Melayu Betawi Grammar
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MELAYU BETAWI GRAMMAR

by

Kay Ikranagara

1980
Badan Penyelenggara Seri NUSA
Universitas Atma Jaya, Jakarta
Jakarta
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Chapter one

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 Betawi (children or people of Batavia, the old name of Jakarta) refer to their language as Jakartan, Betawi, or Malayu Betawi. 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-

1

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, Padjangga 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)

Bahasa daerah lain terutama bahasa Djawa, Sunda dan lebih lagi dialek "Kelayu Betawi" kini menghamburi kata 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. (Teew 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. Bernafas dalam lumpur (1970), Bunga-bunga begunguran (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. LENQ (Betawi theater) and gambaq karamong (Betawi music) as well as talk programs such as Pok Aki: "Kang Gado-Gado" may be heard on Radio Republik Indonesia. A gambaq karamong 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 datoq 'come' in place of Bahasa Indonesia ada 'have' and datatq '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 we 'I' and ln 'you', and kite (Bahasa Indonesia 'we (incl.)') meaning 'we (excl.)' or 'I' are used. The use of the sentence particles dgn, sl, de, etc. is very common. Vocabulary items are especially from the young people like pazaran 'going together, a romantic relationship', from fashion like gondroq 'long hair (on boys)', from the vocabulary of corruption: matut 'chisel' (with both literal and figurative English meanings) and crime:молд '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 Jakarta in a 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 balande (Dutchman or Westerner). Mustofa, of the Ikat Lenong Jakarta (Jakarta "Lenong" Association), in his portrayal makes the foreigner's stringing together of Malay words almost incomprehensible, hilariously substituting words (e.g. Sado rakan doktor? 'Have you eaten the doctor?' for Sado pagi 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 are 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] (Kita kaba'akan a 'We use too/very much o'). 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, pasuruh 'office boy/janitor', or drivers of oplet 'mini-buses', buses, or beak '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 kampq (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 kampq 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 kampq (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 kampq 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 kampq is that there is no traffic, so such background noise is not a problem (althought 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 kampq, 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 Sahai 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 gambaq keronom (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" (piggiran 'on the edge'), "something upper-class people say" (gadean '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-

* * *

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 rumah 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.
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), Kullavannijaya (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 hierarchial 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 hierarchial 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 [+NM +AGT].

(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:

\[
\begin{array}{c}
+ V \\
- [+THM] \\
\end{array} \quad \rightarrow \quad \begin{array}{c}
- [+AGT] \\
- [+BEN] \\
- [+INS] \\
- [+COM] \\
\end{array}
\]

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:

\[
\begin{array}{c}
+ V \\
+ stative \\
+ [+NM] \\
\end{array} \quad \rightarrow \quad \begin{array}{c}
+ V \\
+ stative \\
+ [+NM] \\
\end{array}
\]

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 gede'an 'bigger', derived from gede '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:

\[
\begin{array}{c}
+ V \\
\end{array} \quad \rightarrow \quad \begin{array}{c}
+ N \\
+ derv. \\
+ person \\
\end{array}
\]

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 pəmbókaq 'liar, cheater' from bōkaq 'lie, cheat'. (A morphophonemic rule gives the prefix pəq- to such derived person verbs.) In this study, word formation analogies are written with a double barreled 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:

\[ [+V] \rightarrow \uparrow([+NM]) \]

The symbol \( \uparrow \) 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 pəq- 'go', a verb which allows a subject, and an example of a verb belonging to the \(-([+NM])\) subcategory in Betawi is uʃan '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:

\[ ] \rightarrow an[ ] / [+\text{derived} [+\text{comparative} ] ] \]

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:

\[ (1) \text{Die aqoi piriq pake po'on.} \]

'she wash dish with 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 lexicase 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 *nullis* 'write (active)' and *ditulis* 'write (passive)', and the nouns *surat* 'letter' and *Siti* (a name).

\[
\begin{align*}
\text{(1) } & \quad \text{Siti nullis surat itu.} \\
& \quad + N \quad \quad + V \quad \quad + N \quad \quad [+ \text{DET}] \\
& \quad + \text{NM} \quad + \text{NM} \quad + \text{AC} \quad + \text{THM} \\
& \quad + \text{AGT} \quad + \text{AGT} \quad + \text{THM} \quad \theta F_k \\
& \quad \text{\(\alpha F_a\)} \quad \text{\(\beta F_i\)} \quad \gamma F_j \quad \delta F_m \\
\end{align*}
\]

'Siti wrote the letter.'

\[
\begin{align*}
\text{(2) } & \quad \text{Surat itu ditulis Siti.} \\
& \quad + N \quad \quad + V \quad \quad + N \quad \quad [+ \text{DET}] \\
& \quad + \text{NM} \quad + \text{NM} \quad + \text{AC} \quad + \text{AGT} \\
& \quad + \text{THM} \quad + \text{THM} \quad + \text{THM} \quad \gamma F_j \\
& \quad \theta F_k \quad \beta F_i \quad \alpha F_a \quad \delta F_m \\
& \quad + \text{AGT} \quad + \text{AGT} \quad + \text{deriv.} \\
\end{align*}
\]

'The letter was written by Siti.'

In this example, the two verbs share all their semantic features, \(\delta F_m\). 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 \([+ \text{THM}(\text{theme})]\) to the verb in each sentence. The noun *Siti* has the same case relationship \([+ \text{AGT}(\text{agentive})]\) to the verb in each sentence. \([\beta F_i]\) and \([\gamma F_j]\) represent the identical selectional restrictions imposed by both verbs on their agentive and theme actants respectively. \([\alpha F_a]\) and \([\theta F_k]\) 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 \([\beta F_i]\) and \([\gamma F_j]\). 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, lexicase 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 lexica-case 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:

\[
\begin{array}{c}
\text{Die} \\
\text{he}
\end{array}
\begin{array}{c}
\text{bali ikan} \\
\text{buy fish}
\end{array}
\begin{array}{c}
\text{bakal gue} \\
\text{for me}
\end{array}
\]

`He bought fish for me.'

Abbreviations:

<table>
<thead>
<tr>
<th>Case forms:</th>
<th>Case relations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NM: nominative</td>
<td>AGT: agentive</td>
</tr>
<tr>
<td>AC: accusative</td>
<td>THM: theme</td>
</tr>
<tr>
<td>B: benefactive</td>
<td>BEN: benefactive</td>
</tr>
</tbody>
</table>

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

\[
\begin{array}{c}
+ B \\
+ BEN
\end{array}
\]

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 lexica-case model case frame differs from a Fillmorean (1968) case frame in several ways. In place of a single unanalyzable case frame, such as [+ ___A (1) 0], lexica-case 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 subjectivization 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 -in form deriving gerundive nouns from verbs, is a derivational affix, as the item changes syntactic class. But the verbal suffix -ed 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.

* * *
Chapter three

PHRASE STRUCTURE IN BETAWI

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.

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 \( tapi(\text{ñe}) \) 'but', \( jadi(\text{ñe}) \) 'so, therefore', \( abis(\text{ñe}) \) 'so in that case', \( lagi(\text{ñe}) \) 'moreover, besides', \( maeke(\text{ñe}) \) 'therefore, that's why', \( pokokñe \) 'the point is, in summary', \( namañe \) 'that means, that is', \( omong-omong \) '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 koe mans?
  so he to where
  'So where did he go?'

(2) Wauke saye pulaq siq-siq,
  therefore I come home late, in
  the afternoon
  'That's why I came home late.'

(3) Nameke Ra? kan
    that is, that means (pron.) (SPart.)
    masi sayaq.
    still love
    'That means you still love me.'

(4) Pokokhe gue pegen tao, diri'lu
    the point is I want know self you
    slamot, sog?.
    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 delaye, e call- 
ing for attention, o expressing surprise, wa expressing dismay, ayo and mari expressing an
imperative meaning 'come on, let's (go)'.

Examples:

(5) E a ni anak koe mans?
    (intro.) (intro.) this child to where
    'Where did the child go?'

(6) O rupehe muluthe penu nasi.
    oh it seems mouth(def./pos.) full rice
    'Oh, it seems your mouth is full of
     rice.'

(7) Ayo pulaq.
    Come-on go-home
    'Come on, let's go home.'

3.2.2 Coordinating conjunction (Cocon.)

Some coordinating conjunctions in Betawi
are:

ape tapi ame
'or' 'but' 'and'

[ + cocon. ]   [ + cocon. ]
[ + Q ]

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

is specified as a question word. ame is der-
ived 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 intonation-
ally 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 de-
erved subordinating conjunctions are selamane
'while', sakananne 'when', sabatishe 'after',
salumane 'before', sualehe 'after', salagehe
'while'. Derived subordinating conjunctions
are derived from verbs or adverbs (see section
7.4.1.8). The suffix -ne which is also the
definite noun suffix, suggests that these
forms might alternatively be treated as de-
ived time nouns which allow sentence comple-
ments. 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 sec-
tion 3.3.2.2).

3.2.4 Sentence particle (SPart.)

Sentence particles: kan, ye, si, doa, de,
koe?, ?ah, and koe? express feelings and atti-
dudes of the speaker, such as surprise, in-
difference, discomfort, uncertainty, urging.
The meanings of these particles are discussed
in detail in terms of conversational postu-
lates in Ikrana 1975a.

There are restrictions on the position of
occurrence of some of these particles. de,
doa, 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 duiw ame
    but tell first (prep.)
    siMiun doq 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) sade 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). Nouns may occur with or without determiners.

Examples:

(6) anakñe
    child (def./pos.)

(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 beberape 'few', bañak 'many, much', saben 'every, each', tiap-tiap 'every, each', samue 'all' and numerative adjectives. Redundancy rules (2), (3), below) specify that certain quantifying adjectives, e.g. tiap-tiap, saben, beberape, 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:

RR (1) [+N] → [−Adj.]

RR (2) [+N]

RR (3) [+N] → [−Adj. +Quan.]

17
Examples:

Nonquantifying:

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

Quantifying:

(2) Saben ari die dateq. every day he come
    'He comes every day.'

(3) Ude due-pulu taon isbi. 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' Buyuq (name)

Ma?-Buyuq (name)

Sentence:

(1) Ma?-Buyuq kan kerje di sene.
    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 jaangan kasi siPuase.
    you don't give (name)
    'Don't give it to Puase.'

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:

(3) Šai 'native wife of European'

(4) (a)baq 'older brother'

(a)baq 'I, you, she (of, by or to native wife of European)'

Sentences:

(3) Šai mao Šaihup, (pron.) want sweep
    'I want to sweep.'

(4) Kan abaq mao sambayan, (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:

\[
\begin{array}{cccccc}
\text{ape} & \text{ape} & \text{stape} & \text{mane} & \text{kapan} \\
+\text{N} & +\text{cocon.} & +\text{N} & +\text{hum.} & +\text{LOC} & +\text{TIM} & +\text{N} \\
-\text{hum.} & +\text{Q} & +\text{hum.} & +\text{Q} & +\text{Q} & +\text{Q} \\
+\text{Q} \\
\end{array}
\]

'what' 'or' 'who' 'where' 'when'

\[
\begin{array}{cccc}
\text{borape} & \text{pogimane} & \text{koroape} \\
+\text{V} & +\text{Adv.} & +\text{Adv.} \\
+\text{stative} & -\text{cause} & +\text{cause} \\
+\text{quantifying} & +\text{Q} & +\text{Q} \\
+\text{Q} \\
\end{array}
\]

'how many,' 'how' 'why' 'how much'

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 oga 'not' or bolun 'not yet'. Examples:

(3) Lu ikut oga? 
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:

\[
\text{SR} \quad (+V) \quad \longrightarrow \quad (+\text{imp.})
\]

Imperative verbs do not take the prefix q- 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 iqet ye.*
    you remember (SPart.)
    'You remember!'

Active transitive:

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

Derived from noun with obligatory prefix:

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

Stative:

(8) *Capstn dog kerojan*$
    more-fast (SPart.) work (def./pos.)
    'Work faster.'
    (lit: 'Let your work be faster.')

Passive:

(9) *Ni dipetag dog*
    this hold (pas.) (SPart.)
    'Hold on.'
    (lit: 'Let this be held.')

A few items are lexically specified as [+imperative], such as jagañ 'don't' and the
interjections (a)yo and marî 'come on, let's
(go)'.

jagañ is specified as allowing a verb
complement (see section 3.1.4).
Examples:

(10) *Lu jagañ *estor 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):

\[ \text{RR (4) } [+\text{imp.}] \rightarrow [-\text{NM} \rightarrow \text{-addr.}] \]

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, S7...CON(S) gives compound sentences.
An example of a compound sentence is:

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

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

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

\[ S \]

\[ S \]

\[ S \]

\[ S \]
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 lakiña
when/if husband (def./pos.)
*pułaq øga [perne
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) *Datøq siAyati, maʔ-Leha pegi.
come Ayati Leha go

'When Hayati comes, Leha leaves.'

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

'She is looking for Miun because she wants to ask for money.'

(4) Ude sømare-mareñe aме
already angry (contra.) (prep.)
tetange øgaʔ bole bagitu.
neighbor not allow like-that

'Although you are angry at the neighbors, you may not do that.'

In example (3) sømare-mareñe is a derived contradictory 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-
nomina are specified in the lexicon as not allowing subjects, such as *ujan* 'rain', *aquin* 'wind', *panas* 'hot', *diqin* 'cold', *madon* 'cool'. They may have corresponding nouns (*ujan*) or nonatmospheric verbs which allow subjects (*panas*, *diqin*, *adom*). 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).'
   
   ![Diagram](image)

2. *Sokaraq ade bis, ade*
   now exist bus, exist
   model-model gandaran.
   model/kind (various) transport
   
   ![Diagram](image)

Nonfinite verbs are required or allowed in certain embedded sentences such as verb complements. Some verbs have the selectional feature [+V] → [-finite]. 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 *diusuru* '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.'
   
   ![Diagram](image)
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 lexicase 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 dandanæñe
she dress/make-up (def./pos.)
bagus.
pretty

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

(2) Die sëkaræq lakiñe
she now husband (def./pos.)
siæpe?
who

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

(3) Abaq minteæñe baňak amot bæg.
(pron.) asking many very (voc.)
(def./pos.)

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

\[
\text{siPuase oraq gile.}
\]

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) 

\[
\text{Ape yaq dilamunin? what which worry-about (pas.)}
\]

'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) 

\[
\text{ini bakal lu.}
\]

this for you

'This is for you.'

(4) 

\[
\text{die ama siPuase. he (prep.) Puase}
\]

'He is with Puase.'

(5) 

\[
\text{Peqiñe naek delman. going (def./pos.) by horsecart}
\]

'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 batempel
    I know you already attach
    ame Ḍai-Dasime.
    (prep.) Dasime
    'I know you and Dasime are attached.'

The subject of verb complementation will not be treated in this study. Kulavanimaya (1974:242-319) deals with this subject in a lexicase 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 Ḍari abaq.
    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 Kwitaŋ
    child Kwitaŋ
    (place name)
    'person from Kwitaŋ'

(3) tukas sado
    worker horsecart
    'horsecart driver'

Noun phrases containing a counter noun following a head noun:

(4) beras selerar
    rice one-liter
a liter of rice

(5) ayam due biji
c的是 "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(he) lu (itu)
child (def./pos.) you that
'your child'

Noun phrases containing a relative phrase:

(8) surat yaq 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 yaq 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 yaq has the features:

\[
\begin{array}{c}
yaq \\
\hspace{1cm} [+N] \\
\hspace{1.5cm} [+rel.] \\
\hspace{2cm} [-____ [+N]]
\end{array}
\]

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

Examples:

(9) surat yaq ditulis Siti
letter which write (pas.) Siti
'letter which was written by Siti'

(10) anak yaq nulis surat
child which write letter
'child who wrote a letter'

(11) Baq-Miun yaq biniñe
due two
'Miun whose wives are two'
Thus relative phrases are more restricted in Betawi than in English, in two ways.

First, \textit{yaq} 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) \textit{Puase yaq oraq gile}  
\textit{Puase which man crazy}  
\textit{'Puase who is a crazy man'}

Second, \textit{yaq} is always coreferential with the subject of the embedded sentence. Literal translations from English in which \textit{yaq} is not coreferential with the subject of the embedded sentence are ungrammatical.

Example:

(14) \textit{surat yaq Siti nulis}  
\textit{letter which Siti write}  
\textit{'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) \textit{surat yaq ibu tulis}  
\textit{letter which (pron.) write}  
\textit{'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 \textit{yaq} 'which' and with \textit{surat} 'letter'.

\[
\begin{align*}
\text{NP} & \rightarrow N \\
& \rightarrow N \\
\text{PP} & \rightarrow P \\
& \rightarrow N \\
& \rightarrow N \\
\text{Adj.} & \rightarrow N \\
\end{align*}
\]
Thus such examples are not counterexamples to the general rule that yaq is always coreferential with the subject of the embedded sentence. yaq may also occur as the head of a non-modifying noun phrase, as in examples (16) and (17).

(16)  Gue mao yaq ini.
I want which this
'I want this one.'

(17)  Kaga? ade yaq nomenin.
not exist which befriend, accompany
'There is no one who goes with him.'

(18)  Siti yaq pegi.
Siti which go
'It was Siti who went.'

(19)  Yaq pegi Siti.
which go Siti
'The one who went was Siti.'

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).

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

(20) Siape yaq pøgi?
    who which go

'Who went?'

(21) yaq pøgi 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? parmisi 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) oraqñe dataq ks
person (def./pos.) come to

[+N] [+P]
[NM] [L]
[THM] [gol.]

mari.
here

[+N] [+AC]
[LOC]

'He came here.'

Stative verb:

(2) Abaq cakap ye baq.
(pron.) handsome (SPart.) (voc.)

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

'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) øygæ ade yaq baek kaye
not exist which good like

[+N] [+AC]

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 bilaq kam
from before I say (SPart.)

[+P] [+N]
[L] [AC] [NM]
[THM] [AGT]

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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 Mariin gue?
you look-for me

In comitative case form:

Direct passive verb:

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

In accusative case form:

(3) Ngesi dibawa papañe.
Nancy take (pas.) father
(def./pos.)

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) Miuŋ dikasi duit.
    Miuŋ give (pas.) money

    +N      +N
    +NM     +AC
    +DAT    +THM

    'Miun was given money by Dulo.'

Nonagentive transitive verbs:

Possession verb:

(2) Gue ude puŋe bini.
    I already have wife

    +N      +N
    +NM     +AC
    +DAT    +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 gase Miun duit.
    Dulo give Miun money

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

    'Dulo gave Miun money.'

In comitative case form:

Active goal verb:

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

    +N  +N
    +NM +AC +C +AC
    +AGT +THM +DAT

    'What did he say to you?'

Active source verb:

(6) Puase pinjom uaq ame
    Puase borrow money (prep.)

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

    Ayati.
    Ayati

    +N   +AC
    +AC
    +DAT

    'Puase borrowed money from Ayati.'

Intransitive dative verb:

(7) Aye kosal ame laki
    I angry (prep.) husband

    +N
    +NM
    +THM

    +P
    +C
    +AC
    +DAT

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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:

In accusative case form:

Active benefactive verb:

In benefactive case form:

Active benefactive verb:

Nonbenefactive verbs:

(4) Tambain de dikkit
Add (SPart.) a-little
baŋ bakaŋ jalan-jaln.
 voc. for going/trip
 +P +N +AC +BEN

'Add a little for the trip.'

(5) siDulo qasi duit ame
 Dulo give money (prep.)
 +N +N +P +AC +C +THM
 +AGT

Ayati bakaŋ Miun.
 Ayati for Miun
 +N +P +N +AC +BEN
 +AC +B +AC +DAT

'Dulo gave money to Hayati for Miun.'

Verbless sentence:

(6) duit ini bakaŋ ūa?.
 money this for mother
 +N +P +N +AC +BEN +NM +AC +DAT

'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 koñoiŋe (ŋe)buka(ɨn) pintu 'The key opened the door' and Mata- ariŋe manasîn 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 from instrumental adverbial verbs. It may be realized in the instrumental case form with all verbs which allow instrumental actants except adverbial 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 adverbial verb:

(1) Die kaŋatoan pohon.
 he fall (advers.) tree
 +N +N +INS +AC
 +NM +AC +THM

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

In instrumental case form:

(2) Saye buke pintu pake by/with
 I open door by/with
 +N +N +P
 +NM +AC +I
 +AGT +THM -trans.

koŋi ni.
 key this
 +N +AC +INS

'I opened the door with this key.'

Verbless sentence:

(3) Bukeŋe pintu open (def./pos.) by/with
 +N +P +I
 +NM +AC +THM -trans.

koŋai.
 key
 +N +AC +INS

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Intransitive directional verb:

(4)  
\[
\text{Die pagi naek delman.} \\
\begin{array}{c|c|c|}
+\text{N} & +\text{P} & +\text{N} \\
+\text{NM} & +\text{I} & +\text{AC} \\
+\text{THM} & +\text{trans.} & +\text{INS} \\
\end{array}
\]

'He went by horsecart.'

Verbless sentences:

(5)  
\[
\text{PagiRe going (def./pos.) by naek} \\
\begin{array}{c|c|c|}
+\text{N} & +\text{P} & +\text{N} \\
+\text{NM} & +\text{I} & +\text{AC} \\
+\text{THM} & +\text{trans.} & +\text{INS} \\
\end{array}
\]
delman. horsecart

'He went by horsecart.'

(lit: 'His going was by horsecart.')

Stative verb:

(6)  
\[
\text{Ini base kena air} \\
\begin{array}{c|c|c|}
+\text{N} & +\text{P} & +\text{N} \\
+\text{NM} & +\text{I} & +\text{AC} \\
+\text{THM} & +\text{cause} & +\text{INS} \\
\end{array}
\]
ujon. rain

'This is wet from rain water.'

In the comitative case form:

(7)  
\[
\text{Gue liat ame biji-mate} \\
\begin{array}{c|c|c|}
+\text{N} & +\text{P} & +\text{N} \\
+\text{NM} & +\text{C} & +\text{AC} \\
+\text{AGT} & +\text{INS} & +\text{INS} \\
\end{array}
\]
gue. I

'I saw it with my own eyes.'

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, terus masak di
(intro.) then cook at

\[
\begin{array}{c}
\text{+P} \\
\text{+L} \\
\text{-dir.} \\
\end{array}
\]

\text{pegoregan.}
\text{frying-pan}
\text{+N}
\text{+AC}
\text{+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

\[
\begin{array}{c}
\text{+N} \\
\text{+NM} \\
\text{+AGT} \\
\end{array}
\]

\text{dapur.}
\text{kitchen}
\text{+N}
\text{+AC}
\text{+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 tingal di
(SPart.) I live at

\[
\begin{array}{c}
\text{+N} \\
\text{+NM} \\
\text{+THM} \\
\end{array}
\]

\text{sono.}
\text{there}
\text{+N}
\text{+AC}
\text{+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) Tiqaiñe di
living (def./pos.) at

\[
\begin{array}{c}
\text{+P} \\
\text{+L} \\
\text{-dir.} \\
\end{array}
\]

\text{where}
\text{+N}
\text{+AC}
\text{+LOC}

'Where do you live?'

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

(5) Kalo gitu, ontar sore
if like-that later afternoon

\[
\begin{array}{c}
\text{+N} \\
\text{+NM} \\
\text{+THM} \\
\text{+gol.} \\
\text{-term.} \\
\end{array}
\]

\text{aye}
\text{to}
\text{mari}
\text{lagi}
\text{I}
\text{he}
\text{here}
\text{again}

\text{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 Remba di daspan aye.
you bow at front I

\[
\begin{array}{c}
\text{+N} \\
\text{+NM} \\
\text{+THM} \\
\end{array}
\]

\text{+P}
\text{+L}
\text{-dir.}
\text{+AC}
\text{+LOC}

'You bow before me.'
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 ontaron.*

use money you a while/for-now

| +N | +N |
| +AC | +AC |
| +THM | +TIM |

'Use your money for a while/for the time being.'

(2) *Pagîñe jam due.*

going (def./pos.) hour two

| +N | +N |
| +AC | +AC |
| +THM | +TIM |

'She went at two.'

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

In locative case form:

(3) *Gue konal dari Bekasi.*

I know/acquainted from Bekasi

| +N | +P |
| +NM | +L |
| +THM | +SRC |

'dulu.

before

| +N | +P |
| +AC | +M |
| +THM | +MAN |

'I've known you for a long time.'

(4) *Die maen ampe jam.*

she play until hour

| +N | +N |
| +P | +P |
| +L | +L |
| +AC | +AC |
| +LOC | +LOC |

'due.
two

| +N | +N |
| +NM | +NM |
| +L | +L |
| +AC | +AC |
| +AGT | +AGT |
| +term. | +term. |
| +TIM | +TIM |

'She played until two.'

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) *Sunga ade yaq baek kaye.*

not exist which good like

| +N | +P |
| +AC | +M |
| +M | +TIM |

'diri lu, Ti.

self you (voc.)

| +N | +N |
| +AC | +AC |
| +THM | +MAN |

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

(2) *Konepe jadi kaye orang gile?*

why become like person crazy

| +P | +N |
| +M | +AC |
| +M | +MAN |

'Why have you become like a crazy person?'

(3) *Nagîñe kaye ikan koki.*

crying (def./pos.) like fish (kind-of-fish)

| +N | +P |
| +NM | +M |
| +AC | +AC |
| +THM | +MAN |

'He cried like a 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) \text{jalal} \quad \text{pelan.}
\text{walking/going (def./pos.) slow}
'He walks slowly.'
(lit: 'His walking is slow.')

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

\[\text{Verbless sentence:}

\[(6) \text{yaq} \quad \text{capat} \quad \text{song} \quad \text{jalal} \text{e.}
\text{walking (def./pos.)}
'Walk quickly.'
(lit: 'Let your walking be fast.')
Chapter five

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 pagi. Miun go
   [+N] [+V]
   [+NM] [+THM]
   'Miun went.'

2. Pagı, Miun go Miun
   [+V] [+N]
   [+emph.] [+NM] [+THM]
   'Miun went.'

3. Tadi pagi Miun pagi.
   past morning Miun go
   'This morning Miun went.'

4. Miun tadi pagi pagi.
   Miun past morning go
   'Miun went this morning.'

5. Tadi pagi pagi, Miun.
   past morning go Miun
   'Miun went this morning.'

6. Pagı tadi pagi, Miun.
   go past morning Miun
"Miun went this morning."

(7) *PEGI*, Miun tadi PEGI.
go Miun past morning
"Miun went this morning."

(8) *PEGI*, tadi PEGI 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 -n), or modified by a definite modifier. (See redundancy rules in Appendix B.)

Examples:

Inherently definite:

(9) Die PEGI.
he go
"He went."

(10) PEGI, die.
go he
"He went."

Derived as definite:

(11) Anak n PEGI.
child (def./pos.) go
"His child went."

(12) PEGI, anak n.
go child (def./pos.)
"His child went."

Definite modifier:

(13) Anak lu PEGI.
child you go
"Your child went."

(14) PEGI, anak lu.
go child you
"Your child went."

(15) Anak itu PEGI.
child that/the go
"The child went."

(16) PEGI, anak itu.
go child that
"The child went."

Nondefinite:

(17) *Anak PEGI.
child go

"A child went."

(18) *PEGI, 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 yan PEGI.
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 (qoro)bawe kaluq.
child that/the take/bring
necklace
"The child took a necklace."

(21) (qoro)bawe kaluq anak itu.
take/bring necklace child that/
the
"The child took a necklace."

(22) *Anak (qoro)bawe kaluq.
child take/bring necklace
"A child took a necklace."

(23) *(qoro)bawe kaluq anak.
take/bring necklace, child
"A child took a necklace."

Passive:

(24) Kaluq itu dibawe.
neclace that/the take/bring
(gue.
I
"The necklace was taken by me."

(25) Bibawe gue, kaluq.
take/bring (pas.) I necklace
itu.
that/the
"The necklace was taken by me."

(26) Kaluq itu gue bawe.
neclace that/the I take/bring
"The necklace was taken by me."
(27) *Kalug dibawe gue. necklace take/bring (pas.) I 'A necklace was taken by me.'

(28) *Dibawe gue, kalug. take/bring (pas.) I necklace 'A necklace was taken by me.'

(29) *Kalug 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 (qo)bawe child that/the bring/take [+N] [+V] [+NM] [+AGT]

ape? what [+N] [+AC] [+AGT] [+THM]

'What did that child bring?'

(2) (qo)bawe ape, anak itu? bring/take what child that/the [+V] [+N] [+N] [+N]

[+emph.] [+AC] [+AC] [+NM] [+AGT] [+AGT] [+THM]

'What did that child bring?'

(3) *Anak itu ape (qo)bawe?

(4) *Ape anak itu (qo)bawe?

(5) *(qo)bawe, anak itu ape?

(6) *(qo)bawe, ape anak itu?

(7) *Ape (qo)bawe, anak itu?

Passive

(8) Kalug itu dibawe necklace that take/bring (pas.) [+N] [+V] [+NM]

Ayati. Ayati. [+N] [+AC] [+AGT] [+THM]

'The necklace was taken by Ayati.'
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 qasi Miun duit. Dulo give Miun money
     [+N ] [+N ] [+N ] [+N ]
     [+NM] [+AC] [AC] [+NM]
     [+AGT] [+DAT] [+AC] [+THM]
'Dulo gave Miun money.'

(16) qasi Miun duit, siDulo give Miun money Dulo
     [+V ] [+N ] [+N ] [+N ]
     [+emph.] [+AC] [AC] [+NM]
     [+DAT] [+THM] [+AGT]
'Dulo gave Miun money.'

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 (8)). Examples:

(22) Kaluŋ itu gue bawe. necklace that I take/bring (pas.)
     [+N ] [+N ]
     [+NM] [+AC]
     [+THM] [+AGT]
'Ve took the necklace.'

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

(26) (ŋ)bawe kaluŋ itu gue. take/bring necklace that I
     [+V ] [+N ] [+N ]
     [+emph.] [+AC] [AC] [+NM]
     [+DAT] [+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 ŋbawe.

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) *kalung 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) kalung 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:

(31) kamarin die bawe
yesterday she take/bring

[+N] [+N]
[+AC] [+NM]
[+TIM] [+AGT]

kalung itu.
necklace that

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

'She took the necklace yesterday.'

(32) Die bawe kalung itu
she take/bring necklace that

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

kamarin.
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 koRai.
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] [+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:

\[
\text{ame} \\
+ [+] \\
\text{[+[COM]} \\
\text{[+[INS} \\
\text{[+[DAT} \\
\text{[+[AGT} \\
\text{'with, by, to, from'}
\]

The preposition \text{ame} is probably historically derived from \text{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 \text{s} dropping in other lexical items in her speech (\text{sude}/\text{ude} 'already', \text{sampe}/\text{ampe} 'until', \text{saye}/\text{aye} 'I', \text{Siti}/\text{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]

\text{ame} gue.
(prep.) I

[+F] [+N]
[+C] [+AC]
[+AGT]

'That fish was bought by me.'

2. Ikan itu dibali
fish that/the buy (pas.)

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

\text{ame} gue.
(prep.) I

[+F] [+N]
[+C] [+AC]
[+DAT]

'That fish was bought from me.'

3. Ikan itu dibali
fish that/the buy (pas.)

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

\text{ame} gue.
(prep.) I

[+F] [+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]

\text{ame} gue.
(prep.) I

[+F] [+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 bosome '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:

\[
\begin{array}{ccc}
\text{di} & \text{kə} & \text{dari} \\
\text{[+L]} & \text{[+L]} & \text{[+L]} \\
\text{-dir.} & \text{[+gol.]} & \text{[+gol.]} \\
\text{[+LOC]} & \text{[+LOC]} & \text{[+LOC]} \\
\text{[+TIM]} & \text{[+DAT]} & \text{[+TIM]} \\
\end{array}
\]

'at' 'to' 'from'

(s)ampe

\[
\begin{array}{c}
\text{[+L]} \\
\text{+term.} \\
\text{[+LOC]} \\
\text{[+TIM]} \\
\end{array}
\]

'up, to, until'

lewat

\[
\begin{array}{c}
\text{[+L]} \\
\text{+dirc.} \\
\text{[+gol.]} \\
\text{[+LOC]} \\
\text{[+TIM]} \\
\end{array}
\]

'past, along, through'

These prepositions frequently take as objects such locative nouns as:

daləm 'inside'
ujug 'corner, edge'
luar 'outside'
sebələ 'side'
atas 'sebəraq 'top'
sabəraq 'across'
bawə 'situ 'across'
situ 'between'
bojana 'sini 'there'
belaka 'sono 'here'
soro 'there (far)'
sampiŋ 'mari 'side'
'mari 'side'
antare 'mane 'between'
'between'
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:

sampe 'arrive'
lewat '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:

pake

\[
\begin{array}{c}
\text{[+I]} \\
\text{-cause} \\
\text{-trans.} \\
\text{[+INS]} \\
\end{array}
\]

'by, with'

naek

\[
\begin{array}{c}
\text{[+I]} \\
\text{-cause} \\
\text{+trans.} \\
\text{[+INS]} \\
\end{array}
\]

'by'

kəna

\[
\begin{array}{c}
\text{[+I]} \\
\text{+cause} \\
\text{-trans.} \\
\text{[+INS]} \\
\end{array}
\]

'by'

These prepositions are derived from the verbs:

pake 'use'
naek 'go up; go by'
kəna 'contact; hit; suffer'
5.6 The benefactive case form

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

\[
\begin{array}{ccc}
\text{bakal} & \text{bagi} & \text{buat} \\
+ [\text{B}] & + [\text{BEN}] & + [\text{BEN}] \\
'\text{for}' & '\text{for}' & '\text{for}'
\end{array}
\]

They are probably derived from the following verbs or nouns:

\[
\begin{array}{c}
\text{bagi} \quad '\text{to divide, give out}' \\
\text{buat} \quad '\text{to make}' \\
\text{bakal} \quad '\text{material, supplies}'
\end{array}
\]

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:

\[
\text{kaye} \\
+ [\text{MAN}] \\
'\text{like, similar to, resembling'}
\]

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.)

<table>
<thead>
<tr>
<th>Case forms</th>
<th>[+NM]</th>
<th>[+AC]</th>
<th>[+B]</th>
<th>[+I]</th>
<th>[+C]</th>
<th>[+L]</th>
<th>[+M]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markers:</td>
<td>word order, intonation, definiteness</td>
<td>word order (intonation, definiteness)</td>
<td>bakal</td>
<td>pake</td>
<td>ame</td>
<td>di</td>
<td>kaye</td>
</tr>
<tr>
<td></td>
<td>'kaya'</td>
<td>'kayen'</td>
<td>'kayen'</td>
<td>'kayen'</td>
<td>'kayen'</td>
<td>'kayen'</td>
<td>'kayen'</td>
</tr>
<tr>
<td>Case relation:</td>
<td>[THM]</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[AGT]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[DAT]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[BEN]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[INS]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>[COM]</td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>[LOC]</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>[TIM]</td>
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<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[MAN]</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * *
Notes to section 5

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) Basat bakal maen cokil, duitne.
    for material play card-game money
    'The money is (a fund) to play cards, gambling.'

(ii) Naí jagan bakal susa-ati.
    (pron.) don't will sad
    'Don't be sad.'
Chapter six

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 uyan 'rain' and panaas '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] [+AC] [+LOC]

ye.
(S Part.)
'But it is hot there.'

(2) Mao ujen 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 ŋa? ade juge duıt
time (pron.) exist also money
    [+N] [+NM] [+TIM]

ratusan.
hundred (bill)
'In my time, there were hundred
bills.'

(2) aga? ade yaq berani are
t 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 + [+NM],
    [+AC] [+AGT], - [+DAT]. Examples of such verbs are
makan(in) 'eat', nulup(in)/tulup(in) 'help',
hahe/hahe('look for', mukul/pukul

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

These verbs have the case frame + [+NM],
    [+AC] [+AGT], - [+DAT]. Examples of such verbs are
mampusin 'kill', berau 'clean (s.t.)'
marin 'get angry at', masukin 'put in',
(qdl)lat 'look at', mukul/pukul '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, konape
come-on (S Part.) why
    diliatin, makan makanhe
look-at (pas.) eat food
    [+N] [+AC] [+THM]

de tu.
(S Part.) that, there
    [+N] [+AC] [+LOC]

'Come on, why are you just looking
at it, eat the food (there).'
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', (qə)bəli 'buy', pınjam/minjam 'borrow', sewa/Reua 'rent'.

Redundancy rules specify that 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 (qə)jual 'sell', and (qə)omoq 'say'.

Examples:

Source:

(1) Die minjam uaq ame she borrow money (prep.)
    [+N] [+N] [+P] [+C]
    [+NM] [+AC] [+THM]
gue. I
    [+N] [+AC] [+DAT]
    'She borrowed money from me.'

Goal:

(2) Tadi gue gomoq ape just-now I say what
    [+N] [+N] [+P]
    [+NM] [+AC] [+THM]
amo lu? to you
    [+THM]
    '+P' [+C] [+AC] [+DAT]
    'What did I say to you just now?'

6.5 Dative-object verbs

These verbs have the case frame + [+NM] [+AC] [+DAT]. Examples of such verbs are kəsi(tin) /qasi(tin) 'give', kirim(tin)/qirim(tin) 'send', and derived verbs such as pinjom/minjom 'lend', sewain/Reain '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 kənaa baqq this, how (Spart.) (pron.) money
    [+N] [+N] [+AC] [+AC]
    [+NM] [+DAT] [+THM]
    (voc.)
    'Now you've given me money.'

6.6 Active benefactive verbs

These verbs have the case frame + [+NM] [+AC] [+BEN]. 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 masakın 'cook(ben.)', (qə)bəliin 'buy (ben.)', and (qə)jualin 'sell (ben.)'.

Example:

(1) Die jualin say she sell (ben.) I
    [+N] [+N] [+AC] [+BEN]
    [+NM] [+AC] [+DAT]
    baraq itu. thing that
    [+AC] [+THM]
    'She sold those things for me.'

6.7 Direct passive verbs

These verbs have the case frame + [+NM] [+AC] [+BEN]. All direct passive verbs are derived from active verbs by the direct passive derivation rule. Examples of direct passive verbs are dimankan(in) 'eaten', ditulug(in) 'helped', dicari(in) 'looked for',
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) Mian dikasi duit itu
Mian give (pas.) money that
[NM]
[AC]
[DAT]

Ipe stullo.
(prepp.) Iulo

[+F]
[AC]
[DAT]

'Mian was given the money by Dulo.'

6.9 Benefactive indirect passive verbs

These verbs have the case frame +\([+NM] +[BEN]\).

Benefactive indirect passive verbs are all derived by the benefactive indirect passive rule. Examples of benefactive indirect passive verbs are dimasakin 'cooked (ben.)', dibaliin '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
[NM]
[AC]
[BEN]

Ipe saye.
(prepp.) I

[+F]
[+AC]

'I cooked rice for Mother.'
(lit: 'Mother was cooked rice by me.')

6.8 Dative indirect passive verbs

These verbs have the case frame +\([+NM] +[DAT] + (+[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 dipinjam(in) 'lent'.

6.10 Nonagentive dative-subject verbs

These verbs have the case frame -\([+AGT]], +\([+NM] +[DAT]). 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 puñê 'own' and ads 'have' and the cognitive verb tao 'know'. These verbs do not take the prefixes ə- 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. Gue | mafis | sayan
    I       still       sympathetic, love
    +N
    +NM
    +THM

    Kalo  lu  ude  ade
    if/when  you  already  have
    +N
    +NM
    +DAT

    laki,  ude  berume-tange,
    husband, already  have-household
    +N
    +AC
    +THM

    'I still love, care for you.'

2. Aye | cinte  ame  pempuan
    love  (prep.)  woman
    +N
    +NM
    +THM
    +AC
    +DAT

    Læen.  other

    'I love another woman./
    I am in love with another woman.'

3. Gue | buat  ape  mare
    I    for  what  angry
    +N
    +NM
    +THM
    +AC
    +BEN

    Puaše
    Puase

    +D
    +F
    +N
    +C
    +AC
    +DAT

    'Why should I be angry with you?'

4. Bag-Puaše  mafis  kösëm  ame
    must  pity  (prep.)
    +N
    +NM
    +THM

    kösëm
doë

    +F
    +C

    'You must have pity
    on me.'

6.11 Intransitive dative verbs

These verbs have the case frame -[+AGT], [+NM], +([+DAT]). They are generally verbs expressing emotions. Examples are: s论文
'happy, like', takut 'afraid', kösëm 'sorry, feel pity', cinte 'in love', sayan 'love, sympathetic to', kësël 'upset', mare 'angry', baęk 'kind', bëranë 'brave, dare to defy', bëni 'hate', malu 'embarrassed' ormat 'respect', sabar 'patient'.

Redundancy rules specify that such verbs
6.12 Instrumental-object verbs

These verbs have the case frame +INS. 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 kēpukul 'be hit (accidentally)', kētabrak 'be hit (by a vehicle)', ᱠkōtawangan '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 ᱠRaʔ atap̪e
house (pron.) roof (def./pos.)

'Ve are up to my roof.'

6.13 Nondative noninstrumental-object intransitive verbs

These verbs have the case frame -[+AGT], +INS, -[+DAT], -[+THM]. Verbs with this case frame include verbs which are specified with the semantic-syntactic feature [+stative], such as panas 'hot', mere 'red', nati 'dead', enak 'pleasant', sakti '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 pagi 'go', detaq 'come', sampa 'arrive', lewat 'pass', jalan 'walk, go, travel', puluq 'go home', naek 'go up', turun 'go down', tingal '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 tingal 'live at'. The feature [+strict] means that the verb requires an inner locative actant. It is considered to be derived from the [-strict] verb tingal '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 nagis 'cry', ketaq 'laugh', mampus 'die', baqun '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 øgå 'not', bolun 'not yet', jagan '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', masti 'have to', ñge 'have to', abis 'finished, just completed'.
Table 2
Subcategorization of verbs in terms of case frame features in Betawi
(One example of a verb from each subcategory is given.)
Chapter seven

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 pinjam 'borrow' is blocked from undergoing the rule which gives any transitive verb the suffix -in, as there is already a form pinjam-in '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, diurusñëe '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/pos-
sessed affix -āe 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 oblig-
atory. So this affix is also treated as der-
ivational.

There are some optional affixes for cer-
tain types of verbs which do not change mean-
ing. These are the prefix ə- on active
agentive verbs and inchoative verbs, and the
suffix -ān on agentive verbs (which are not
derived as transitive verbs with different
meanings). These affixes may be the result of
derivation rules which are no longer produc-
tive, or of extension of word formation anal-
egies to cases where they do not change mean-
ing. Because these affixes are optional, and
because the same affixes function as obliga-
tory 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 undervived, and a
passive derivation rule is posited. The
strongest argument for this treatment is that
the active forms may be used without any pre-
fix, while the passive forms have an obligato-
ry 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 topi-
calization. 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 per-
son pronoun. However, synchronically, because
the active prefix is only optional and the
passive prefix is obligatory, it seems prefer-
able to treat passive verbs as derived.

This does not imply anything about fre-
quency of use, or "markedness" in some intui-
tive 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 def-
inite 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 yaq
is always coreferential with the subject of an
embedded sentence means that some English rel-
ative 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 ac-
tive verbs in Betawi.
3) The requirement for a definite sub-
ject 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 (ga)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

\[
\text{WFA (1) } [\text{+V}] \rightarrow \text{+derv.} \rightarrow \text{+concrete}
\]

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. \text{buatan}'thing made') or to thing to be used in an action as well (e.g. \text{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 \text{pen-} as well, or allowing it optionally. (See section 8.1, NMR (2), (6.).)

Examples:

- bawean 'play'
- bawean 'toy'
- bawean 'thing brought or to bring'
- \text{bawean}'thing brought or to bring'
- \text{bawean}'toy'
- \text{bawean}'thing brought or to bring'

7.2.1.2 "Person" word formation analogy

\[
\text{WFA (2) } [\text{+V}] \rightarrow \text{+derv.} \rightarrow \text{+person}
\]

\text{bawean}'thing brought or to bring'
\text{bawean}'toy'
\text{bawean}'thing brought or to be brought'
\text{bawean}'thing sewn or to be sewn'
\text{bawean}'thing made'
\text{bawean}'thing bought or to be bought'
\text{bawean}'street'
\text{bawean}'sweet, candy, cake, etc.'
\text{bawean}'dirty things, garbage'
\text{bawean}'hoewing, area hoed.'

Sentences:

(1) \text{Kønape bawe pakean hii?}
why bring clothes (voc.)
'Why did you bring clothes?'

(2) \text{Ini gue saban jalan}
this I every-time go
ronde, kotamu lu, di jalanan.
round meet you at street
'Whenever I go my rounds I meet you on the street.'

(3) \text{Aye bali manisan buat Siti.}
I buy sweet for Siti
'I bought a sweet for Siti.'

(4) \text{Itu lebar juge ni. Paculan}
that wide also this \text{hoed-area}
siape ni?
who this
'That is pretty wide. Whose hoewing/hoed-area is it?'
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 peq-. 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:

\[
\begin{align*}
\text{dual} & \quad \text{penjual} \\
\text{'sell'} & \quad \text{'seller'} \\
\text{alaq} & \quad \text{peqalaq} \\
\text{'prevent'} & \quad \text{'one who is an obstacle'} \\
\text{baus} & \quad \text{pombawe} \\
\text{'bring'} & \quad \text{'one who brings'} \\
\text{curni} & \quad \text{pekurun} \\
\text{'steal'} & \quad \text{'thief'} \\
\text{kau} & \quad \text{peqau} \\
\text{'confused'} & \quad \text{'person who confuses things'} \\
\text{diem} & \quad \text{pandiem} \\
\text{'quiet'} & \quad \text{'quiet person'} \\
\text{takut} & \quad \text{penakut} \\
\text{'afraid'} & \quad \text{'coward'} \\
\text{bhoj} & \quad \text{pombhoj} \\
\text{'lie'} & \quad \text{'liar'} \\
\text{tuluj} & \quad \text{penuiluj} \\
\text{'help'} & \quad \text{'helper'} \\
\text{kirim} & \quad \text{peqkirim} \\
\text{'send'} & \quad \text{'sender'} \\
mare & \quad \text{pomare(an)} \\
\text{'angry'} & \quad \text{'angry person, person who is always angry'} \\
\text{minum} & \quad \text{pominuman} \\
\text{'drink'} & \quad \text{'drinker, alcoholic'}
\end{align*}
\]

Sentence:

(1) Lu jadi peqalaq besar.

'You are becoming a great obstacle.'
take it.'

(4) *Itu pēmbuktianne!* that proof
'There is the proof!'

(5) *Pikiran gue lagi pusiq* thought I presently dizzy
*ah.*
(SPart.)
'My thoughts are confused.'

(6) *Ye, kōsālan gue si* (intro.) anger I (SPart.)
lu ngga*? tao.* you not know
'You don't know my anger.'

(7) *Pēnahkit saya rasēng ngga?* illness I it-seems not
buru-buru back.
quickly well
'It seems my illness will not soon be cured.'

7.2.1.4 "Institution" word formation analogy

\[ \text{WFA (4) } [+V] \rightarrow \left[ +\text{deriv.} \right] \left[ +\text{institution} \right] \]

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 *po-*, and suffix -an. A few items are specified as exceptions to the morphophonemic rule giving the prefix *po-*, and specified as taking the prefix *per-*, or taking *per-* optionally. (See section 8.4, NMR (2), (4), (6).)

Examples:

- *carit* 'look for' 'means of livelihood, way of making a living'
- *kērja* (pēkēra) 'work' 'job'
- *kawan* 'married' 'wedding, marriage'
- *borsi* 'clean' 'a cleaning'
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 -ře (see NMR (8)).

Examples:

<table>
<thead>
<tr>
<th>English</th>
<th>Coherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>satu</td>
<td>satu-satuře</td>
</tr>
<tr>
<td>'one'</td>
<td>'the one, the only one'</td>
</tr>
<tr>
<td>due</td>
<td>due-duęe</td>
</tr>
<tr>
<td>'two'</td>
<td>'the two of them, both of them'</td>
</tr>
<tr>
<td>tige</td>
<td>tige-tigeře</td>
</tr>
<tr>
<td>'three'</td>
<td>'the three of them'</td>
</tr>
</tbody>
</table>

Sentences:

(1) Gie liat due-duęe
I see the-two-of-them
ude mati.
already dead
'I saw both of them were dead.'

(2) Tingal satu-satuře ini.
remain the-one this
'this single one remains.'

7.2.1.7 Time point noun word formation analogy

<table>
<thead>
<tr>
<th>English</th>
<th>Coherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>datå</td>
<td>sædatåŋe</td>
</tr>
<tr>
<td>'come'</td>
<td>'at the time of coming'</td>
</tr>
<tr>
<td>sampå</td>
<td>sæsampåŋe</td>
</tr>
<tr>
<td>'arrive'</td>
<td>'at the time of arriving'</td>
</tr>
<tr>
<td>pęgi</td>
<td>sæpęgiŋe</td>
</tr>
<tr>
<td>'go'</td>
<td>'at the time of going'</td>
</tr>
<tr>
<td>masuk</td>
<td>sæmasukaŋe</td>
</tr>
<tr>
<td>'enter'</td>
<td>'at the time of entering'</td>
</tr>
</tbody>
</table>


Sentences:

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

(2) Pōne a pe manga, di jalan.
catch this child this street
'When we have a street cleaning, let's catch this child.'

7.2.1.6 Definite numerative noun word formation analogy

<table>
<thead>
<tr>
<th>English</th>
<th>Coherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>datå</td>
<td>sædatåŋe</td>
</tr>
<tr>
<td>'come'</td>
<td>'at the time of coming'</td>
</tr>
<tr>
<td>sampå</td>
<td>sæsampåŋe</td>
</tr>
<tr>
<td>'arrive'</td>
<td>'at the time of arriving'</td>
</tr>
<tr>
<td>pęgi</td>
<td>sæpęgiŋe</td>
</tr>
<tr>
<td>'go'</td>
<td>'at the time of going'</td>
</tr>
<tr>
<td>masuk</td>
<td>sæmasukaŋe</td>
</tr>
<tr>
<td>'enter'</td>
<td>'at the time of entering'</td>
</tr>
</tbody>
</table>


Sentences:

(1) Kalo ade pōmeaŋian di jalan, taŋkap ni anak ni.
if/when exist making-a-living we catch this child this street
'making a living we really catch this child these streets.'

(2) Pōmeaŋian kite emaŋ fish
making-a-living we really, fish
'Our means of livelihood is by fishing.'

7.2.1.5 "Banknote" word formation analogy

WFA (5) [-V] → +N +deriv. +banknote

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:

<table>
<thead>
<tr>
<th>English</th>
<th>Coherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>(sø)-raťus</td>
<td>(sø)raťusan</td>
</tr>
<tr>
<td>'(one)hundred'</td>
<td>'a hundred (banknote)'</td>
</tr>
<tr>
<td>(sø)-ribu</td>
<td>(sø)ribuan</td>
</tr>
<tr>
<td>'(one)thousand'</td>
<td>'a thousand (banknote)'</td>
</tr>
<tr>
<td>lime-raťus</td>
<td>lime-raťusan</td>
</tr>
<tr>
<td>'five hundred'</td>
<td>'five hundred (banknote)'</td>
</tr>
</tbody>
</table>

Sentence:

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

<table>
<thead>
<tr>
<th>Sgadaghe</th>
<th>Pagi-pagi</th>
</tr>
</thead>
<tbody>
<tr>
<td>die, saye pagi.</td>
<td>'morning, early'</td>
</tr>
<tr>
<td>at-time-coming, he</td>
<td>in the early morning</td>
</tr>
<tr>
<td>I go</td>
<td></td>
</tr>
<tr>
<td>'When he entered the room, I left.'</td>
<td></td>
</tr>
</tbody>
</table>

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:

| anak | anak-anakan |
| 'child' | 'doll' |
| mobil | mobil-mobilan |
| 'car' | 'toy car' |
| guru | guru-guruans |
| 'teacher' | 'pseudo-teacher, imitation teacher' |
| jago | jago-jagoan |
| 'champion' | 'pseudo-champion, imitation champion' |

Sentences:

(1) Pagi-pagi dataghe.
    early-in-the morning coming
    (def./pos.)
    'You come early.'

(2) Malam-malam baru die pulaq.
    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:

| telor | telor-telor |
| 'egg' | 'various kinds of eggs, i.e. fried, omelets, etc.' |
| buntut | buntut-buntut |
| 'tail (bone)' | 'various kinds of tail (bones) i.e. beef, lamb, etc.' |

Sentences:

(1) Jual telor-telor.
    sell various-eggs
    'He sells various kinds of egg dishes.'
7.2.1.12 Personal pronoun word formation analogy

WFA (12)

\[
\begin{array}{c}
+N \\
+derv. \\
+title \\
+pers. \\
+pron.
\end{array}
\]

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) *Barag itu Ṣa? bawe.*
thing that (pron.) take

\[
\begin{array}{c}
+N \\
+NM \\
+AC \\
+THM \\
+AGT
\end{array}
\]

'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:

\[
\begin{array}{c}
Ṣa? \\
Ma?
\end{array}
\]

'mother' 'pronoun for older woman'

\[
\begin{array}{c}
Ṣa? \\
Ma?
\end{array}
\]

'pronoun for older woman'

Sentences:

(1) *Abag Miun lu ni ẹmịghuan Miun you this for-a-week ọgọ? ade di rume, not present at house '(Your) Miun hasn't been home (now) for a week.'

(2) *Sa'ge ọga, ẹgwa jalan. I tired for-a-day walk, go 'I am tired, walking/going the whole day.'

(3) *Gue ọga ụbụlana, ọgọ? I sharpen for-a-month not berenti-berenti, lu ọga. stop (distrib.) you know 'I sharpened it for a month without stopping.'
ua? 'uncle'
(a)baq 'older brother'
sodare 'brother'
mpo? 'older sister'
non(i) 'European girl'
tuan 'European man'

Sentences:

(pron.) also not can advise

'a Even I can' t advise him.'

(2) Abaq betahe terus-teraq
(pron.) ask openly

'me yes. (prep.) (pron.) (SPart.)
'I ask openly of you.'

(3) Ua? migkin tue ni.
(pron.) increasingly the this, now

'He is getting older.'

7.2.1.13 "Unit" word formation analogy

WFA (13)

\[
\begin{align*}
\text{[+N]} & \\
\{ [+\text{time} ] \} & \\
\{ [+\text{money} ] \} & \\
\{ [+\text{measure} ] \} & \\
\{ [+\text{classifier} ] \} & \\
\{ [+V] \} & \\
\{ [+\text{num.}] \} & \\
\rightarrow\# & \\
\text{[+N]} & \\
\text{[+deriv.]} & \\
\text{[+unit]} &
\end{align*}
\]

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 'one', as well as other numerals.

A morphophonemic rule gives such derived nouns the prefix so- (see NMR (5)). Examples:

Time:

ari 'day'
seari 'a day, a whole day'
tadi 'a time just past'
setadi 'a period of time just past'
kali 'a time'
sokali 'one time'
sam 'hour'
sejam 'one hour'
taon 'year'
setaon 'one year'
bulan 'month'
sabulan 'one month'
mingu 'week'
samingu 'one week'

Place:

kampung 'area of city'
sokampung 'a whole kampung, one kampung'

Money:

ringgit '2.50 rupiah'
serringgit 'one 2.50 rupiah (note)'

Measure:

gini 'this (size)'
segini 'a bit so big, this big'
dikit 'small (amt.)'
seadikit 'a little bit'
potog 'slice'
sepotog 'a slice'
tega 'middle'
setega 'one half (hour, day)'
paro 'half'
separo 'one half'
pasi 'section (of fruit)'
sepası 'one section (of fruit)'
leter 'liter'
seleter 'one liter'

Classifier:

oraq 'person'
søraq 'one person'
biji 'thing'
søbiji 'one thing'
Numerative:

-rama
 'hundred'
ara
 'one hundred'
-riba
 'thousand'
ara
 'one thousand'
-salas
 'eleven'

Sentences:

(1) Pati ag sejama saye karja.
 at-most one-Hour I work
 'I'll work at most an hour.'

(2) Sekampon Jompong an ti pade
 one-kampon Jompong later all
daton.
 come
 'All of Jompong kampong will come.'

(3) Saye ade sura sakali.
 I already order one-time
 'I already told you one time.'

(4) Memang d' dalam seminggu
 really at inside one-week
 ini, bole dikate saye makan
 this may say (pas.) I eat
 sega? kapat.
 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)

\[ [+\text{Det.}] \quad \rightarrow \quad [\text{+N}]
\quad [\text{+derv.}]
\quad [\text{+pron.}]
\quad [\text{+dem.}]

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

Determinate:

(1) Ade ape si tu burug?
 have what (SPart.) that bird
 'What is wrong with that bird?'

(2) Nu katingian.
 that too-high
 'That is too high.'

(4) Ini bakal la.
 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) Nu, ruperse ni,
 this, here it-seems this, here
 dikaat penesan kult
 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 kocilin
 you presently get-smaller
 ni.
 this, here
 'Now, here, you are getting
 smaller.'

(3) Ini gue saben jalan
 this, here I every go
 ronde, katem lu di jalanan.
 round meet you at street
 'Now, every time I make my rounds
 I meet you on the street.'

(4) Tu, kapatuk de
 that, there hit (SPart.)
 yag satu.
 which one
 'There, one of them was hit.'

(5) Lu si kaitaman banar
 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) \[
\begin{array}{c}
\text{+N} \\
\text{-pron.} \\
\text{-proper} \\
\text{-unit} \\
\text{-def.}
\end{array}
\rightarrow
\begin{array}{c}
\text{+N} \\
\text{+derv.} \\
\text{+collective}
\end{array}
\]

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:

RR (5) \[
\begin{array}{c}
\text{+N} \\
\text{+derv.} \\
\text{+collective}
\end{array}
\rightarrow
\begin{array}{c}
-\text{(+Num.)}
\end{array}
\]

Examples:

\begin{align*}
\text{oraq} & \quad \text{oraq-oraq} \\
\text{'man/men'} & \quad \text{'men'} \\
\text{due oraq} & \quad *\text{due oraq-oraq} \\
\text{'two men'} & \quad \text{'two men'}
\end{align*}

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

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

Examples:

\begin{align*}
\text{oraq} & \quad \text{oraq-oraq} \\
\text{'person'} & \quad \text{'people'} \\
\text{anak} & \quad \text{anak-anak} \\
\text{'child'} & \quad \text{'children'} \\
\text{rumc} & \quad \text{rumc-rumc} \\
\text{'house'} & \quad \text{'houses'} \\
\text{duit} & \quad \text{duit-duit} \\
\text{'money'} & \quad \text{'money (collective)'}
\end{align*}

7.2.2.2 Possessed-definite derivation rule

DR (2) \[
\begin{array}{c}
\{\text{+[N]}\} \\
\{\text{+[V]}\}
\end{array}
\rightarrow
\begin{array}{c}
\text{+N} \\
\text{+derv.} \\
\text{(+possessed)} \\
\text{(+definite)}
\end{array}
\]

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 [+possessed] nouns or just [+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:

\[
\begin{align*}
  \text{bawe} & \quad \text{baweñe} \\
  & \quad \text{'bring' 'bringing (def./pos.)'} \\
  \text{pəgi} & \quad \text{pəgiñe} \\
  & \quad \text{'go' 'going (def./pos.)'} \\
  \text{ade} & \quad \text{adeñe} \\
  & \quad \text{'have' 'having (def./pos.)'} \\
  \text{mare} & \quad \text{mareñe} \\
  & \quad \text{'angry' 'being angry (def./pos.)'} \\
  \text{item} & \quad \text{itemñe} \\
  & \quad \text{'black' 'being black (def./pos.)'} \\
  \text{pəntiq} & \quad \text{pəntiqñe} \\
  & \quad \text{'important' 'being important (def./pos.)'} \\
  \text{boto} & \quad \text{botoñe} \\
  & \quad \text{'pretty' 'being pretty (def./pos.)'}
\end{align*}
\]

Derived:

\[
\begin{align*}
  \text{mikirin} & \quad \text{mikirinñe} \\
  & \quad \text{'think about' 'thinking about (def./pos.)'} \\
  \text{malor} & \quad \text{malorñe} \\
  & \quad \text{'lay (eggs)' 'laying (eggs) (def./pos.)'}
\end{align*}
\]

Sentences:

1. \text{pəgiñe waktu kapan?} \quad \text{going (def./pos.) time} \\
   'When did he go?'

2. \text{mareñe si enga? səbrape,} \quad \text{being-angry (def./pos.) (SPart.) not so-much} \\
   'He wasn't very angry.'

3. \text{Emañ adeñe di taqan staipé ni?} \quad \text{really having (def./pos.) at hand who this} \\
   'Whose hand is it in?'

4. \text{itemñe tu anak!} \quad \text{being-black (def./pos.) that child} \\
   'How dark that child is!'

5. \text{Səgıtù boteñe.} \quad \text{that-much being-pretty (def./pos.)} \\
   'She is so pretty.'

6. \text{Nalorñe di mane aje ye?} \quad \text{laying (def./pos.) at where just} \\
   (SPart.) \text{this with child} \\
   'Where do they lay their eggs?'

7. \text{Saye biŋqu mıkirinñe} \quad \text{I confused thinking-about} \\
   (def./pos.) \text{this with child} \\
   'My thinking about my child is confused.'

Examples derived from nouns:

\[
\begin{align*}
  \text{anak} & \quad \text{anakñe} \\
  & \quad \text{'child' 'child (def./pos.)'} \\
  \text{oraŋ} & \quad \text{oraŋñe} \\
  & \quad \text{'man' 'man (def./pos.)'} \\
  \text{ini} & \quad \text{iniñe} \\
  & \quad \text{'this' 'this (def./pos.)'} \\
  \text{Siti} & \quad \text{Sitiñe} \\
  & \quad \text{'Siti (def./pos.)'} \\
  \text{die} & \quad \text{dieñe} \\
  & \quad \text{'he/she/they' 'he/she/they (def./pos.)'}
\end{align*}
\]

Derived:

\[
\begin{align*}
  \text{pakean} & \quad \text{pakeanñe} \\
  & \quad \text{'clothes' 'clothes (def./pos.)'} \\
  \text{anak-anak} & \quad \text{anak-anakñe} \\
  & \quad \text{'children' 'children (def./pos.)'} \\
  \text{alaqan} & \quad \text{alaqanñe} \\
  & \quad \text{'obstacle' 'obstacle (def./pos.)'} \\
  \text{kərjean} & \quad \text{kərjeanñe} \\
  & \quad \text{'work' 'work (def./pos.)'} \\
  \text{pikirin} & \quad \text{pikirinñe} \\
  & \quad \text{'thought' 'thought (def./pos.)'} \\
  \text{omogan} & \quad \text{omoganñe} \\
  & \quad \text{'speech' 'speech (def./pos.)'} \\
  \text{kəmatian} & \quad \text{kəmatianñe} \\
  & \quad \text{'death' 'death (def./pos.)'}
\end{align*}
\]

Sentences:

8. \text{Ni rumeñe sisämian.} \quad \text{this house (def./pos.) Samiun} \\
   'This is Samiun's house.'

9. \text{Maq ke rume temeññe} \quad \text{want to house friend (def./pos.)}
7.2.2.3 Numerative noun derivation rule

\[ \text{DR (3)} \quad \begin{align*}
+V 
+\text{num.} 
\rightarrow 
& +\text{derivative} \\
& +\text{num.}
\end{align*} \]

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 \( \frac{2}{2} \) 
'My wives are two.'

Derived noun:

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

Derived quantifying adjective: (DR (11))

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

7.2.2.4 Familiar name derivation rule

\[ \text{DR (4)} \quad \begin{align*}
+\text{N} 
+\text{proper} 
\rightarrow 
& +\text{proper} \\
& +\text{animate} \\
& +\text{familiar}
\end{align*} \]

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)).
Examples:
Sentence:

(1) Un, siDulo 
(name) (name, fam.) (SPart.) 
ude lama nuqquin lu. 
already long await you
'Un, Dulu 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

WFA (14)

\[
\begin{array}{c}
\text{+V} \\
\text{+derivative} \\
\text{+possessing} \\
\left[ \text{+NM} \right] \\
\left[ \text{+THM} \right]
\end{array}
\]

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 \( \text{bar-} \) (see VMR (6)).

Examples:

- \( \text{bini} \) 'wife'
- \( \text{bobiini} \) 'have a wife'
- \( \text{rume} \) 'house'
- \( \text{borume} \) 'have a house'
- \( \text{tikkat} \) 'level, story'
- \( \text{botikkat} \) 'have a second story, level'
- \( \text{kumis} \) 'mustache'
- \( \text{bokumis} \) 'have a mustache'
- \( \text{cambag} \) 'beard, side-whiskers, sideburns'
- \( \text{becambag} \) 'have beard, side-whiskers, sideburns'
- \( \text{jodo} \) 'partner for marriage'
- \( \text{bajodo} \) 'have a partner for marriage'

7.3.1.1.2 "Condition" word formation analogy

WFA (15)

\[
\begin{array}{c}
\text{+V} \\
\text{+derivative} \\
\text{+condition} \\
\left[ \text{+NM} \right] \\
\left[ \text{+THM} \right]
\end{array}
\]

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 \( \text{-an} \) (see VMR (9)).

Examples:

- \( \text{copek} \) 'ear infection'
- \( \text{copek-an} \) 'have an ear infection'
- \( \text{kariget} \) 'sweat'
- \( \text{kariget-an} \) 'sweaty'

Sentences:

(1) \( \text{Anak itu copek-an} \) child that have-ear-infection
begini, \( \text{saga? diobatin like-that not give-medicine} \)
\( \text{pas.} \)
kupiyåe.
ear (def./pos.)
'That child has an ear condition like that and his ears haven't been treated!'

(2) \( \text{Di sini gimana mao resik, here how will clean} \)
\( \text{izin abis kariget-an saga? which after sweaty not} \)
lap.
wipe
'How can it be clean here, where after people sweaty, they don't wipe away the sweat.'
7.3.1.1.3 "Somewhat" word formation analogy

WFA (16)

\[ \begin{align*}
(+V & +\text{stative} \\
+\text{NN} & +\text{THM}) \quad \rightarrow \# \quad (+V & +\text{derivative} \\
+\text{stative} & +\text{somewhat} \\
+\text{NN} & +\text{THM})
\end{align*} \]

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

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

Examples:

- mere
  - (ko)more-meream
  - 'red'
  - 'reddish'

- item
  - (ko)item-itemam
  - 'black'
  - 'blackish'

- gile
  - (ko)gile-gileam
  - 'crazy'
  - 'somewhat crazy'

In context:

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

(2) Anak yaq satu, yaq sekarag child which one which now
    gile-gileam.
      somewhat-crazy
    'The other child, the one that is somewhat crazy.'

7.3.1.1.4 Inchoative word formation analogy

WFA (17)

\[ \begin{align*}
(+V & +\text{stative} \\
+\text{NN} & +\text{THM}) \quad \rightarrow \# \quad (+V & +\text{derivative} \\
+\text{stative} & +\text{inchoative} \\
+\text{NN} & +\text{THM})
\end{align*} \]

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 $q$- and suffix -$\text{im}$ (see VMR (1), (3)).

Examples:

- kæll
  - 'small'
  - qæollin/kæollin
  - 'become smaller'

- bøsar
  - 'big'
  - qølbøsarin
  - 'become bigger'

- bødo
  - 'stupid'
  - qølbødoïn
  - 'become more stupid'

- sādi
  - 'sad'
  - q̥ sidin/sādïn
  - 'become sadder'

- sāpi
  - 'lonely'
  - q̥ səpïn/sāpïn
  - 'become lonelier'

- l̥mæs
  - 'weak, soft'
  - q̥ l̥mæəïn
  - 'become weaker, softer'

Sentences:

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

(2) Masi mao bøsarín still want/will become-bigger
    lagi. now
    'You will still get bigger.'

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

(4) Saïgət-lu, ati gue when-remember-you heart I.
    ōdïn molulu.
    become-sadder only
    'When I think of you, my heart becomes sad.'

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

7.3.1.1.5 "Together" word formation analogy

WFA (18)

\[ \begin{align*}
(+V & +\text{numeral} \\
+\text{derivative} & +\text{together})
\end{align*} \]

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

A morphophonemic rule gives such derived
verbs the prefix bor- (see VMR (6)).

Examples:

<table>
<thead>
<tr>
<th>English</th>
<th>Mambila</th>
</tr>
</thead>
<tbody>
<tr>
<td>satu</td>
<td>besatu</td>
</tr>
<tr>
<td>'one'</td>
<td>'be one, together, united'</td>
</tr>
<tr>
<td>due</td>
<td>bodue</td>
</tr>
<tr>
<td>'two'</td>
<td>'be two together'</td>
</tr>
<tr>
<td>tige</td>
<td>batige</td>
</tr>
<tr>
<td>'three'</td>
<td>'be three together'</td>
</tr>
<tr>
<td>ompat</td>
<td>borompat</td>
</tr>
<tr>
<td>'four'</td>
<td>'be four together'</td>
</tr>
</tbody>
</table>

Sentences:

(1) Sakaraŋ remboganh itu ude now group that already
besatu, be-one-together
'Now that group is united.'

(2) Sodere batige, saye (pron.) be-three-together, I
esendiri. alone
You are three, I am alone.'

7.3.1.1.6 Approximative word formation analogy

WFA (19) $\rightarrow$ $\rightarrow$

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:

<table>
<thead>
<tr>
<th>English</th>
<th>Mambila</th>
</tr>
</thead>
<tbody>
<tr>
<td>due-pulu</td>
<td>due-puluan</td>
</tr>
<tr>
<td>'twenty'</td>
<td>'to be in the twenties, around twenty'</td>
</tr>
<tr>
<td>tige-pulu</td>
<td>tige-puluan</td>
</tr>
<tr>
<td>'thirty'</td>
<td>'to be in the thirties, around thirty'</td>
</tr>
</tbody>
</table>

Sentences:

(1) Umarăng age (def./pos.)
due-puluan, twenty, about-twenty
'She is in her twenties, about twenty.'

Further derived as adjective (See DR (11)):

(2) Bole dibilang 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

$\rightarrow$

WFA (20) $\rightarrow$

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 ə- (see VMR (1)).

Examples:

<table>
<thead>
<tr>
<th>English</th>
<th>Mambila</th>
</tr>
</thead>
<tbody>
<tr>
<td>sayur</td>
<td>ṭayur</td>
</tr>
<tr>
<td>'vegetable'</td>
<td>'to eat vegetables'</td>
</tr>
<tr>
<td>kopi</td>
<td>ṭopi</td>
</tr>
<tr>
<td>'coffee'</td>
<td>'to drink coffee'</td>
</tr>
<tr>
<td>te</td>
<td>ṭete</td>
</tr>
<tr>
<td>'tea'</td>
<td>'to drink tea'</td>
</tr>
</tbody>
</table>

Sentences:

(1) Lu ude ṭayur you already eat-vegetable belum? not-yet
'Have you had vegetables yet or not?'

(2) Lu abis ṭahi, ṭete. you after sing, drink-tea
'AFTER singing, drink tea.'

7.3.1.1.8 "Using" word formation analogy

WFA (21) $\rightarrow$

WFA (21) [+] $\rightarrow$

72
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 ə- (see VMR (1)).

Examples:

<table>
<thead>
<tr>
<th>Sapu</th>
<th>&quot;sweep&quot;</th>
<th>Ŝapu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacul</td>
<td>&quot;hoe&quot;</td>
<td>Macul</td>
</tr>
</tbody>
</table>

Sentences:

1. E ude pagi, lu (intro.) already morning you
   mao macul əsaga??
   want hoe not
   'It is already morning, do you want to hoe or not?'

2. Lagi Ŝapu mpo?. presently sweep (voc.)
   'I am sweeping.'

7.3.1.1.9 "Producing" word formation analogy

\[
\begin{array}{c}
+V \\
+derv. \\
\end{array}
\]

WFA (22) [N]→→→

\[
\begin{array}{c}
+NM \\
+THM \\
+producing \\
\end{array}
\]

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:

<table>
<thead>
<tr>
<th>Təlor</th>
<th>bətəlor</th>
</tr>
</thead>
<tbody>
<tr>
<td>'egg'</td>
<td>'to lay an egg'</td>
</tr>
<tr>
<td>Anak</td>
<td>bəranak</td>
</tr>
<tr>
<td>'child'</td>
<td>'to bear a child'</td>
</tr>
</tbody>
</table>

Sentences:

1. O emaq ude bətəlor. oh really already lay-egg
   'Oh, it has laid an egg.'

2. Siapa yaq bəranak? who which give-birth
   'Who is having a baby?'

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:

<table>
<thead>
<tr>
<th>Aŋkat</th>
<th>bərəŋkat</th>
</tr>
</thead>
<tbody>
<tr>
<td>'lift'</td>
<td>'depart, leave (intrans.)'</td>
</tr>
<tr>
<td>Pikir</td>
<td>bəpikir</td>
</tr>
<tr>
<td>'think'</td>
<td>'think (intrans.)'</td>
</tr>
</tbody>
</table>

Derived:

<table>
<thead>
<tr>
<th>Iasən</th>
<th>bərəias</th>
</tr>
</thead>
<tbody>
<tr>
<td>'decorate, dress, make up'</td>
<td></td>
</tr>
<tr>
<td>Dəndən</td>
<td>bədəndən</td>
</tr>
<tr>
<td>'decorate, dress, make up'</td>
<td></td>
</tr>
</tbody>
</table>

Sentences:

Transitive source verb:

1. Ni bərəq bərat bənər.
   this thing heavy very
   səqa? bise diŋkat səndiri.
   not can lift alone
   'This is very heavy. I can't lift it myself.'

Intransitive derived verb:

2. Tu pade mao bərəŋkat
   that all will leave
   kə mane?
   to where
   'Where are you all going?'
Transitive source verb:

(3) Lagi tágin rumeña
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 boriaga.
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 bær-(see VMR (6)).

Examples:

pakul bepakuł 'hit' 'hit (recip.)'
caium beciyum 'kiss' 'kiss (recip.)'
boratem 'fight (recip.)'
be(q)kolat 'fight (recip.)'
baqaul 'socialize (recip.)'

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:

caium (maen)-caium-caiuman
'kiss' 'keep kissing (recip.)'
'tubruk (maen)-tubruk-tubrukan
'collide' 'keep colliding (recip.)'
7.3.1.1.13 Habitual word formation analogy

WFA (26) \[ +V \]
\[ +\text{deriv.} \]
\[ +[\text{NM}] \]
\[ +[\text{THM}] \]
\[ -+[\text{AGT}] \]
\[ +\text{habitual} \]

WFA (26) states that for certain intransitive verbs there are corresponding derived 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 specified as exceptions to the reduplicating morphophonemic rule (see VMR (2), (9)).

Examples:

- tidur: tidur-tiduran
  'sleep': 'sleep all the time, lie around'
- enak: enak-enakan
  'pleasant, enjoy self': 'always just enjoy yourself'

Derived:

- beduaan
  'to be two together': (usually refers to romantic link or marriage)

Sentences:

(1) Lu enak-enakan.
  you just-enjoy-yourself
(1) 'You just enjoy yourself.'

(2) O soko+a die ude 
    oh now he already
    bæ+gæan de.
    two-always-together (SPar.)
    'Oh now they are "going together".'

7.3.1.1.14 Adversative noninstrumental verb
word formation analogy

\[ \text{WFA (27)} \]
\[
\begin{align*}
+V \\
+\text{deriv.} \\
+\text{adversative} \\
\text{~} \\
-\text{stative} \\
\text{~} \\
-\text{[+AGT]} \\
\text{~} \\
+\text{[+NM]} \\
\text{~} \\
+\text{[+THM]} \\
\end{align*}
\]

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 \( kæ- \) and suffix \(-\text{an} \) (see VMR (4), (9)).

Examples:

**Atmospheric:**

\( uja^n \quad kæjujanan \)

'rain' \quad 'get caught in the rain'

\( pana^n \quad kæpænasæn \)

'hot' \quad 'get hot, suffer heat'

\( dî+gîn \quad kædîginan \)

'cold' \quad 'get cold, suffer cold'

**Intransitive:**

\( tî+du+ra^n \quad kætî+du+ran \)

'sleep' \quad 'fall asleep unintentionally'

Sentences:

(1) \( u^n ? \quad kæjujanan. \)
   \( \text{(pron.)} \quad \text{get-caught-in-rain} \)
   \( 'He was caught in the rain.' \)

(2) Ema^n lu ude kædîginan
    really you already get-cold
    bagi+n. 
    like-this
    'You really got cold.'

(3) Wi anak ude kætî+du+ran
    this child already fall-asleep
    di sini.
    at here
    'The child fell asleep here.'

7.3.1.1.15 Adversative instrumental word
formation analogy

\[ \text{WFA (38)} \]
\[
\begin{align*}
+V \\
+\text{deriv.} \\
+\text{adversative} \\
\text{~} \\
-\text{stative} \\
\text{~} \\
+\text{[+NM]} \\
\text{~} \\
+\text{[+INS]} \\
\text{~} \\
+\text{[+AC]} \\
\text{~} \\
+\text{[+THM]} \\
\text{~} \\
+\text{[<\alpha^F>] x} \\
\end{align*}
\]

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 \( kæ- \) and suffix \(-\text{an} \).

A few terms are individually specified as not taking the suffix \(-\text{an} \) or taking it optionally (see VMR (4), (9)).
There are a few verbs which appear to be derived by this rule but which differ in the following way. The lexical item which occurs immediately after the verb is clearly not instrumental semantically and cannot occur in the comitative case form like an instrumental actant. These verbs may be treated as compound verbs, as suggested by MacDonald and Soenjono (1967:107) for such constructions in Bahasa Indonesia (see section 7.4.1.13).

Examples:

- jato 'fall'
- kajatoan 'be fallen on'
- datøg 'come'
- kadatøgan 'be come upon, unexpectedly and probably adversely'
- masuk 'enter'
- kamasukan 'be entered (by a thief, for example), be possessed (by a devil)'
- tao 'know'
- kotaano 'come to be known'
- degør 'hear'
- kadegoran 'overheard, audible'
- liat 'see'
- koliatan 'seen, visible'
- bakar 'burn'
- koboaka(an) 'on fire, set on fire'
- pukul 'hit'
- kopukulan 'be hit (accidentally)'
- bawe 'take'
- koboawa 'be taken by mistake'
- tubruk 'collide'
- katabrukan 'be hit (by vehicle), be in an accident (with vehicle)'
- pikir 'think'
- kopikir 'be thought about (unintentionally)'
- iris 'cut, slice'
- koiris 'be cut accidentally'
- jual 'sell'
- kajual 'be sold accidentally'
- taro 'put'
- kataro 'be put (accidentally or adversely)'

Sentences:

(1) E saye kajatoan (intro.) I be-fallen-on
ape ni? what this, now

(2) Gue kadatøgan siMin. I be-come-upon Miun
'I was visited by Miun.'
(with negative or at least unexpectness connotation)

(3) Kadegoran juge ane gue be-overheard too (prep.) I
'It was overheard by me.'

(4) Kamasukan setan oki. be-possessed devil gambling (card game)
'She is possessed by the devil of "ceki".'

(5) Tu, kəpukul de, yaq that, be-hit (SPart.) which satu. one
'There, one of them was hit.'

(6) Baraq gue kəbawe ane temən. thing I be-taken by friend
'My things were taken by my friend.'

(7) Die katabrük aspede kali. he be-hit bicycle perhaps
'He was hit by a bicycle perhaps.'

7.3.1.1.16 "Possibilitive", "contradictive" and "careless" verb word formation analogy

WFA (29) states that for certain verbs there is a corresponding derived intransitive verb with one of these meanings:

Possibilitive: 'to be as (V) as possible, (V) as well or as much as much as possible', often with the added implication 'under the circumstances'

Careless: 'to (V) carelessly, randomly, as you like'
Contradictive: 'so (V) as one is, so/as much as one does (V)'.

For transitive verbs, WFA (29) is intransitive. 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 been done as well or as much as possible under the circumstances.

Morphophonemic rules reduplicate such derived verbs, and give them the prefix sa- and suffix -nē (see VMR (2), (5), (8)). A few items must be specified as not allowing reduplication, or allowing it optionally. Examples:

"Possibilities":

<table>
<thead>
<tr>
<th>verb</th>
<th>reduplicated form</th>
</tr>
</thead>
<tbody>
<tr>
<td>gade</td>
<td>sa-gade-gadeńe</td>
</tr>
<tr>
<td>jelas</td>
<td>sa-jelas-jelasńe</td>
</tr>
<tr>
<td>agkat</td>
<td>sa-agkat-ąne</td>
</tr>
<tr>
<td>bantu</td>
<td>sa-bantu-bantuńe</td>
</tr>
<tr>
<td>goreq</td>
<td>sa-goreq-goreqńe</td>
</tr>
<tr>
<td>tao</td>
<td>sa-tao-taońe</td>
</tr>
<tr>
<td>ade</td>
<td>sa-ade-adeńe</td>
</tr>
</tbody>
</table>

Sentences:

1. Saye mančig, biar dapot yaq I fish let get which
   sa-gade-gadeńe.
   'When I fish, may I get one
   as-big-as-possible
   as much as possible.'

2. sa-jelas-jelasńe de, as-clear-as-possible (SPart.)
   asal mao bilaqin.
   when want speak
   'he as clear as possible when
   you want to speak.'

(3) Sąbantu-bantuńe die help-as-much-as-possible she
delie die lagi
(SPart.) she presently
kurag sekat.
not-enough healthy
'She helps as she can. She is not well.'

(4) Sa-agkat-ąne aje lift-as-much-as-possible only
delie sedapotńe.
(SPart.) as-much-as-able
'Just lift what you can, as much as you are able.'

(5) Ye sa-goreqńe
(intro.) fry-as-much-as-possible aje.
only
'Just fry as much as you can, as much as you are able.'

(6) Sataońe saye, die mao as-far-as-know I he will
dateń come
'As far as I know, he is coming.'

(7) Sąkaraą si die now (SPart.) she
ąne sede-dejńe aje.
do-with-what-there-is, only
do-with-what-she-has
'Now she just does with what
she has.'

"Careless":

<table>
<thead>
<tr>
<th>verb</th>
<th>reduplicated form</th>
</tr>
</thead>
<tbody>
<tr>
<td>belok</td>
<td>sa-belok-belokńe</td>
</tr>
<tr>
<td>deger</td>
<td>sa-deger-degernę</td>
</tr>
<tr>
<td>pinjem</td>
<td>sa-pinjem-pinjerne</td>
</tr>
<tr>
<td>liat</td>
<td>saliat-liatńe</td>
</tr>
<tr>
<td>pukul</td>
<td>spasukul-(pukulńe)</td>
</tr>
<tr>
<td>hit</td>
<td>saspukul-(pukulńe)</td>
</tr>
<tr>
<td>mao</td>
<td>sa-mao-maońe</td>
</tr>
<tr>
<td>enak</td>
<td>savenakńe</td>
</tr>
<tr>
<td>'pleasant, enjoying self'</td>
<td>'just do what pleases one'</td>
</tr>
</tbody>
</table>
Sentences:

(8) Lu səliat-iʌatəŋ eje, baŋək
you see—carelessly only many
oraŋ yəŋ same.
people which same
'You just saw her in passing.
Many people look the same.'

(9) Gue si sepukuŋə
I (SPart.) hit—carelessly
aŋe keʔ, kəna oŋə?
only (SPart.) hit not
keʔ.
(SPart.)
'I just hit randomly, I don't
care whether I get anything.'

(10) Lu səməŋə
you want—carelessly only
'You just do as you like.'

(11) Lu suke seədeŋər-deŋərəŋə
you habitually listen—carelessly
aŋe de, kələ boŋər die
only (SPart.) if true he
səməŋə, kələ oŋəʔ, səle
speak if not wrong
de nənti.
(SPart.) later
'You usually just listen—carelessly.
If he really said that ... if not,
we'll be wrong.'

(12) Ye səpəniem-pənieməŋə
(intro.) borrow—carelessly
ame oraŋ.
(S prep.) person
'You borrow from anyone.'

"Contradictive":

mare
'so angry, as angry
as one is'

diaŋ
'so quiet as one is'

jalek
'so quiet as one is'

capət
'so fast, as fast as
(someone or something)
is'

bodo
'so stupid, as stupid
as one is'

tie
'so old, as old as
one is'

longar
'so loose, as loose as
(something) is'

boto
'so pretty, as pretty
as one is'

ribut
'as noisy as one is,
argue'

Sentences:

(13) Ude səməre-məŋə əme
already as—angry (prep.)
tətəŋə, oŋə boiə baŋitə.
neighbor not allow like—that
'As angry as you are at the
neighbors, you may not do that.'

(14) Sədəm-dəməŋə anək itu, biər
as—quiet child that let
dələraŋ əme
forbidden (pas.) (prep.)
oraŋ-tugə, pəgi jəə.
parents go also
'As quiet as the child is, when
he is forbidden by his parents,
he still goes out.'

(15) Səjəlek-jəleka juge kan
as—ugly also (SPart.)
məsi bəguə jəə.
still good also
'As ugly as it is, it still
isn't bad.'

(16) Səsəpat-səpatəŋə, məsət
as—fast want fast
pəgi mənə, oŋəʔ aṣə kədəəraα.
how not have vehicle
'As fast as we are, how can we
be fast, with no car.'

(17) Səlongar-longəŋə pæki juge
as—loose wear also
də.
(SPart.)
'As loose as it is, wear it
anyway.'

(18) Səbədo-bədoŋə die, məsi
as—stupid he still
kəŋə dəiəjə,
suffer/contact teach (pas.)
tu anək.
that child
'As stupid as he is, the child
can still be taught.'

(19) Sətəe-təeŋə die, məsi dəpat
as—old he still can
kari
work
'As old as he is, he still
can work.'

(20) Soboto-botoña die, ade
as-prety she exist
lagi yaq botaan.
more which prettier
'As pretty as she is, there
are others prettier.'

(21) Soribut-ributñe ame
as-much-argue (prep.)
orag 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 pas-
sive verb may be derived from any active verb
by DR (8), (9) or (10). Therefore examples
of sentences with verbs which are further de-
rived as passive are also given in this section.

A morphophonemic rule gives all active
agentive verbs except imperatives the optional
prefix q-. 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 q- 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 suf-
f.

7.3.1.2.1 "Removing" word formation analogy

WFA (30) [+N] \[+V \[+derv. \[+([-AGT])\]
+removing\]

WFA (31) \[+N] \[+V \[+derv. \[+([-AGT])\]
+providing\]

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:

sayur
'vegetables'
sayurin
'provide vegetables'
kopi
'coffee'
kopiin
'serve coffee to'
te
'tea'
tein
'serve tea to'

Sentences:

(1) Mari lu. Gue kutwin.
come-here you I delouse
'Come here, I'll delouse you.'

(2) o lu lagi
oh you presently
ubanin
pull-out-gray-hairs-from head
'Oh you are pulling out gray
hairs.'
air
'water'
'airin
'to water'

rume
'house'
'rumein
'to house'

atap
'roof'
'atapin
'to roof'

tajin
'starch'
'tajinpin
'to starch'

rawat
'care'
'rawatin
'care for, take care of'

obat
'medicine'
'obatin
'treat, give medicine to'

Examples:

kantong
'pocket'
kantongin
'to pocket'
kotak
'box'
kotakin
'to put in a box'
karan
'bag'
karanin
'to put in a bag'
dindiq
'wall'
dindiqin
'to wall (in)'
kuran
'cage'
kuranin
'to cage'
bolol
'bottle'
bololin
'to put in a bottle'
koranjang
'basket'
koranjangin
'to put in a basket'

Sentences:

(1) Tuliqin de bag, help (S.Part.) (voc.)
atapin rume sanye.
roof house I
'Help roof my house.'

Passive:

(2) Si Arun kalu die daton barta Arun if he come mean
jimeqe gue
life (def./pos.) I
kantongin.
pocket (pas.)
'If Arun comes, I'll pocket his life.'

7.3.1.2.4 "Using" word formation analogy

\[ \text{WFA (32) } [+N] \rightarrow [+V, +derv., +using] \]

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:

pacul
'hoe'
pacul in
'to hoe'
sapu
'broom'
sapulin
'to sweep'

Sentences:

(1) Tu lagi macul in di that presently hoe at
belakang de.
back (S.Part.)
'He's hoeing at the back.'
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:

marain
'make angry, scold'

boñai
'hate'

ormatin
'respect, honor'

bohoq
'lie, be false'

Sentences:

Source verbs:

(1) Die mare ame gue.
he angry (prep.) I
'I am angry at/with him.'

(2) Die boñai ame gue.
he hate (prep.) I
'I hate him.'

Derived verbs:

Active:

(3) Die marain gue.
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 boñai gue.
he hate I
(5) 'I hate him.'

Passive:

(6) Gue dibōsōin (ame) die. I hate (pas.) (prep.) he 'I am hated by him.'

Source verbs:

(7) Gue ormät ame die. I respect (prep.) he 'I respect him.'

(8) Lu jagan bohek. you don't lie 'Don't lie.'

Derived verbs:

Active:

(9) Gue ormätin die. I respect he 'I respect him.'

Passive:

(10) Die diormätin (ame) he respect (pas.) (prep.) saye. I 'He is respected by me.'

Active:

(11) Lu bohoqin sīake, lu? you lie-to, fool who you 'Who did you fool?'

Passive:

(12) Sīake yaq dibohoqin? who which lied-to, fooled 'Who was fooled?'

7.3.1.2.7 Causative word formation analogy

\[
\begin{align*}
\text{WFA (36)} & : \begin{cases}
+V \\
-\left[+\text{AGT}\right] \\
+\text{NM} \\
+\text{THM} \\
\left[a_{F_i}\right] \\
\left[+\text{AGT}\right] \\
\end{cases} \\
\text{orag (36)} & : \begin{cases}
+V \\
+\text{der} \\
+\text{causative} \\
\left[+\text{THM}\right] \\
\left[a_{F_i}\right] \\
\left[+\text{AGT}\right] \\
\end{cases}
\end{align*}
\]

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:

\[
\begin{align*}
\text{bagun} & : \text{'wake up (self)'} \\
\text{turun} & : \text{'hand down, move down'} \\
\text{dandan} & : \text{'dress, make-up (someone), decorate (something)'} \\
\text{sampe} & : \text{'take, bring'} \\
\text{mandi} & : \text{'bathe (someone)'} \\
\text{dateq} & : \text{'make come, bring'} \\
\text{kavin} & : \text{'marry off, arrange a marriage'} \\
\text{kocil} & : \text{'small'} \\
\text{beres} & : \text{'make small'} \\
\text{salamat} & : \text{'safe'} \\
\text{rapa} & : \text{'clean up, neaten'} \\
\text{jalas} & : \text{'clear'} \\
\text{mati} & : \text{'kill'}
\end{align*}
\]

Sentences:

(1) Babe yaq kawinun ame father which marry-off (prep.) 'It was father who married me to a person from this kampong.'

(2) Beresin waruq, lu. clean-up shop you 'Clean up the shop.'

Passive:

(3) Aye jagan dimatiin bag. I don't kill (pas.) (voc.)
'Don't kill me.'

'What is wrong with that child, he keeps crying, is someone hitting him or what?'

7.3.1.2.9 Intention word formation analogy

WFA (38) \[
\begin{array}{c}
+V \\
+\text{perception} \\
+\text{deriv.} \\
+\text{intention}
\end{array}
\] \rightarrow
\[
\begin{array}{c}
+V \\
+\text{perception} \\
+\text{deriv.} \\
+\text{intention}
\end{array}
\]

WFA (38) states that for some verbs of perception, there are corresponding derived verbs meaning 'to (V) intentionally'. Examples:

\[
\begin{array}{ll}
\text{liat} & \text{liatin} \\
\text{'see'} & \text{'look at'}
\end{array}
\]

\[
\begin{array}{ll}
\text{degor} & \text{degorin} \\
\text{'hear'} & \text{'listen to'}
\end{array}
\]

\[
\begin{array}{ll}
\text{rase} & \text{rasain} \\
\text{'feel'} & \text{'feel, touch'}
\end{array}
\]

Sentences:

Source verbs:

(1) \(O\ \text{gue\ degor\ juge\ st.}\ \ \text{oh\ I}\ \text{hear}\ \text{too}\ \text{(SPart.)}\ \text{'}Oh, I heard it.'}

(2) \(Emaq\ \text{mpo?}\ \text{ude}\ \text{liat}\ \text{really\ (pron.)}\ \text{already\ see}\ \text{baq-Miun\ kawin\ lagi?}\ \text{Miun\ marry\ again}\ \text{'}Have you seen that he is married again?'}

Derived "intention" verbs:

(3) \(Ni,\ \text{degorin}\ \text{ni,\ wa?}\ \text{this, listen-to\ this\ (pron.)}\ \text{Ha!}\ \text{sing}\ \text{'}Now, listen to this, I'll sing.'}

(4) \(Gue\ \text{liatin}\ \text{aje\ dari\ jaaan,}\ \text{I}\ \text{look}\ \text{only\ from\ far,}\ \text{degorin}\ \text{aje,}\ \text{jana\ ampe\ die}\ \text{listen}\ \text{only,\ don't\ let\ he}\ \text{ambak-ambakan}\ \text{aje}\ \text{angry}\ \text{only}\ \text{'}I just look from far off, and listen, so he isn't angry.'}

7.3.1.2.8 Repetitive word formation analogy

WFA (37) \[
\begin{array}{c}
+V \\
+\text{deriv.} \\
+\text{repetitive} \\
+\text{AGT}
\end{array}
\] \rightarrow
\[
\begin{array}{c}
+V \\
+\text{deriv.} \\
+\text{repetitive} \\
+\text{AGT}
\end{array}
\]

WFA (37) states that for certain agentive verbs there is a corresponding derived verb with the meaning '(V) repeatedly'. Examples:

\[
\begin{array}{ll}
\text{pukul} & \text{pukulin} \\
\text{'hit'} & \text{'hit repeatedly'}
\end{array}
\]

\[
\begin{array}{ll}
\text{saium} & \text{saiaum} \\
\text{'kiss'} & \text{'kiss repeatedly'}
\end{array}
\]

Sentences:

(1) \(Ko\ \text{lu}\ \text{Miuhn}\ \text{(SPart.) you\ kiss-repeatedly\ ni\ anak}\ \text{this\ child}\ \text{'}You keep kissing the child!'}

Passive:

(2) \(E\ \text{tu}\ \text{anak\ kanapec,}\ \text{(intro.)\ that\ child\ why}\ \text{naqis\ aje,\ dipukulin\ cry\ only\ hit-repeatedly}\ \text{ape,\ what}\ \text{'}
7.3.1.2.10 Benefactive word formation analogy

WFA (39) \[ \begin{align*}
+V \\
+([+AGT])
\end{align*} \rightleftharpoons \begin{align*}
+V \\
+([+AGT]) \\
+(+[+AC]) \\
+([+BEN])
\end{align*} \rightleftharpoons \begin{align*}
+V \\
+(+[+AGT]) \\
+([+AC]) \\
+([+BEN])
\end{align*} \]

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:

\[
\begin{align*}
\text{masak} & \quad \text{masakin} \\
'\text{cook}' & \quad '\text{cook (ben.)}' \\
\text{boli} & \quad \text{boliin} \\
'\text{buy}' & \quad '\text{buy (ben.)}' \\
\text{jual} & \quad \text{jualin} \\
'sell' & \quad 'sell (ben.)' \\
\text{tulis} & \quad \text{tulisin} \\
'\text{write}' & \quad '\text{write (ben.)}'
\end{align*}
\]

Sentences:

Source verbs:

(1) \( O \quad lu \quad (\{\text{g}e\}) \text{jual} \quad \text{barang} \)  \\
\text{oh you sell things}  \\
\text{sa\text{kar}ang? now}  \\
'Oh, you are selling things now?'

(2) \( \text{Tul}u\text{q} \quad \text{jualin} \quad \text{ni} \)  \\
\text{help sell (ben.) this}  \\
\text{barang ni. thing this}  \\
'Please sell these things (for me).'

\[
\begin{align*}
\text{Non} \quad \text{ka pasar} \quad \text{bali} \quad \text{ape? (pron.) to market buy what} \\
'What are you going to buy at the market?'
\end{align*}
\]

\[
\begin{align*}
\text{Non} \quad \text{ka pasar} \quad \text{baliin} \quad \text{ape? (ben.)} \\
'What are you going to buy (for her) at the market?'
\end{align*}
\]

(5) \( \text{Die masak} \quad \text{nasi buat} \quad \text{cook} \quad \text{rice for} \quad \text{ma?Re.} \)  \\
\text{mother (def./pos.)}  \\
'She cooked rice for her mother.'

(6) \( \text{Die masakin} \quad \text{nasi buat} \quad \text{cook (ben.) rice for} \quad \text{ma?Re.} \)  \\
\text{mother (def./pos.)}  \\
'She cooked rice for her mother.'

(7) \( \text{Die masak} \quad \text{ma?Re} \quad \text{cook} \quad \text{rice} \quad \text{nasi.} \)  \\
\text{mother (def./pos.)}  \\
'She cooked rice for her mother.'  \\
(lit: 'She cooked her mother rice.')

(8) \( \text{Die masakin} \quad \text{ma?Re} \quad \text{cook (ben.) mother (def./pos.)} \quad \text{nasi.} \)  \\
\text{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) \[ \begin{align*}
+V \\
+(+[+AGT]) \\
+([+DAT]) \\
+([+BF]) \\
+([+AC]) \\
+([+BEN]) \\
+aerv.
\end{align*} \rightleftharpoons \begin{align*}
+V \\
+(+[+AGT]) \\
+([+DAT]) \\
+([+BF]) \\
+([+AC]) \\
+([+BEN]) \\
+aerv.
\end{align*} \]

WFA (40) states that for certain agentive 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:

<table>
<thead>
<tr>
<th>Source verb</th>
<th>Derived verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>pinjam</td>
<td>pinjamin</td>
</tr>
<tr>
<td>'borrow'</td>
<td>'lend'</td>
</tr>
<tr>
<td>kontrak</td>
<td>kontrakin</td>
</tr>
<tr>
<td>'contract'</td>
<td>'contract out'</td>
</tr>
<tr>
<td>seve</td>
<td>sevein</td>
</tr>
<tr>
<td>'re:i:t'</td>
<td>'rent out'</td>
</tr>
</tbody>
</table>

Sentences:

**Source verbs:**

1. Ayati minjam uaq ame
   Ayati borrow money (prep.)
   Puase.
   Puase
   'Ayati borrowed money from Puase.'

**Derived verbs:**

2. Puase minjamin uaq ame
   Puase lend money (prep.)
   Ayati.
   Ayati
   'Puase lent money to Ayati.'

**Source verbs:**

3. Ayati minjam Puase uaq.
   Ayati borrow Puase money
   *Ayati borrowed Puase money.'

**Derived verbs:**

4. Puase minjamin Ayati uaq.
   Puase lend Ayati money
   'Puase lent Ayati money.'

**7.3.2 Completely productive verb derivation rules**

**7.3.2.1 Comparative verb derivation rule**

\[
\text{DR (5)} \quad \begin{array}{c}
+\text{v} \\
+\text{stative} \\
+\text{[+NM]} \\
+\text{[+THM]} \\
\end{array} \longrightarrow \begin{array}{c}
+\text{v} \\
+\text{deriv.} \\
+\text{stative} \\
+\text{comparative} \\
+\text{[+NM]} \\
+\text{[+THM]} \\
\end{array}
\]

**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. Ore:nje yaq person (def./pos.) which
   kuerla, yaq godean? more-small, which more-big?
   'The smaller person or the bigger one?'

2. Biar sanangan.
   let more-happy
   'Cheer up.'

3. Ni ari ame kemarin, this day (prep.) yesterday,
   teragan kemarin.
   more-clear yesterday
   'Yesterday was clearer than today.'

4. Pala:nan sedikit baq.
   more-slow a-little term-of-ad.
   'Go a little more slowly.'

5. Tu anak due, pintaran that child two, more-clever
   die satu.
   he one
   'Of those two children, that one is more intelligent.'
7.3.2.2 Excessive verb derivation rule

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 ke- and suffix -am (see VMR (4), (9)).
Examples:

(1) Katergan ini, gue mao tidur. too-bright this I want sleep
    'This is too bright, I want to sleep.'

(2) Gue kalamsan, gue enga? I too-weak, tired I not
    kerja.
    'I am too weak, tired to work.'

(3) Kepelangan ni baq, saye too-slow this (voc.) I
    ade parlu.
    have need
    'This is too slow. I have something to do.'

(4) Japa kan karasan bicarene
    don't too-loud speaking
    (def./pos.)
    dog.
    (SPart.)
    'Don't speak too loudly.'

(5) Kegampangan benar lu.
    too-easy really you
    'You are too easy.'
    (=too quick to agree, too easy to persuade, etc.)
7.3.2.3 Distributive verb derivation rule

DR (7) \[ +V \rightarrow +\text{distributive} \]

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. Kenape lu geng-geng
   why you bother (dist.)
   perempuan?
   girl
   'Why are you bothering girls?'

2. Ave bukan hury-hury
   I not order (dist.) (pron.)
   'I am not ordering you.'

3. Gue kadats-a-tengan
   Ali.
   I be-some-upon (dist.) Ali
   (see WFA (28), Adversative instrumental.)
   'I was repeatedly visited by Ali.'

4. Biarin 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-bawene
thing-carry (dist.) (def./pos.)
ape-ape?
what (collective)
(See DR (2), Definite/possessed.)
'What all did you bring?'

(7) Famba-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 pominte-minte.
that person-who-beg (dist.)
(See WFA (2), Person.)
'He is a beggar.'

Multiple action or extended period of time:

(9) Tidur-tidur melulu
sleep, lie-down (dist.) only
ni anak.
this child
'This child sleeps, lies about all the time.'

(10) Oranga
agg?
person (def./pos.) not
datey-dateq.
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 diem-diem aje.
he quiet (dist.) only
'He is always quiet.'

Multiple subject:

(13) Dulu cerite
before story (def./pos.)
bagie-bagie 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 Hani-Hani, gue aga?
you sing (dist.) I not
laraq.
forbid
'You are singing, I don't forbid it.'

(16) Ayo de, gopi-gopi.
comin (SPart.) drink-coffee
(dist.)
'Come on, have some coffee.'

7.3.2.4 Direct passive verb derivation rule

\[
\begin{align*}
    \text{DR (8)}: & & +V +\text{deriv.} \\
    & & +\text{NM} \\
    & & +\text{THM} \\
    & & +\text{AF} \\
    & & +\text{AGT} \\
    & & +\text{C, +AC} \\
    & & +\text{EF} \\
    & & +\text{X}
\end{align*}
\]

DR (8) states that given an agentic verb there is a derived verb with a theme actant in the nominative case form and an agentic actant in the comitative or accusative case form. This rule is completely productive and predictive.

A morphophonemic rule gives such derived verbs the prefix \text{di}-, unless they are preceded by an agentic 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:

\begin{align*}
    \text{sewe} & & \text{disewe} \\
    'rent' & & 'rented' \\
    \text{pilili} & & \text{dipilili} \\
    'choose' & & 'chosen' \\
    \text{liat} & & \text{diliat} \\
    'see' & & 'seen' \\
    \text{bawe} & & \text{dibawe} \\
    'bring' & & 'brought'
\end{align*}
Sentences:

(1) Rume itu ude digewe.
   house that already rented
   'That house is already rented.'

(2) Yaq-mane yaq dipili.
    which which chosen
    'Which one did you choose?'
    (lit: 'Which is the one which was chosen?')

(3) Dipikir dulu ni,
    thought first this
    kərjaanəs abis ape
    work (def./pos.) finished or
    oga??
    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 yaq lu liat?
    what which you see
    'What do you see?'
    (lit: 'What is seen by you?')

Further derived as noun:

(5) Diboqeqe
    bringing (par.) (def./pos.)
    pəgii'mane?
    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:

kasi 'give'
  dikasi 'given'
kirim 'send'
  dikirim 'sent'
pinjemin 'lend'
dipinjemin 'lent'
sawain 'rent out'
diseuain 'rented out'

Benefactive:

ballin 'buy (ben.)'
diballin 'bought (ben.)'
jualin 'sell (ben.)'
dijualin 'sold (ben.)'

Sentences:

Dative-object source verb:

(1) Ayati pinjemin Puase uaq./
    Ayati lend Puase money/
    Ayati pinjemin uaq ame
    Ayati lend money to
    Puase.
    Puase
    'Ayati lent Puase money./
    'Ayati lent money to Puase.'

Derived indirect passive:

(2) Puase dipinjemin uaq
    Puase lend (pa.) money
    ame Ayati.
    (prep.) Ayati.
    'Puase was lent money by
    Ayati.'

Benefactive source verb:

(3) Ma?-Buyug ballin Ma?-Leha ikan./
    Ma-Buyung buy Ma-Leha fish/
    Ma?-Buyug ballin 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 diballin ikan
    Ma-Leha buy (pa.) fish
    ame Ma?-Buyug.
    (prep.) Ma-Buyung
    'Ma Leha was bought fish by
    Ma Buyung.'

7.4 Other derivation rules

7.4.1 Word formation analogies

WFA (41) \[\{+V\}\] \[\{+adv.\}\] \[\rightarrow +Adv.\] +SAdv. +deriv.

WFA (41) states that for certain verbs and adverbs, there are corresponding derived sentence adverbs.

Morphophonemic rules give such derived adverbs the prefix se- optionally and the suffix -ñə obligatorily. A few items are specified as not taking the prefix se- (see AMR (2), (3)).

Examples:

Verbs:

bëñə (se)bëñəñə 'actual, true, correct'
betul (se)betulñə 'actually, truly correct'
læn (se)lænñə 'moreover, besides'
baek (se)baekñə 'good' 'it would be best if...'
bagus bagusñə 'good' 'luckily'
rase (se)raseñə 'feel' 'it seems, seemingly'
kire (se)kirëñə 'think' 'it seems'
rupe rupeñə 'appear' 'it appears'
arus (se)arusañə 'have to' 'it should be that...'
mësti (se)mëstiñə 'have to, must' 'it must be that...'

Derived:

kaliutan kaliutananñə 'visible' 'apparently'

Adverb:

emağ emağñə 'really' 'really, truly'
7.4.1.2 Frequency adverb word formation analogy

WFA (42) $\{[+V]\} \rightarrow [\text{Adv.} + \text{deriv.} + \text{frequency}]$

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 se- and suffix -ne (see AMR (1), (2), (3)). Some items are individually specified as taking the prefix se- before reduplication, not taking reduplication, or not taking the suffix -ne.
'Don’t you ever come to my house.'

(4) Lu kan ədikit-ədikit you (SPart.) sometimes, a little pray
'some
əmbayaq.

'(You pray a little, sometimes.'

(5) Sari-sari kato pulaq, daily when/if come-home sadohe ute horsecart (def./pos.) already ade.
present

'When he comes home every day his horsecart is here.'

(6) Sali de əukalian. buy (SPart.) all-at-once 'Buy it all at once.'

(7) Səwaktu die datəq, sometimes he come, səwaktu əəqə? sometimes not 'Sometimes he comes, sometimes not.'

7.4.1.3 Manner adverb word formation analogy

WFA (43) 
+stative 
[+NM] [+THM] 

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:

palan
'slow, soft (of sound)'
koŋkoŋ
'loud, fast tight'
karas
'loud, hard strong'
talat
'late'
batul
'true'

WFA (45) 
+one (thing) 

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 so-, unless specified as exceptions (see AMR (1), (2)).

Examples:

satu
'one'

satu-satu
'one by one'
Derived:

sadikit, sadikit-sadikit
'a little' 'little by little'

səoraq, səoraq-səoraq
'one person' 'person by person'

Sentence:

(1) Sətəruz-təragə de as-clear-as-possible (SPart.)
    Lu bilağin.
you tell
'I tell it as clearly as possible.'

7.4.1.5 "Possibilitive", "contradictive" and "careless" adverb word formation analogy

WFA (47) [+v] → [+Adv.]
              (+possibilitive)
              (+contradictive)
              (+careless)

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 -ənə. A few items are individually specified as being reduplicated optionally (see AMR (1), (2), (3)).

Examples:

"Possibilitive":

aşik
'absorbed pleasantly'

səasik-əsikənə
'as pleasantly absorbed as possible'

tərag
'clear'

sətəraz-təragənə
'as clear as possible'

kəoıl
'small'

səkəoıl-kəoılənə
'as small as possible'

qəde
'big'

səqəde-gədeənə
'as big as possible'

qəkat
'life'

səqəkat-qəkatənə
'as much as one can lift'

qođe
'have, be'

səqođe-qođenə
'as much as one has, as much as there is'

təo
'know'

sətəo-təoənə
'as much as one knows'

"Careless":

adil, sədadıllənə
'in detail' 'carelessly as to detail'

mao, səmao-(mao)ənə
'want' 'as one wants'

Sentences:

(8) Gue tañə sədadıllənə,
    I ask carelessly-as-to-detail,
    səgə? tañə adil besənə.
    not ask in-detail very
'I am not asking in such detail.'

(9) Die qoŋəmən səmao-mənənə.
    he speak as-he-wants
'He just says whatever he wants to.'
"Contradictive":

\[
\begin{align*}
\text{Jao} & \quad \text{sejao-sejao} \\
'far' & \quad 'so far as, although far' \\
\text{copet} & \quad \text{secopet-secopet} \\
'fast' & \quad 'so fast as, although fast' \\
\text{ribut} & \quad \text{seribut-seribut} \\
'make noise, argue' & \quad 'although so noisy, although so argumentative'
\end{align*}
\]

Sentences:

(10) \text{Sejao} ha \text{juge} gue \text{have lu, so-far} also I take you, \text{juge} \text{enga? bagitu} \text{jao, also not so, very far,} \text{ruume.} \text{house (def./pos.)} \\
'Although I have brought you as far as I have the house is not so very far.'

(11) \text{Secopet-secopet} die \text{jalun, so-fast} she walk, \text{tuapi nanti} tolat juge, but later late too \text{As fast as she walks she will be late.'}

7.4.1.6 Preposition word formation analogy

\[
\text{WPA (48) } \begin{bmatrix} +V \\ +N \end{bmatrix} \rightarrow \text{Prep.} +\text{deriv.}
\]

WPA (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.

\text{(Siti/Iti 'Siti', sunde/ude 'already', saye/ayie '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:

\[
\begin{align*}
\text{Verbs:} & \\
\text{same} & \quad (a)ame \\
'the same, alike' & \quad 'with, by' \\
\text{pake} & \quad pake \\
'use' & \quad 'with, by' \\
\text{naek} & \quad naek \\
'go up, ride' & \quad 'by' (transport) \\
\text{kana} & \quad kana \\
'suffer, hit, contact, strike, undergo' & \quad 'by' (cause) \\
\text{buat} & \quad buat \\
'make' & \quad 'for' \\
\text{sampe} & \quad (a)ampe \\
'arrive' & \quad 'until' \\
\text{bagi} & \quad bagi \\
'divide' & \quad 'for' \\
\text{lewat} & \quad lewat \\
'pass' & \quad 'past'
\end{align*}
\]

Noun:

\[
\begin{align*}
\text{baka} & \quad \text{baka} \\
'material, supplies' & \quad 'for'
\end{align*}
\]

Sentences:

Source nouns or verbs:

(1) \text{Itu} \text{same} \text{juge.} \text{that same} \text{just} \text{It's all the same.'}

Derived prepositions:

(2) \text{Ame} \text{siape} \text{lu} \text{pogi?} \text{with who you go} \text{Who did you go with?'}

Source nouns or verbs:

(3) \text{Kalo} \text{ade} \text{dui} \text{lu} \text{mari} \text{if exist money you here} \text{de,} \text{gue} \text{pake} \text{duwu.} \text{(SPart.) I use} \text{for-now, before} \text{If you have money, come on, I'll use it for now.'}

Derived prepositions:

(4) \text{Saye} \text{buke} \text{pintu} \text{pake} \text{konai.} \text{I open door with key} \text{I opened the door with a key.'}
Source nouns or verbs:

(5) *Lu garti* Apollo naek you understand Apollo go-up kə bulan. to moon 'You know the Apollo went to the moon.'

Derived prepositions:

(6) *Kalo məsi ade karsis, saise* if still have ticket I bərənkat 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 məsi kəna* child that still contact, suffer diajar. teach (pas.) 'That child can still be taught.'

Derived prepositions:

(8) *Bole itu kəna pohon.* ball that hit tree 'The ball hit the tree.'

Source nouns or verbs:

(9) *Die luken kəna paku.* he wounded by nail 'He was cut by a nail.'

Derived prepositions:

(10) *Die buat rume itu sendiri.* he make house that alone 'He built the house himself.'

Source nouns or verbs:

(12) *Die belun sampe.* he not-yet arrive 'He has not arrived yet.'

Derived prepositions:

(13) *Die maen ampe malen.* 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 rumi.* he pass house 'He passed the house.'

Derived prepositions:

(17) *Pulaghe lewat jam deu.* come-home past hour two 'He came home past two.'

Source nouns or verbs:

(18) *Buat bakal maen cek.* for material play gambling ni. this 'This is (a fund) to play "cek".'

Derived prepositions:

(19) *Kan enak, bəti* (SPart.) pleasant buy siri bakal que. betelnut for I 'That's all right, it buys betelnut for me.'
7.4.1.7 Introducer word formation analogy

WFA (49) $\left\{ \begin{array}{l} \text{+Intro.} \\
\text{+V} \\
\text{+N} \end{array} \right\} \quad \rightarrow \quad \left\{ \begin{array}{l} \text{+Intro.} \\
\text{+derv.} \end{array} \right\}$

WFA (49) states that for certain conjunctions, introducers, verbs and nouns there are derived introducers. A morphophonemic rule gives such derived introducers the suffix -\$\text{-E}\$ (see SConj./Intro. MR (1)).

Examples:

Conjunction:

\begin{itemize}
  \item \text{tapi} \quad \text{tapi\$\text{-E}\$}
  \item 'but'
  \item 'but'
\end{itemize}

Introducer:

\begin{itemize}
  \item \text{magke} \quad \text{magke\$\text{-E}\$}
  \item 'therefore'
  \item 'therefore, therefore, why'
\end{itemize}

Verb/introducer:

\begin{itemize}
  \item \text{jadi} \quad \text{jadi\$\text{-E}\$}
  \item 'become, therefore'
  \item 'therefore, so'
\end{itemize}

Verbs:

\begin{itemize}
  \item \text{abi\$\text{-E}\$} \quad \text{abi\$\text{-E}\$}
  \item 'finished, gone'
  \item 'so, then'
\end{itemize}

\begin{itemize}
  \item \text{laen\$\text{-E}\$} \quad \text{laen\$\text{-E}\$}
  \item 'different'
  \item 'moreover, on the other hand'
\end{itemize}

\begin{itemize}
  \item \text{torue\$\text{-E}\$} \quad \text{torue\$\text{-E}\$}
  \item 'go on, continue'
  \item 'then, continue, after that'
\end{itemize}

\begin{itemize}
  \item \text{pokok\$\text{-E}\$} \quad \text{pokok\$\text{-E}\$}
  \item 'main'
  \item 'the point is'
\end{itemize}

Nouns:

\begin{itemize}
  \item \text{name\$\text{-E}\$} \quad \text{name\$\text{-E}\$}
  \item 'name'
  \item 'that is, that means'
\end{itemize}

\begin{itemize}
  \item \text{akhir\$\text{-E}\$} \quad \text{akhir\$\text{-E}\$}
  \item 'end'
  \item 'finally'
\end{itemize}

Sentences:

\begin{itemize}
  \item (1) \text{Tapi\$\text{-E}\$, emag sifat\$\text{-E}\$.}
  \item \text{but really character (def./pos.)}
  \item 'But, that's the way he is.'
\end{itemize}

(2) \text{Magke\$\text{-E}\$, that's why, therefore (def./pos.)}

\text{ta\$\text{-E}\$, ape sakithe.}

\text{ask what illness (def./pos.)}

'That's why therefore I ask you, what is your illness.'

(3) \text{jadi\$\text{-E}\$, aye pura-pura (SPart.)}

\text{sakit, padahal \$\text{\$\text{-E}\$\text{-E}\$}\$ (SPart.)}

'so I pretended to be sick, but actually I'm not.'

(4) \text{Nane\$\text{-E}\$, ma? (SPart.)}

\text{kana\$\text{-E}\$, that means (pron.) (SPart.)}

\text{masi sayan.}

\text{still love}

'So that means you still love me.'

7.4.1.8 Subordinate conjunction word formation analogy

WFA (50) $\left\{ \begin{array}{l} \text{+Adv.} \\
\text{+time} \end{array} \right\} \quad \rightarrow \quad \left\{ \begin{array}{l} \text{+SConj.} \\
\text{+derv.} \\
\text{+time} \end{array} \right\}$

WFA (50) states that for certain time adverbs there are corresponding derived subordinate time conjunctions. Morphophonemic rules give such derived subordinate conjunctions the prefix se- and suffix -\$\text{-E}\$ (see subcon. MR (1) subcon./Intro. MR (1)). Some items are specified as taking -\$\text{-E}\$ optionally. Examples:

\begin{itemize}
  \item \text{kapan\$\text{-E}\$} \quad \text{kakan\$\text{-E}\$}
  \item 'when'
  \item 'when'
\end{itemize}

\begin{itemize}
  \item \text{(s)ude\$\text{-E}\$} \quad \text{sudsude\$\text{-E}\$}
  \item 'already'
  \item 'after'
\end{itemize}

\begin{itemize}
  \item \text{bulun\$\text{-E}\$} \quad \text{bulun\$\text{-E}\$}
  \item 'not yet'
  \item 'before'
\end{itemize}

\begin{itemize}
  \item \text{lagi\$\text{-E}\$} \quad \text{lagi\$\text{-E}\$}
  \item 'again'
  \item 'while'
\end{itemize}

\begin{itemize}
  \item \text{abiane\$\text{-E}\$} \quad \text{abian\$\text{-E}\$}
  \item 'finished'
  \item 'after'
\end{itemize}

\begin{itemize}
  \item \text{lame\$\text{-E}\$} \quad \text{lame\$\text{-E}\$}
  \item 'long'
  \item 'while'
\end{itemize}

\begin{itemize}
  \item \text{Derived:}
  \item \text{lame-lame\$\text{-E}\$}
  \item 'eventually, for a long time'
\end{itemize}
7.4.1.9 Indefinite word formation analogy

WFA (51) \([+\text{interrogative}] \rightarrow [+\text{indefinite}]\)

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:

kapan
'when'

kapan-(s)aje
'whenever, at any time'

7.4.1.10 "And" verb compound word formation analogy

WFA (52) \([+v] + [+v] \rightarrow [+v] + [\text{deriv.}] \rightarrow [+\text{and}]\)

WFA (52) states that some pairs of verbs have corresponding derived compound verbs meaning '(verb) and (verb)'.

Examples:

panjaq lebar
'long' 'wide' 'long, expansive'

kasi sayaq
'care for' 'love'

be sympathetic'

Sentences:

(1) Gue si aega? mao
'I (SPart.) not want
panjaq-lebar.
long'

'I don't want to be long
(in speaking).'

(2) Estul-betul Neli qaku
really Neli admit
kasi-sayaq
love (def./pos.) (prep.)
orag-tue yaq ude maningal?

parent who already die
7.4.1.11 "And" noun compound word formation analogy

WFA (53) \([+N] + [+N] \rightarrow [+N] + \text{derivative} + \text{and} \]

WFA (53) states that some pairs of nouns have corresponding derived compound nouns meaning '(noun) and (noun)'.

Examples:

ibu bape ibu-bape
'mother' 'father' 'parents'
siaq malêm siaq-malêm
'day' 'night' 'day and night'

Sentences:

(1) o jadî baq-aji bârigsâq
so Haji worry
siaq-malêm, day-and-night
'Oh, so you worry day and night.'

(2) Ibu-bape says 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 [+V] + \text{derivative} + \text{or} \]

WFA (54) states that for certain pairs of verbs there are corresponding derived compound verbs meaning '(verb) or (verb)'.

Examples:

jalek bagus jalek-bagus 'ugly, 'good, 'good or bad, beautiful' ugly or beautiful'
koil gade koil-gade 'small' 'big' 'big or small'
due tige due-tige 'two' 'three' 'two or three'

7.4.1.13 Adversative compound word formation analogy

WFA (55) \([+V] + [+N] \rightarrow [X_1] + [+N]^{\text{concrete}} + [+N]^{\text{THM}} + [+V]^{\text{adversative}} \]

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 ko- and suffix -an on the source verb part of the compound (see VMR (4), (9)).

Examples:

curi sâpede kâcurian-sâpede
'steal' 'bicycle' 'to suffer theft of a bicycle, to have one's bicycle stolen'
ilag buku kailagan-buku
'lost' 'book' 'to suffer loss of a book, to lose a book'
Sentences:

(1) Soal saye kailangan-kaki
problem I suffer-loss-leg
ni, itu sude lumre
this, now that already usual
kite loholaki.
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

WFA (56) $[+N$ $+\text{title}] + [+N$ $+\text{human}$ $+\text{proper}] \rightarrow [+N$ $+\text{derivative}$ $+\text{human}$ $+\text{proper}]$

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:

mpo? 'older sister'
ma? 'mother'
(a)bap 'older brother'
uq? 'uncle'
(i)bu 'mother'
sodare 'brother'
pa? 'father'

Proper

names:

Dije Mpo?-Dije
Buyuq Ma?-Buyuq
Idin Bap-Idin
Lihun Ua?-Lihun
Siti Bu-Siti
Arun Sodare-Arun
Junas Pa?-Junas

Job titles and other roles:

Letnan 'lieutenant'
Toke 'Chinese employer'

A Letnan-A Giok Toke-Giok

7.4.2 Completely productive derivation rules

7.4.2.1 Adjective derivation rule

DR (11) $[+$stative $+\text{NM}]$ $\rightarrow [+$Adj. $+$derived$]$

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 Bekasi.

Bekasi

'There is a young champion from Bekasi.'

(2) Lu anak tolol.
you child stupid

'You are a stupid child.'

(3) Ade orag baru.
there-is person new

'There is a new person.'

(4) Saye ke luar dari tempat
I to outside from place

ini, Nari guru-guru
this look-for teacher (collective)

different

'I left this place, looking for
other teachers.'

(5) Ude due-pulu taon.
already twenty years
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 [ + —[ +N +quote] ] This specifies that such actants may follow the verb. Other verbs are specified as not allowing such objects by the redundancy rule:

\[
\text{RR (9) } [+V] \rightarrow \left[ +N +quote \right]
\]

Such a constraint is probably universal (see Starosta 1973b:103).

Examples:

(1) \text{Lantaq anak raje tañe} \\
then child king ask

\[
\begin{align*}
+N \\
+NM \\
+AGT
\end{align*}
\]

"Mao ko mane ratu porempuan?" \\
will to where queen lady

\[
\begin{align*}
+N \\
+derv. \\
+quote \\
+AC \\
+THM
\end{align*}
\]

'Then the prince asked "Where are you going, Lady Queen?"

(2) \text{Bañak orag kasi-tao ame} \\
many person tell (prep.)

\[
\begin{align*}
+N \\
+NM \\
+AGT
\end{align*}
\]

\[
\begin{align*}
+F \\
+P
\end{align*}
\]

\[
\begin{align*}
+AC \\
+AC \\
+DAT \\
+THM
\end{align*}
\]

di ude batanam ame siPuase \\
he already friendly (prep.) Puase

\[
\begin{align*}
+N \\
+derv. \\
+quote \\
+AC \\
+THM
\end{align*}
\]

de. (SPart.)

7.4.2.3 Quote noun derivation rule

\[
\text{DR (13)} \quad \left[ \begin{array}{c}
+N \\
+derv. \\
+quote \\
+AC \\
+THM
\end{array} \right] 
\rightarrow \left[ \right]
\]

DR (13) states that for any quotable
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 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.
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 /ko=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 /ko/ and suffix /an/.

However, the definite noun /ko=baek+an+Re/ '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 /ko=baek+an/ 'goodness', the productive definite/possessed derivation rule, and its associated morphophonemic rule which gives derived definite nouns the suffix /Re/.

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

\[ N[r][X] \rightarrow N[r][X-X] \]

+deriv.
\[
\begin{cases}
+imitation \\
+time period \\
+num. \\
+Definite
\end{cases}
\]

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'

\[ N[r][F\&g=] \rightarrow N[r][F\&g=] \]

+deriv.
\[
\begin{cases}
+person \\
+institute \\
+concrete \\
+NMR (2)
\end{cases}
\]

This rule gives the prefix p\&g- 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:

\texttt{pembawaan}
\begin{quote}
'thing brought or to bring'
\end{quote}

institution:

\texttt{pekerjaan}
\begin{quote}
'way of making a living'
\end{quote}

person:

\texttt{pebayo}
\begin{quote}
'person who causes confusion'
\end{quote}

abstract result:

\texttt{pembayaran}
\begin{quote}
'hate'
\end{quote}

\begin{align*}
\text{NMR (3) } N & \rightarrow N[kw] \quad \text{[+deriv.}
\begin{align*}
\text{[+abstract result]}
\end{align*}
\end{align*}

This rule gives the prefix \texttt{kw-} to derived abstract result nouns.

Example:

\texttt{kabaskan}
\begin{quote}
'goodness'
\end{quote}

\begin{align*}
\text{NMR (4) } N & \rightarrow N[pw] \quad \text{[+deriv.}
\begin{align*}
\text{[+abstract result]}
\end{align*}
\begin{align*}
\text{[+institution]} 
\end{align*}
\end{align*}

This rule gives the prefix \texttt{pw-} to derived abstract result and institution nouns which are specified as taking this rule.

Examples:

abstract result:

\texttt{pekerjaan}
\begin{quote}
'feeling'
\end{quote}

institution:

\texttt{pekawinan}
\begin{quote}
'wedding, marriage'
\end{quote}

\begin{align*}
\text{NMR (5) } N & \rightarrow N[su] \quad \text{[+deriv.}
\begin{align*}
\text{[+unit}}
\begin{align*}
\text{[+duration]}
\end{align*}
\end{align*}
\begin{align*}
\text{[+time point]}
\end{align*}
\end{align*}

This rule gives the prefix \texttt{su-} to derived time point, duration and unit nouns.

Examples:

unit:

\texttt{seler}
\begin{quote}
'one liter'
\end{quote}

duration:

\texttt{saarian}
\begin{quote}
'one day, a whole day'
\end{quote}

time point:

\texttt{sadatang}
\begin{quote}
'at the coming'
\end{quote}

\begin{align*}
\text{NMR (6) } N & \rightarrow +an \quad \text{[+deriv.}
\begin{align*}
\text{[+concrete}
\begin{align*}
\text{[+person]}
\end{align*}
\begin{align*}
\text{[+NMR 6]}
\end{align*}
\end{align*}
\begin{align*}
\text{[+abstract result]}
\end{align*}
\begin{align*}
\text{[+instituteion]}
\end{align*}
\begin{align*}
\text{[+imitation]}
\end{align*}
\begin{align*}
\text{[+banknote]}
\end{align*}
\begin{align*}
\text{[+duration]}
\end{align*}
\end{align*}

This rule gives the suffix \texttt{-an} to derived concrete, abstract result, institution, banknote, imitation, and duration nouns, and derived person nouns which are specified as taking this rule.

Examples:

concrete:

\texttt{maenan}
\begin{quote}
'toy'
\end{quote}

person:

\texttt{pepripian}
\begin{quote}
'coffee addict'
\end{quote}

abstract result:

\texttt{kabaskan}
\begin{quote}
'goodness'
\end{quote}

imitation:

\texttt{mobil-mobilan}
\begin{quote}
'toy car'
\end{quote}

banknote:

\texttt{saratangan}
\begin{quote}
'a hundred (bill)'
\end{quote}
duration:

\texttt{se\texttt{\textregistered}arian}  
'a whole day'

\texttt{NMR (7) } \texttt{\[X\]}_N \rightarrow \texttt{\[X\-X\]}_N \quad \left[ \begin{array}{c} \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:

\texttt{various:}

\texttt{t\texttt{\textregistered}elor-t\texttt{\textregistered}elor}  
'various kinds of eggs'

\texttt{collective:}

\texttt{pe\texttt{\textregistered}aco-pe\texttt{\textregistered}aco}  
'people who confuse things'

\texttt{pe\texttt{\textregistered}a\texttt{\textregistered}arian-pe\texttt{\textregistered}a\texttt{\textregistered}arian}  
'ways of making a living'

\texttt{kaba\texttt{\textregistered}akan-kaba\texttt{\textregistered}akan}  
'goodness, kindness'

\texttt{ma\texttt{\textregistered}a\texttt{\textregistered}an-ma\texttt{\textregistered}a\texttt{\textregistered}an}  
'toys'

\texttt{NMR (8) } \texttt{\[\]}_N \rightarrow \texttt{\[\texttt{\textregistered}\]}_N \quad \left[ \begin{array}{c} \text{+deriv.} \\
\text{+definite} \end{array} \right]

This rule gives the suffix -\texttt{\textregistered}e to derived definite nouns. It must be ordered after NMR (1)-(6).

Examples:

\texttt{ha\texttt{\textregistered}we\texttt{\textregistered}e}  
'weather (def./pos.)'

\texttt{mob\texttt{\textregistered}i\texttt{\textregistered}l-mob\texttt{\textregistered}i\texttt{\textregistered}l\texttt{\textregistered}e}  
'toy car (def./pos.)'

\texttt{pe\texttt{\textregistered}a\texttt{\textregistered}aco\texttt{\textregistered}e}  
'person who causes confusion (def./pos.)'

\texttt{pe\texttt{\textregistered}a\texttt{\textregistered}arian\texttt{\textregistered}e}  
'way of making a living (def./pos.)'

\texttt{kaba\texttt{\textregistered}akan\texttt{\textregistered}e}  
'goodness (def./pos.)'

\texttt{be\texttt{\textregistered}e\texttt{\textregistered}e}  
'buying (def./pos.)'

\texttt{di\texttt{\textregistered}e\texttt{\textregistered}e}  
'being bought (def./pos.)'

\texttt{NMR (9) } \texttt{\[\]}_N \rightarrow \texttt{\[\texttt{\textregistered}i\texttt{\textregistered}\]}_N \quad \left[ \begin{array}{c} \text{+deriv.} \\
\text{+familiar} \end{array} \right]

This rule gives the prefix \texttt{\textregistered}i to derived familiar names.

Example:

\texttt{\texttt{\textregistered}i\texttt{\textregistered}ulo}  
'(name, familiar)'

8.2 Verb morphophonemic rules

\texttt{VMR (1) } \texttt{\[\]}_v \rightarrow \texttt{\[\texttt{\textregistered}\]}_v \quad \left[ \begin{array}{c} \text{+deriv.} \\
\text{+inchoactive} \\
\text{+using} \\
\text{+consuming} \end{array} \right] 
\left[ \begin{array}{c} \text{+NM} \\
\text{+AGT} \end{array} \right] \quad \text{+imperative}

This rule gives the prefix \texttt{\textregistered} to verbs derived as inchoative, using, and consuming verbs, and to nonimperative active agentive verbs.

Examples:

\texttt{inchoative:}

\texttt{\texttt{\textregistered}e\texttt{\textregistered}e\texttt{\textregistered}il\texttt{\textregistered}il\texttt{\textregistered}e}  
'become small'

\texttt{using:}

\texttt{ma\texttt{\textregistered}l}  
'use a hoe'

\texttt{consuming:}

\texttt{\texttt{\textregistered}opi}  
'drink coffee'

\texttt{nonimperative agentive active:}

\texttt{m\texttt{\textregistered}ul\texttt{\textregistered}u\texttt{\textregistered}u\texttt{\textregistered}ul}  
'hit'

\texttt{VMR (2) } \texttt{\[X\]}_v \rightarrow \texttt{\[X-X\]}_v 
\left[ \begin{array}{c} \text{+deriv.} \\
\text{+somewhat} \\
\text{+habitual} \\
\text{+possibilitive} \\
\text{+contradictive} \\
\text{+careless} \\
\text{+distributive} \\
\text{+reciprocal dis-trtributive} \end{array} \right]
This rule reduplicates derived habitual, somewhat, possibilitive, contradictory, careless, distributive, and reciprocal-distributive verbs.

Examples:

somewhat:

(kə)mare-marean
'reddish'

habitual:

tidur-tiduran
'lie around all the time'

possibilitive:

sogode-godeken
'as big as possible'

contradictory:

saboto-botoke
'as pretty as she is'

careless:

sabelok-beloke
'turn aimlessly'

reciprocal-distributive:

maen-mare-marean
'be angry at each other constantly'

distributive:

maen-maen
'play (dist.)'

Mari-Mari
'look for (dist.)'

(qə)bali-baliin
(see P rule XIII)
'buy (dist.)'

Examples:

inchoative:

godeken
'become big'

agentive:

derived:

removing:

kutuwin
'delouse'

providing:

obatin
'give medicine, treat'

acting:

musuin
'oppose, act as enemy'

using:

sapuwin
'sweep'

putting:

kantoquin
'pocket'

transitivized:

marein
'get angry at, scold'

causative:

mandiin
'bathe (someone)'

repetitive:

pukulin
'hit repeatedly'

intention:

liatin
'look at'

benefactive:

baliin
'buy (ben.)'

dative-object:

pinjanim
'lend'
underived:

*bunu/bunuin 'kill'

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'

This rule gives the prefix kə- to derived adverative, "somewhat", and excessive verbs. It is optional for derived somewhat verbs.

Examples:

somewhat:

*(kə)mere-merean 'reddish'

excessive:

kəgədean 'too big'

adverative:

*kəjatoan 'fallen on'

This rule gives the prefix so- to derived possibilitive, contradictory, and careless verbs.

Examples:

possibilitive:

*sagade-gadeŋe 'as big as possible'

contradictive:

*saboto-botone 'as pretty as (she) is'

careless:

*sabelo-beloke 'turn aimlessly'

This rule gives the prefix bar- to derived intransitive verbs which do not take other prefixes (se-, ka-, or q-, as specified above).

Examples:

possessing:

*bəbini 'to have a wife'

together:

*bədue 'to be two together'

producing:

*bətolor 'to lay an egg'

intransitivized:

*bəpikir 'to think, be thinking'

reciprocal:

*bəpukul 'to hit each other'
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:

dibali
' bought'

indirect passive:

dibaliin
' bought (ben.)'

This rule gives the suffix -ne to derived possibilitive, contradictive, and careless verbs.

Examples:

possibilitive:

sagade-gode-ne
'as big as possible'

contradictive:

saboto-boto-ne
'as pretty as (she) is'

careless:

sabelok-belok-ne
'turn aimlessly'

This rule gives the suffix -an to derived condition, somewhat, approximative, reciprocal distributive, habitual, adversative, approximative, comparative and excessive verbs.

Examples:

condition:

gogkekan
'have an ear infection'

somewhat:

kamere-mere-an
'reddish'

approximative:

due-pulu-an
'around twenty'

reciprocal distributive:

maen-mere-mere-an
'be angry at each other constantly'

habitual:

tidur-tiduran
'lie around all the time'

adversative:

kaile-gan
'lost, have something lost'

kaile-gan-buku
'have a book lost'

comparative:

gode-an
'bigger'

excessive:

kagode-an
'too big'

8.3 Other morphophonemic rules

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:

\(s\)ari-\(s\)ari\(\阵营\)ne
'daily'

manner:

\(b\)aek-\(b\)aek
'carefully'

unit:

\(s\)atu-\(s\)atu
'one by one'

possibilitive:

\(s\)e\(g\)ede-\(g\)ede\(\阵营\)ne
'as big as possible'

contradictive:

\(s\)a\(j\)ao-\(j\)aon\(\阵营\)e
'as far as, although far'

careless:

\(s\)emao-\(m\)aon\(\阵营\)e
'as one wants'

This rule gives the suffix \(\阵营\) to derived frequency, possibilitive, contradictive, careless, and sentence adverbs. This rule is optional for sentence adverbs. Examples:

frequency:

\(s\)owaktu-\(w\)aktu
'sometimes'

possibilitive:

\(s\)e\(g\)ede-\(g\)ede\(\阵营\)ne
'as big as possible'

contradictive:

\(s\)a\(j\)ao-\(j\)aon\(\阵营\)e
'as far as, although far'

careless:

\(s\)emao-\(m\)aon\(\阵营\)e
'as one wants'

sentence adverb:

\(s\)a\(b\)atu\(\阵营\)e
'actually'

This rule gives the suffix \(\阵营\) to derived subordinating conjunctions. Example:

subcon. \(s\)a\(b\)atu\(\阵营\)e
'before'

This rule gives derived subordinating conjunctions and introducers the suffix \(\阵营\).
Examples:

subcon:

səbəlunəne
'before'

Intro:

jadiñe
'therefore'


\[ N/V/Adv. \rightarrow -(s)aje, N/V/Adv. \]

This rule gives derived indefinite nouns,

* * *

adverbs, and verbs the form -(s)aje.

Examples:

noun:

ape-(s)aje
'anything'

adverb:

peginame-(s)aje
'any way, any how'

verb:

borape-(s)aje
'be any amount'
9.0 Introduction

The phonological component is one of the basic components of a grammar in the lexical 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).

Muhadji (1964) and Kähler (1966) give phonemic inventories for Betawi. The differences between their analyses are dealt with in Muhadji (1972). Hakim (1969) discusses the distribution of [h] in Betawi. These works provide a valuable introduction to the phonology.

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 Betawi

|        | h | ? | y | w | i | u | e | o | a | æ | r | 1 | p | b | m | t | d | n | s | c | j | ŋ | k | g | q |
| 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/, /a/. The surface vowel inventory contains 14 vowels: [o], [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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>(Optional) surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/titip/</td>
<td>[titIp]</td>
<td>'keep (for someone)'</td>
</tr>
<tr>
<td>/pukul/</td>
<td>[pukUl]</td>
<td>'hit'</td>
</tr>
<tr>
<td>/tulis/</td>
<td>[tulis]</td>
<td>'write'</td>
</tr>
<tr>
<td>/moNe/t/</td>
<td>[moNe/t]</td>
<td>'monkey'</td>
</tr>
<tr>
<td>/ekor/</td>
<td>[ekor]</td>
<td>'tail'</td>
</tr>
<tr>
<td>/campur/</td>
<td>[campUr]</td>
<td>'mix'</td>
</tr>
<tr>
<td>/bintaq/</td>
<td>[bintaq]</td>
<td>'star'</td>
</tr>
<tr>
<td>/lonte/</td>
<td>[lonte]</td>
<td>'prostitute'</td>
</tr>
</tbody>
</table>

The addition of a suffix may open a syllable, as in the following example.

Underlying form: 

<table>
<thead>
<tr>
<th>Surface forms:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pilih/</td>
<td>[pilih], [pilih] 'choose'</td>
</tr>
<tr>
<td>/pilih+an/</td>
<td>[pilih+an] but not *[pilih+an] 'choice'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>(Optional) surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/soto/</td>
<td>[sotow]</td>
<td>'kind of soup'</td>
</tr>
<tr>
<td>/sate/</td>
<td>[satey]</td>
<td>'kind of meat dish'</td>
</tr>
<tr>
<td>/satu/</td>
<td>[satuw]</td>
<td>'one'</td>
</tr>
<tr>
<td>/isi/</td>
<td>[isiy]</td>
<td>'contents'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface forms: (most frequent pronunciation first)</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/apa/</td>
<td>[ape] ([apa])</td>
<td>'what'</td>
</tr>
<tr>
<td>/apa+ña/</td>
<td>[apeñe] ([apaña])</td>
<td>'what is it?'</td>
</tr>
<tr>
<td>/ã=apa+in/</td>
<td>[àpapain]</td>
<td>'what are you doing?'</td>
</tr>
<tr>
<td>/apa+an/</td>
<td>[apaan]</td>
<td>'what is it?' (ref. to concrete object)</td>
</tr>
</tbody>
</table>

In the Kebon Pala district of Jakarta, the final /a/ is raised but not fronted, giving the characteristic final shwa of Kebon Pala:

Examples:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface forms: (most frequent pronunciation first)</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/apa/</td>
<td>[ap ø] ([apa])</td>
<td>'what'</td>
</tr>
<tr>
<td>/apa+ña/</td>
<td>[apaña] ([apaña])</td>
<td>'what is it?'</td>
</tr>
<tr>
<td>/ã=apa+in/</td>
<td>[ãapain]</td>
<td>'what are you doing?'</td>
</tr>
<tr>
<td>/apa+an/</td>
<td>[apaan]</td>
<td>'what is it?' (ref. to concrete object)</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/gule/</td>
<td>/gule/</td>
<td>'kind of soup'</td>
</tr>
<tr>
<td>/gula/</td>
<td>/gula/</td>
<td>'sugar'</td>
</tr>
</tbody>
</table>

Offglide rule: guley
Final /a/ rule: - gule
Surface form: [guley] [gule]

This accounts for contrasts like the following:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Optional surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/gule/</td>
<td>[guley]</td>
<td>'kind of soup'</td>
</tr>
<tr>
<td>/gula/</td>
<td>[gule]</td>
<td>'sugar'</td>
</tr>
<tr>
<td>/bole/</td>
<td>[boley]</td>
<td>'allowed'</td>
</tr>
<tr>
<td>/bola/</td>
<td>[bole]</td>
<td>'ball'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/h/:</td>
<td></td>
<td>'aha' (exclamation)</td>
</tr>
<tr>
<td>/hah/</td>
<td>[hah]</td>
<td>'aha' (exclamation)</td>
</tr>
<tr>
<td>/he/</td>
<td>[he]</td>
<td>'hey!'</td>
</tr>
<tr>
<td>/hektar/</td>
<td>[hektar]</td>
<td>'hectare'</td>
</tr>
<tr>
<td>/haram/</td>
<td>[haram]</td>
<td>'forbidden'</td>
</tr>
<tr>
<td>/y/:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ayo/</td>
<td>[yo] ([ayo], [ño])</td>
<td>'come on'</td>
</tr>
<tr>
<td>/yaq/</td>
<td>[yaq] ([ñaq])</td>
<td>'which'</td>
</tr>
<tr>
<td>/yakin/</td>
<td>[yakin]</td>
<td>'sure'</td>
</tr>
<tr>
<td>/w/:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/wadu/</td>
<td>[wadu] ([adu])</td>
<td>(exclamation of dismay)</td>
</tr>
<tr>
<td>/waris/</td>
<td>[warIs]</td>
<td>'inheritance'</td>
</tr>
<tr>
<td>/wuwuñan/</td>
<td>[wuwuñan]</td>
<td>'ceiling, house ridge'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/isi/</td>
<td>[ʔisi]</td>
<td>'contents'</td>
</tr>
<tr>
<td>/ekor/</td>
<td>[ʔekor]</td>
<td>'tail'</td>
</tr>
<tr>
<td>/use/</td>
<td>[ʔuse]</td>
<td>'have to'</td>
</tr>
<tr>
<td>/ogah/</td>
<td>[ʔogah]</td>
<td>'don't want'</td>
</tr>
<tr>
<td>/apa/</td>
<td>[ʔape]</td>
<td>'what'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/h:/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Underlying forms:</th>
<th>(Optional) surface forms:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/marah/</td>
<td>[mare]</td>
<td>'angry'</td>
</tr>
<tr>
<td></td>
<td>([marah])</td>
<td></td>
</tr>
<tr>
<td>/marah+xia/</td>
<td>[marexe]</td>
<td>'anger'</td>
</tr>
<tr>
<td></td>
<td>([marahxâ])</td>
<td>(def./pos.)'</td>
</tr>
<tr>
<td>/marah+in/</td>
<td>[marain]</td>
<td>'get angry'</td>
</tr>
<tr>
<td></td>
<td>([marahin], [marein])</td>
<td>at, scold'</td>
</tr>
<tr>
<td>/marah+xan/</td>
<td>[marahan]</td>
<td>'very angry, anger'</td>
</tr>
<tr>
<td></td>
<td>([maraan], [marean])</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface forms:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/bodoh/</td>
<td>/bôdôh/, /ôdô/</td>
<td>'stupid'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ogah/</td>
<td>[ogah]</td>
<td>'don't want, no'</td>
</tr>
<tr>
<td>/ʔah/</td>
<td>[ʔah]</td>
<td>(particle expressing discomfort)</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/kagaʔ/</td>
<td>[kagaʔ]</td>
<td>'no'</td>
</tr>
<tr>
<td>/oʔgaʔ/</td>
<td>[oʔgaʔ]</td>
<td>'not'</td>
</tr>
<tr>
<td>/koʔ/</td>
<td>[kOʔ]</td>
<td>(particle expressing surprise)</td>
</tr>
<tr>
<td>/keʔ/</td>
<td>[kEʔ]</td>
<td>(particle expressing indifference)</td>
</tr>
<tr>
<td>/paʔ/</td>
<td>[paʔ]</td>
<td>'father'</td>
</tr>
<tr>
<td>/maʔ/</td>
<td>[maʔ]</td>
<td>'mother'</td>
</tr>
<tr>
<td>/ɾaʔ/</td>
<td>[ɾaʔ]</td>
<td>'mother'</td>
</tr>
<tr>
<td>/uaʔ/</td>
<td>[uaʔ]</td>
<td>'uncle'</td>
</tr>
<tr>
<td>/adeʔ/</td>
<td>[(a)deʔ]</td>
<td>'younger sibling'</td>
</tr>
<tr>
<td>/amoʔ/</td>
<td>[(o)mpoʔ]</td>
<td>'older sister'</td>
</tr>
</tbody>
</table>

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 alternative pronunciations of forms with underlying final vowels in Betawi, as in the following examples.
Examples:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface forms</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/mandi/</td>
<td>[mandi], [mandiy], [mandih]</td>
<td>'bathe'</td>
</tr>
<tr>
<td>/mandi+hе/</td>
<td>[mandihe]</td>
<td>'bathing (def./pos.)'</td>
</tr>
<tr>
<td>/mandi+in/</td>
<td>[mandiin]</td>
<td>'bathe (someone)'</td>
</tr>
<tr>
<td>/apa/</td>
<td>[apa], [apaan]</td>
<td>'what'</td>
</tr>
<tr>
<td>/apa+an/</td>
<td>[apaan]</td>
<td>'what is it?'</td>
</tr>
<tr>
<td>/q=apa+in/</td>
<td>[qapa]</td>
<td>'what are you doing?'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying forms:</th>
<th>Surface forms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/mandi+in/</td>
<td>[mandiin]</td>
</tr>
<tr>
<td></td>
<td>(someone)'</td>
</tr>
<tr>
<td></td>
<td>but not *[mandih]</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying forms:</th>
<th>Surface forms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/mandi/</td>
<td>[mandi]</td>
</tr>
<tr>
<td></td>
<td>'bathe'</td>
</tr>
<tr>
<td>/pilih/</td>
<td>[pili]</td>
</tr>
<tr>
<td></td>
<td>'choose'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface forms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/soto/</td>
<td>[soto],</td>
</tr>
<tr>
<td></td>
<td>'kind of soup'</td>
</tr>
<tr>
<td></td>
<td>but not *[soto?]</td>
</tr>
</tbody>
</table>

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 /u/ and the nominal prefix /pa/. Since there are no other prefixes ending in a nasal, these rules may be stated as applying to a nasal 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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/q=aajar/</td>
<td>[qajar]</td>
<td>'teach'</td>
</tr>
<tr>
<td>/q=ikət/</td>
<td>[qikət]</td>
<td>'tie'</td>
</tr>
<tr>
<td>/q=omoq/</td>
<td>[qomoq]</td>
<td>'say'</td>
</tr>
<tr>
<td>/q=uban+in/</td>
<td>[qubanin]</td>
<td>'remove grey hairs'</td>
</tr>
<tr>
<td>/q=elak/</td>
<td>[qelak]</td>
<td>'evade'</td>
</tr>
<tr>
<td>/q=ərti/</td>
<td>[qərti]</td>
<td>'understand'</td>
</tr>
<tr>
<td>/pəq=alaq+an/</td>
<td>[pəqalaqan]</td>
<td>'obstacle'</td>
</tr>
<tr>
<td>/pəq=ormat/</td>
<td>[pəqormat]</td>
<td>'respect'</td>
</tr>
</tbody>
</table>

After the verbal prefix /q/, 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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/q=bhoq/</td>
<td>[qəbhoq]</td>
<td>'lie'</td>
</tr>
<tr>
<td>/q=doroq/</td>
<td>[qədoroq]</td>
<td>'push'</td>
</tr>
<tr>
<td>/q=jaet/</td>
<td>[qəjaet]</td>
<td>'sew'</td>
</tr>
<tr>
<td>/q=ganti/</td>
<td>[qəganti]</td>
<td>'change'</td>
</tr>
<tr>
<td>/q=lamun/</td>
<td>[qəlamun]</td>
<td>'daydream'</td>
</tr>
<tr>
<td>/q=rasa/</td>
<td>[qərasa]</td>
<td>'feel'</td>
</tr>
<tr>
<td>/q=teh/</td>
<td>[qəteh]</td>
<td>'tea'</td>
</tr>
</tbody>
</table>

Nasal assimilation applies to the nominal prefix /pəq/ before voiced obstruents, although not before liquids.

Examples:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pəq=bhoq/</td>
<td>[pəqmbhoq]</td>
<td>'liar'</td>
</tr>
<tr>
<td>/pəq=diam/</td>
<td>[pəqdiam]</td>
<td>'quiet person'</td>
</tr>
<tr>
<td>/pəq=jual/</td>
<td>[pəqjual]</td>
<td>'seller'</td>
</tr>
<tr>
<td>/pəq=ganti/</td>
<td>[pəqganti]</td>
<td>'replace-ment'</td>
</tr>
<tr>
<td>/pəq=liat+an/</td>
<td>[pəqliat]</td>
<td>'what is seen'</td>
</tr>
</tbody>
</table>

Nasal assimilation also applies to both prefixes before voiceless obstruents and nasals followed by loss of the initial consonant of the stem.

Examples:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/q=pukul/</td>
<td>[mukul]</td>
<td>'hit'</td>
</tr>
<tr>
<td>/q=tulis/</td>
<td>[nullis]</td>
<td>'write'</td>
</tr>
<tr>
<td>/q=sapu/</td>
<td>[nəpul]</td>
<td>'sweep'</td>
</tr>
<tr>
<td>/q=cari/</td>
<td>[nəri]</td>
<td>'look for'</td>
</tr>
<tr>
<td>/q=kasi/</td>
<td>[nəsi]</td>
<td>'give'</td>
</tr>
<tr>
<td>/q=masak/</td>
<td>[masak]</td>
<td>'cook'</td>
</tr>
<tr>
<td>/q=naek/</td>
<td>[nəek]</td>
<td>'go up'</td>
</tr>
<tr>
<td>/q=nəli/</td>
<td>[nəli]</td>
<td>'sing'</td>
</tr>
<tr>
<td>/q=qəri/</td>
<td>[qəri]</td>
<td>'horrify'</td>
</tr>
<tr>
<td>/pəq=takut/</td>
<td>[pəntakut]</td>
<td>'coward'</td>
</tr>
<tr>
<td>/pəq=sakit/</td>
<td>[pənsakit]</td>
<td>'illness'</td>
</tr>
<tr>
<td>/pəq=kaco/</td>
<td>[pəqako]</td>
<td>'one who causes confusion'</td>
</tr>
<tr>
<td>/pəq=marah/</td>
<td>[pəmara]</td>
<td>'angry person'</td>
</tr>
</tbody>
</table>

The exception to initial consonant loss is /c/ after /pəq/.

Examples:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pəq=cari+an/</td>
<td>[pəncari]</td>
<td>'livelhood'</td>
</tr>
</tbody>
</table>

The differences in the behavior of the verbal prefix /q/ and the nominal prefix /pəq/ seem explainable in terms of morpheme structure. The differences are that after the verbal prefix /q/ there is epenthetic shwa before voiced obstruents or liquids and the voiceless affricate /c/ is deleted. These additional processes associated with the verbal prefix /q/ 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 /pəq/ 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 /pəq/ 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 /ŋaŋ/ which at first appears anomalous in Betawi, is the change of /ŋ/ to [ŋ] before /s/. The usual phonemic charts, such as that given by Kähler (1961:V) list /ŋ/ with a palatal series and /s/ with an alveolar series. This type of chart would make the change of /ŋ/ to [ŋ] 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.

/ŋ/ in Betawi has the same point of articulation features as those of /s/ and the affricates.

The sounds /ŋ/, /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 [ŋ] before /s/ appears to be a regular case of assimilation.

9.3.2 ŋə- loss

An additional rule which applies to the prefix ŋ- is ŋə- loss which applies to reduplicated forms where the prefix ŋ 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 ŋ- is not assimilated, but forms an additional syllable with an epenthetic shwa.

Example:

Underlying form: /ŋ=ba-li-ŋ=ba-li/ 'buy (dist.)'
Shwa epenthesis: ŋə=ba-li-ŋə=ba-li
ŋə- loss ŋə=ba-li-ŋə=ba-li
Surface form: [ŋə=ba-li-ŋə=ba-li]

It might seem that the prefix ŋ- should simply not be copied by the reduplication rule. But ŋ- is copied when it assimilates, and other prefixes are also reduplicated with the stem.

Examples:

Underlying forms: /ŋ=car-i-ŋ=car-i/ [ŋari-ŋari] 'look for (dist.)'
Surface forms: [ŋa=baek+an-kə=baek+an/ 'kindness'

9.3.3 /r/ loss

The prefixes /ba:r/ and /pa:r/ 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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/bɔ=ranak/</td>
<td>[bɔranak]</td>
<td>'give birth to a child'</td>
</tr>
<tr>
<td>/bɔ=talor/</td>
<td>[bɔtalor]</td>
<td>'lay an egg'</td>
</tr>
<tr>
<td>/pɔ=ranak+an/</td>
<td>[pɔranakan]</td>
<td>'one of (part) native descent'</td>
</tr>
<tr>
<td>/pɔ=buat+an/</td>
<td>[pɔbuat]</td>
<td>'deed'</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>(Optional) surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pɔrempuan/</td>
<td>[prEmpuan]</td>
<td>'woman'</td>
</tr>
<tr>
<td>/kɔlapa/</td>
<td>[klape]</td>
<td>'coconut'</td>
</tr>
<tr>
<td>/bɔlakaq/</td>
<td>[blakaq]</td>
<td>'back'</td>
</tr>
<tr>
<td>/Malayu/</td>
<td>[Malayu]</td>
<td>'Malay'</td>
</tr>
<tr>
<td>/sɔpertı/</td>
<td>[spErtı]</td>
<td>'similar'</td>
</tr>
<tr>
<td>/sɔ=tежgah/</td>
<td>[stEɕę]</td>
<td>'half'</td>
</tr>
<tr>
<td>/sɔ=karaq/</td>
<td>[skaraq]</td>
<td>'now'</td>
</tr>
<tr>
<td>/sɔ=miggu/</td>
<td>[smiggu]</td>
<td>'a week'</td>
</tr>
<tr>
<td>/sɔ=lalu/</td>
<td>[slalu]</td>
<td>'always'</td>
</tr>
</tbody>
</table>

Thus a shwa deletion rule is required to ac-
count for the behavior of shwa in the prefixes
/kɔ/ and /sɔ/. It is less complex to gener-
lize 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:

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Surface form:</th>
<th>Gloss:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/q=liat+in/</td>
<td>[q=liatin]</td>
<td>'look at'</td>
</tr>
<tr>
<td>/q=bɔsar+in/</td>
<td>[q=bɔsarın]</td>
<td>'enlarge'</td>
</tr>
</tbody>
</table>

Shwa epenthesis (oblig.):

\[ q=liatin \]
\[ q=bɔsarın \]

Shwa deletion (opt.):

\[ qliatin \]

Surface forms:

\[ [q=liatin] - [qliatin] \]
\[ [q=bɔsarın] \]

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 vow-
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 $\phi$ 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 $\phi$ 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.

$$\phi \rightarrow \left\{ \begin{array}{c}
\text{-cons.} \\
\text{-syl.} \\
\text{-cont.} \\
\text{-son.}
\end{array} \right\} / v \quad + \langle v \rangle$$

(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.

$$\phi \rightarrow \left\{ \begin{array}{c}
\text{-cons.} \\
\text{-syl.} \\
\text{-cont.} \\
\text{-son.}
\end{array} \right\} / v_1 \quad + \alpha < v_1 > \quad \beta < v_2 >$$

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 in 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

<table>
<thead>
<tr>
<th>Environment:</th>
<th>+C</th>
<th>#</th>
<th>V1 +V2</th>
<th>V1 +V1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bu Siti</td>
<td>100' (2/2)</td>
<td>93 (13/14)</td>
<td>69 (9/14)</td>
<td>10 (1/10)</td>
</tr>
</tbody>
</table>

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 /fa/), 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

<table>
<thead>
<tr>
<th>Environment:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td>V1 +V1</td>
<td>V1 +V2</td>
<td>V1 +V3</td>
<td>V (-a)</td>
<td>V C</td>
<td>a #</td>
</tr>
<tr>
<td>Bu Siti</td>
<td>90 (36/40)</td>
<td>29 (3/26)</td>
<td>12 (2/15)</td>
<td>04 (10/233)</td>
<td>04 (2/48)</td>
<td>80 (35/48)</td>
</tr>
<tr>
<td>Salmine</td>
<td>91 (11/12)</td>
<td>13 (1/8)</td>
<td>11 (1/9)</td>
<td>06 (16/278)</td>
<td>02 (1/48)</td>
<td>77 (23/30)</td>
</tr>
</tbody>
</table>

(1) = a+a, i+i
(2) = u+i, e+i, o+i, e+a, o+a
(3) = a+i, i+a, u+a
(4) = a or i
(5) = a or i
(6) = a or i

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 Lenox 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 ɛ) to account for the existence of pairs like (in his orthography) gule 'kind of soup' and gule '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 ɛ 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, (nondistinguishive: 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.

9.5.2 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.

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
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

+ [-syl.] [ ]
  ↓
  [+syl.]

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

+ [-syl. ]
  ↓
  [+cons.]

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

[-syl. ]  [-syl. ]
  ↓    ↓
  [+cons. ]  [+cons. ]

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

[-syl. ]
[++syl. ]₁ [-cons. ] [+syl. ]₂
  ↓
  [+cont.]

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

[-son. ]  [-son. ]
  ↓
  [+cont. ]
  [+cons. ]

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.

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MS condition VI states that before a noncontinuant a nasal is homorganic.

MS condition VII

[-syl.] +

[+syl.]

MS condition VII states that there are no final clusters involving consonants or glides.

MS condition VIII

[-son.] +

[+voi.]

MS condition VIII states that there are no final voiced oral obstruents.

MS condition IX

[+cons.] +

[+high ]

[+ant.]

MS condition IX states that there are no final anterior high consonants (no final /c/, /j/, or /f/).

MS condition X

[-cons.] +

[+son. ]

[+syl. ]

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

\[
\begin{align*}
[-\text{cons.}] & \rightarrow <g>/ V_1 \quad a\{+c\} \\
[-\text{son.}] & \quad \beta <+V_2>
\end{align*}
\]

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 /ra/.

P rule II: closed syllable vowel laxing rule

\[
\begin{align*}
[+\text{syl.}] & \rightarrow [-\text{tense}]/ \_\_ [-\text{syl.}] \left\{ \begin{array}{l}
\_\_ [-\text{syl.}] \\
[+\text{-syl.}] \end{array} \right. \\
[-\text{low}] &
\end{align*}
\]

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

\[
\begin{array}{c}
+\text{syl.} \\
-\text{low} \\
-\text{high} \\
\text{aback} \\
\text{round}
\end{array} \rightarrow \begin{array}{c}
+\text{syl.} \\
-\text{low} \\
-\text{high} \\
\text{aback} \\
\text{round}
\end{array}
\]

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

\[
\phi \rightarrow \begin{array}{c}
-\text{syl.} \\
\text{aback} \\
\text{round}
\end{array} \bigg/ \begin{array}{c}
+\text{syl.} \\
+\text{tense} \\
-\text{low} \\
\text{aback} \\
\text{round}
\end{array}
\bigg/
\]

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

\[
\begin{array}{c}
+\text{syl.} \\
+\text{low}
\end{array} \rightarrow \begin{array}{c}
-\text{low} \\
-\text{back}
\end{array} \bigg/ \begin{array}{c}
+\text{syl.} \\
\{+\text{C}\}
\end{array}
\bigg/
\]

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

\[
\phi \rightarrow \begin{array}{c}
-\text{cons.} \\
-\text{syl.} \\
-\text{son.} \\
\text{cont.}
\end{array} \bigg/ \begin{array}{c}
+\text{syl.} \\
\sigma<\text{V}_1> \\
\gamma<\text{V}_2> \\
\delta<\text{C}>
\end{array}
\bigg/
\]

P rule VI 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

\[
\phi \rightarrow \begin{array}{c}
-\text{syl.} \\
-\text{cons.} \\
-\text{son.} \\
\{+\text{cont.}\}
\end{array} \bigg/ \begin{array}{c}
+\text{syl.}
\end{array}
\bigg/
\]

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

\[
\phi \rightarrow \begin{array}{c}
-\text{syl.} \\
-\text{cons.} \\
-\text{son.} \\
\text{cont.}
\end{array} \bigg/ \begin{array}{c}
\{+\text{syl.}\}
\end{array}
\bigg/
\]

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

\[
\phi \rightarrow \begin{array}{c}
-\text{high} \\
-\text{low} \\
+\text{back} \\
-\text{round}
\end{array} \bigg/ \begin{array}{c}
[+\text{nasal}]
\end{array}
\bigg/
\]

\[
\begin{array}{c}
\{+\text{cons.}\} \\
+\text{voice} \\
-\text{nasal}
\end{array}
\bigg/
\]

\[
\{C_1\}V_1C_1
\]

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 /g/.  

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P rule X: nasal assimilation

\[
\begin{align*}
\text{[ant.]} & \quad \text{[son.]} \\
\text{[+nasal]} & \quad \text{[+nasal]} \\
\text{[\$cor.]} & \quad \text{[\$cor.]} \\
\text{[\$high]} & \quad \text{[\$high]} \\
\text{[\$back]} & \quad \text{[\$back]} \\
\text{[\$dist.]} & \quad \text{[\$dist.]} \\
\end{align*}
\]

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

\[
\begin{align*}
\text{[+cons.]} & \quad \rightarrow \emptyset / [+\text{nasal}] = \_
\end{align*}
\]

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

\[
\begin{align*}
\left\{ \begin{array}{c}
\text{[+cons.]} \\
\text{[-voice]} \\
\text{[-\$el. rel.]} \\
\text{[+nasal]} \\
\end{array} \right. & \quad \rightarrow \emptyset / [+\text{nasal}] = \_
\end{align*}
\]

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: ŋa loss

\[
\begin{align*}
(+\text{nasal})[+\text{\$yl.}] & = X_1 - (+\text{nasal})[+\text{\$yl.}] = X_1 \\
(+\text{nasal})[+\text{\$yl.}] & = X_1 - X_2
\end{align*}
\]

P rule XIII states that in a reduplicated form with the prefix ŋa-, the reduplicated prefix is lost (see section 9.3.2).

P rule XIV: /r/ deletion

\[
\begin{align*}
\text{[+cons.]} & \quad \rightarrow \emptyset / [+\text{nasal}] = \_
\end{align*}
\]

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 /bəɾ/ and /pəɾ/.

P rule XV: shwa deletion

\[
\begin{align*}
\text{[-\$high]} & \quad \rightarrow \text{[+\$low]} / [\#] \\
\text{[-\$back]} & \quad \rightarrow \text{[-\$round]} \\
\text{[+\$nasal]} & \quad \rightarrow \text{[+\$conson.]} \\
\text{[-\$conson.]} & \quad \rightarrow \text{[-\$conson.]} \\
\text{[-\$voice]} & \quad \rightarrow \text{[-\$voice]} \\
\text{[-\$\$trid.]} & \quad \rightarrow \text{[-\$\$trid.]} \\
\end{align*}
\]

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.
Chapter ten

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 Soenjono 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>
<thead>
<tr>
<th>Gloss</th>
<th>Malay</th>
<th>Betawi</th>
<th>(Possible) source of Betawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. and</td>
<td><em>dan</em></td>
<td><em>ame</em></td>
<td>Bazaar Malay <em>sama</em> 'with' from classical Malay <em>bersama</em> 'together', root: classical Malay <em>sama</em> 'same, similar' from Sanskrit</td>
</tr>
<tr>
<td>2. big</td>
<td><em>besar</em></td>
<td><em>gede</em></td>
<td>Javanese, Sundanese, and Balinese <em>gede</em> 'big'</td>
</tr>
<tr>
<td>3. die</td>
<td><em>mati</em></td>
<td><em>mampus</em></td>
<td>classical Malay <em>mampus</em> 'die (of animals)'</td>
</tr>
<tr>
<td>4. dull</td>
<td><em>tumpul</em></td>
<td><em>puntul</em></td>
<td>Balinese <em>puntul</em> 'dull'</td>
</tr>
<tr>
<td>5. ear</td>
<td><em>teliqa</em></td>
<td><em>kupiq</em></td>
<td>Javanese and Balinese <em>kupiq</em> 'ear'</td>
</tr>
<tr>
<td>6. I</td>
<td><em>aku</em></td>
<td><em>gue</em></td>
<td>Hokkien Chinese <em>gua</em> 'I'</td>
</tr>
<tr>
<td>7. kill</td>
<td><em>membunuh</em></td>
<td><em>mampusin</em></td>
<td>root: Malay <em>mampus</em> 'die (of animals)' suffix: Balinese <em>(n)in</em> '(causative)'</td>
</tr>
<tr>
<td>8. mother</td>
<td><em>ibu</em></td>
<td>Ṇa?</td>
<td>Mandarin Chinese Ṇa? 'mother, wife, girl'</td>
</tr>
<tr>
<td>9. say</td>
<td><em>bērkata</em></td>
<td><em>omoq</em></td>
<td>Javanese, Sundanese, Balinese <em>omoq</em> 'say'</td>
</tr>
<tr>
<td>10. we (excl.)</td>
<td><em>kami</em></td>
<td><em>kite</em> (excl. and incl.)</td>
<td>Malay <em>kita</em> 'we (incl.)'</td>
</tr>
<tr>
<td>11. when</td>
<td><em>bila</em>(<em>mana</em>)</td>
<td><em>kapan</em></td>
<td>Javanese <em>kapan</em> 'when'</td>
</tr>
<tr>
<td>12. with</td>
<td><em>degan</em></td>
<td><em>ame</em></td>
<td>Bazaar Malay <em>sama</em> 'with' from classical Malay <em>bersama</em> 'together', root: classical Malay <em>sama</em> 'same, similar' from Sanskrit</td>
</tr>
<tr>
<td>13. you</td>
<td><em>eṅkau, kamu</em></td>
<td><em>lu</em></td>
<td>Hokkien Chinese <em>lu</em> 'you'</td>
</tr>
</tbody>
</table>

Possible irregular cognates:

1. not | *tidak, bukan* | eṅga?, kaga? | perhaps irregular development from Malay *tidak* 'not' |
| 2. there | *situ, sana* | *sono* | Malay *sana* 'there', perhaps influenced by Javanese *kono* '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).

<table>
<thead>
<tr>
<th>PAN</th>
<th>Betawi</th>
<th>Malay</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
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<tr>
<td>ŋ</td>
<td>ŋ</td>
<td>ŋ</td>
<td>ŋ</td>
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<tr>
<td>q</td>
<td>q</td>
<td>q</td>
<td>q</td>
</tr>
<tr>
<td>b</td>
<td>b -p</td>
<td>b -p</td>
<td>w/b -p</td>
</tr>
<tr>
<td>d</td>
<td>d -t</td>
<td>d -t</td>
<td>d -t</td>
</tr>
<tr>
<td>D</td>
<td>d -r</td>
<td>d -r</td>
<td>D -t</td>
</tr>
<tr>
<td>z</td>
<td>j</td>
<td>j</td>
<td>j</td>
</tr>
<tr>
<td>j</td>
<td>d -t</td>
<td>d -t</td>
<td>r -r</td>
</tr>
<tr>
<td>g</td>
<td>g -ʔ</td>
<td>g -q</td>
<td>g -q</td>
</tr>
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<td>p</td>
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<td>c</td>
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<tr>
<td>k</td>
<td>k</td>
<td>k -q</td>
<td>k -q</td>
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<td>r</td>
<td>r</td>
</tr>
<tr>
<td>R</td>
<td>r</td>
<td>r</td>
<td>ø, -vowel coalescence-</td>
</tr>
<tr>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
<td>a</td>
<td>o</td>
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<tr>
<td>u</td>
<td>u, o</td>
<td>u, o</td>
<td>u, o</td>
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<td>i</td>
<td>i, e</td>
<td>i, e</td>
<td>i, e</td>
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<td>aw</td>
<td>aw -o</td>
<td>aw -aw</td>
<td>aw -o</td>
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<tr>
<td>ay</td>
<td>ay -e</td>
<td>ay -ay</td>
<td>ay -e</td>
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<td>uy</td>
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<td>Y</td>
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<td>Y</td>
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<tr>
<td>h</td>
<td>initial</td>
<td>ø</td>
<td>(h)</td>
</tr>
<tr>
<td></td>
<td>final</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>V₁ — V₁</td>
<td>h</td>
<td>h</td>
<td>h</td>
</tr>
<tr>
<td>V₁ — V₂</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>q</td>
<td>initial</td>
<td>ø</td>
<td>(h)</td>
</tr>
<tr>
<td></td>
<td>final</td>
<td>ø</td>
<td>h</td>
</tr>
<tr>
<td>V₁ — V₁</td>
<td>h</td>
<td>h</td>
<td>h</td>
</tr>
<tr>
<td>V₁ — V₂</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
</tr>
</tbody>
</table>
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 *\(T^*, *D^*, *R^*, *\text{iw}\), and *\(h^*\) between like vowels, and in lacking vowel coalescence. Where Betawi differs from Malay it usually shows the Javanese correspondence: final *\(au^*\); final *\(ay^*\); *e in final syllable: \(\acute{e}\); initial *\(g^*\); initial and final *\(h^*\).

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: G; 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 \(\text{rusak}\) used with foreigners as a general term for 'broken or ruined', where the Betawi speaker commonly makes such distinctions as:

- \(\text{pace}\) 'broken, smashed'
- \(\text{pate}\) 'broken (stick, bone)'
- \(\text{putus}\) 'broken (string, chain)'
- \(\text{regat}\) 'cracked, split'
- \(\text{gompal}\) 'chipped'
- \(\text{kusut}\) 'wrinkled (skin, fruit)'
- \(\text{kusut}\) 'wrinkled, tangled, tousled, knotted (paper, clothes, string, hair)'
- \(\text{laap}\) 'wrinkled, messy (unwashed face, paper, cloth)'
- \(\text{ampuk}\) 'worn out, wormy'
- \(\text{keropok}\) 'worn out, wormy'
- \(\text{tak}\) 'worn out, run-down'
- \(\text{berantakan}\) '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 1966:1). 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. \(\text{althamultite}\) '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:**

- waktu 'time'
- pikir 'think'
- paham 'understand'
- napas 'breath'

**Times of day (for prayer):**

- subu 'early morning (prayer hour)'
- lohor 'midday (prayer hour)'
- magrip 'evening (prayer hour)'
- asar 'afternoon (prayer hour)'
- isa 'nightfall (prayer hour)'

**Days of week:**

- senin 'Monday'
- selasa 'Tuesday'
- rabo 'Wednesday'
- kamsis 'Thursday'
- jumat 'Friday'
- sabtu 'Saturday'

**Chinese:**

- lu 'you'
- gue 'I'
- toke 'head of business firm (Chinese)'
- tahu 'beancake'
- taoge 'beansprouts'
- te 'tea'
- têko 'teapot'
- eki 'card game'
- loteq 'attic, upstairs room'

**Portuguese:**

- bole 'ball'
- meje 'table'
- sopatu 'shoe'
- minggu 'week, Sunday'

**Dutch:**

- duit 'money'
- golas 'glass'
- botol 'bottle'
- lampu 'lamp'
- sepede 'bicycle'
- listerik 'electricity'
- kopi '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 [Ṭ], [Ḍ], or low front and back rounded vowels [ε] [ọ], and from Sundanese in not having a nonback mid rounded vowel [γ]. 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, Robyns 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:  

<table>
<thead>
<tr>
<th>Surface form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classical Malay and Bahasa Indonesia</td>
<td>[apa] 'what'</td>
</tr>
<tr>
<td>Javanese</td>
<td>[opo] 'what'</td>
</tr>
<tr>
<td>Balinese</td>
<td>[ape] 'what'</td>
</tr>
<tr>
<td>Betawi (but also /ape/ in Kebon Pala area of Jakarta and variably [apa])</td>
<td></td>
</tr>
</tbody>
</table>

(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 [o] or [a] from underlying /a/, as [a] appears before suffixes (Horne 1961:70, Kersten 1948:1). Other dialects of Malay also show [e], [o], 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 q-, 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 q- 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 məq-.) 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 ber- in Betawi is ba-. (ber- is very rare in Balinese and does not occur in Javanese, per- is very rare in Sundanese and does not occur in Balinese or Javanese. r- of course may historically represent a separate prefix from ba- and pa- 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.


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 (ka-, pa-, per-, ber-, di-, q-, se-, -an, reduplication) are all shared by all the other languages listed, except ber- which is not in Javanese, di- not in Balinese, and per- 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 (mampar-, barke-, dik-, dipor-) 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 ꞌọ or ꞌọọ in Betawi and related languages

<table>
<thead>
<tr>
<th>Underlying form:</th>
<th>Classical Malay Bahasa Indonesia</th>
<th>Betawi</th>
<th>Javanese</th>
<th>Sundanese</th>
<th>Balinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ọ=p/</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
</tr>
<tr>
<td>/ọ=m/</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
<td>ꞌ[m]</td>
</tr>
</tbody>
</table>

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Table 9

Differences in inventories of affixes in Betawi and some related languages and dialects

<table>
<thead>
<tr>
<th></th>
<th>Classical Malay, Bahasa Indonesia, Bahasa Malaysia</th>
<th>Javanese</th>
<th>Sundanese</th>
<th>Balinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>In this language but not in Betawi</td>
<td>ma- (Part of prefix maq-)</td>
<td>-(a)ke</td>
<td>pi-</td>
<td>ma-</td>
</tr>
<tr>
<td></td>
<td>ταρ-</td>
<td>-(V)nτ</td>
<td>mi-</td>
<td>saka-</td>
</tr>
<tr>
<td></td>
<td>-καν</td>
<td>-(V)nκν</td>
<td>silih-</td>
<td>mako-</td>
</tr>
<tr>
<td></td>
<td>i</td>
<td>-(V)nκν</td>
<td>-ar-</td>
<td>pati-</td>
</tr>
<tr>
<td></td>
<td>-(n)αν</td>
<td>-κυν</td>
<td>-κυν</td>
<td>kumo-</td>
</tr>
<tr>
<td></td>
<td>-(n)ιν</td>
<td>-ιν</td>
<td>-(n)ιν</td>
<td>-(n)ιν</td>
</tr>
<tr>
<td>In Betawi but not in this language</td>
<td>-ιν</td>
<td>per-</td>
<td>-ιν</td>
<td>per-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>bor-</td>
<td></td>
<td>di-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-ιν</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Betawi and in this language</td>
<td>κα-</td>
<td>κα-</td>
<td>κα-</td>
<td>κα-</td>
</tr>
<tr>
<td></td>
<td>paq-</td>
<td>paq-</td>
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<tr>
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<tr>
<td></td>
<td>-αι</td>
<td>-αι</td>
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<tr>
<td></td>
<td>reduplication</td>
<td>reduplication</td>
<td>reduplication</td>
<td>reduplication</td>
</tr>
</tbody>
</table>
combinations of prefixes with reduplication).

The prefix *ko- with or without the suffix -an replaces the Malay prefix *tar- in many cases with accidental or adverative verbs in Betawi (see sections 7.3.1.1.14 and 7.3.1.1.15). The prefix *tar- does not occur in Betawi. *ko- (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 *tar- also does not occur in Javanese, Sundanese, or Balinese. The use of *ka- and *ko- with -an with adverative 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)ko- and -i in Javanese, and -kyn 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 agitative verbs like -in in Betawi in any of these other languages or dialects. There appears to have been adoption and then extention of a Balinese affix in Betawi.

The derivational 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 Jakarta (MacDonald and Soenjono 1967:107). In Bahasa Malaysia and also in Bahasa Indonesia, such meanings may be expressed with the adverb tselalu 'too, excessively'. The "excessive" rule is in Javanese, Sundanese and Balinese with the same associated affixes as in Betawi, *ka- 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: darci or darci pada 'than'; yaq 'which'; or intensive adverbs. In Javanese, similar strategies are used with sbbk 'than', sij 'which', and lweh 'more'. In Bahasa Indonesia and Bahasa Malaysia, comparatives are expressed with the adverb labihi '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 *tar- is not in Betawi. In Betawi superlatives are expressed with the adverb paliiq 'most'. paliiq is from Balinese.


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: yaq; akan; perihal; megatakan, hikayat; bahwa, and adaptun. 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 yaq is used in this way in Betawi. (Example: Gue tao yaq die datag. 'I know that he came.') Usually no complementizer is used, and the verb simply takes a verb complement. (Example: Gue tao die datag. 'I know he came.') But occasionally also in Betawi the conjunction kalo 'if, when' seems to function as a complementizer. (Example: Gue tao/bilag kalo die datag 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 garti yen dewe?e arep teki*. '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 *yaq* and other "relatives"

In classical Malay, *yaq*, 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" *yaq*, where the embedded sentence is subjectless. (2) examples where *yaq* is coreferential with the pronominal object of a preposition. (3) examples where *yaq* 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" *yaq* (Javanese *siq*, 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 K הצי, 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. *orang kepada siapa saya tunjukkan surat itu* 'the man to whom I showed the letter'). Such examples are generally 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, from (dative, locative/time, cause)', *oleh* 'by (agentive)', *akan* '(accusative)', *degan* '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 *ka* 'to' (classical Malay *ka* 'to'). It may be relevant that Javanese, Sundanese, and Balinese have different prepositions from Malay, except for *diri* and *ke/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', *eskau*, *kamu* 'you', *ia* 'he, she, they', *kami* 'we (excl.)'. It retains the third person pronoun *dike* (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 ṇa? 'mother' from Mandarin Chinese, and ṇai 'native wife of European' from Balinese ṇai 'you (low, for females)'. In Betawi ṇai 'native wife of European' of course occurs only in the context of stories or discussion of the colonial period, ṇai Damai 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:

<table>
<thead>
<tr>
<th>Malay</th>
<th>Betawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>bajuku</td>
<td>baju gue</td>
</tr>
<tr>
<td>bajumu, bajukau</td>
<td>baju lu</td>
</tr>
<tr>
<td>bajuŋa</td>
<td>bajuŋe</td>
</tr>
<tr>
<td>baju Siti</td>
<td>bajuŋe Siti</td>
</tr>
</tbody>
</table>

The Betawi pattern differs from classical Malay in the third person when the possessor is specified, where apparently ṇa 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:

<table>
<thead>
<tr>
<th>Javanese:</th>
<th>Sundanese:</th>
<th>Balinese:</th>
</tr>
</thead>
<tbody>
<tr>
<td>kolambi</td>
<td>baju</td>
<td>baju</td>
</tr>
<tr>
<td>kolambiku</td>
<td>baju abdi</td>
<td>baju tiage</td>
</tr>
<tr>
<td>kolambimu</td>
<td>baju maneh</td>
<td>baju ragane</td>
</tr>
<tr>
<td>kolambine</td>
<td>baju</td>
<td>bajuinne</td>
</tr>
<tr>
<td>kolambine</td>
<td>baju</td>
<td>baju</td>
</tr>
</tbody>
</table>

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—gabah—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:  anak itu kupukul/aku pukul  'The child was hit by me.'

Betawi:  anak itu gue pukul
Classical Malay  Betawi:

anak itu kaupukul/eqkau 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)
'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:

<table>
<thead>
<tr>
<th>Bahasa Indonesia</th>
<th>Sundanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>anak itu saya pukul</td>
<td>-</td>
</tr>
<tr>
<td>'The child was hit by me.'</td>
<td></td>
</tr>
<tr>
<td>anak itu kamu pukul</td>
<td>-</td>
</tr>
<tr>
<td>'The child was hit by you.'</td>
<td></td>
</tr>
<tr>
<td>anak itu dia pukul</td>
<td>-</td>
</tr>
<tr>
<td>'The child was hit by him, her, them.'</td>
<td></td>
</tr>
<tr>
<td>anak itu dipukul</td>
<td>budak eta dicabok</td>
</tr>
<tr>
<td>(oleh saya, kamu,</td>
<td>(kuabdi, manehe,</td>
</tr>
<tr>
<td>dia)</td>
<td>maneheha)</td>
</tr>
</tbody>
</table>
| 'The child was hit (by me, you, him, her, them).'

Javanese:

bocah kae ta?antam  'The child was hit by me.'
bocah kae ko?antam  'The child was hit by you.'
bocah kae diantam  'The child was hit by him, her, them.'


10.1.1.13 Particles

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, s?ih, ?ah and mah in Sundanese, and s?ih, doq 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—puni—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. 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 ' or - (not in Javanese, Sundanese, or Balinese), replaced by prefix ko-, with or without suffix -an (common in Javanese).
3) η- as verbal prefix not part of prefix wοq- (wοq- 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 ko- and suffix -an (Javanese, Sundanese, and Balinese).
6) Lack of the "superlative" derivation rule of Malay, replaced by syntactic superlative with adverb paling (Balinese).
7) Lack of Malay complementizer bahwa (not in Javanese, Sundanese, or Balinese), and occasional use of kalu 'if, when' as complementizer (Javanese yen, Balinese and Sundanese yen 'if, when').
8) Common use of suffix -n with possessor specified (Javanese -ne, Sundanese -na).
9) Loss of Malay prepositions except di, ka, and dari. (di and ka/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:

?ah (Sundanese, Balinese, Javanese)
si (Sundanese, Balinese, Javanese)
ko? (Javanese)
ye (Javanese)
dog (Balinese)
maq (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 arisen 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 /g/ 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 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. Synchronously, 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.

* * *

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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 [ə] 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 /ə/ in underlying forms in Javanese, which also parallels the lack of final /ə/.

Where classical Malay writes final "a", the usual pronunciation in Malay dialects is [a], (Hussein 1973: 71). My informants for Bahasa Malaysia also have [a], but [a] before suffixes, so a similar rule might be posited for at least some dialects.

*a* 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 (Shellabear 1913:58). Perak Malay also has [a] 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 [a] 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 Fukkian province (Shellabear 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, Sulistyo 1974, examples in Robinson 1965).
APPENDIX

A Material recorded and background of informants

A.1 lenq recorded and transcribed:

1) SImuka-Itum 'The Black Mask' in Jatinegara, by the Rindu Malam troupe.

2) Siloman Cikalou 'The Siloman of Cikalong', in Jakarta Art Center by the Ikatan Lenong Jakarta.

3) Ma'an Bekasi 'The Tiger of Bekasi' in Jakarta Art Center by the Ikatan Lenong Jakarta.

4) Nai Dasime '(The story of) Nyai Dasi-me' 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?-N: 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 lenq 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) Baq-A: male, about forty, night watchman and teacher of pañacak (art of self-defense), of Betawi descent and says he speaks only Betawi, wife of Arab descent. Situation: eating lunch at a pañacak student's house, telling stories about experiences as a watchman.

Recorded by Sujai in Kebon Pala:

6) Baq-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 Kadzirimin
2) Javanese: Sri Anggarini Marnomo, Ivon Sulistyoo
3) Sundanese: Kosasih Prawirarsumantri, Sodianti
4) Balinese: Ida Bagus Astawa, Ida Bagus Mantra

All the Indonesians were also informants for Bahasa Indonesia.
Appendix B

B.1 Rules relating to definiteness and word order:

Noun subcategorization rules:

(1) \([+N] \rightarrow \underline{\text{+ def.}} \underline{\text{+ emph.}}\)

(2) \([-N \text{ [def.]} \rightarrow \underline{\text{+ NM}}\]

Noun redundancy rules:

(1) \([-N \text{ [def.]} \rightarrow \underline{-[+def.]}\]

(2) \([+N \text{ [def.]} \rightarrow \underline{\text{+ [+def.]}\}} \}

(3) \([-N \text{ [def.]} \rightarrow \underline{\text{[+AC]}\}

Verb subcategorization rule:

(1) \([+V] \rightarrow \underline{\text{+ emph.}}\]

Redundancy rules relating to case frame features:

(1) \([-V \text{ [def.]} \rightarrow \underline{\text{[+NM]}\]

(2) \([+V] \rightarrow \underline{\text{[+AC] [+AGT]}\]

(3) \([+V] \rightarrow \underline{\text{[+AC] [+AGT]}}\]

(4) \([+V] \rightarrow \underline{\text{[+AC] [+AGT]}}\]

(5) \([+V] \rightarrow \underline{\text{[+AC] [+AGT]}}\]

(6) \([+V] \rightarrow \underline{\text{[+AC] [+AGT]}}\]

B.2 Other redundancy rules relating to case frame features:

(1) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(2) \([-[+AGT] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(3) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(4) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(5) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(6) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(7) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

(8) \([+V] \rightarrow \underline{\text{[+THM]} \underline{\text{[+INS]} \underline{\text{[+COM]}\]

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