəlakəŋ/	[blakəŋ]	'back'
/Məlayu/	[Mlayu]	'Malay'
/səperti/	[spɛrti]	'similar'
/sə=tengah/	[stɛŋe]	'half'
/səkaraŋ/	[skaraŋ]	'now'
/sə=mingu/	[smiŋgu]	'a week'
/sə=lalu/	[slalu]	'always'

It might be proposed that the shwa could be considered to be epenthetic and the underlying forms to have initial consonant clusters. Evidence against that position comes from the behaviour of the shwa in the prefixes /kə/ and /sə/. The fact that these prefixes have invariable shwa before vowels indicates that the shwa is underlying in the prefixes.

Examples:

Underlying form:	Surface form:	Gloss
/kə=liat+an/	[kliatan], [kəliatan]	'visible'
/kə=itəm+an/	[kəitəman]	'too black'
/sə=ribu/	[sribu], [səribu]	'one thousand'
/sə=iris/	[səirɪs]	'one slice'

Thus a shwa deletion rule is required to account for the behavior of shwa in the prefixes /kə/ and /sə/. It is less complex to generalize this rule to cover other cases, than to treat the prefixes differently.

The shwa deletion rule must be ordered after the shwa epenthesis rule to give the correct results.

Examples:

Underlying form:

/ŋ=liat+in/
'look at'

/ŋ=bəsar+in/
'enlarge'

Shwa epenthesis (oblig.):

ŋəliatin

ŋəbəsarin

Shwa deletion (opt.):

ŋliatin

Surface forms:

[ŋəliatin] ~ [ŋliatin] [ŋəbəsarin]

9.4 Variable rules

9.4.0 Introduction

The variable rule is proposed by Labov (e.g. 1972) to account for regularities in frequencies of application of optional rules. For example, in Betawi epenthetic glottal stop may appear at morpheme boundary after a vowel. It appears more often before a vowel than word finally or before a consonant, and more often between like vowels than between unlike vowels.

els. The alternatives for expressing such variation in a generative grammar without variable rules are to write an optional rule, treating it as free variation, or to treat it as occurring only in the most favorable environment, ignoring the variability as performance error. Neither of these solutions represents the facts fairly.

Labov (e.g. 1972:218-219) suggests generalizing the notion of optional rule to that of a "variable rule". Every rule is assigned a quantity ϕ representing the proportion of cases in which the rule applies out of all those cases in which it might do so. For a categorical, invariant rule $\phi = 1$, and in a variable rule $0 < \phi < 1$. Such a variable output is indicated by angled brackets around the element to the right of the arrow. If ϕ is affected by the presence or absence of some feature in the environment, that element acts as a variable constraint and is placed in angled brackets in the environment to the right of the slash. Thus a following vowel at morpheme boundary favors the operation of the final epenthetic glottal stop rule in Betawi, and constrains what would otherwise be free variation.

(1)

$$\phi \longrightarrow \left\langle \left[\begin{array}{l} -\text{cons.} \\ -\text{syl.} \\ -\text{cont.} \\ -\text{son.} \end{array} \right] \right\rangle / V \text{ ______ } + \langle V \rangle$$

(1) states that an epenthetic glottal stop variably appears at morpheme boundary after a vowel, more often before a vowel than elsewhere.

To establish relations of order among constraints and weigh one more heavily than the other, Greek letters may be placed to the upper left of the angled bracket indicating the relations of more or less. Thus (2) expresses the rule in Betawi that an epenthetic glottal stop appears variably at morpheme boundary after a vowel, more often before a like vowel than before an unlike vowel.

(2)

$$\phi \longrightarrow \left\langle \left[\begin{array}{l} -\text{cons.} \\ -\text{syl.} \\ -\text{son.} \\ -\text{cont.} \end{array} \right] \right\rangle / V_1 \text{ ______ } \begin{array}{l} +\alpha \langle V_1 \rangle \\ \beta \langle V_2 \rangle \end{array}$$

This approach implies that the speaker can identify not only optional rules, but which linguistic factors favor rule operation, and the hierarchical order in which they are ranked.

Kiparsky (1971:603) suggests that instead of being learned, such frequencies may be predictable from general substantive constraints such as those based on phonotactic factors. For example, final consonant deletion may be expected to be more frequent before a consonant than before a vowel, so that CVCV sequences in the output are favored. Kiparsky's view would be compatible with Stampeian natural phonology in which many "rules" of generative phonology are seen as universal tendencies which may be suppressed in particular languages. It may be that the regularities described here as "variable rules" may ultimately be shown to be reflections of universal phonotactic factors.

No nongrammatical (stylistic, social class, age, geographical or ethnic) constraints are introduced in the variable rules in this description. This is because, as discussed in the introduction, the description is based on the vernacular speech of a particular group of people, restricted by ethnic group, class, age and area.

The description of the vernacular of such speakers is a necessary preliminary to the study of the extremely complex variation in speech in Jakarta due to nongrammatical factors.

9.4.1 Constraints on application of some variable rules in Betawi

The tables below show frequencies of application of some variable rules in Betawi in the speech of my primary informant Bu Siti and another member of the Rindu Malam lenong troupe, based on tape recordings. The actual number of instances in each cell on the tape is

reported in parentheses after the percentage, with number of applications to the left of the slash and number of total instances to the right.

Table 4

Frequency of application of /h/ deletion

Environment:				
Speaker:	___+C	___#	V ₁ ___+V ₂	V ₁ ___+V ₁
Bu Siti	*100 (2/2)	93 (13/14)	69 (9/14)	10 (1/10)

In the case of /h/ deletion, since the forms involved are very rare in some environments, I was only able to use the data from tapes of elicitation sessions with Bu Siti in

which such forms were introduced. The chart shows that for Bu Siti /h/ deletion operates more often at word boundary and before a suffix beginning with a consonant (the only suffix beginning with a consonant is /ña/), than before suffixes beginning with vowels (/in/ or /an/). The loss of a consonant finally or before another consonant is a very common rule, and may be seen as an instance of the tendency to maximize the optimal CV syllable structure. /h/ deletion also seems to operate more often between unlike vowels than between like vowels. It might be that the constraint here involves a resistance to deletion in the environment where [h] serves to differentiate two like sounds, something like what seems to be operating in the case of glottal stop epenthesis, discussed below.

Table 5

Frequency of application of final glottal stop epenthesis

Percent of glottal stop

Environment:	(1)	(2)	(3)	(4)	(5)	(6)
Speaker:	V ₁ ___+V ₁	V ₁ ___+V ₂	V ₁ ___+V ₃	V ___ # (-a)	V ___ C	a ___ #
Bu Siti	90 (36/40)	29 (3/26)	12 (2/15)	04 (10/233)	04 (2/48)	80 (35/48)
Salmine	91 (11/12)	13 (1/8)	11 (1/9)	06 (16/278)	02 (1/48)	77 (23/30)

- (1) = a+a, i+i
- (2) = u+i, e+i, o+i, e+a, o+a
- (3) = a+i, i+a, u+a

For epenthetic glottal stop, the tapes of Bu Siti and her neighbor Salmine talking together at home were used since they were of better quality than the *lenoq* tapes and reliable transcription of the occurrence of glottal stop could be made. In the case of glottal stop epenthesis, it appears that the constraint in the cases of environments (1)-

(5) ((6) is discussed below) is a matter of polarity or degree of difference between the vowel at morpheme boundary and the following sound. When these are most alike, i.e. like vowels, the glottal stop is most likely to appear. When they are less alike, i.e. the unlike vowel combinations [ui], [ei], [oi], [ea], [oa], it is less likely to occur. It

is even less likely between the polar oppositions of the vowel combinations [ai], [ia], and [ua]. The appearance of glottal stop is least likely when the following sound is least like the preceding one, i.e. before a consonant or word boundary. In this case it may also be seen as the tendency to maximize the CV syllable structure.

The exception is the case of the high frequency of glottal stop after /a/ in word final position (environment (6)). This may be related to the fact that the final offglide rule does not apply to /a/, as to other tense vowels in final position.

This rule does not follow the "unmarked" pattern of a single environmental feature affecting rule frequency in a probabilistically uniform way (Cedegren and Sankoff 1972:44-45). It appears that in this case the preceding and following environment interact and act as a single factor.

9.5 Comparison with previous treatments and implications of this treatment

9.5.1 Comparison with previous treatments

9.5.1.1 The vowel system

Muhadjir (1972) accounts for the differences between his description (Muhadjir 1964) of the vowel system of Betawi, in which he describes a phonemic inventory of seven vowels, and Kähler's (1966) description, which describes a phonemic inventory of eleven vowels, basically on the grounds that the material used by Kähler represented several subdialects. The description of the vowel system of Betawi in this study generally agrees with Muhadjir's, except that only six underlying vowels are posited, in contrast to Muhadjir's seven phonemes. The difference between this description and Muhadjir's is due to the fact that the structuralist framework in which Muhadjir

worked requires two separate vowel phonemes (in Muhadjir's orthography *e* and *é*) to account for the existence of pairs like (in his orthography) *gule* 'kind of soup' and *gulé* 'sugar' which the informant perceives as different.

In generative theory, underlying representations may be completely neutralized under certain circumstances (perhaps constrained by the "alternation condition" (Kiparsky 1973: 10), which at least in intention apparently does not apply to the final /a/ rule in Betawi). This allows the description of distinct underlying forms which fall together on the surface.

Those forms which have final *é* in Muhadjir's orthography are considered in this analysis to have underlying final /a/, which may be realized on the surface as [e]. To test whether the surface forms actually fall together with underlying final /e/ forms so as to be indistinguishable, a perception test was given to the primary informant, Bu Siti. Bu Siti was tape recorded pronouncing several examples of minimal pairs in a neutral frame. Picture cues were used as Bu Siti does not read. The frame was simply "*Ini _____*" ('This is ____'). The words were not presented as minimal pairs but as part of a longer list. The pairs were: (underlying forms) /gule/ 'kind of soup', /gula/ 'sugar'; /bole/ 'allowed', /bola/ 'ball'; /sampe/ 'arrive', /sampah/ 'garbage' (underlying /h/ is usually lost in word final position as discussed in 9.2.3.1). When these minimal pairs were replayed to her, Bu Siti could not consistently distinguish between the forms with underlying /a/ and forms with underlying /e/, as they were neutralized as [e].

When Bu Siti was asked about the difference between the members of the such minimal pairs, however, she responded that they were pronounced differently. In contrasting them, she tended to give the underlying /e/ form a final offglide, and the underlying /a/ form a glottal stop release, (nondistinctive: see

section 9.2.3.2) maximally differentiating them as, for example: [guley] 'kind of soup', versus [gule(?)] 'sugar'. She noted that the offglide form was "longer" than the other. The underlying /a/ form with an offglide pronunciation was rejected (for example: *[guley] 'sugar'). This may be described by saying that the offglide rule is ordered before the final /a/ rule. Only underlying final /e/ may have a strong offglide. This distinguishes final /e/ forms from underlying final /a/ forms. The distinction is not "difficult to learn" because the final /a/ rule is a variable rule, and the underlying form sometimes appears on the surface.

Bu Siti observed that pronunciation with final [a] was "another way of saying the same thing" for underlying /a/ forms, e.g. [gula] 'sugar', but not for underlying /e/ forms, e.g. *[gula] 'kind of soup'.

The generative description accounts for all of the following facts without positing an additional underlying vowel:

1) The speaker's intuition that the final sounds in such minimal pairs (pairs with underlying final /e/ versus underlying final /a/) are different.

2) The fact that such pairs may be pronounced indistinguishably in natural speech as [e].

3) The fact that the underlying /e/ form may be pronounced with an offglide: [ey], while the underlying /a/ form may not.

4) The fact that final [a] variably appears on the surface in the underlying /a/ forms, especially before certain suffixes.

9.5.1.2 Laryngeals

Muhadjir (1964:34, 37) and Hakim (1969:37) note the sporadic appearance of final glottal stop after vowels both at word boundary and at morpheme boundary before suffixes. In this study, the use of variable rules makes it possible to describe some regularities of this variation in terms of phonological factors (see section 9.4).

Muhadjir (1964:34, 37) and Hakim (1969:36, 37) also note the sporadic appearance of

[h] after vowels both at word boundary and at morpheme boundary before suffixes. As in the case of glottal stop, the use of variable rules in this study makes it possible to describe some regularities of the occurrence of [h] in terms of phonological factors (see section 9.4). In addition, Muhadjir and Hakim do not account for the fact that [h] appears at morpheme boundary before suffixes only in certain items. In this study, those items are listed in the lexicon with underlying final /h/, accounting for the optional appearance of [h] at morpheme boundary in only that class of items.

9.5.2 Underlying final /a/ and /h/: historical considerations, relation to other dialects, and social factors

As pointed out in the previous sections, the facts of the informants' speech require positing underlying forms with final /a/ which may be realized as [e] by a phonological rule, and underlying forms with final /h/ which may be deleted by a phonological rule. As a result, the posited underlying forms look more like forms in Bahasa Indonesia; forms found in the subdialects of outlying areas of Jakarta (Muhadjir 1972:2); and forms reconstructed by Dempwolff (1934) for Proto-Austronesian, than the surface forms of Betawi do. This analysis of the underlying forms of Betawi supports the suggestion of Chomsky and Halle (1968:251) that underlying forms may resemble historical reconstructions, and related dialects may be more alike in their underlying forms than in surface forms.

The variable surface final [a] and final [h] forms in the data might be dismissed as due to the influence of Bahasa Indonesia, or of the subdialects of outlying areas of Jakarta. However, not only was it found that all of the informants recorded had such forms in their natural speech, but the appearance of surface [a] and [h] was found to be constrained by phonological factors in the environment. It seems unlikely that this kind of patterning would appear if final [a] and [h] pronunciations were due to the influence of neighboring dialects or subdialects.

A subject for further study would be the entire range of stylistic variation of Betawi speakers. The present study describes only the vernacular speech of a particular group of speakers, as discussed in section 1.

Further study might investigate the constraints on the final /a/ rule and the final /h/ deletion rule which are of a social nature: it seems that these rules operate more often in informal situations than in formal ones. Such constraints could be incorporated into a description by weighting the social factor of formality in a variable rule.

This study indicates however that the vernacular is not simply a "least formal" lect in which there is no final /a/ or final /h/. Instead there is also variation within the vernacular style in Betawi, which is governed by grammatical (phonological) factors.

9.6 Statement of rules

9.6.1 Morpheme structure conditions (MS conditions)

In this section, the morpheme structure conditions (MS conditions) for Betawi are stated. They are stated as if-then conditions on underlying representations. They are unordered.

MS condition I

$$\begin{array}{c} + [-\text{syl.}] \quad [\quad] \\ \downarrow \\ [+ \text{syl.}] \end{array}$$

MS condition I states that there are no initial clusters involving consonants or glides in lexical representations. An initial consonant or glide is always followed by a vowel in underlying representation.

However, the dropping of shwa between a consonant and liquid, or /s/ and a consonant may produce surface forms with initial clusters (see P rule XIV).

MS condition II

$$\begin{array}{c} + \quad [-\text{syl.}] \\ \downarrow \\ [+ \text{cons.}] \end{array}$$

MS condition II states that glides do not occur in initial position in lexical representation. However there are a few items which are specified in the lexicon as exceptions to this rule for [h], [w] and [y] (see section 9.2.1) and glottal stop occurs initially in surface forms as a result of a phonological rule (see P rule VIII).

MS condition III

$$\begin{array}{cc} [-\text{syl.}] & [-\text{syl.}] \\ \downarrow & \downarrow \\ [+ \text{cons.}] & [+ \text{cons.}] \end{array}$$

MS condition IV states that the only sequences of nonsyllabics are sequences of consonants. That is there are no consonant clusters involving glides. There are a few items specified as exceptions in the lexicon which are borrowed words (see section 9.2.2).

MS condition IV

$$\begin{array}{ccc} & [-\text{syl.}] & \\ [+ \text{syl.}]_1 & [-\text{cons.}] & [+ \text{syl.}]_2 \\ & \downarrow & \\ & [+ \text{cont.}] & \end{array}$$

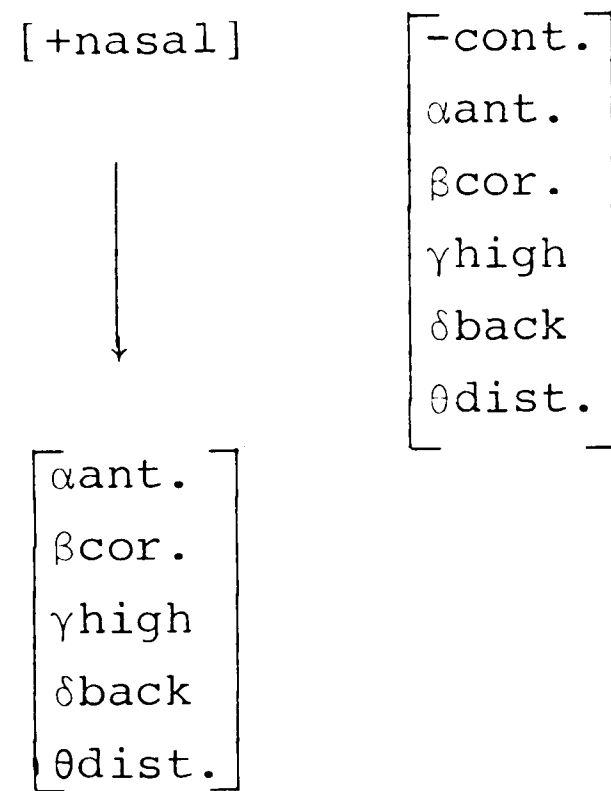
MS condition IV states that the only glides between unlike vowels are semivowels. That is, there are no laryngeals between unlike vowels in lexical representation. A few items are specified in the lexicon as exceptions to this rule (see section 9.2.2).

MS condition V

$$\begin{array}{cc} [-\text{son.}] & [-\text{son.}] \\ \downarrow & \\ [+ \text{cont.}] & \\ [+ \text{cons.}] & \end{array}$$

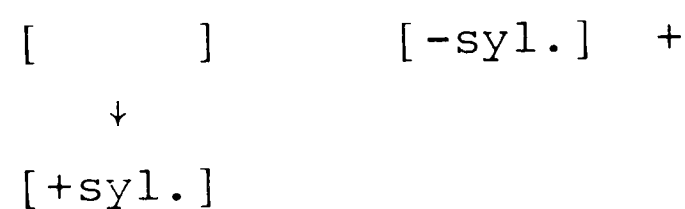
MS condition V states that the only sequence of two obstruents has /s/ as its member. This rule does not prevent sequences of liquids and consonants.

MS condition VI



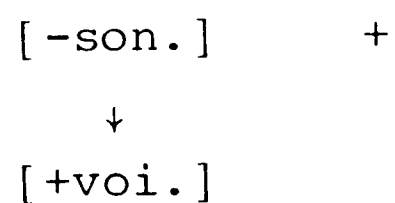
MS condition VI states that before a noncontinuant a nasal is homorganic.

MS condition VII



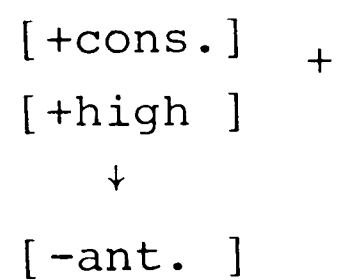
MS condition VII states that there are no final clusters involving consonants or glides.

MS condition VIII



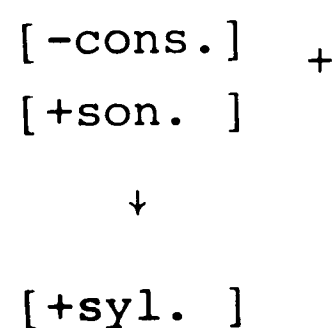
MS condition VIII states that there are no final voiced oral obstruents.

MS condition IX



MS condition IX states that there are no final anterior high consonants (no final /c/, /j/, or /ñ/).

MS condition X



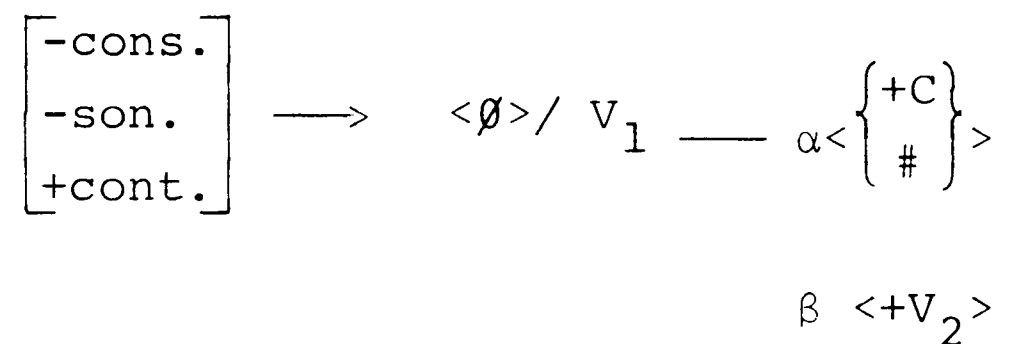
MS condition X states that there are no final semivowels in lexical representation. However in surface forms [w] and [y] occur as offglides of final tense vowels (see P rule IV).

MS condition XI

It is also a morpheme structure condition in Betawi that there are no sequences of two like sounds, although there is no appropriate formalism to state this.

9.6.2 Phonological rules

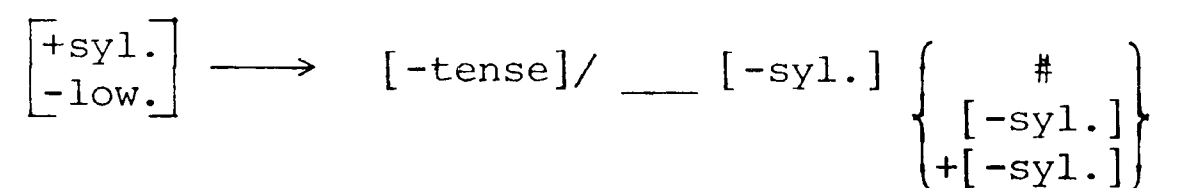
P rule I: /h/ deletion rule



P rule I states that an underlying /h/ may variably be deleted at a morpheme boundary. It is more likely to be deleted at a word boundary or before a suffix beginning with a consonant than before a suffix beginning with a vowel, and more likely to be deleted between unlike vowels than between like vowels (see section 9.4).

This rule applies either at word boundary or at morpheme boundary before a suffix. (There are no prefixes ending in /h/.) The abbreviations C and V are used for [+cons.] and [+syl.] respectively. The suffixes beginning with a vowel are /an/ and /in/, the only suffix beginning with a consonant is /ña/

P rule II: closed syllable vowel laxing rule



P rule II states that an underlying non-low tense vowel is variably lax in a closed syllable. It applies at a medial cluster of nonsyllabics, word final nonsyllabic, or a final nonsyllabic followed by a suffix beginning in a nonsyllabic. There are no prefixes to which it applies.

P rule III: vowel laxing assimilation rule

$$\begin{bmatrix} +\text{syl.} \\ -\text{low} \\ -\text{high} \\ \alpha\text{back} \\ \beta\text{round} \end{bmatrix} \longrightarrow [-\text{tense}] / ___ \text{Co} \begin{bmatrix} +\text{syl.} \\ -\text{low} \\ -\text{high} \\ \alpha\text{back} \\ \beta\text{round} \end{bmatrix}$$

P rule III states that a mid tense vowel is obligatorily lax if it is followed in the same word by its lax counterpart. There are no cases in which it applies to affixes.

P rule IV: tense vowel offglide rule

$$\emptyset \longrightarrow \begin{bmatrix} -\text{syl.} \\ \alpha\text{back} \\ \beta\text{round} \end{bmatrix} / \begin{bmatrix} +\text{syl.} \\ +\text{tense} \\ -\text{low} \\ \alpha\text{back} \\ \beta\text{round} \end{bmatrix} ___ \#$$

P rule IV states that a word final non-low tense vowel may variably be followed by an offglide.

P rule V: final /a/ rule

$$\begin{bmatrix} +\text{syl.} \\ +\text{low} \end{bmatrix} \longrightarrow \langle \begin{bmatrix} -\text{low} \\ -\text{back} \end{bmatrix} \rangle / ___ \langle \begin{bmatrix} +\text{C} \\ \# \end{bmatrix} \rangle$$

P rule V states that underlying /a/ variably goes to surface [e] at morpheme boundary before a consonant or word finally.

This rule applies at word boundary or before a suffix. (There are no prefixes ending in /a/.) The rule is simplified in the Kebon Pala district of Jakarta by the loss of the features [-back] in the structural change.

P rule VI: final glottal stop rule

$$\emptyset \longrightarrow \langle \begin{bmatrix} -\text{cons.} \\ -\text{syl.} \\ -\text{son.} \\ -\text{cont.} \end{bmatrix} \rangle \begin{bmatrix} +\text{syl.} \\ \beta\langle +\text{low} \rangle_1 \end{bmatrix} \begin{matrix} \alpha\langle +\text{V} \rangle_1 \\ \beta\langle \# \rangle \\ \gamma\langle +\text{V} \rangle_2 \\ \delta\langle \begin{bmatrix} \# \\ \text{C} \end{bmatrix} \rangle \end{matrix}$$

P rule V states that a form with an underlying final vowel (or one which has undergone P rule I, /h/ deletion) may variably be pronounced with a final glottal stop. This rule operates most often between like vowels, then after [a] at word boundary, then between unlike vowels, and least frequently after nonlow vowels at word boundary or before a consonant (see section 9.4.).

P rule VII: [h] release rule

$$\emptyset \longrightarrow \langle \begin{bmatrix} -\text{syl.} \\ -\text{cons.} \\ -\text{son.} \\ +\text{cont.} \end{bmatrix} \rangle / \begin{bmatrix} +\text{syl.} \end{bmatrix} ___$$

P rule VII states that a form with an underlying final vowel may variably be pronounced with a word final [h] release.

P rule VIII: initial glottal stop rule

$$\emptyset \longrightarrow \begin{bmatrix} -\text{syl.} \\ -\text{cons.} \\ -\text{son.} \\ -\text{cont.} \end{bmatrix} / \# ___ \begin{bmatrix} +\text{syl.} \end{bmatrix}$$

P rule VIII states that a form with an underlying initial vowel is obligatorily pronounced with an initial glottal stop at word boundary.

P rule IX: shwa epenthesis

$$\emptyset \longrightarrow \begin{bmatrix} -\text{high} \\ -\text{low} \\ +\text{back} \\ -\text{round} \end{bmatrix} / \begin{bmatrix} +\text{nasal} \end{bmatrix} ___ = \begin{bmatrix} +\text{cons.} \\ +\text{voice} \\ -\text{nasal} \\ C_1 V_1 C_1 \end{bmatrix}$$

P rule IX states that an epenthetic shwa appears after an initial nasal at prefix boundary before nonnasal voiced consonants and before (consonant-initial) monosyllabic items. The only prefix which fits the structural description is the prefix /ŋ/.

P rule X: nasal assimilation

$$[+nasal] \longrightarrow \begin{bmatrix} \alpha ant. \\ \beta cor. \\ \gamma high \\ \delta back \\ \theta dist. \end{bmatrix} / __ = \begin{bmatrix} -son. \\ +nas. \\ \alpha ant. \\ \beta cor. \\ \gamma high \\ \delta back \\ \theta dist. \end{bmatrix}$$

P rule X states that a nasal at a prefix boundary assimilates to a following obstruent or nasal. The only prefixes which fit the structural description of this rule are /ŋ/ and /pəŋ/.

P rule XI: consonant deletion I

$$[+cons.] \longrightarrow \emptyset / [+nasal] = __$$

P rule XI states that a consonant is deleted after an initial nasal at a prefix boundary. The only prefix which fits the structural description is /ŋ/.

P rule XII: consonant deletion II

$$\left\{ \begin{bmatrix} +cons. \\ -voice \\ -del. rel. \end{bmatrix} \right\} \longrightarrow \emptyset / [+nasal] = __$$

P rule XII states that nasals and voiceless consonants except for /c/ are deleted after a prefix ending in a nasal. The only prefix which fits the structural description (after P rule XI has applied) is /pəŋ/.

P rule XIII: ŋə loss

$$[+nasal][+syl.] = X_1 - [+nasal][+syl.] = X_1 \longrightarrow [+nasal][+syl.] = X_1 - X_2$$

P rule XIII states that in a reduplicated form with the prefix ŋə-, the reduplicated prefix is lost (see section 9.3.2).

P rule XIV: /r/ deletion

$$\begin{bmatrix} +cons. \\ +son. \\ +cont. \\ -lateral \end{bmatrix} \longrightarrow \emptyset / __ = [+cons.]$$

P rule XIV states that an /r/ at prefix boundary is deleted before a consonant. The only prefixes meeting the structural description of the rule are /bər/ and /pər/.

P rule XV: shwa deletion

$$\begin{bmatrix} -high \\ -low \\ +back \\ -round \end{bmatrix} \longrightarrow \langle \emptyset \rangle / \left\{ \begin{matrix} \# \\ = \end{matrix} \right\} \left\{ \begin{matrix} [+cons.] __ \\ [-son.] \\ +cons. \\ +cont. \end{matrix} \right\} \left\{ \begin{matrix} +son. \\ +cons. \\ [+nas.] \\ +cons. \\ -voice \\ -strid. \end{matrix} \right\}$$

P rule XV states that shwa may be variably deleted between an initial consonant and a following liquid, or an initial /s/ and a following nasal or nonstrident consonant. This rule applies either at word boundary or after a prefix.

* * *

Notes to section 9

1. The specifications for "sonorant" and "low" for /h/ and /ʔ/ here follow Chomsky and Halle's (1968: 302, 305) definitions of these features, although not their practice on pp. 303 and 307. Schane (1973:29) also lists laryngeals as [-sonorant].

2. Alternatively, rather than having an ordering restriction, the vowel laxing rule could be stated so

as not to apply before semivowels.

3. Alternatively, a rule of loss of a nasal before another nasal, ordered before the shwa epenthesis rule, might be posited. This would allow simplification of the assimilation rule, but it would add to the number of rules required. I do not have any real evidence for one solution over the other.

CONCLUSION

10.1 The origin and position of Betawi

10.1.0 Introduction

As mentioned in the introductory section (section 1.1), Betawi appears to be a dialect which resulted primarily from language shift by speakers of languages closely related to the target language. In section 1.2, historical information on the origin of Betawi was summarized, and it was stated that following the presentation of Betawi grammar which is the main objective of this dissertation, linguistic evidence concerning classification of Betawi as a Malay dialect and the role of other languages in its development would be considered. The discussion of this linguistic evidence follows.

First I will summarize the evidence which does not depend on the description of Betawi provided here, that of vocabulary and sound correspondences. This evidence clearly places Betawi as a dialect of Malay with, however, many loanwords from languages with which it has been in contact.

The following sections will compare aspects of the grammar of Betawi, as described in this study, with "classical" (see below) Malay, showing some differences from Malay, some similarities to Javanese, Sundanese, and Balinese, and some apparent innovations.

The implications of these findings will then be discussed.

By "classical" Malay is meant the language of the Malay classics, such as the *Sejarah Melayu* (1758) and the *Hikayat Hang Tuah* (1762). It is generally considered to be derived from the dialect of Riau and Johore (e.g. Teeuw 1961:43). Winstedt (1927:4) states that all his examples are taken from these works of literature, and his description

will be the basis for references to classical Malay in this section. The reason for using classical Malay as a point of departure is simply that other Malay dialects have been poorly documented (Uhlenbeck 1971:62) except for the modern standard languages Bahasa Indonesia and Bahasa Malaysia. (These are considered dialects of a single language, which is called "Malay" as it is descended from "Old Malay".) Where relevant I will note where Bahasa Indonesia, Bahasa Malaysia, or (as far as is known) other Malay dialects differ from classical Malay (based on MacDonald and Soejono 1967, Hassan 1974, Brown 1956, Hendon 1966, Hussein 1973, and informants named in Appendix A3). The references to Javanese, Balinese, and Sundanese are to modern standard varieties (based on Horne 1961, Kersten 1948, Robins 1953a, 1953b, 1957, 1959, 1965, and 1968 and informants named in A3). These are all independent languages, closely related to Malay. A more complete comparison would refer to earlier material on these languages. I will also refer to Winstedt (1927:177-180) on Bazaar Malay, a trade pidgin, Shellabar (1913) and Nio Joe Lan (1961) on Chinese-Malay, and Schuchart (1891) on Malayo-Portuguese creole.

10.1.1 Linguistic evidence

10.1.1.1 Basic vocabulary

On the Swadesh two hundred word list (minus snow, ice, and freeze), about 93% of the Betawi words are cognate with the usual Malay words. In contrast, only about 43% of the Betawi words are cognate with Sundanese, 38% with Javanese, and 36% with Balinese. The 93% cognate score with Malay clearly

Table 6

Basic vocabulary items of Betawi not cognate with usual Malay
word on Swadesh 200 word list

Gloss	Malay	Betawi	(Possible) source of Betawi
1. and	<i>dan</i>	<i>ame</i>	Bazaar Malay <i>sama</i> 'with' from classical Malay <i>bərsama</i> 'together', root: classical Malay <i>sama</i> 'same, similar' from Sanskrit
2. big	<i>bəsar</i>	<i>gəde</i>	Javanese, Sundanese, and Balinese <i>gəde</i> 'big'
3. die	<i>mati</i>	<i>mampus</i>	classical Malay <i>mampus</i> 'die (of animals)'
4. dull	<i>tumpul</i>	<i>puntul</i>	Balinese <i>puntul</i> 'dull'
5. ear	<i>təliŋa</i>	<i>kupiŋ</i>	Javanese and Balinese <i>kupiŋ</i> 'ear'
6. I	<i>aku</i>	<i>gue</i>	Hokkien Chinese <i>gua</i> 'I'
7. kill	<i>məmbunuh</i>	<i>mampusin</i>	root: Malay <i>mampus</i> 'die (of animals)' suffix: Balinese <i>(n)in</i> '(causative)'
8. mother	<i>ibu</i>	<i>ñaʔ</i>	Mandarin Chinese <i>ñiaŋ</i> 'mother, wife, girl'
9. say	<i>bərkata</i>	<i>omoŋ</i>	Javanese, Sundanese, Balinese <i>omoŋ</i> 'say'
10. we (excl.)	<i>kami</i>	<i>kite</i> (excl. and incl.)	Malay <i>kita</i> 'we (incl.)'
11. when	<i>bila(mana)</i>	<i>kapan</i>	Javanese <i>kapan</i> 'when'
12. with	<i>dəŋan</i>	<i>ame</i>	Bazaar Malay <i>sama</i> 'with' from classical Malay <i>bərsama</i> 'together', root: classical Malay <i>sama</i> 'same, similar' from Sanskrit
13. you	<i>eŋkau, kamu</i>	<i>lu</i>	Hokkien Chinese <i>lu</i> 'you'
Possible irregular cognates:			
1. not	<i>tidak, bukan</i>	<i>əŋgaʔ, kagaʔ</i>	perhaps irregular development from Malay <i>tidak</i> 'not'
2. there	<i>situ, sana</i>	<i>sono</i>	Malay <i>sana</i> 'there', perhaps influenced by Javanese <i>kono</i> 'there'

Table 7

Sound correspondences: Proto-Austronesian, Betawi, and Javanese

The correspondences for Malay and Javanese are according to Dempwolff (1934) except for the laryngeals, which are according to Dyen (1953). Javanese also has neutralization of voiced and voiceless stops finally so I have added that (see Horne 1961:xxxiii). The orthography is that suggested by Dyen (1971:23).

PAN	Betawi	Malay	Javanese
m	m	m	m
n	n	n	n
ñ	ñ	ñ	ñ
ŋ	ŋ	ŋ	ŋ
b	b -p	b -p	w/b -p
d	d -t	d -t	d -t
D	d -r	d -r	D -t
z	j	j	j
j	d -t	d -t	r -r
g	g -ʔ	g -q	g -q
p	p	p	p
t	t	t	t
T	t	t	T
s	s	s	s
c	c	c	c
k	k	k -q	k -q
l	l	l	l
r	r	r	r
R	r	r	∅, -vowel coalescence-
a	a	a	a
finally	e	a	o
e	ě	ě	ě
final syllable	ě	a	ě
u	u, o	u, o	u, o
final closed syllable	o	o	o
i	i, e	i, e	i, e
final closed syllable	e	e	e
aw	aw -o	aw -aw	aw -o
ay	ay -e	ay -ay	ay -e
uy	i	i	i
iw	i	i	yu
w	w	w	w
Y	Y	Y	Y
h			
initial	∅	(h)	∅
final	∅	∅	vowel coalescence
V ₁ — V ₁	h	h	vowel coalescence
V ₁ — V ₂	∅	∅	vowel coalescence
q			
initial	∅	(h)	∅
final	∅	h	h
V ₁ — V ₁	h	h	h
V ₁ — V ₂	∅	∅	∅

places Betawi as a dialect of Malay on the basis of basic vocabulary.

The words not cognate with the usual Malay words on the list are given in Table 6. Most of them appear to be cognate with other Malay words, a few are from Javanese, Sundanese, or Balinese, and three from Chinese.

10.1.1.2 Sound correspondences

Malay (Riau dialect) and Javanese were among the languages used by Dempwolff (1934) to reconstruct Proto-Austronesian. Table 7 compares the reflexes of Proto-Austronesian in Betawi with the reflexes in Malay and Javanese given by Dempwolff (with the changes suggested by Dyen 1953a for the laryngeals and the orthography suggested in Dyen 1971). Betawi differs from Javanese, and follows Malay, in correspondences for *T, *D, *R, *iw, and *h between like vowels, and in lacking vowel coalescence. Where Betawi differs from Malay it usually shows the Javanese correspondence: final *au:o; final *ay:e; *e in final syllable: ě; initial *q:Ø: initial and final *h:Ø. The only cases in which the Betawi correspondence is not the same as either Javanese or Malay are: *a in final position: e; *q in final position: Ø; and *k in final position: k. However internal synchronic evidence requires positing underlying forms which are identical for all three languages in the first two cases, and perhaps underlying forms which are identical for Malay and Betawi in the last case.¹ (No examples are available in Betawi for a single case: *g in final position.)

This evidence does not seem to contradict that of basic vocabulary, although there are nine correspondences which differ from those of (Riau) Malay. These differences do not seem to be so great that they might not have developed in an isolated Malay dialect, although the similarity with Javanese suggests that there might have been influence from Javanese (and perhaps the closely related languages Sundanese and Balinese, although I do not have their correspondences).²

10.1.1.3 Nonbasic vocabulary

A characteristic of pidgins is their reduction of vocabulary. Winstedt (1927:178) writes of Bazaar Malay that "it uses the simplest synonym in place of the rich vocabulary of the race". Betawi, having native speakers, is by definition not a pidgin, and may be contrasted to "foreigner talk" in Jakarta used between servants and their foreign employers, where I have observed such reduction.

A single example is the word *rusak* used with foreigners as a general term for 'broken or ruined', where the Betawi speaker commonly makes such distinctions as:

<i>pəce</i>	'broken, smashed'
<i>pate</i>	'broken (stick, bone)'
<i>putus</i>	'broken (string, chain)'
<i>repat</i>	'cracked, split'
<i>gompal</i>	'chipped'
<i>kisut</i>	'wrinkled (skin, fruit)'
<i>kusut</i>	'wrinkled, tangled, tousled, knotted (paper, clothes, string, hair)'
<i>ləcək</i>	'wrinkled, messy (unwashed face, paper, cloth)'
<i>əmpuk</i>	'worn out, wormy'
<i>kəropok</i>	'worn out, wormy'
<i>təpok</i>	'worn out, run-down'
<i>bərantakan</i>	'messy, fallen apart, dilapidated'

It has often been noted that the vocabulary of Betawi contains many contributions from other Indonesian languages, Dutch, Chinese, Arabic, and Portuguese (Teeuw 1961:45, Kähler 1966:I). Many of the Dutch, Chinese, Arabic and Portuguese words were apparently used in Malay before it came to be used as the lingua franca in Jakarta (Winstedt 1927:23-24). Many of these loanwords are also used in other Indonesian languages as well. Arabic loanwords are found especially in the area of religion, and in Betawi Arabic phrases are commonly used as exclamations (e.g. *alhamdulillah* 'thanks be to Allah'). Chinese loanwords are

found especially in terms of address and food - names. Portuguese and Dutch loanwords are especially the names of articles of European culture. Some examples which are daily vocabulary in Betawi are:

Arabic:

<i>waktu</i>	'time'
<i>pikir</i>	'think'
<i>paham</i>	'understand'
<i>napas</i>	'breath'

times of day (for prayer):

<i>subu</i>	'early morning (prayer hour)'
<i>lohor</i>	'midday (prayer hour)'
<i>magrip</i>	'evening (prayer hour)'
<i>asar</i>	'afternoon (prayer hour)'
<i>isa</i>	'nightfall (prayer hour)'

days of week:

<i>senin</i>	'Monday'
<i>səlasə</i>	'Tuesday'
<i>rəbo</i>	'Wednesday'
<i>kəmis</i>	'Thursday'
<i>jumat</i>	'Friday'
<i>sabtu</i>	'Saturday'

Chinese:

<i>lu</i>	'you'
<i>gue</i>	'I'
<i>toke</i>	'head of business firm (Chinese)'
<i>tahu</i>	'beancake'
<i>taoge</i>	'beansprouts'
<i>te</i>	'tea'
<i>təko</i>	'teapot'
<i>cəki</i>	'card game'
<i>lotəŋ</i>	'attic, upstairs room'

Portuguese:

<i>bole</i>	'ball'
<i>meje</i>	'table'
<i>səpatu</i>	'shoe'
<i>minggu</i>	'week, Sunday'

Dutch:

<i>duit</i>	'money'
<i>gəlas</i>	'glass'
<i>botol</i>	'bottle'
<i>lampu</i>	'lamp'
<i>səpede</i>	'bicycle'
<i>listərik</i>	'electricity'
<i>kopi</i>	'coffee'

10.1.1.4 Phonemic inventory

The phonemic inventory of Betawi is identical to that of classical Malay, except that classical Malay also allows a number of contrasts introduced by foreign contact, especially with Arabic, such as [s], [f] and [z] which do not occur in Betawi. But the phonemic inventory of Malay, minus the foreign phonemes, is already something like the lowest common denominator of Malay, Balinese, Sundanese, and Javanese. It is the same as that of Balinese. It differs from that of Javanese in not having the retroflex stops [T], [D], or low front and back rounded vowels [ɛ] [ó], and from Sundanese in not having a nonback mid rounded vowel [ɣ]. It might be hypothesized that in conjunction with the historical and social factors, this might have been a factor in the success of Malay in Jakarta: it does not present difficulties of pronunciation for speakers of other Indonesian languages. (Winstedt 1927:25-32, Horne 1961:xxviii-xxix, Robbins 1953b:140-141, Kersten 1948:1-2)

10.1.1.5 Phonological rules

A phonological rule in Betawi which does not occur in classical Malay, is the rule which gives surface [e] from underlying final /a/. (See section 8.3.1.1.3.) This rule quickly distinguishes a Betawi speaker from these others:

Example:

	Surface form	Gloss
Classical Malay and Bahasa Indonesia	[apa]	'what'
Javanese	[opo]	'what'
Balinese	[apə]	'what'
Betawi	[ape] (but also /apə/ in Kebon Pala area of Jakarta and variably [apa])	'what'

(Sundanese also has final [a], though it has no cognate for this particular example.)

However, similar rules may be posited for Javanese and Balinese giving surface [ó] or [ə] from underlying /a/, as [a] appears before suffixes (Horne 1961:70, Kersten 1948:1). Other dialects of Malay also show [e], [ə], or [o] for the final [a] of classical Malay (Hussein 1973:71).

In the rules of nasal assimilation, initial consonant loss, and vowel insertion relating to the verbal prefix η -, Betawi has its own distinctive pattern. Table 8 gives the results of these rules in classical Malay, Bahasa Indonesia, Bahasa Malaysia, Betawi, Javanese, Sundanese, and Balinese. (The verbal prefix η - occurs alone only in Betawi, Javanese, Sundanese, and Balinese. In classical Malay and other Malay dialects it occurs as part of the (probably historically complex) verbal prefix $m\eta\eta$ -.) Betawi does not appear to be much closer to any one of these systems than the others. It differs from all the others in having insertion of shwa before voiced stops.

Betawi has a rule of loss of final /r/ in prefixes before consonants (section 9.3.2) which does not occur in any of the languages listed above. Malay has loss of final /r/ in prefixes only before /r/ (and some exceptional words containing /r/.) The Sundanese prefix which corresponds to $b\bar{e}r$ - in Betawi is ba -. ($b\bar{e}r$ - is very rare in Balinese and does not occur in Javanese, $p\bar{e}r$ - is very rare in Sundanese and does not occur in Balinese or Javanese. r - of course may historically represent a separate prefix from $b\bar{e}$ - and $p\bar{e}$ - but there is

no reason to treat it as separate synchronically.)

Many of the other phonological rules of Betawi are also rules of classical Malay, as well as Javanese, Balinese, and Sundanese. In the area of phonological rules, classical Malay shares many rules with these related languages. Malay does not have some important phonological rules found in these other languages however, such as vowel coalescence and loss of initial /n/ in suffixes. Betawi is like Malay in not having either of these rules.

(References on processes associated with / η /: Winstedt 1927:74-75, MacDonald and Soenjono 1967:410-414, Hassan 1974:48-53, Kersten 1948:12-13, Horne 1971:103, Robins 1953b:143-144; /r/ loss: Winstedt 1927:83, Hassan 1974:53, MacDonald and Soenjono 1967:39, Robins 1959:348; vowel coalescence and /n/ loss: Horne 1961:124, 13, 175, 345, 359; Robins 1953:341-343, Kersten 1948:25, 37, 28, 34.)

10.1.1.6 Derivation and related morphophonemic rules

Some affixes which are present in classical Malay, Bahasa Indonesia, Bahasa Malaysia, Javanese, Sundanese, and Balinese, but not in Betawi, and vice-versa, are shown in Table 9.

Affixes which Betawi shares with Malay ($k\bar{e}$ -, $p\bar{e}\eta$ -, $p\bar{e}r$ -, $b\bar{e}r$ -, $d\bar{i}$ -, η -, $s\bar{e}$ -, $-an$, reduplication) are all shared by all the other languages listed, except $b\bar{e}r$ - which is not in Javanese, $d\bar{i}$ - not in Balinese, and $p\bar{e}r$ - not in Javanese or Balinese.

The partial reduplication which is apparently common in some dialects of Malay (Hendon 1966:58, Hassan 1974:45 and Muhammad bin Jaafar), is apparently not common in classical Malay (Winstedt 1927:101) or Bahasa Indonesia (MacDonald and Soenjono 1967:53) and is rare enough in Betawi to be considered only fossilized in a few forms. It is also not very common in Javanese, though it is important in Sundanese and Balinese.

Compound prefixes ($m\bar{e}mp\bar{e}r$ -, $b\bar{e}rke$ -, $d\bar{i}k\bar{e}$ -, $d\bar{i}p\bar{e}r$ -) which occur in classical Malay, Bahasa Indonesia, and Bahasa Malaysia, do not occur in Betawi except in a few fossilized forms, nor in Javanese, Sundanese, or Balinese (except for

Table 8

Result of rules related to verbal prefix η or $m\eta$ in Betawi
and related languages

Underlying form:	Surface forms:				
	Classical Malay Bahasa Indonesia Bahasa Malaysia	Betawi	Javanese	Sundanese	Balinese
/ η =p/	[m]	[m]	[m]	[m]	[m]
/ η =t/	[n]	[n]	[n]	[n]	[n]
/ η =c/	[ñc]	[ñ]	[ñ]	[ñ]	[ñ]
/ η =k/	[ŋ]	[ŋ]	[ŋ]	[ŋ]	[ŋ]
/ η =b/	[mb]	[ŋəb]	[mb]	[ŋab]	[m]
/ η =d/	[nd]	[ŋəd]	[nd]	[ŋad]	[n]
/ η =j/	[ñj]	[ŋəj]	[ñj]	[ŋaj]	[n]
/ η =g/	[ŋg]	[ŋəg]	[ŋg]	[ŋag]	[ŋ]
/ η =s/	[ñ]	[ñ]	[ñ]	[ñ]	[ñ]
/ η =m/	[m]	[m]	[m]	[ŋam]	[ŋəm]
/ η =ñ/	[ñ]	[ñ]	[ñ]	[ŋañ]	[ŋəñ]
/ η =n/	[n]	[n]	[n]	[ŋan]	[ŋən]
/ η =ŋ/	[ŋ]	[ŋ]	[ŋ]	[ŋaŋ]	[ŋəŋ]
/ η =l/	[l]	[ŋəl]	[ŋəl]/[məl]	[ŋal]	[ŋəl]
/ η =r/	[r]	[ŋər]	[ŋər]/[mər]	[ŋar]	[ŋər]
/ η =V/	[ŋV]	[ŋV]	[ŋV]	[ŋV]	[ŋV]

Table 9

Differences in inventories of affixes in Betawi and some related languages and dialects

	Classical Malay, Bahasa Indonesia, Bahasa Malaysia	Javanese	Sundanese	Balinese
In this language but not in Betawi	<i>mə-</i> (Part of prefix <i>məŋ-</i>) <i>tər-</i> <i>-kan</i> <i>-i</i>	<i>-(a)ke</i> <i>-(Vn)i</i> <i>-(V)nɔ</i> <i>-(VN)ɔnɔ</i> <i>-(VN)ane</i> <i>-(n)ən</i>	<i>pi-</i> <i>mi-</i> <i>silih-</i> <i>-ar-</i> <i>-kɣn</i> <i>-i</i> <i>-ɣn</i> <i>-(n)in</i> <i>-ɣn</i>	<i>mə-</i> <i>səkə-</i> <i>məkə-</i> <i>pati-</i> <i>kumə-</i> <i>-(n)aŋ</i>
In Betawi but not in this language	<i>-in</i>	<i>pər-</i> <i>bər-</i> <i>-in</i>	<i>-in</i>	<i>pər-</i> <i>di-</i>
In Betawi and in this language	<i>kə-</i> <i>pəŋ-</i> <i>pər-</i> <i>bər-</i> <i>di-</i> <i>ŋ-</i> <i>sə-</i> <i>-an</i> reduplication	<i>kə-</i> <i>pəŋ-</i> <i>di-</i> <i>ŋ-</i> <i>sə-</i> <i>-an</i> reduplication	<i>kə-</i> <i>pəŋ-</i> <i>pər-</i> <i>bər-</i> <i>di-</i> <i>ŋ-</i> <i>sə-</i> <i>-an</i> reduplication	<i>kə-</i> <i>pəŋ-</i> <i>bər-</i> <i>di-</i> <i>ŋ-</i> <i>sə-</i> <i>-an</i> reduplication

combinations of prefixes with reduplication).

The prefix *kə-* with or without the suffix *-an* replaces the Malay prefix *tər-* in many cases with accidental or adversative verbs in Betawi (see sections 7.3.1.1.14 and 7.3.1.1.15). The prefix *tər-* does not occur in Betawi. *kə-* (with and without *-an*) is "of rare occurrence" in classical Malay (Winstedt 1927:93). It does occur in modern Bahasa Malaysia and Bahasa Indonesia, but MacDonald and Soenjono (1967:105) note that "This type of formation is relatively common in Javanese, and the Indonesian forms may be regarded as Javanese constructions utilizing Indonesian elements." The prefix *tər-* also does not occur in Javanese, Sundanese, or Balinese. The use of *kə-* and *kə-* with *-an* with adversative or accidental verbs is most frequent in Javanese, although it also occurs in Balinese and Sundanese.

The suffix *-in* (see section 8.2, MR (3)) is a distinctive characteristic of the Betawi dialect. The suffixes *-kan* and *-i* in other dialects of Malay, *-(a)ke* and *-i* in Javanese, and *-kɣn* in Sundanese are associated with some of the same derivational processes that *-in* is associated with in Betawi, but there is not an exact correspondence. None of these suffixes occur in Betawi. A suffix *-(n)in* occurs in Balinese associated with some of the same derivational processes as Betawi *-in*, but apparently not all of them. There is no suffix which appears optionally on active agentive verbs like *-in* in Betawi in any of these other languages or dialects. There appears to have been adoption and then extension of a Balinese affix in Betawi.

The derivation rule in Betawi which gives derived "excessive" verbs (see section 7.3.2.2) is not in classical Malay nor in Bahasa Malaysia. It is in Bahasa Indonesia, but is still felt to be Javanese or Jakartan (MacDonald and Soenjono 1967:107). In Bahasa Malaysia and also in Bahasa Indonesia, such meanings may be expressed with the adverb *tərlalu* 'too, excessively'. The "excessive" rule is in Javanese, Sundanese and Balinese with the same associated affixes as in Betawi, *kə-* and *-an*.

The "comparative" derivation rule of Betawi (see section 7.3.2.1) is not in classical Malay. Winstedt (1927:50-59) states that comparatives are expressed by order, accent and antithesis: *dani* or *dani pada* 'than'; *yaŋ* 'which'; or intensive adverbs. In Javanese, similar strategies are used with *sokò* 'than', *sIn* 'which', and *luweh* 'more'. In Bahasa Indonesia and Bahasa Malaysia, comparatives are expressed with the adverb *lebih* 'more'. The "comparative" derivation rule occurs in Sundanese and Balinese with the same associated suffix as in Betawi, *-an*.

The "superlative" derivation rule of Malay and associated prefix *tər-* is not in Betawi. In Betawi superlatives are expressed with the adverb *paliŋ* 'most'. *paliŋ* is from Balinese.

(References on derivation: Winstedt 1927: 73-74, 133, 101-104, 93, 99-101, 58-59, Horne 1961:186, 173-174, 401, 175, 307, 292-293, Robins 1959:346-363, Kersten 1948:9-43, Hassan 1974:451, 90, 92, MacDonald and Soenjono 1967: 53, 105, 107, 154-155, Hendon 1966:58.)

10.1.1.7 "Complementizers"

Although this subject has not been dealt with in this description, a few observations will be made here. "Complementizers" in lexicase theory are simply nouns or prepositions taking sentence complements, which are allowed by certain verbs. For the English complementizer 'that', Winstedt (1927:159) gives as translations in classical Malay these alternatives: *yaŋ*; *akan*; *pərihal*; *məŋatakan*, *hikayat*; *bahwa*, and *adapun*. In Bahasa Malaysia and Bahasa Indonesia *bahwa* has come to function regularly like English 'that'. *bahwa* does not occur in Betawi, nor do most of the forms suggested by Winstedt. Occasionally *yaŋ* is used in this way in Betawi. (Example: *Gue tao yaŋ die datəŋ*. 'I know that he came.') Usually no complementizer is used, and the verb simply takes a verb complement. (Example: *Gue tao die datəŋ*. 'I know he came.') But occasionally also in Betawi the conjunction *kalo* 'if, when' seems to function as a complementizer. (Example: *Gue tao/bilaŋ kalo die datəŋ* meaning 'I know/said that he came.') This seems

to parallel the use in Javanese, Sundanese and Balinese of the conjunction *yen* (Javanese *yen*) 'when, if' as a complementizer with certain verbs (Javanese example: *Aku nerti yen dewe?e arap takb.* 'I know that he'll come.') This may be an example of a grammatical calque from Javanese, Sundanese and Balinese in Betawi, or it might also have developed independently. (MacDonald and Soenjono 1967:189-190, Horne 1961:144, Kersten 1948:86, Muhammad bin Jaafar, Kosasih Prawirasumantri.)

10.1.1.8 *yan* and other "relatives"

In classical Malay, *yan*, in its relative function, according to Winstedt (1927:120) "stands at the beginning of a clause, and can be omitted". The examples he gives are of three kinds: (1) examples with "omitted" *yan*, where the embedded sentence is subjectless. (2) examples where *yan* is coreferential with the pronominal object of a preposition. (3) examples where *yan* is coreferential (in the sense of inclusion) with a possessed attribute which serves as the subject of the embedded sentence.

In present day Bahasa Malaysia, Bahasa Indonesia, Betawi, Javanese, and Sundanese, examples with "omitted" *yan* (Javanese *sIn*, Sundanese (*a*)*nu*) are rare. Examples with no relative are common in Balinese, but the noun *ane* is also used. In all these languages the relative noun may not be coreferential with the object of a verb or preposition in the embedded sentence, but only with the subject of the embedded sentence.

An innovation in present-day Bahasa Indonesia (MacDonald and Soenjono 1967:192, 194) and Bahasa Malaysia (Saleh bin Kadzimin, Muhammad bin Jaafar) is the use of interrogative pronouns as relative pronouns. All Bahasa Indonesia and Bahasa Malaysia speakers seem to accept the use of *mana* 'where' in *di mana* '(at) where' as a relative pronoun, some accept *kapan* or *bila* 'when', and some even accept the use of other interrogative pronouns such as *siapa* 'who' as relative pronouns in prepositional phrase (e.g. *oraŋ kepada siapa saya tunjukkan surat itu* 'the man to whom I showed the letter'). Such examples are gen-

erally felt by native speakers to be English or Dutch influenced. The use of interrogatives as relatives does not occur in classical Malay, Betawi, Javanese, Sundanese, or Balinese. (Winstedt 1927:120, MacDonald and Soenjono 1967:190-194, Horne 1961:89, Kersten 1948, and informants.)

10.1.1.9 Prepositions

Betawi does not have a number of prepositions of classical Malay, such as *pada* 'on, in, at, from (dative, locative/time, cause)', *oleh* 'by (agentive)', *akan* '(accusative)', *dengan* 'with', but has replaced them with derived prepositions: *ame* 'with, by, to', *pake* 'with (instrumental)', *buat, bakal, bagi* 'for'. They share the locative prepositions *di* 'at', *dari* 'from', and *kə* 'to' (classical Malay *ka* 'to'). It may be relevant that Javanese, Sundanese, and Balinese have different prepositions from Malay, except for *di* and *kə/ka* which occur in Balinese and Sundanese. (Winstedt 1927:140-148, Horne 1961:29, 73-74, Kersten 1948:74-83, Kosasih Prawirasumantri.)

10.1.1.10 Pronouns

Betawi does not have the classical Malay inherent pronouns *aku* 'I', *engkau, kamu* 'you', *ia* 'he, she, they', *kami* 'we (excl.)'. It retains the third person pronoun *die* (classical Malay *dia*) 'he, she, they' and uses the Malay first person inclusive pronoun *kite* (classical Malay *kita*) for both inclusive and exclusive. In addition it has the pronouns *gue, (s)aye* 'I' and *lu* 'you'. *Gue* and *lu* are Hokkien Chinese and are mentioned by Winstedt as used by and to Chinese in speaking Malay. *(s)aye* is from classical Malay *sahaya* 'I' from Sanskrit 'follower, slave'.

Gue and *lu* are "familiar" pronouns in Betawi, commonly used between equals but never, say, to a parent or older person. As in classical Malay and related languages (and not uncommon in Asian languages) more commonly used than inherent pronouns are derived pronouns which come from titles or names of positions and family relationships. Some used

in Betawi are listed in section 7.2.1.11. Most of these are mentioned also by Winstedt. Exceptions are *ñā?* 'mother' from Mandarin Chinese, and *ñai* 'native wife of European' from Balinese *ñai* 'you (low, for females)'. In Betawi *ñai* 'native wife of European' of course occurs only in the context of stories or discussion of the colonial period, *Nyai Dasime* being the best known of Betawi stories. (Winstedt 1927:106-113, Kersten 1948:45-46, Horne 1961:14, Kosasih Prawirasumantri.)

10.1.1.11 Enclitic genitive pronouns and possessive phrases

Betawi does not have the first and second person short forms of the pronouns, *ku* 'my', *kau*, *mu* 'your' of classical Malay which serve as "enclitic genitive pronouns". (But the fact that Betawi *lu* and *gue* are already monosyllabic and disyllabic respectively may be relevant.) Sundanese and Balinese also do not have special short forms for the first and second persons. Javanese has *-ku* 'my' and *-mu* 'your'.

The most usual patterns for possessive phrases in classical Malay and Betawi are like the following examples:

Malay:	Betawi:	
<i>bajuku</i>	<i>baju gue</i>	'my dress'
<i>bajumu, bajukau</i>	<i>baju lu</i>	'your dress'
<i>bajuña</i>	<i>bajuñe</i>	'his, her, their dress'
<i>baju Siti</i>	<i>bajuñe Siti</i>	'Siti's dress'

The Betawi pattern differs from classical Malay in the third person when the possessor is specified, where apparently *ña* does not occur in the normal unemphatic possessive phrase in classical Malay (although it may occur "for clarity" (Winstedt 1927:114)). In Betawi, *-ñe* may be omitted when the possessor is specified, but it most often appears.

The most usual patterns for Javanese, Sundanese, and Balinese possessives are like

these examples:

Javanese:	Sundanese:	Balinese:	
<i>kəlambi</i>	<i>baju</i>	<i>baju</i>	'my dress'
<i>kəlambiku</i>	<i>baju abdi</i>	<i>bajun tiange</i>	'my dress'
<i>kəlambimu</i>	<i>baju maneh</i>	<i>bajun ragane</i>	'your dress'
<i>kəlambine</i>	<i>bajuna</i>	<i>bajunne</i>	'his, her, their dress'
<i>kəlambine Siti</i>	<i>bajuna Siti</i>	<i>bajun I-Sari</i>	'Siti's/Sari's dress'

For Javanese and Sundanese, the suffix (*-ne* or *-na*) is obligatory when the possessor is specified. This may have influenced its frequent use in Betawi. In Betawi the suffix *-ñe* sometimes even occurs with the first and second persons (e.g. *bajuñe saye* 'my dress') although this is not common. (Winstedt 1927:114, Horne 1961:14, Kersten 1948:47, Kosasih Prawirasumantri.)

The construction possessor—*puñe*—possessed (e.g. *saye puñe baju* 'my dress') also occurs rarely in my data. This construction is a marker of Chinese Malay (Nio Joe Lan 1961:210, Shellabar 1913:58). It follows the Chinese pattern and is also like a Balinese pattern (possessor—*ñalah*—possessed) typical of East Bali according to my informants. (Kersten 1948:47.)

10.1.1.12 Pronominal prefixes and passives

In classical Malay, verbs which many grammarians (and this study) consider passive, may either have short forms of the pronouns prefixed to the verb, or the full pronoun directly preceding the unaffixed verb. This is paralleled in Betawi, with these differences: Betawi has no special short prefix forms for the first and second persons (although *lu* and *gue* are already no "longer" than *ku-* and *kau-*), and while *di-* is the passive prefix only for the third person in classical Malay, it is also a passive prefix for all persons in Betawi.

Examples:

Classical Malay:	Betawi:
<i>anak itu kupukul/aku pukul</i>	<i>anak itu gue pukul</i>
	'The child was hit by me.'

anak itu kaupukul/engkau pukul *anak itu lu pukul*
'The child was hit by you.'

anak itu dipukul/dia pukul *anak itu dipukul/
die pukul*
'The child was hit by him, her, them.'

anak itu dipukul
(*gue, lu, die*)
'The child was hit (by me, you, him, her, them).'

In modern Bahasa Indonesia and Bahasa Malaysia, the classical Malay first and second person prefixes also do not occur, and *di-* is a passive prefix with all persons as in Betawi. In Sundanese, there are also no first and second person pronominal prefixes, and the prefix *di-* must occur on the passive verb with all persons. Javanese, on the other hand, has obligatory first, second, and third person prefixes, which cannot be replaced by full forms of the pronouns, and the prefix *di-* only refers to the third person. Balinese does not have such passives with preposed pronouns or pronominal prefixes.

Examples:

Bahasa Indonesia

Bahasa Malaysia

Sundanese:

anak itu saya pukul -
'The child was hit by me.'

anak itu kamu pukul -
'The child was hit by you.'

anak itu dia pukul -
'The child was hit by him, her, them.'

anak itu dipukul *budak eta dicabok*
(*oleh saya, kamu,* (*kuabdi, maneh,*
dia) *manehna*)

'The child was hit (by me, you, him, her, them).'

Javanese:

bocah kae ta'antəm 'The child was hit
by me.'

bocah kae ko'antəm 'The child was hit
by you.'

bocah kae diantəm 'The child was hit
by him, her, them.'

(Winstedt 1927:70-72, MacDonald and Soenjono 1967:234-242, Hassan 1974:103-106, Horn 1961:103-107, 1211, Robins 1968:357-358, Kersten 1948:59-73.)

The classical Malay particles *pun*, *lah*, *kah* and *tah* do not appear in Betawi. The Betawi particle *de(h)* probably comes from the Malay word *sudah* 'already'. The short form *dah* 'already' appears in Brown's (1956:61) Perak Malay dialogues. The Betawi particle *kan* probably comes from Malay *bukan* 'not'. Some other particles in Betawi are Javanese, Sundanese, or Balinese. The particles *ko?*, *ye*, and *?ah* occur in Javanese, *sih*, *?ah* and *mah* in Sundanese, and *sih*, *doŋ* and *?ah* in Balinese. (The information on these particles in Javanese, Sundanese, and Balinese is from the informants named in Appendix A3.)

10.1.2 Implications of the linguistic evidence

10.1.2.1 Betawi as a Malay dialect

The evidence from core vocabulary places Betawi clearly as a Malay dialect. The level of mutual intelligibility with Bahasa Indonesia, another Malay dialect, seems to be in accord with this classification. It seems correct to say that there is some degree of mutual intelligibility based on shared grammatical features, but enough difficulty to impede communication (see e.g. Universitas Indonesia 1974:6-7). This level of intelligibility corresponds to what is usually considered a dialectal difference.

10.1.2.2 Betawi and Chinese

Since there was a large Chinese population in Jakarta in the eighteenth and nineteenth centuries when Betawi apparently originated, influence of Chinese might be expected in Betawi. A possible influence of Chinese on Betawi is the possessor—*puñe*—possessed construction (see section 10.1.1.11), but this is rare in my data. (It should perhaps be noted again that this study did not include speakers who claimed Chinese, Arabic, or other foreign descent.) With that minor exception,

influence of Chinese on Betawi appears to have been only in the area of vocabulary. This may be partly explained by the fact that the Chinese population was socially and politically separated from the Indonesian population.³ They are said to have developed a Chinese-Malay dialect showing influence of Hokkien Chinese and Betawi (Milone 1966:199). According to Nio Joe Lan (1961) there was a "literature" in Chinese-Malay, a dialect no longer used. The subject of Chinese-Malay deserves further study.

10.1.2.3 Betawi and Malayo-Portuguese Creole

Since a Portuguese-based creole served as Batavia's original lingua franca, its influence might be expected to be apparent in Betawi. However, from Schuchardt's (1891) description of its remnants in the port area of Tugu, there do not seem to be any obvious similarities between this creole and Betawi which are not also shared with classical Malay. The contribution of Portuguese to Betawi appears in the area of loanwords. It may be that the replacement of slaves from the Indian subcontinent by slaves from East Indonesia, where Malay was a lingua franca, was the most important reason for the disappearance of the Malayo-Portuguese creole. The identification of Portuguese with Christianity may also have been relevant (Milone 1966: 176-177). This subject also deserves further study.

10.1.2.4 The influence of Javanese, Sundanese, and Balinese

The influence of Sundanese and Balinese on Betawi is prominent enough that Homan considered Betawi a dialect of Sundanese (quoted by Kähler 1966:II), and Van der Tuuk considered it "basically low Balinese" (Taalkundige studiën, 1870, quoted by Teeuw 1961:45).

Some of the differences from classical Malay and similarities to Javanese, Sundanese, and Balinese in Betawi, summarized, are:

1) The suffix *-in* associated with transitivizing, causativizing, and verb derivation

(Balinese).

2) Lack of the Malay prefix *tər-* (not in Javanese, Sundanese, or Balinese), replaced by prefix *kə-*, with or without suffix *-an* (common in Javanese).

3) *ŋ-* as verbal prefix not part of prefix *məŋ-* (*məŋ-* also not in Javanese, Sundanese, or Balinese).

4) The "comparative" verb derivation and associated suffix *-an* (Balinese, Sundanese).

5) The "excessive" verb derivation rule and associated prefix *kə-* and suffix *-an* (Javanese, Sundanese, and Balinese).

6) Lack of the "superlative" derivation rule of Malay, replaced by syntactic superlative with adverb *paliŋ* (Balinese).

7) Lack of Malay complementizer *bahwa* (not in Javanese, Sundanese, or Balinese), and occasional use of *kalo* 'if, when' as complementizer (Javanese *yen*, Balinese and Sundanese *yen* 'if, when').

8) Common use of suffix *-ñe* with possessor specified (Javanese *-ne*, Sundanese *-na*).

9) Loss of Malay prepositions except *di*, *kə*, and *dari*. (*di* and *kə/ka* occur in Balinese and Sundanese. Other Malay prepositions do not occur in Javanese, Sundanese or Balinese).

10) Loss of Malay particles *pun*, *tah*, *lah*, *kah* (not in Javanese, Sundanese, or Balinese) and frequent use of particles not found in Malay:

<i>ʔah</i>	(Sundanese, Balinese, Javanese)
<i>si</i>	(Sundanese, Balinese, Javanese)
<i>koʔ</i>	(Javanese)
<i>ye</i>	(Javanese)
<i>doŋ</i>	(Balinese)
<i>mah</i>	(Sundanese)

It is interesting that Betawi does not seem to be closer to any one of these related languages than the others but, as in a creole situation, seems in many ways to represent the lowest common denominator of all the languages involved. However, the linguistic results differ from a creole in that the resulting dialect is much closer to the target language. Creoles are usually unintelligible to the uninitiated speaker of the target language, and may be considered completely new languages.

There were some similarities between the situation in eighteenth and nineteenth century Batavia and the setting which gave rise to creoles in the Caribbean for example. These were: (1) the coexistence of interdependent but hierarchically arranged social groups, (2) a dominated group, composed largely of slaves speaking mutually unintelligible but related languages, (3) the numerical superiority of the dominated group. Differences from the Caribbean situation were: (1) the language which came to be used for intercommunication was not the language of the small, politically and economically dominant group (as Dutch was made unavailable by law to non-Europeans), (2) the language which came to be used was closely related to the original languages of the dominated group, (3) the original languages probably continued to be used for some time with those from the same area, who continued to enter the population.

This suggests that perhaps if Dutch had been the language adopted a creole would have arisen⁴ but instead, since Malay was so closely related to the original languages of the mixed Indonesian group in Batavia who adopted it, little influence of the original native languages is detectable.

Another type of case which seems similar to that of Betawi is the case of the dialect which shows "substratum" (or "adstratum") influence. It is similar in that it is considered to be a dialect of the target language, in contrast to a creole, which may be considered a completely new language. But the term "substratum" (or "adstratum") is usually reserved for a single language whose influence can be clearly documented, not a group of languages as in the case of Betawi.

Possibly the influence of Javanese, Sundanese, and Balinese on Betawi could be due to an intimate contact situation, but the census figures indicate that the number of native speakers of Malay in Jakarta was originally not very great.

The similarities to Javanese, Sundanese, and Balinese, in Betawi, it seems, can best be accounted for as the outcome of a situation in which a mixed population of native speakers of

these languages used Malay as a lingua franca, and in subsequent generations adopted it as a native language.

10.1.2.5 Innovations

Some differences from classical Malay in Betawi which appear to be innovations are phonological and morphophonemic: the final /a/ rule, the rule of loss of final /r/ in prefixes before consonants, the insertion of shwa after the prefix /ŋ/ before voiced stops, and the extension of the uses of the suffix *-in*.

10.1.3 Conclusion

The linguistic evidence shows that, on the basis of core vocabulary and sound correspondences, Betawi should be considered a Malay dialect. The impressionistic evidence of mutual intelligibility with Bahasa Indonesia is also in accord with this conclusion. In the area of syntax (especially derivation and morphophonemics), there are some rather specific similarities to Javanese, Sundanese, and Balinese. But Betawi does not seem to resemble any of these more closely than the others. Syntactically Betawi represents in many ways the lowest common denominator of these languages and Malay. Betawi also shows some innovations, especially in phonological rules and extension of uses of the affix *-in*. The influence of non-Austronesian languages appears mainly in the vocabulary.

This linguistic evidence, in conjunction with the historical evidence, suggests that Betawi is a dialect of Malay which arose through language shift primarily by speakers of Javanese, Sundanese, and Balinese, in contact with several non-Austronesian languages. It would be of interest to compare the case of Betawi with others in which a history of a multilingual base for a shift to a closely related language is known or suspected, such as, for example, some urban dialects of African languages (e.g. Hancock 1971:518, 44), to see whether the same kinds of linguistic results are found.

This conclusion on the origin and position of Betawi seems to support the traditional assumption that core vocabulary and sound correspondences are the best indicators for language classification (Antilla 1972:319). I think that such reconstructions of different types of case histories of individual languages and dialects will contribute to our understanding of the linguistic and sociolinguistic factors involved in language change.

10.2 Implications of the study for lexicase theory

The lexicase theory has proved to be an adequate framework for a basic description of the grammar of Betawi.

In some areas, this study has not followed out all the implications of the theory, for example, in reducing the number of categories posited in the phrase structure rules. I sometimes chose more traditional analyses when there were no good arguments from Betawi for the less traditional and more economical analyses.

Several notions which have been sources of confusion and controversy in Indonesian linguistics are given explicit and workable definitions in lexicase theory. These are the notions of "active and passive verbs", "inflection", and "derivation". According to the definitions of lexicase theory, there are active and passive verbs in Betawi. Synchronically, passive verbs are considered to be derived from active verbs. The fact that the active verb optionally takes a derivational prefix suggests that historically it was also

derived, although the affix now does not change meaning. Considering the passive verb derived from the active verb does not imply anything about relative frequency of the use of passive versus active verbs. The fact that active and passive verbs are not used in the same situations in English and Betawi is partially explained here on syntactic grounds. All the prefixes, suffixes, and reduplication processes of Betawi are considered derivational rather than inflectional.

The concentration of this study was on the area of derivation. I did not attempt to describe some aspects of the grammar of Betawi which have not been developed in other studies in this framework, such as case relations in noun phrases and verbless sentences, and verb complementation, although Kullavanijaya (1974) has made some beginnings in the latter area.

The contribution of this study to lexicase theory is to have gone further in the investigation of derivation rules than previous studies in this framework. A distinction between word formation analogies (WFA) and fully productive derivation rules has been made. This distinction reflects the historical nature of derivation rules. Rules may become no longer productive, leaving WFAs as their synchronic result, or new rules may arise, competing with old ones, and leaving as residue WFAs which no longer directly reflect the original pattern.

Further study of derivation rules would investigate other possibilities which have been suggested here for dealing with exceptions to the morphophonemic rules associated with derivation rules, rather than the rule features used provisionally here.

* * *

1 *a in final position: as discussed in section 9, internal synchronic evidence requires positing underlying final /a/ in Betawi in words which are reconstructed with final *a. A similar rule must be posited for Javanese, giving surface [ɔ] from underlying final /a/, as [a] appears in these words before suffixes (Horne 1961:70) and there is no word-final [a] in Javanese. This analysis would mean no final /ɔ/ in underlying forms in Javanese, which also parallels the lack of final /ɛ/.

Where classical Malay writes final "a", the usual pronunciation in Malay dialects is [ə], (Hussein 1973:71). My informants for Bahasa Malaysia also have [ə], but [a] before suffixes, so a similar rule might be posited for at least some dialects.

*q in final position: as discussed in section 9, internal synchronic evidence in Betawi requires positing underlying /h/ where Dyen (1953) reconstructs *q. The reflex of final *q in Malay and Javanese is also [h].

*k in final position: where final "k" is written in classical Malay, Bahasa Indonesia and Bahasa Malaysia, the pronunciation is a glottal stop. (Dempwolff 1934:145, Dyen 1953:7, 51, Hassan 1974:11, MacDonald and Soenjono 1967:12). However, my informants for Bahasa Indonesia and Bahasa Malaysia tend to pronounce [k] before suffixes (see also MacDonald and Soenjono 1967:11). Thus for at least some dialects, underlying final /k/ might be posited.

2. Some other dialects of Malay which show parallels with the way Betawi differs from classical Malay are Perak Malay (Brown 1956:58, Hussein 1973:71) and Baba (Chinese) Malay (Shellabar 1913:58). Perak Malay also has [e] where classical Malay has final [ai] and [a]. It also shows numerous other phonological differences from both classical Malay and Betawi.

Baba Malay also has [e] where classical Malay has final [ai], and loss of classical Malay [h]. It also has a number of other phonological differences from classical Malay and Betawi. Both the Chinese of Malaya and Batavia came mainly from Fukkien province (Shellabar 1913:52, Castles 1967:192). There is no explanation for either of these sound changes in Chinese phonology.

3. Although ethnic background was the most important criterion for status differentiation in Batavia at that time, other factors, such as religion, wealth, birthplace, etc. were also important, and the situation was in actuality very complex. The legally "Chinese" population consisted both of full-blooded (totok) and part Indonesian (*peranakan*) "Chinese". (Milone 1966:147-151, 190-191.)

4. In fact a pidgin or creole Dutch was apparently also spoken by Eurasians in Jakarta (Milone 1961:171, Sulistyono 1974, examples in Robinson 1965).

APPENDIX

A Material recorded and background of informants

A.1 *lenong* recorded and transcribed:

1) *SiMuka-Itəm* 'The Black Mask' in Jatinegara, by the Rindu Malam troupe.

2) *Siloman Cikaləŋ* 'The Siloman of Cikalong', in Jakarta Art Center by the Ikatan Lenong Jakarta.

3) *Macan Bəkasi* 'The Tiger of Bekasi' in Jakarta Art Center by the Ikatan Lenong Jakarta.

4) *Ñai Dasime* '(The story of) Nyai Dasime' in Jakarta Art Center by the Ikatan Lenong Jakarta.

A.2 Backgrounds of informants recorded in natural conversation for a half hour or more, and situation of recording:

Recorded by Jasmin Sahab in Jatinegara:

1) *mpo[?]-M*: female, about thirty-five, sells cakes and takes in laundry, husband in the army, of Betawi descent and says she speaks only Betawi. Situation: talking to neighbor in the kitchen about her husband's second marriage.

2) *mpo[?]-R*: female, about forty, former servant now supported by old employer, widow of Betawi descent and says she speaks only Betawi. Situation: visiting her old employer, talking to new servant while giving a massage and setting the table. She discusses family problems and illness, neighbors, younger days as a *lenong* player.

3) *mpo[?]-D*: female, about forty, servant of Betawi descent and says she speaks only Betawi. Situation: ironing, chatting to employer about her family, the past.

4) *mpo[?]-A*: female, about twenty-five, housewife, husband unemployed, of Betawi descent and says she speaks only Betawi. Situation: chatting with a neighbor on the front porch.

5) *Baŋ-A*: male, about forty, night watchman and teacher of *pəñcak* (art of self-defense), of Betawi descent and says he speaks only Betawi, wife of Arab descent. Situation: eating lunch at a *pəñcak* student's house, telling stories about experiences as a watchman.

Recorded by Sujai in Kebon Pala:

6) *Baŋ-I*: male, thirty-nine years, school to third grade, unemployed truck driver, born and raised in Kebon Pala, used to work as sate vendor and travelled in Java, says he speaks a little Javanese, Sundanese, and Bahasa Indonesia as well as Betawi, wife Javanese. Situation: sitting in front of the mosque all night with a gang of cronies, during the fasting month, discussing the economic situation, corruption, fate, etc.

A.3 The following persons were all East-West Center grantees between 1971-1975 and kindly served as informants for me:

- 1) Bahasa Malaysia: Muhammad bin Jaafar, Saleh bin Kadzimin
- 2) Javanese: Sri Anggarini Marnomo, Ivon Sulistyono
- 3) Sundanese: Kosasih Prawirasumantri, Sodianti
- 4) Balinese: Ida Bagus Astawa, Ida Bagus Mantra

All the Indonesians were also informants for Bahasa Indonesia.

B.1 Rules relating to definiteness and word order:

Noun subcategorization rules:

$$(1) \quad [+N] \quad \longrightarrow \quad \begin{bmatrix} + \text{ def.} \\ + \text{ emph.} \end{bmatrix}$$

$$(2) \quad \begin{bmatrix} +N \\ +\text{def.} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} + \\ - \end{bmatrix} \text{ NM}$$

Noun redundancy rules:

$$(1) \quad \begin{bmatrix} +N \\ -\text{def.} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} [+ \text{def.}]$$

$$(2) \quad \begin{bmatrix} +N \\ +\text{def.} \\ -\text{deriv.} \\ -\text{proper} \\ -\text{pron.} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} + \\ - \end{bmatrix} \left[\begin{array}{l} [+ \text{det.}] \\ \left[\begin{array}{l} +N \\ +\text{def.} \end{array} \right] \\ \left\{ \begin{array}{l} +\text{deriv.} \\ +\text{proper} \\ +\text{pron.} \end{array} \right\} \end{array} \right]$$

$$(3) \quad \begin{bmatrix} +N \\ -\text{def.} \\ -\text{NM} \end{bmatrix} \quad \longrightarrow \quad [+AC]$$

Verb subcategorization rule:

$$(1) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} + \\ - \end{bmatrix} \text{ emph.}$$

Redundancy rules relating to case frame features:

$$(1) \quad \begin{bmatrix} +V \\ -\text{emph.} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} [+NM]$$

$$(2) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +AC \\ +AGT \end{bmatrix}$$

$$(3) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +AC \\ +AGT \\ -\text{pron.} \end{bmatrix}$$

$$(4) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +AC \\ -AGT, -TIM \end{bmatrix}$$

$$(5) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} [+THM] \\ +AC \\ -THM \\ -TIM \end{bmatrix}$$

$$(6) \quad [+P] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \text{ } [-AC]$$

$$(7) \quad [+V] \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} -NM \\ -AC \\ -\text{emph.} \end{bmatrix}$$

B.2 Other redundancy rules relating to case frame features:

$$(1) \quad \begin{bmatrix} +V \\ -[+THM] \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} -[+AGT] \\ -[+BEN] \\ -[+INS] \\ -[+COM] \end{bmatrix}$$

$$(2) \quad \begin{bmatrix} +V \\ +([+THM]) \\ -[+NM] \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} -[+AGT] \\ -[+BEN] \\ -[+INS] \\ -[+COM] \\ -[+LOC] \\ -[+MAN] \end{bmatrix}$$

$$(3) \quad \begin{bmatrix} +V \\ \alpha \text{stative} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +I \\ +INS \\ -\alpha \text{cause} \end{bmatrix}$$

$$(4) \quad \begin{bmatrix} +V \\ -\text{dir.} \\ - \begin{bmatrix} +NM \\ +THM \end{bmatrix} \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +INS \\ +I \\ +\text{trans.} \end{bmatrix}$$

$$(5) \quad \begin{bmatrix} +V \\ + \left(\begin{bmatrix} +AC \\ +DAT \end{bmatrix} \right) \end{bmatrix} \quad \longrightarrow \quad \begin{bmatrix} - \\ - \end{bmatrix} \begin{bmatrix} +DAT \\ -AC \\ -C \end{bmatrix} +\text{gol.}$$

$$(6) \quad \begin{bmatrix} +V \\ -[+AGT] \\ - \begin{bmatrix} +NM \\ +DAT \end{bmatrix} \\ +([+DAT]) \end{bmatrix} \quad \longrightarrow \quad [+gol.]$$

$$(7) \quad \begin{bmatrix} +V \\ +([+DAT]) \end{bmatrix} \quad \longrightarrow \quad [+src.]$$

$$(8) \quad [\alpha \text{src.}] \quad \longrightarrow \quad [-\alpha \text{gol.}]$$

(9) [α gol.] \longrightarrow [- α src.]

(10) $\left[\begin{array}{l} +V \\ +([+DAT]) \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+DAT] \\ -C \end{array} \right]$

(11) $\left[\begin{array}{l} +V \\ + \left(\begin{array}{l} [+AC] \\ [+BEN] \end{array} \right) \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+BEN] \\ -AC \\ -B \end{array} \right]$

(12) $\left[\begin{array}{l} +V \\ + \left(\begin{array}{l} [+AC] \\ [+INS] \end{array} \right) \end{array} \right] \longrightarrow \left[\begin{array}{l} - [+AGT] \\ - \\ [+INS] \\ -AC \\ -C \end{array} \right]$

(13) $\left[\begin{array}{l} +advers. \\ +deriv. \end{array} \right] \longrightarrow \left[- [+BEN] \right]$

(14) $\left[\begin{array}{l} +V \\ +([+AGT]) \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+NM] \\ -AGT \end{array} \right]$

(15) $\left[\begin{array}{l} +V \\ - [+AGT] \\ +([+DAT]) \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+NM] \\ -DAT \\ - [+INS] \end{array} \right]$

(16) $\left[\begin{array}{l} +V \\ - [+AGT] \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+NM] \\ -THM \end{array} \right]$

(17) $\left[\begin{array}{l} +V \\ - \left(\begin{array}{l} [+NM] \\ +THM \end{array} \right) \end{array} \right] \longrightarrow \left[\begin{array}{l} - \\ [+THM] \\ -AC \end{array} \right]$

(18) $\left[+V \right] \longrightarrow \left[\begin{array}{l} - [+DAT] \\ - \\ [+AC] \\ +BEN, +INS, +COM, +LOC, +MAN \\ -loc. \\ -strict \\ -dir. \end{array} \right]$

* * *

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