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The impact of discourse on grammar: Verb morphology in spoken Jakarta Indonesian

Wouk, Fay, Ph.D.

University of California, Los Angeles, 1989
The Impact of Discourse on Grammar:
Verb Morphology in Spoken Jakarta Indonesian

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Linguistics by

Fay Wouk

1989
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Paul Schachter, Committee Chair

University of California, Los Angeles

1989
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ABSTRACT OF THE DISSERTATION

The Impact of Discourse on Grammar:
Verb Morphology in Spoken Jakarta Indonesian

by

Fay Wouk

Doctor of Philosophy in Linguistics
University of California, Los Angeles, 1989
Professor Paul Schachter, Chair

Spoken Jakarta Indonesian (SJI), the variety of Indonesian spoken by
native speakers of Indonesian who were born and grew up in Jakarta, has not
been studied, or clearly identified as an independent variety. The verbal
morphology system of SJI shows similarities to both Standard Indonesian and
Betawi, but also differs from both in a variety of ways.

I argue from sociolinguistic evidence, particularly the use and omission
of verbal affixes in different social registers, that SJI is an independent
variety. I show that the use of transitive verbal morphology is determined not
only by discourse transitivity, but is also sensitive to the topicality and thematicity of the arguments of a clause.

This dissertation is based on conversational data collected in Jakarta in 1986. I coded various properties of each clause and its arguments in a computer database, to determine correlations with choice of verbal affix. These correlations were analyzed statistically to determine the degree of probability that each correlation had occurred by chance. My conclusions were based on those correlations of which I could say with a high degree of confidence that the distribution was not due to chance.

I found that actor-trigger correlates with low levels of discourse transitivity in terms of the parameters of eventiveness (mood, aspect, foreground) and patient status (referentiality, individuation, animacy). Actor-trigger also correlates with thematic and topical actors. Patient-trigger proved to correlate with high levels of discourse transitivity in terms of the parameters of eventiveness and patient status, and with thematic and topical patients. Affixless verbs correlate with low levels of transitivity in terms of the parameters of eventiveness and high transitivity in terms of the parameters of patient status. Affixless verbs also correlate with thematic and topical actors, and show formal similarities with actor-trigger. I argue that affixless verbs
showed greater similarities to actor-trigger than to patient-trigger, and can best be considered a subset of actor-trigger.

I compare the transitive verbal system of SJI with that of Standard Indonesian and Betawi, and discuss the diachronic implications of my study, concluding that SJI is moving away from a transitivity marking system towards a topicality marking system. In other words, it is becoming more accusative, not more ergative, in its discourse structure.
1 Statement of Topic

In this dissertation I present facts about a variety of Indonesian that is not always recognized as an independent dialect and has not previously been the subject of detailed study, the spoken Indonesian of Jakarta. While most people who work with Indonesian are aware of this variety, and make impressionistic observations about it, it has not been a subject for in-depth investigation, perhaps because the complex sociolinguistic situation of Jakarta has made it difficult to isolate¹. Spoken Jakarta Indonesian (hereafter referred to as SJI) must at the very least be differentiated from both Standard Indonesian and Betawi, the two most familiar varieties found in Jakarta. Betawi is a Low Malay dialect that originated in the Jakarta region. Some form of it has been used since at least the beginning of the 19th century, and it is currently spoken by the (largely lower class, uneducated) native population of Jakarta (Ikranegara 1980). Standard Indonesian may be defined as the variety of Indonesian used in education and the media, and promoted by the Centre for Language Development (Pusat Pembinaan dan Pengembangan Bahasa). This variety developed in this century from Balai Pustaka Malay, which in turn

1

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developed as a combination of Low Malay and High Malay of the 19th century (Rafferty forthcoming). Spoken Jakarta Indonesian differs in systematic ways from both of these varieties. One significant area of difference is the use of verb morphology. SJII makes use of options not found in Standard Indonesian, especially in the marking of transitive verbs.

Verb morphology in all varieties of Indonesian/Malay presents many interesting questions, none of which have been fully resolved. In Indonesian the transitive verb prefixes alternate in a seemingly unprincipled manner that has so far defied explanation. Traditional grammatical accounts of the function of these morphemes are vague at best, and strictly linguistic accounts show considerable disagreement in the methodology used, the language variety studied, and the conclusions reached.

In my dissertation I examine the discourse deployment of these affixes. I will present evidence that SJII is indeed a separate variety with a range of registers, not just a register somewhere on a continuum from Betawi to Standard. I will describe the use of verb morphology through an examination of textual data, to determine the
frequency of the different forms, and the effect of both register and
discourse context on the choice of affix. Finally I will compare the
system of SJI with those found in both Standard Indonesian and
Betawi.

In the remainder of this chapter I will define SJI, Standard
Indonesian and Betawi, present a brief description of the
morphology and syntax of the verbal systems of the three varieties,
and describe the methodology used in preparing this dissertation. In
Chapter 2 I will present a survey of the literature on Indonesian verb
morphology, and outline in more detail the questions considered in
this dissertation. In Chapter 3 I will present a discussion of the effect
of register on affix use in SJI, and from this I will argue for the
existence of SJI as an independent dialect. In Chapter 4 I will
discuss the influence of discourse transitivity on speaker choice of a
particular verb form. In Chapter 5 I will discuss the impact of
topicality and thematicity on trigger choice. In Chapter 6 I will
present a summary and general conclusions comparing my results
with claims made for Standard Indonesian and Betawi.
2 Definitions of language varieties

In this section I will define SJI and the two language varieties with which it will be compared in this dissertation, Standard Indonesian and Betawi, and give a brief history of each.

The three varieties are all varieties of Malay. Malay is here defined as a large group of dialects and/or closely related languages spoken natively in the Malay Peninsula, Southern and Central Sumatra, Jakarta, and some coastal regions of Kalimantan, Sulawesi and the Molluccas (Teeuw 1961). All of these varieties belong to the same branch of Western Austronesian, most closely related to the languages of Java and Bali, somewhat more distantly to those of northern Sumatra, and still more distantly to those of the outer islands of Indonesia, the Philippines, Formosa and Oceania (Dyen 1965).²

2.1 Standard Indonesian

Indonesian is the national language of Indonesia, a country with a population of approximately 150 million. The history of the
development of Standard Indonesian from Malay is rather complex. I
give here a brief outline (summarized from Rafferty 1984). Prior to
the arrival of the Europeans, the population of what was to become
Indonesia spoke several hundred mutually unintelligible
Austronesian languages, which today constitute the regional
languages of Indonesia. One of these languages, Malay, had been
used as the lingua franca in much of the Indonesian Archipelago at
least since the time of the Sriwijayan Empire, a Sumatran-based,
Malay-speaking empire which flourished from the 6th to the 12th
century. This lingua franca, known as Low Malay or Pasar (Bazaar)
Malay, developed a large number of regional varieties, and their use
continued into the colonial era. Because of this, the Dutch made
use of Low Malay in their communications with the native
populations. Low Malay eventually became the language of the
Dutch, Eurasian (Indo) and Chinese (Peranakan) communities, as
well as the language of inter-ethnic communication\(^3\). The
establishment of a Low Malay press and Low Malay Schools in the
1800’s increased the influence of Low Malay.

In the 1900’s an interest in High Malay developed among the
Dutch, who felt that Low Malay was not sufficiently cultured, and a
standardized form of High Malay was promoted as the language of education, of government, and of indigenous literature (through the government publishing house, Balai Pustaka). This standard was based on the dialect of the Riau Islands, located to the south of Singapore, which the Dutch felt to be closest to the "pure" High Malay of the royal courts of the Malay peninsula. Malay was chosen for the language of unification by the Indonesian nationalist movement, renamed Indonesian, and further developed after independence through a government language planning agency. There is a lack of consensus as to which of the varieties of Malay then current formed the actual basis for the national language of the 20th century. Teeuw (1972) claims that the source was standard Balai Pustaka Malay, which in turn was based on Riau High Malay, while Alisjahbana (1982) states that the source was the various Low Malay dialects in use at the time. Rafferty (1985) presents evidence that modern Indonesian developed from a combination of High Malay and Low Malay, with discourse structure (especially word order and the use of linkers and particles) being most similar to that of Low Malay.
In the post-independence era the language situation has not become any less complex. Modern Standard Indonesian has continued to develop, both through official language planning policies and through the influence of other varieties. The non-standard Malay varieties continue to flourish in many regions, and new non-standard varieties have come into existence, created by the large communities of second-language speakers of Indonesian produced by the spread of education. The largest influence on Standard Indonesian has come from Betawi, the Malay variety spoken in Jakarta (Ikranegara 1980), and the non-standard Indonesian of second-language speakers of Indonesian from the large and politically powerful Javanese group (S. Poedjosoedarmo 1982). Standard Indonesian is the language of the media, of government and education, and of writing, and is used with varying degrees of facility by Indonesians from both Malay and non-Malay language backgrounds.

2.2 Betawi

Betawi is a Malay dialect which developed in Batavia, now Jakarta. When the Dutch first established themselves there in the
17th century, they brought slaves from India, speakers of a Portuguese-based creole which became the Batavia lingua franca. As the main source of slaves shifted to eastern Indonesia, especially Bali, this Creole was gradually replaced by a form of Malay, and had completely died out by the middle of the 18th century. The Malay lingua franca developed into a distinct dialect of Malay by the beginning of the 19th century. The major ethnic groups using (and influencing) it were Balinese (20,000), Javanese & Sundanese (3,000), Malays (3,000), South Sulawesians (4,000), Chinese (11,000), and Europeans (2,000)\(^5\). By the middle of the 19th century the ethnic groups from differing parts of Indonesia had blended into a new ethnic group, the “anak Betawi”, who used the lingua franca as their native language. Betawi has continued as the language of the Jakarta region to the present day, and is spoken by native Jakartans, especially of the lower socio-economic class.

2.3 SJI

Native speakers of the national language, Indonesian, are still relatively rare. The majority of the population speaks natively an identifiable regional language, although that regional language may
be a Malay dialect quite closely related to Indonesian, such as Betawi. However, in the post-Independence years a small group has appeared, consisting of ethnically Indonesian native speakers of Indonesian. These people are to be found in Jakarta and some other large cities. They are usually the children of immigrants to the area, especially (though not exclusively) in households resulting from inter-ethnic marriages. Some are monolingual, while others are bilinguals who tend to have greater fluency in Indonesian than in the other languages that they speak. These people, especially those in the educated middle and upper classes, have full command of the standard variety and use it as the situation demands. However, this is not the variety used in colloquial settings by those with a native command of Indonesian. Neither do they characteristically use a regional language, since they are exclusively or primarily Indonesian speakers. In Jakarta this population of non-Betawi, non-Chinese native Jakartans, the children of immigrants from other parts of the country, use natively a colloquial variety which I call Spoken Jakarta Indonesian. While it could be argued that these speakers are code-switching between Standard Indonesian in formal register and Betawi in casual register, I believe the data offers considerable evidence that this is not the case. Rather, they are speaking an
independent variety of Indonesian, with its own structure, and its own set of registers.

It should be clear from the above description that one must be very careful in speaking of Malay/Indonesian, to delineate exactly what variety one has in mind. That the various social and geographic dialects differ significantly in use of vocabulary, morphology, phonology and syntax is an established fact, and it is to be expected that they will also differ in discourse/pragmatics. It should also be clear that in the fluid, rapidly developing language situation of Indonesia, populations of native speakers of Indonesian with the same family language background, without interference from other languages, simply do not exist. The norm is a speaker whose speech is influenced by family and by peers from a variety of language backgrounds.

3 Indonesian Verb Morphology

In this section I will outline the verb morphology of Indonesian. I will primarily discuss aspects which are common to Standard Indonesian, Betawi and SJI. Where discrepancies exist I
will point these out, but leave detailed discussion for later chapters. Indonesian has two basic types of morphemes, roots and affixes (Macdonald & Darjowidjojo, 1967). Roots may be free or bound, and may belong to the nominal, verbal or adjunct class (Macdonald & Darjowidjojo, 1967). An Indonesian verb may consist of a verbal root with or without verbal affixes, or a nominal or adjunct root with verbal affixes.

The three language varieties under consideration have similar verb morphology systems, but differ in the range of affixes used, in the details of those affixes’ co-occurrence with each other and with various roots, and in the affixes’ frequency, function and discourse distribution. In all three varieties, intransitive (1 argument) verbs may consist of roots which are inherently affixless, or of roots preceded by one of two types of prefix. These two type may be labelled active and stative for convenience. Transitive (2 or 3 argument) verbs may consist of roots which are inherently affixless, or of roots preceded by one of a set of prefixes commonly called focus prefixes. They may also have suffixes which can be roughly described as valence-increasing. Finally, many transitive verbs, and some intransitives may be used in what can be termed the “non-volatile form8.” Where
affixes are obligatory in Standard Indonesian, they are often omitted in both Betawi and SJI. Table 1 illustrates the range of possibilities for each of the three language varieties.

<table>
<thead>
<tr>
<th></th>
<th>SI</th>
<th>SJI</th>
<th>Betawi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intransitives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stative</td>
<td>ber</td>
<td>ber, be, 0</td>
<td>be, 0</td>
</tr>
<tr>
<td>Active</td>
<td>meN</td>
<td>meN, N, 0</td>
<td>N, 0</td>
</tr>
<tr>
<td><strong>Transtives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefixes</td>
<td>meN, di</td>
<td>meN, N, di, 0</td>
<td>N, di, 0</td>
</tr>
<tr>
<td>Suffixes</td>
<td>i, kan</td>
<td>i, kan, in</td>
<td>in</td>
</tr>
<tr>
<td>Non-volative</td>
<td>ter, ke-an</td>
<td>ter, ke-an, ke</td>
<td>ke-an, ke</td>
</tr>
</tbody>
</table>

As Table 1 shows, SJI makes use of a rich system of verbal affixes, considerably richer than the systems found in the other two varieties, since it combines the morphology of the standard variety of Indonesian with that of Betawi.

3.1 Morphophonemics

In Table 1, and in the discussion below, two affixes are represented by forms which contain abstract nasals, symbolized by $N$. 

12
Both of these affixes undergo morphophonemic alternations when affixed. The details differ for the two affixes.

In Standard Indonesian the following rules apply to the affixation of *meN*-: The final nasal, which is underlyingly velar, is deleted before liquids, glides and nasals, assimilates to the place of articulation of following stops, affricates, and the fricative /f/. Before the fricative /s/ it becomes a palatal. In addition, voiceless stops and the fricative /s/ are deleted following nasal assimilation. Thus, for example, *tulis* 'write' produces *menulis*, *baca* 'read' produces *membaca*, *lihat* 'see' produces *melihat* and *sewa* 'rent' produces *menyewa*. This set of rules is summarized in Table 2 below.

**Table 2**

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Initial phoneme of root deletes</th>
<th>Doesn't delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>mem-</td>
<td>p</td>
<td>b,f</td>
</tr>
<tr>
<td>men-</td>
<td>t</td>
<td>d,c,j</td>
</tr>
<tr>
<td>meng-</td>
<td>k</td>
<td>g,h, all vowels</td>
</tr>
<tr>
<td>meny-</td>
<td>s</td>
<td>r,l,w,y,m,n,ng,ny</td>
</tr>
</tbody>
</table>

In Betawi the following rules apply to the affixation of *N*-: It is deleted before nasals, assimilates to the place of articulation of the following voiceless stops and becomes a palatal before the fricative.
/s/. Voiceless stops and /s/ are deleted following nasal assimilation. Thus *tarik* ‘pull’ produces *narik*, *sikat* ‘brush’ produces *nyikat*. No assimilation takes place but schwa is inserted before monosyllabic roots, roots beginning with liquids and glides. Thus *tik* ‘type’ produces *ngetik* and *liat* ‘see’ produces *ngeliat*. If the root begins with a voiced stop either schwa insertion may occur or assimilation occurs to the place of the following voiced stop. *Beli* ‘buy’ usually produces *mbeli*, but may produce *ngebeli*. If the root begins with an affricate, either schwa insertion occurs or the nasal is realized as a dental before the voiced affricate, and as either a dental or a palatal before the voiceless affricate. *Jual* ‘sell’ may result in either *ngejual* or *njual*, and *cium* ‘kiss’ may result in *ncium, nyium, or ngecium*. This set of rules is summarized in Table 3 below.

Table 3  Morphophonemics of Betawi

<table>
<thead>
<tr>
<th>prefix</th>
<th>initial phoneme of root</th>
<th>deletes</th>
<th>doesn’t delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-</td>
<td>p</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>n-</td>
<td>t</td>
<td>d,c,j</td>
<td></td>
</tr>
<tr>
<td>ng-</td>
<td>k</td>
<td>g, all vowels</td>
<td></td>
</tr>
<tr>
<td>ny</td>
<td>s,c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nge-</td>
<td>r,l,w,y,b,d,c,j,g</td>
<td>one-syllable roots</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>m,n,ng,ny</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In SJ the prefix *N* is used as it is in Betawi, and the prefix *meN*- is generally used as in Standard Indonesian. However, sometimes the assimilation rules of Betawi are used instead of those of Standard Indonesian to determine the realization of the final nasal, producing forms like *menyari* from the root *cari* (look for).

### 3.2 Intransitive Verbs

The intransitive prefixes, *meN-* and *ber-* , are difficult to characterize in terms of meaning. *Ber-* combines with nominal, numeral and verbal roots to form verbs which may be possessive, stative, reciprocal, reflexive or active intransitives. It is because *ber-* forms so many non-active types of verbs that it is sometimes referred to as stative or middle. *MeN-* combines with nominal and verbal roots to form instrumental, inchoative or active intransitives. To a large extent, whether a root occurs with *meN-* or *ber-* is lexically determined.

Intransitive roots can be roughly divided into three classes based on their behavior in the standard variety: those that never take an affix (see Example 1), those that characteristically occur
with *ber*-12 (see Example 2), and those that characteristically occur with *meN*- (see Example 3). In Both SJI and Betawi, the third set of roots may also occur with *N*-, which is historically related to *meN*- (see Example 4).13

Example 1

S: *ni tinggal* dimana
   this live  where

S: where do you live?

Example 2

Y: *tanah ngga bertuan*  dong
   land not  *ber*-owner emph
   *berarti*  tuh
   *ber*-meaning that

S: hah,
   huh

Y: *tanah ngga bertuan*  dong.
   land not  *ber*-owner emph

S: iya, (laugh)
   yes

Y: that means it was land nobody owned
   then.

S: huh

Y: land nobody owned then.

S: yes (laugh)

Example 3

B: todinya ha misalnya, dari hanya
   before *ha* example from only
   komplek itu, trus *merambat* jadi,
   complex that then *meN*-spread so

B: Before (it was) on- for example, only
   from that (housing) complex, then (it)
   spread out (to other areas) so,
Example 4  
B: untuk **nyebrang** kesananya tu bayar.
   for  N-cross to-there  that pay

B: To cross over to there (you have to)
   pay.  (standard form: menyebang)

However, this division is somewhat deceptive. In Standard
Indonesian there are  roots which may co-occur with either meN- or
ber-, and there are a number of roots that may appear either with
meN- or with no affix, fully grammatically. In SJI and Betawi this
number is much larger, and in fact possibly most roots which can
occur with meN- can also occur with no prefix (see Example 5).
Likewise, many roots which require ber- in Standard Indonesian can
occur with no prefix in SJI and Betawi (see Example 6).

Example 5  
D: itu memang keunggulannya itu emang
   that really  advantage-its  that really
matanya tu jadi waspada
   eye-its  that become alert

D: That's really the great thing about it
   really your eyes become sharp
   (standard form: menjadi)

Example 6  
S: pas saya **keluarga**,'\textsuperscript{14} kebetulan
   exactly I  family  coincidentally
   disitu ada rumah kosong,
   there exist house empty

S: Just when I got married, there
   happened to be an empty house there,
   (standard form: berkeluarga)
Furthermore, not all roots fall into the same classes in SJL and Betawi that they do in Standard Indonesian. The \( N \)-prefix is used not only with roots that take \( meN \)- in the standard variety, but also with roots that take \( ber \)- or no prefix in the standard variety. One of the most striking instances of this is the root \( kumpul \) (gather). The standard form would be \( berkumpul \) (see Example 7).

Example 7\(^{15} \) Peserta diharapkan \( berkumpul \)
participants di-hope-\( kan \) ber-gather
jam tujuh pagi
hour seven morning

Participants are requested to gather at 7:00 am.

However, \( berkumpul \) never occurs in the data on which this dissertation is based. Two forms occur, \( kumpul \) (see Example 8) and \( ngumpul \) (see Example 9).

Example 8  B: kalo lagi mau \( kumpul \) \( kumpul \).  
if process want gather gather

B: If they want to get together, they get together.
Example 9  
B: tapi ada juga yang demen ngumpul  
   but exist also rel like N-gather  
   yang bermanfaat  
   rel ber-useful  

B: But there are also some who like to  
   get together to accomplish something.

For the purposes of this account I will refer to roots according to their  
affixation possibilities in the standard variety. However, the reader  
should bear in mind that these categories are not taken as absolute,  
but simply as conveniences.

3.3 Transitive Verbs

   In this section I will present an overview of the use of  
transitive verbs and transitive verbal affixes in SJl.

3.3.1 The Trigger System Defined

Transitive roots in Standard Indonesian may be divided into  
two classes, those that do not take a prefix in the standard variety,  
and those that characteristically do take a prefix. Those that take  
prefixes can occur with any of a variety of affix types.

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Like most Western Austronesian languages, Indonesian has a system of opposing clause types that has traditionally been called a focus system by Austronesianists, especially Philippinists. In a focus system, for each clause type an NP with a different semantic role is the most accessible to certain syntactic processes such as relativization, topicalization, clefting, etc. This NP has usually been referred to as subject, topic or focussed NP. Different clause types may have distinctive word orders, but this is not true of all languages. Each clause type also has special verbal morphology, in the form of prefixes, suffixes and/or infixes, associated with it. Thus, the verb morphology can be used to identify the semantic role of the most accessible NP. This identification is in rather rough terms, however, since there is never a single morpheme or morpheme set associated with every possible semantic role. Agents, experiencers and causes are often combined. So are instruments and beneficiaries, goals and referents, etc. The clause type that has agents and experiencers as most accessible is usually called actor-focus, while that which has patients as the most accessible is usually called object-focus, patient-focus, or undergoer-focus. Additional clause types, when present, are named for the semantic role most commonly associated with them. An alternative
nomenclature uses the terms active and passive for actor-focus and object-focus respectively. This terminology refers to additional clause types as special kinds of passives, similar to those created by dative shift in English.

The terms subject, topic, focus and passive were chosen without much attention to their functional or typological implications. In Austronesian studies, “focus” does not imply new information. “Topic” does not imply the most thematic, or continuous, or important NP. “Subject” does not imply the conflation of properties found in subjects in English. “Passive” does not imply the function of English passive, that of maintaining continuity (Thompson 1987). The actual function of these systems in Austronesian languages has been obscured by this terminology.16

Because the terms focus, topic, subject and passive are all functionally inaccurate, I will not use them. Instead, I will use the term trigger for the most accessible NP of the clause, and will refer to the two main clause types as actor-trigger and patient-trigger. I use actor and patient as cover terms, not as semantic primitives. The most accessible NP of an actor-trigger clause is likely to be an
actor, but this is not necessary. Likewise, the most accessible NP of a patient-trigger clause is not always a patient.

Modern Indonesian is generally considered to have a two-way clause division, between actor-trigger and patient-trigger. There have been arguments for a more complex opposition, which I will discuss below. Here I give the simplest analysis. In both clause types the most neutral order with more than one NP present is Trigger Verb Non-Trigger Obliques. However, in patient-trigger clauses alternative orders are fairly common, with the non-trigger actor NP often preceding the verb as a clitic, and the trigger sometimes occurring finally.

3.3.2 The Trigger System Morphology: Transitive Prefixes

The affixes used in the trigger system of SJI are meN- (from Standard Indonesian) (see Example 10), N- (from Betawi) (see Example 11), and di- (found in both Standard Indonesian and Betawi) (see Example 12). Verbs with meN- or N- prefixes are actor-trigger, those with di- are patient-trigger. Unlike meN- and N-, di- does not also occur with intransitive roots.
Example 10  T: naːh, kalo interior design tuh
well if that
merencanakan bagian ruang dalamnya.
meN-plan-kan section space inside-gen

T: Well, in interior design you design the
interior.

Example 11  B: dari dulu dulu remaja selalu ya yang,
from before before youth always yes rel
S: iya,
yes
B: yang ngurus deh itu ya.
rel N-arrange emph like yes

B: it's always been the young people yeah
who,
S: yeah,
B: who like run things and all that yeah.

Example 12  S: jadi, (.75) seperti: apah, (.75) apa
so like what what
itu kenangan yang ngga bisa
that souvenir rel not can
dilupakan tu lapangan badminton tuh,
di-forget-in that field badminton that

S: so, (.75) (it's) like what, (.75) what is
it a souvenir that can't be forgotten
about that badminton field,

In addition, these verbs may appear with the agent clitic pronouns

*ku-* (1st person) and *kau-* (2nd person), although these forms, which
are used between intimates or for the low status speaker in
relationships of unequal status, do not occur in my data. They may

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also appear with a free standing pronoun or unmodified term of address\(^{18}\) that can be argued to be syntactically cliticized (see Example 13).\(^{19}\) All of these forms are patient-trigger.

Example 13  
S: ada rumah kosong, ya udah akan saya exist house empty, yes already will I kontrak, rent

S: there's an empty house, ok then I'll rent (it),

When a pronoun or term of address is syntactically cliticized to the following verb root, other elements, such as modals and negative markers, which normally precede the verb, will come before the syntactically cliticized element instead. In Example 13 the pronoun immediately precedes the verb root, and the modal in turn precedes the pronoun. In Standard Indonesian, the root is always either prefixed or has a clitic attached to it. In SJI prefixless roots are also common (see Example 14). In such cases either the actor is not overtly mentioned or the pronoun is separated from the verb by an intervening element such as a modal, showing that it is not cliticized. From the standpoint of morphology it is not possible to label these forms either actor-trigger or patient-trigger.
Example 14  Y: mereka juga perhitungan, (.25) apa:
they also count-kan what
untuk (.75) sirkulasi uang itu kan,
for circulation money that agrmt
Y: they also calculate for, (.25) what for
(.75) the circulation of money you know,
(standard form: memperhitungkan)

In SJI in some cases it is impossible to determine absolutely,
due to the absence of any modal or other intervening element,
whether a given clause is an instance of a syntactically cliticized
pronoun plus verb root, or a free-standing pronoun and a prefixless
verb root (see Example 15)\textsuperscript{20}. It is thus not clear from the
morphology whether these forms are patient-trigger, or like the
affixless forms, indeterminate.

Example 15  D: saya rasa bukan hanya di bidang ini
I feel not only in field this
ya, seni rupa aja ya,
yes art likeness only yes

D: I think it's not only in this field is it,
(not) just in fine art
(standard form: merasa)
3.3.3 Agent expressions with *di-*

When the prefix chosen is *di-* the agent may or may not be overtly expressed. If overtly expressed, the third person agent can be encliticized as -*nya* (see Example 16).

**Example 16**

Y: nanti disangkanya sombong gitu ya,
later *di*-consider-3sg conceited like yes

Y: He might consider me conceited like you know,

If the agent is a pronoun or full NP, it may also directly follow the verb, in which case it can be argued that it is also encliticized (see Example 17). Like -*nya*, the agent proclitics *ku-* and *kau-* , and the syntactically cliticized pronouns and terms of address discussed above, no element may intervene between the agent NP and the verb, and the agent NP may not receive contrastive stress.

**Example 17**

T: dia minta *didampingin saya*
   he ask *di*-side-*in* I

T: he asked me to keep him company.

Finally an agent may be preceded by the preposition *oleh*

(see Example 18) or the more colloquial *sama/ama*
(see Example 19). This agent may be either the enclitic -nya or a full NP, and it is not restricted to an immediately post-verbal position.

Example 18  
D: hidup kita tuh, (.25) dihancurkan  
life  we that  di-destroy-kan  
oleh  orang yang terdekat ya mbak ya  
by  person rel  ter-close yes sister yes  

D: our lives are ruined by the people closest to us, don’t you agree?

Example 19  
D: suka disepelekan ama anak-anak kan,  
like  di-trivial-kan  by  child child agfmt  

D: the students tend to not take them seriously,

3.3.4 Clause Combining and the Trigger System

There are certain syntactic constraints on the use of transitive verbal prefixes in clause combining situations in Standard Indonesian. The general principle behind these constraints is that the argument which is shared by the two clauses must be trigger of the subordinate clause. This is true of constructions of the type traditionally known as “equi” or “raising” (Cumming, 1988), and also of relative clauses. In the case of relative clauses this means that the head of a relative clause must be the trigger of that clause. Thus
a relative clause on the agent will be actor trigger
(see Example 11, page 23) and a relative clause on the patient will be
patient trigger (see Example 12, page 23).

3.3.5 Transitive Suffixes

Standard Indonesian also has two verbal suffixes, -i and
-kan (see Example 20). These suffixes alter the argument structure
of a verb, often increasing its valency by allowing an additional direct
argument. When used with a patient-trigger form they may allow a
participant that would normally be oblique to become trigger. In
certain cases the two affixes have an aspectual component,
indicating perfectivity or imperfectivity. The two affixes also give
some indication of the semantic role of the argument in question, but
only in very general terms. -i is associated with recipients and
locations, -kan with causees and beneficiaries. The exact effect of
the use of -i or -kan varies considerably with the individual root or
group of roots. In addition to -i and -kan, SJI makes use of -in
(see Example 20), which neutralizes the semantic distinctions
maintained by -i and -kan.
Example 20  N: kita ngadain arisan dua minggu sekali we N-exist-in meeting 2 week each na didalam arisan itu yang kita well in meeting that rel we mempunyai waktu banyak itu ya, untuk meN have-i time much like yes for memecahkan masalah masalah itu. meN-break-kan problem problem like

N: We have a meeting every two weeks, well (it's) in those meetings that we have lots of time like yeah, to solve problems like. (standard form: mengadakan)

3.4 Non-volative Forms

Non-volative forms are verb forms which prototypically indicate a lack of volition or lack of deliberateness on the part of the actor. They are usually stative and low-transitivity (as defined in Hopper & Thompson 1980). Verbs with these affixes are often considered to be a subset of transitive, patient-trigger verbs, since most of them use the same roots as transitive verbs, and they can co-occur with an oblique agent phrase. However, Cumming (1988) considers them intransitive, and argues for a split-S analysis of Indonesian, similar to Durie's (1985) analysis of Acehnese. According to this analysis, intransitive verbs are not automatically assumed to be actor-trigger. Rather they can be divided into two
classes, controlled and uncontrolled. In the controlled class, the intransitive subject will have the same characteristics as the actor of
an actor-trigger verb. In the uncontrolled class, the intransitive subject will have the characteristics of the patient of a patient-trigger verb. The non-volative affixes have a detransitivizing function when they occur with transitive roots, and the resultant verbs are stative intransitives which subcategorize for a P rather than an A in subject position. The impetus of this analysis comes from the fact that in Cumming's data the vast majority of non-volative forms were resultant states, with a patient but no agent, either overtly mentioned or recoverable from the text (Cumming, personal communication). Since the non-volatives in my data are all of this type, I have not included them in my discussion of the trigger system.

Standard Indonesian has two non-volative affixes, the prefix ter- (see Example 21) and the circumfix ke-an (see Example 22). SJI adds a third possibility, the prefix ke- (see Example 23). These affixes occur with transitive roots.
Example 21  B: Beda²¹ hanya lagi ngincer Dufan, name only still N-want Dufan pokoknya, harus tertegih, main-gen must ter-reach

B: I still really want (to go to) Dufan [Fantasy World Amusement Park], the thing is, I've got to get there,

Example 22  S: kalo ngga bilang juga ya ngga if not say also yes not ketawan tu ke-know-an that

S: If I hadn't said anything I wouldn't have been found out

Example 23  M: kasian tu orang lagi sembayang pity that person process pray keganggu, ke-disturb

M: Those poor people get disturbed while they're praying,

Both ter- and ke-an are found in Malay, although Poedjosoedarmo (1982) argues that ke-an was not productive in Middle Malay and became productive in Indonesian due to Javanese influence. He likewise argues that ke-entered Indonesian from Javanese. However, both ke- and ke-an are found productively in Betawi as well as in Javanese, and it is unclear which is the actual source for their use in SJI. Agents may be expressed in non-volative clauses,
by means of an *oleh* phrase, but such constructions are relatively rare, and do not occur in my data.

4 Methodology

In this section I will briefly describe my data and the general framework of linguistic analysis which forms the basis for this study. In my dissertation I have concentrated on Spoken Jakarta Indonesian. The spoken data consists of 7 hours of tape-recorded conversations between native speakers of Indonesian, 9 male and 6 female\(^2\), born and raised in Jakarta in the post-Independence era following World War II, all at least highschool graduates, all from the middle socioeconomic class. The speakers come from a variety of ethnic backgrounds, but all come from either Indonesian-speaking or bilingual Indonesian/regional language-speaking households, and none from a Malay dialect background. Thus they are controlled for their own native language, but not for the language background of their families. The majority of the participants had Javanese ancestry, and came from Javanese or (closely-related) Sundanese speaking families, not surprisingly since 80% of the population of Indonesia is Javanese.
All the data was collected over a period of several months in late 1986 and early 1987. The consultants, who were under the impression that they were participating in sociological research, were invited to meetings in groups of three, and asked to discuss assigned topics. They were told that they did not have to stick strictly on the topic, as it was also of interest for the study to see what other topics these initial ones led to. Thus, the task was fairly loosely structured. Furthermore, the tape recorders were turned on from the time the consultants arrived, not at the time they began their "assigned task", which was up to 30 minutes later. The resulting conversations were transcribed by my assistants, all of whom were also native speakers of Indonesian. One of the conversations contained considerable variation in register, ranging from quite formal to quite colloquial. The remainder of the conversations were consistently colloquial, and all showed normal turn-taking behavior. The conversation with register variation provides the data for my discussion of register and affix use. The colloquial sections of that tape, plus all of the other conversations, provide the data for my discussion of discourse distribution of morphology.
The underlying principle behind my analysis of the data is that of quantitative discourse analysis. This framework proposes that we examine phenomena in connected texts (in this case conversations) and attempt to find correlations between certain surface features of the text (eg verb morphology) and other surface features (eg word order, syntactic form of arguments of the verb) or more abstract principles (eg information structure, interactional intent). These correlations, if statistically significant, can be taken to provide information about the discourse functions of the forms under investigation.

To aid in determining correlations, I entered the data into a set of computer database files. For each root which could potentially have one or more verbal affixes, I created a record with information about that root and the environment in which it was found. A large number of factors were included in the data base, not all of which turned out to be relevant. The following is a list of information included in the database at the outset.
1. Indexing information: an identification number for each record, the location of that verb in the text, the speaker.

2. Information about the verb: affixes, valence, semantic class, aspect, mood, auxiliaries.

3. Information about the clause: word order, type and direction of clause combining.

4. Information about the arguments: for each argument, its syntactic, semantic, referential and grammatical status, its lookback (number of clauses since prior mention), and if previously mentioned its prior syntactic, semantic, referential and grammatical status.

5. Information about text structure: speaker's perspective, interactional type, and for narrative sections information about continuity of time, space, and actor.

6. Information about register: formal or non-formal.

The data base was used to produce reports which listed and totaled the number of those records which showed particular correlations. Statistical tests (Chi-square) were used to determine statistical significance of the correlations discovered in these reports. These statistically significant correlations provided the basis for my analysis and interpretation of the data, which will be presented in the remainder of this dissertation.
CHAPTER 1 NOTES

1. Wolff (1986) presents some of its characteristics in his textbook.

2. Since this dissertation is concerned with language-internal phenomena, and will make reference, where relevant, only to the more closely related groups of Sumatra and Java, the exact nature of higher order subgrouping (a controversial topic in Austronesian studies) will be ignored.

3. Dutch eventually replaced Malay in the Dutch and Indo communities, but a distinctive dialect of Low Malay remained the language of the Peranakan into the 20th century.

4. The following history of Betawi is summarized from Muhadjir 1981 and Ikranegeara 1980.


6. Kridalaksana (1985) estimates that the monolingual Indonesian speakers form 10% of the total population, while bilinguals for whom Indonesian is a first language form another 25%.

7. There is a population of ethnic Chinese native speakers of Malay found in Jakarta, dating back at least to the 18th century, but that group is excluded from this study. They constitute a separate dialect group, with its own history, which needs to be studied individually. They are often referred to by the Jakartan term Chinawi, formed by a combination of “China” and “Betawi”, and their dialect is probably quite close to Betawi. This population should not be confused with the basically Javanese speaking Chinese population of East Java discussed in Rafferty (1982).

8. The term non-volative is taken from Muhadjir (1981). It means non-volitional.

9. Betawi affixes are as shown in Ikranegeara (1980) and Wallace (1977). Muhadjir (1981) discusses the use of ter- and meN- in Betawi data, suggesting that meN- is found in formal register, and ter- is a recent borrowing from Indonesian.
10. Poedjosodoarmo (1982) has suggested that the use of N- in colloquial Indonesian is due to the influence of Javanese, rather than Betawi. It would be difficult to determine which is the case. It is in fact possible that the use of N- in Betawi is due to Javanese influence, rather than Balinese. However, the use of prefixless transitive verbs is widespread in both Indonesian and Malay, and is probably not due to Javanese influence.


12. Ber- also occurs in some apparently two-argument constructions. However, the second argument in these cases is non-referential as defined by DuBois (1980), and may be considered to be incorporated, as in the following example.

   Saya ber-buru rusa.
   I       hunt deer
   I hunt deer/I am a deer-hunter.

13. All examples (except where noted) are quotes taken from my data, and glosses reflect the entire context of the conversation, which cannot be reproduced in full for reasons of space. Some of the examples may appear incomplete, in the absence of the full context, as only the portion necessary to illustrate each point is included. The initials preceding the quotes identify the speaker. Punctuation used in the English translation reflects the intonation patterns of the Indonesian original, not the syntactic structures of either language.

14. Keluarga ‘family’ is generally considered a nominal root, which must take the prefix ber- to be considered a verb. However, in this case it is being used verbally without any prefix. This fact is reflected by the difference bewteen the gloss and the translation.

15. This example is not taken from my data.
16. Recent research suggests that in Proto-Malayo-Polynesian (the ancestor of all Extra-Formosan Austronesian languages), the actor-focus type indicated low transitivity as defined by Hopper & Thompson (1980), while the patient-focus type indicated high transitivity (Wouk 1986a). This is still true of many modern languages, including Tagalog, a Philippine language (Wouk 1986b), Toba Batak, a north Sumatran language (Wouk 1986b), Javanese (Horne 1961), and Early Modern Malay (Hopper 1979a & b), but does not appear to be the case consistently for Modern Standard Indonesian (Wouk forthcoming).

17. These numbers indicate pause length.

18. In modern Indonesian, a wide variety of kinterms, titles, demonstratives, and personal names are used instead of pronouns to express first, second and third person, for reasons of politeness. The result in the syntax is that all these terms of address can cliticize preverbally just like a pronoun can.

19. Evidence for syntactic cliticization comes from the fact that this construction is restricted to pronouns and terms of address, but is not available for ordinary noun phrases.

20. These structures are often assumed to be a single class, either actor trigger or patient trigger. However, there are criteria other than verb morphology which may be considered for determining the clause type, such as word order (patient before vs after verb), referential status of the patient, and presence inside larger syntactic structures like relative clauses. On the basis of these types of criteria, I would estimate that something like 40% of these verbs should be grouped with those roots that have cliticized actors (which are patient-trigger), and 60% with those roots that are completely affixless (which are probably actor-trigger).

21. In SJI, as in Standard Indonesian, speakers often refer to themselves by first name rather than using a first person pronoun, for reasons of politeness.
22. The male consultants were: Pudji Raharjo, Mohamad Yusof, Endang Mulladi, Slamet Riyadi, Isnyono Sabani, Didi S. A., Suyadi, Agustinus Hendriawan, and Bambang Yulianto. The female consultants were Zubaedah, Lopna, Suliani, Dita Erdevi, Cynthia Miriani and Ismani Martini.

23. Funding for this research was provided by the Fulbright-Hayes Foundation and the Wenner-Gren Foundation for Anthropological Research.

24. The assistants whose work was used for this study were Thien Hoa An, Mardi Sudono, Iwan, Ratna Setiawati Dermawan, Regina Suwani Budiman, Yohannes Sudarmawan, and Akhiruddin Tanjung.

25. As defined in Iwasaki (1988).
Introduction

In this chapter I will describe previous syntactic, semantic, discourse and sociolinguistic analyses of the verb morphology of Indonesian/Malay and Betawi.


However, there has been very little work done on spoken Indonesian, and what there is has focused on dialects found in Malaysia (Hopper 1979) and Java (Rafferty 1982, 1983, Cumming 1988), not on SJI.
1 Semantic Studies of Indonesian Morphology

The most comprehensive discussion of the semantics of Indonesian verb morphology is Tampubolon (1983). Tampubolon works within a theoretical framework which he describes as "basically an incorporation of Chafe's semantic model, Fillmore's case grammar and Cook's case grammar matrix (p. 24)". Using this model, he divides all the unaffixed verbal and adjectival roots of Indonesian into semantic classes of state, process and action, each of which classes he further subdivides into basic, experiential, benefactive and locative subclasses. He classifies affixations as being of three types: derivations, which move a verb from one class to another, incorporations, which incorporate a noun into a verb, and inflections, which affect the meaning of a verb without changing its class. He then examines each of the verbal affixes of Indonesian, to determine which types of affixation they perform and which verb classes they operate on. I present his analysis here without examples, as examples of each prefix type have already been given in the grammar sketch in Chapter 1.
Tampubolon concludes that -kan is used for incorporations and causative, benefactive and locative derivations. He states that -kan derives action benefactive and action locative verbs from action verbs, and derives action, action experiential, action benefactive and action locative verbs from state, state experiential, state benefactive and state locative verbs respectively. He states that -i is used for incorporations and causative derivations, deriving action and action locative verbs from state verbs. He describes ber- as being used for incorporations and resultative derivations, deriving state verbs from action and action benefactive verbs. He claims that ter- is used for resultative derivations, deriving state, state experiential and state benefactive verbs from action, action experiential and action benefactive verbs respectively and performs what he terms accidental inflections on basic action, action locative, process, and process experiential verbs, as well as affixing to a few bound morphemes which only occur with ter-, which Tampubolon calls hypothetical roots because of their distribution. According to Tampubolon, ter- is also used for passive inflections, as is di-. Passive inflection can apply to action, action experiential, action benefactive, action locative, process and process experiential two-argument verbs with an overt patient.
Tampubolon defines passive syntactically, and does not discuss its function, but points out that in the passive the verb has the same semantic structure as it does in a corresponding active clause. He claims that *meN*- is used for incorporations and inchoative derivations, deriving process verbs from state verbs and in all other cases is semantically vacuous. As evidence for the semantic vacuousness of *meN*, Tampubolon points out that it can be omitted without affecting the “translation meaning” of the clause except in those cases where it has an inchoative or incorporative function, and that it is omitted when *di-* or *ter-* is affixed to the verb.

Tampubolon provides a comprehensive analysis of the semantics of Indonesian verb morphology, in the sense that he classifies the roots each affix can occur with according to semantic classes, and also gives a semantic value for each root. However, these semantic values are too general to be of more than limited use in determining the discourse functions of the affixes. He considers affixless verbs and *meN-* verbs to be interchangeable, but his evidence for this comes from examination of a limited number of sentence types in isolation. His work is thus of limited
value for dealing with questions of syntactic classification and discourse function of the different clause types.

2 Syntactic Studies of Indonesian Morphology

Grammar books usually suggest a single parameter for trigger choice, and rely on vague, undefined terms like focus and emphasis. A survey of grammar books reveals a wide variety of interpretations, with varying degrees of compatibility with each other. Thus, according to Singgih (1977) "in active sentences the doer is the main thought, and in passive sentences the sufferer". Sarumpaet (1966) says that actor-trigger is used "to denote the durative aspect of an action" and patient-trigger "to denote the instantaneous aspect". Dardjowidjojo (1978) claims that in patient-trigger "the focus lies more in the state of affairs resulting from the activity rather than on the agent and the activity which he performs". He also points out that the patient of a patient-trigger clause should be specific. Wolff (1980) links trigger choice to word order, stating that "if there is a recipient of the action of the verb and the recipient follows the verb, the meN- prefix is used". Di- is used "when the emphasis is on the recipient of the action" and
"when the recipient of the action precedes the verb". Winstedt (1927) opposes the nasal prefix to no prefix or \textit{di}- as follows: "As opposed to the simple ground form of the verb which lays stress on the act, fact, event or condition, derivatives in [meN-] always express the activity, the tendency, the direction, the movement towards an act, fact, or event and condition to which endeavor goes".

Syntactic studies of verbal affixation have usually focussed on the questions of how many different clause types can be distinguished in the transitive system, and secondarily what their functions are. There is considerable lack of consensus, especially about the nature of affixless verbs, as the following survey shows.

Tchekoff (1980)\textsuperscript{2} proposes that Indonesian has three types of transitive clauses. Her three types are the active, characterized by \textit{meN-}, the passive, characterized by \textit{di-}, and the "voice neutral", characterized by a preverbal patient followed by a pronominal agent and an affixless verb. She does not discuss the functional implications of a language having a voice neutral form.
Cartier (1976 and 1979) bases her work on Tchekoff's, and also argues that Indonesian has three transitive clause types, although the data she considers is somewhat different from Tchekoff's. The three types she identifies are the active, characterized by meN-, the passive, characterized by di-, and the ergative, characterized by a cliticized agent pronoun or an affixless verb and a post-verbal patient. She calls the third group ergative because the verb is unmarked for voice, and presents some rather unconvincing arguments in favor of this analysis. She does not discuss the possible functions of her three clause types.

Chung (1976, 1978) argues that Indonesian has four types of transitive clauses. She distinguishes two passives, a canonical passive with di-, and an object-preposing one with an initial patient, and a pre-verbal agent, usually either phonologically or syntactically cliticized to the verb. She presents a number of syntactic arguments to show that these object-preposing forms should be considered syntactically passive. All these arguments take the same form; a syntactic process is proposed, shown to apply to subjects but not objects, and then shown to apply to the patient in the object-preposing forms. She also distinguishes two
actives, one with meN-, the other with no morphology, and AVP order. In her classification she does not distinguish between affixless verbs whose agents are either not present or are clearly not syntactically cliticized to the verb and those for which syntactic cliticization is indeterminate. She argues that the fourth type is active on the basis of intonational and syntactic similarities with meN- clauses, again using as evidence syntactic processes that are restricted to subjects.

Chung's intonational argument deserves detailed description, since it is unique to her; she is the only researcher I am aware of who has considered intonation in relation to trigger choice. According to this argument, active clauses with meN- have a single intonational peak, which falls on the last major constituent. Canonical passive and object preposing clauses, on the other hand, have two intonational peaks, one on the preverbal patient, and a second on the verb. Passives with a post-verbal patient have a single intonational peak, falling on the verb, while the post-verbal patient bears low pitch. The clauses with affixless verbs that she classifies as active have the intonational pattern of meN- actives, with a single rise on the last major constituent. This is a
very interesting argument, but its potential value is severely restricted, since the intonation patterns Chung cites are the patterns of full clauses uttered in isolation. In naturally produced speech full clauses are relatively rare, and clauses consisting only of a verb would presumably all have the same intonation pattern, a single rise on the verb. Further complications are introduced by the fact that in naturally produced speech, intonational patterns often do not conform to clause structure. A phrase, a single word, or a hesitation particle may have its own intonation pattern, so that a clause is split into two or three intonation patterns. Two clauses may be combined in a single intonation pattern with a single rise. For this reason, the intonational argument that Chung proposes cannot be applied directly to naturally produced speech in the absence of a much more careful study of the intonation patterns of spoken Indonesian.

The weakness of Chung's classification is that of all the arguments presented, the only one that can unambiguously identify an indeterminate verb form as active or passive is the intonational one. In the absence of intonational evidence the status of a clause remains ambiguous. Her belief that there are four clause types,
rather than two (active and passive) seems to be based on the formal (morphological) differences rather than on any syntactic or functional differences between the two actives or the two passives. She neither considers discourse data, nor discusses the function of any of her four types.

Thomas (1978, 1979) also divides Indonesian transitive clauses into four types, but they are four quite different types, namely actor focus, goal focus, referential focus, and instrumental focus. This type of analysis is much closer to that generally offered for a Philippine type language than most analyses of Indonesian. He considers meN- actor focus and di- with no suffix goal focus, di- with the suffix -i referential focus, and di- with the suffix -kan instrumental focus. Within actor focus clauses he suggests that the suffix marks a secondary relationship between the verb and a non-agentive NP. He defines focus as a sentence level syntactic phenomenon which marks an equational relationship between the verb and one argument NP, the one in preverbal position. He points out that verbs with cliticized actor pronouns (ku- and kau-) are formally and functionally parallel to verbs with the di- prefix, and should be considered goal focus. He further argues that
certain clauses with affixless verbs are goal focus because in those clauses the auxiliary precedes a free-standing pronoun or a term of address which in turn precedes the verb; in other words, the actor appears to be syntactically cliticized to the verb just as it is in clauses containing the clitic pronouns ku- and kau-. He then goes on to claim that all clauses with affixless verbs are goal focus, although he presents no evidence in support of extending this analysis to clauses whose actors are clearly not cliticized to their verbs, or whose cliticization status is indeterminate. He also suggests that clauses which contain an actor followed by an auxiliary followed by an affixless verb should not be considered actor focus clauses with the prefix omitted, but rather goal focus clauses with incorrect placing of the auxiliary, but again presents no evidence for this claim. He does not suggest functions for the clause types he proposes.

Verhaar (1978) distinguishes five clause types: meN-active, the di- passive, the ter- passive, pronominal passives (verbs with cliticized agents) and the zero passive (affixless verbs). The only affixless verbs that he considers are those which are acceptable in Standard Indonesian, those with preposed objects or
clearly syntactically cliticized actors. He suggests that there is an aspectual difference between active and the passives, such that the active clauses are non-eventive or undetermined in time, while passive clauses are eventive or determined. He also suggests that there may be aspectual differences between the different passives, but does not specify them. This is the only syntactic study that is seriously concerned with functional issues, and interestingly, the difference Verhaar suggests is a difference in the level of discourse transitivity, a theme that will be repeated frequently in discourse studies.

Dreyfuss (1978) compares three hypotheses about meN-, ber- and di-: that meN- and di- are transitive, and ber- intransitive, that meN- and di- are active and ber- stative, and that meN- and di- signal the presence of a patient, while ber- does not specify the case role of any NP. He concludes that the third alternative accounts for the largest part of the data, but he does not discuss functional differences between meN- and di-.

Kana (1986), working in a relational grammar framework, examines Chung’s claim that there are two passives, canonical
(di-) and object-preposing, both of which are formally passive and
two actives, one with a meN- prefix and one with no prefix. She
compares four types of clauses, canonical passives, object-
preposing, and two types with AVP word order, one with a clearly
criticized actor, the other with a clearly non-criticized actor. She
concludes that canonical passives and object preposing passives
are syntactically passive, since the patient can be questioned,
clefted, relativized, deleted under equi, replaced by subject but not
by object forms of pronouns, and raised to direct object of a matrix
verb, while the actor cannot, and that there is no reason to
consider them separate clause types. She includes non-preposing
clauses with criticized actors in this group on the basis of the
morphological similarity with object-preposing, although she
suggests that they may be functionally different from it. She argues
that clauses with no prefix and AVP word order where the actor is
not clearly criticized are formally active, because when the auxiliary
is present it intervenes between the actor and the verb, the actor
but not the patient can be replaced by the subject form of
pronouns, and the actor but not the patient is accessible to equi,
clefting, relativization and raising. According to Kana, then, there
are two transitive clause types in Indonesian, active and passive,
each of which has more than one corresponding morphological form. She does not discuss possible functions for either active and passive as classes nor for the different morphological forms within each class, although she suggests that they exist.

All of the works discussed in this section share a basic flaw. Their attempts to decide which forms should be grouped together as a single class, and to determine the function of different morphological forms, rely solely on an examination of isolated sentences, in many cases artificially produced, which constitute only a subset of the possible transitive clause types of Indonesian. The set of sentences which is considered depends as much on the theoretical orientation of the researcher as it does on the structure of Indonesian. A different theoretical orientation provides a different definition of what constitutes an interesting question, a valid line of argumentation, or relevant data, thereby constraining the direction of the study. The result is that each researcher comes up with a different subset of the forms actually used in Indonesian and bases his or her analysis on them. The disconcerting lack of consensus between these studies has its origin both in the limited nature of the data used in each case and in the way that different theoretical

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orientations impel researchers in different directions in their analysis. Given these factors, the individual analyses can never give more than a partial understanding of the dynamics of the Indonesian verbal system.

3 Studies of Related Varieties

Although none of the studies described in this section produce results that can automatically be applied to SJI, they are of interest because they describe closely related varieties which have had influence on the development of SJI. It is highly possible that there are similarities between the functions of verb morphology in these systems and in SJI. Most of these studies point to a transitivity distinction which correlates with verb morphology, actor-trigger being lower in transitivity than patient-trigger.

3.1 Malay

Hopper (1979) discusses Early Modern Malay, primarily the 19th century writings of Abdullah bin Abdul-Kadir Munshi (1932), and some Perak Malay texts collected in the 50's (Brown, 1956). In
both sets of texts he suggests that a correlation exists between patient-trigger and sequenced events (foreground), and between actor-trigger and descriptive or introductory parts of the text (background). He also suggests that patient-trigger correlates very highly with the presence of a definite patient. Hopper (1984) argues for a three-way division of the trigger-system, based on studies of Early Modern Malay. He considers meN- verbs to represent an active, and classifies individual di- verbs as ergative or passive based on discourse distribution. The ergative and passive cannot be distinguished formally, but ergative clauses have a high transitivity score, and passive clauses a lower one. (Transitivity scores are determined on the basis of Hopper & Thompson's (1980) parameters of transitivity.) All unaffixed verbs are assumed to have cliticized agents, and are included with di-verbs.

Hopper's work is seminal; it presents the first detailed analysis of an Austronesian language in terms of discourse transitivity. Its weakness lies in the fact that the status of unaffixed verbs is assumed rather than argued. The assignment of two different and completely opposite discourse functions to di-verbs
(anti-passive and ergative) is somewhat disturbing, and the
motivation for it is not argued as convincingly as one might wish.
However, on the whole the analysis is sufficiently convincing to
provide an impetus for considering related varieties in terms of
discourse transitivity.

3.2 Chindo

Rafferty (1982) in analyzing the dialect of the Peranakan
Chinese in Java, which she refers to as Chindo, found that
actor-trigger was used mainly in clauses which she refers to as
imperfective, and which have indefinite patients, while patient-
trigger was used mainly in clauses which she calls perfective, and
which have definite patients. However, the speech style Rafferty
describes, while it has a varying percentage of Indonesian
vocabulary, depending on the addressee's fluency in Javanese,
takes most of its morphology and syntax from Javanese. Horne
(1961) states that in Javanese patient-trigger is obligatory with a
definite patient. It thus seems likely that the discourse strategies of
the Peranakan Chinese dialect reflect this aspect of Javanese
syntax, and are not readily comparable with Indonesian.
3.3 Second-language Indonesian

Rafferty (1983) examines a text by a Javanese speaker of Indonesian and concludes that the patient-trigger clauses correlate with foreground, while actor-trigger clauses correlate with background. Cumming (1988) examines the same text and concludes that in this text patient-trigger is conditioned by topicality. It is an autobiographical text, and the trigger is usually saya 'I'. Both of these studies are limited by the small amount of data available. It is also uncertain how much the text chosen reflects discourse patterns of Indonesian, and how much it reflects discourse patterns of Javanese, since the speaker's language background is not described. We do not know at what age he became bilingual, or what his current language use is, both of which would give some indication of the degree to which Javanese patterns might be exerting influence over his Indonesian speech. To the extent that his speech is representative of Indonesian rather than of Javanese, it suggests a role for topicality in determining trigger choice.
3.4 Betawi

Wallace (1977) analyses Betawi, the dialect of lower-class Jakarta. He argues that with intransitive verbs, the nasal prefix indicates process and continuity, while no prefix indicates state and punctuality. With transitive verbs, the nasal prefix is associated with absence or non-referentiality of a goal, imperfective, durative or habitual action, and non-indicative mood (intended, potential, attempted). No prefix and *di-* are both associated with (discourse) presence of a goal, perfective or punctual action and indicative mood (actual, accomplished). These are all familiar parameters of transitivity, and the nasal prefix appears to correlate strongly with low transitivity, while no prefix and *di-* correlate with high transitivity. Wallace also suggests that *di-* implies "focus on goal", the nasal implies "focus on actor" and that no affix implies "focus possible on any participant". Unfortunately, he does not define focus, nor present evidence for this claim. The other weakness of his work is that he presents conclusions and analyses, but does not give any clear idea of how much data he considered, and of what type.
Ikranegara (1980) does not discuss the function of verb morphology in detail. She mentions that when both agent and patient are definite, patient-trigger is preferred. The criteria of definiteness of the patients is reminiscent of work on related Austronesian languages, such as Tagalog, Javanese, and Toba Batak, in which it can be shown that verb morphology clearly reflects levels of discourse transitivity, with patient-trigger morphology being associated with high transitivity defined in terms of the referential status of the patient (Wouk, 1986). This suggests the relevance of discourse transitivity to Betawi as well.

Ikranegara also suggests that the use of patient-trigger may be motivated by sociolinguistic reasons, since there is a tendency to avoid pronouns, which commit one to defining the relative status of the participants. Patient-trigger would be a way out of this dilemma, since they "put less emphasis on agentive actants." Ikranegara's analysis is useful when one is considering direct address or reported speech, but not particularly relevant for third person, where pronouns are basically neutral. Sociolinguistic factors are an aspect of trigger choice which has not been
considered in detail in most work on varieties of Indonesian, and
Ikranevara is making an important contribution by raising the issue.

Muhadjir (1981) provides by far the most detailed
description of the morphology of Betawi, including the verbal
system, but does not discuss issues of function.

Since the exact relationship of SJI to the varieties described
in this section is still unclear, none of these analyses can be
applied directly to SJI. The studies described here can only
suggest directions for research in SJI. They point in the direction
of an explanation of use of verb morphology in terms of levels of
discourse transitivity. The notion of topicality is also suggested, as
are sociolinguistic parameters. Despite certain weaknesses, these
studies make well substantiated and convincing claims, that are
definitely worth considering with respect to SJI.

4 Discourse Studies of Written Indonesian Morphology

Most discourse studies of written Indonesian verb
morphology again point to a transitivity difference, as did the
studies on related varieties. The main difference between the results of these studies and e.g. Hopper's work on Malay is that in Malay transitivity seems to be a good predictor of affix choice, such that one could argue that actor-trigger is a mark of low transitivity and patient-trigger a mark of high transitivity. For Indonesian this is not the case. While there are correlations between verb morphology and various parameters of transitivity, there are so many exceptions to every correlation that one cannot base an analysis solely on transitivity.

Kaswanti Purwo (1983) contrasts the discourse functions of affixless verbs and verbs affixed with *di*. He concludes that the crucial parameter for choice between the two is one of narrative vs non-narrative. According to his analysis, *di-* verbs occur in narrative contexts, and can be utilized for foregrounding, while affixless verbs occur in non-narrative contexts and cannot be foregrounded. Since foreground is associated with high transitivity, and background with low transitivity, this analysis suggests that *di-* verbs are higher in transitivity than are affixless verbs.
Kaswanti Purwo (1986) considers the opposition between verbs with *meN*- on the one hand, and verbs with *di*- or no affix on the other. He suggests that the distinction is partly aspectual, partly pragmatic. *MeN*- verbs are telic, durative and narrative; non-*meN*-verbs are atelic, punctual and performative. The aspectual difference that Kaswanti Purwo mentions is familiar from transitivity studies, and suggests that *meN*- verbs are lower in transitivity than affixless verbs and *di*- verbs.

Verhaar (1986) argues that Indonesian is a split ergative language with two systems, ergative and accusative, and four clause types, active, passive, ergative and anti-passive; within the ergative system clauses with *meN*- are anti-passive, and clauses with *di*- or a clitic are ergative; within the accusative system clauses with *meN*- are active and clauses with *di*- or a clitic are passive. Active and antipassive cannot be formally distinguished; neither can passive and ergative. Rather they are distinguished by the type of context they occur in. Verhaar suggests that ergative and anti-passive structures are used in colloquial Indonesian, while active and passive structures are used in formal Indonesian. Verhaar’s analysis differs from most other work in postulating two
separate systems, both using the same morphology, and in referring to sociolinguistic, rather than discourse, factors to explain the distribution of the two systems. He does not deal specifically with the question of the choice between *meN*- and *di*- in either of the systems that he proposes, although he does suggest a connection between ergative *di*- and transitivity and punctuality, a connection which does not exist for passive *di*.

Dreyfuss (1981) analyses the use of verb morphology in a single story by a single author. He concludes that *di*- forms correlate with action, being used to express actions, or in sections of the text where action takes place. This is reminiscent of the correlation between high transitivity and eventiveness.

McCune (1979) discusses the use of what he terms the Indonesian Passive of Narrative Sequence (IPNS), a clause type where the verb is of the form *di*-verb-*nya*. He rules out a number of possible explanations on the grounds that they allow too many exceptions; these include definiteness of patient, thematicity of patient, animacy of patient and non-specificity of actor. He then considers three other possible explanations, which also allow
exceptions, but which he concludes are relevant. These are continuity of actor, punctiliar or sequential events, and predicate initial word-order, with the patient NP occurring in post-verbal position. He further suggests that predicate initial word-order probably combines with some other factor, such as foregrounding or high degree of detail, in order to trigger use of the IPNS. The references to foregrounding and to punctiliar or sequential events again bring to mind characteristics of high transitivity.

Wouk (forthcoming) argues that the use of actor-trigger and patient-trigger can be explained in written Indonesian by appealing to a combination of factors, including referential status of the participants, recency of prior mention (lookback) of the patient, and textual cohesion. Patient-trigger is shown to correlate with nonspecified actors, with identifiable patients mentioned in the immediately preceding clause (a sort of local cohesion), and textual cohesion in terms of structure of episodes within the text. Actor-trigger is shown to correlate with absence, non-referentiality or unidentifiability of a patient, with identifiable patients not present in the preceding clause (a form of local discontinuity), and with discontinuity within the structure of a text. The importance of the
referential status of the patient in this analysis is striking, since referentiality of patient is a characteristic associated with high transitivity.

Cumming (1988) finds that in written Indonesian, patient-trigger correlates with eventiveness. Patient-trigger clauses are more likely to be temporally sequenced and realis than actor-trigger clauses. However, not all eventive clauses are patient-trigger. Eventive clauses are found at peaks in the text, the climax of an episode, or a section of great vividness, immediacy or urgency. Patient-trigger morphology also correlates with the presence of an unspecified actor or a preverbal patient. The preverbal patients are found in two environments; either the patient has been mentioned in the immediately preceding clause, or it has been absent from the narrative for a while and is being reintroduced. Eventiveness, which is crucial to this analysis, is a component of high transitivity.

In summary, the analyses of written Indonesian show many correlations between patient trigger morphology and one or another parameter of high transitivity. Aspect, foregrounding and
referentiality are mentioned frequently in these studies. However, in no case is it possible to analyze the use of the affixes simply by referring to the level of transitivity. Transitivity only provides a partial solution to this very complex problem.

5 Sociolinguistic Studies

Gunarwan (1981) presents a sociolinguistic analysis of some aspects of colloquial Indonesian of non-native speakers, the expatriate Indonesian community of Washington DC, including embassy employees, students and local residents. He looks at a variation in a number of linguistic phenomena, including presence and absence of ber- and men-, which he terms men- deletion and ber- deletion, to determine the effect of sociolinguistic and linguistic variables. He considers socioeconomic group, age, gender, and education, as well as register and a number of phonological and lexical factors.

Gunarwan does not distinguish N- as a separate form, considering instead that when the me of men- is deleted, the N- remains or is omitted based on phonological considerations.\(^7\) The
data was analyzed using Varbrul 2, a linguistic analysis program developed by Cedergren and Sankoff, which "computes the effect of each of the existing factors upon the application or non-application of a rule on the assumption that each factor contributes a constant probability figure of application (Gunawan 1981)."

Gunawan found that both "meN- deletion" and "ber-deletion" showed significant association with socioeconomic level and age group, deletion being most common among those of lower socioeconomic class and under the age of 30. He also found that both "deletions" were significantly associated with register, retention of both affixes being much more common in monitored speech and deletion much more common in casual speech. For meN-, free conversation showed 63.78% deletion, monitored speech 14.97% deletion. For ber-, free conversation showed 49.13% deletion, monitored speech 18.14%. He concluded that the variation in use and deletion of the two prefixes was probably due to the influence of what he terms Jakarta Malay rather than Javanese Indonesian, because of Jakarta's prestige as the capital city. It is not clear whether by Jakarta Malay he means Betawi or SJI.

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Gunawan found that a significant amount of the variation in affix use could be attributed to linguistic factors. The factors he considered were the nature of the phoneme immediately preceding the prefix, the nature of the initial phoneme of the root, the number of syllables of the root, the lexical class of the root, and for *meN*- the presence or absence of suffixation.

For *meN*-, the nature of the following sound and presence or absence of suffixation turned out to be irrelevant. The lexical class was significant, with verb roots being most likely to be affixless, noun roots somewhat likely to be affixless, and adjective roots unlikely to be affixless. Number of syllables was also a factor, with disyllabic roots much more likely to be affixless than polysyllabic ones. Finally, the nature of the preceding sound was significant, with deletion increasing in likelihood as the preceding sound increased in sonorousness (vowel > +sonorant > -sonorant), but that in all cases deletion was more likely than retention unless the word followed an observable pause.

For *ber*- also, the nature of the following sound was largely irrelevant. Lexical class was significant, but the lexical classes with
a high probability of deletion were adjective or adverb, then verb, nouns were neutral, and numerals disfavored deletion. Number of syllables interacted with *ber-* exactly as with *meN*; disyllabic roots were much more likely to be affixless than polysyllabic ones. Finally, there was some correlation with the nature of the preceding phoneme; preceding vowels favored deletion, while preceding pauses disfavored it.

Gunarwan hypothesized that disyllabic roots favor deletion because they are likely to be Malay in origin, while polysyllabic roots are more likely to be borrowings. He argued that lexical classes favored or disfavored deletion depending on the degree to which the affix was semantically redundant. He suggested that pauses caused the speakers to be more conscious of their speech, and thus more likely to think to use the standard form. And he explained the effect of vowels by suggesting that uttering a vowel requires more pulmonary force than a consonant, so the following word would be correspondingly reduced. While all these explanations are possible, none of them is convincingly argued, or based on known cognitive principles. This is not surprising, as this
was not the main thrust of Gunarwan's work. Thus to a certain extent the phenomena described still require explanation.

Gunarwan's work is important because it is the only detailed sociolinguistic survey of spoken Indonesian published to date. It therefore provides important verification of the correlation between affix use and sociolinguistic factors of both background and register that had previously only been observed casually. The study also presents a preliminary effort to determine the linguistic factors that influence the presence or absence of an affix on a given root. However, it is extremely limited in terms of the types of factors considered. It is also limited by the fact that the population studied consisted of non-native speakers, and it is not certain to what degree interference from the first language influenced the speakers' behavior.

6 Summary

I have discussed the considerable literature on the use of verb morphology in the varieties most closely related to SJI, Betawi and written Standard Indonesian, as well as work on more distantly
related varieties. I have shown that there is no consensus on the
question of how many clause types exist in Standard Indonesian,
and that there is no consensus about the functions associated with
various clause types, although discourse studies do agree in
finding correlations between clause type and degree of transitivity.
The articles reviewed raise as many questions as they answer, but
do provide some suggestions of factors worth considering in an
investigation of SJI.

In chapter 3 I will compare my findings about the
sociolinguistic distribution of verbal affixes with Gunarwan’s,
showing that the omission of prefixes and the choice of standard vs
nonstandard affixes often correlates with social register, although
not exactly as it did in Gunarwan’s study, and that the conditioning
factors for omission or retention which he found to be relevant do
not apply to my data.

In Chapter 4 I will look at the discourse distribution of
transitive verb morphology, and consider the question of how many
clause types the transitive system consists of, and what the
discourse functions of each type are. I will argue that there are
three basic clause types, actor-trigger, patient-trigger and affixless. I will show that, as in Betawi and Standard Indonesian, transitivity has a role to play in affix choice in SJI, but it is not the only relevant factor. In Chapter 5 I will consider the contribution of topicality and thematicity to trigger choice.
CHAPTER 2 NOTES

1. These have been referred to as non-volatiles in Chapter 1.

2. This work was not published until 1980, but was first presented in 1976, and provides the basis for Cartier's work, which was however published first. I therefore begin my discussion with Tchekoff.

3. For a detailed evaluation of Cartier's arguments, see Cumming & Wouk 1987.

4. Discourse transitivity, as defined by Hopper & Thompson (1980), distinguishes levels of transitivity within transitive clauses, finding correlations between transitive marking in many languages of the world and a variety of phenomena including perfective aspect, realis mood, agency, kinesis, and individuation of the patient. Discourse transitivity will be discussed in more detail in Chapter 4.

5. The problem of the influence of theoretical orientation is inherent to all work, but is magnified in the types of work described here, where it not only defines the direction of investigation but also limits the amount and type of data considered.

6. In sociolinguistics a variety is defined as a style of speech used by a particular community in a particular setting. It is a neutral term that can be used to refer to languages, geographical and social dialects, and even different registers. I choose to use this term here because of its neutrality. For the moment it begs the question of whether we are dealing with separate registers, separate dialects or separate languages. I will consider this question in more detail in Chapter 3.

7. Presumably his subjects did not use forms of the type discussed in Chapter One, where $N$ is clearly a separate affix, in alternation with $meN$.
8. As Gunarwan himself points out, the majority of Indonesian roots are CVCV in structure, so the majority of words preceding the verb will end in a vowel, and the majority of roots will be disyllabic. It is possible that the observed correlation between these factors and affix dropping is simply an artifact of the preponderance of CVCV structures.
In this chapter I will consider the nature of SJI and attempt to show that it is indeed an independent language variety. I will argue from evidence of the effect of register on affix use and omission that neither diglossia nor code switching is an adequate explanation of the linguistic situation in Jakarta. Rather, I will show that SJI is a variety of Indonesian which in turn contains sub-varieties, that is, social registers. I will also show that not all variation in affix use and omission can be accounted for simply by referring to register, and will examine some linguistic factors that have been advanced to explain the variation, but will suggest that certain types of variation can only be explained with reference to discourse phenomena.

Diglossia is a phenomenon in which a linguistic community uses two languages or two varieties for distinct functions, such that the individual bilingual or bi-varietal speaker has relatively little freedom in choosing which variety to use at a given time (Grosjean, 1982). In a diglossic community we would expect speakers to use variety A in certain situations, and to switch
completely to variety B in other situations, the most relevant factors in determining which variety is used being the formality of the situation, the content of the discourse and the function of the interaction. Language use in Jakarta could possibly be analyzed as diglossic: speakers using Betawi in certain situations (more intimate ones in terms of the three factors mentioned) and Standard Indonesian in other situations (less intimate ones in terms of the three factors mentioned). This analysis has initial plausibility because the morphological choices characteristically found in the speech of Jakartans are all options either of Standard Indonesian or of Betawi. To disprove this analysis it will be necessary to show that there are differences between the formal register speech of the group included in the study and Standard Indonesian, and also differences between their informal register speech and Betawi. If this is shown to be the case, it will not be possible to maintain the claim that the speakers are switching between those two known varieties in a diglossic fashion.

Code switching is the alternate use of two or more varieties within a single linguistic situation (Grosjean, 1982). Unlike the diglossic, the code-switching individual has considerable freedom
of choice in switching from one code to the other, and may do it for a number of reasons, such as lack of appropriate terminology in code A which is available to the speaker in code B, emphasis or qualification of a particular point, establishment of in-group solidarity, degree of speaker involvement, or raising of the speaker's status in an exchange. Code switching may take place on the word, phrase or clause level, with word level switches predominating (Pfaff 1973, Poplack 1979), but does not appear to occur at the morpheme level (Poplack 1979)\(^1\), and obeys phrase structure constraints of the languages being switched between (Woolford, 1981). Within a code-switching community, a code-switching norm will be established which determines when and how much code-switching takes place. Higher percentages of code-switching than the community norm are looked on with disfavor (Grosjean 1982). Code-switching is considered appropriate only in informal situations, and avoided in more formal ones (Forson 1979).

According to this definition, a code-switching analysis of Jakarta speech would claim that speakers switch between Betawi and Standard Indonesian within an informal interaction, at the
accepted rate for the Jakarta speech community, for the reasons outlined above. This seems like an initially plausible explanation, and a more difficult one to disprove than the diglossic argument. Possible arguments against the code-switching analysis would take a number of forms. For example, showing that “switching” occurred at the morpheme level in a way that has not been attested in other code-switching situations would argue against the analysis. A careful examination of when the “switching” occurred, compared with the reasons for code-switching outlined above, would argue against the analysis if the switching could not be explained according to one of those reasons. The use of “Betawi” forms which were not in accordance with Betawi syntax or discourse constraints, or the use of “Standard Indonesian” forms which were not in accordance with Standard Indonesian syntax or discourse constraints might be taken as an argument against code-switching, if we extrapolate from the fact that code switching obeys the phrase structure rules of the language in question to assume that it must also obey other constraints. Finally, the use of different amounts of code switching in different registers might be argued to violate the establishment of a community-wide norm of code-switching frequency and the restriction of code-switching to
informal situations. These last two arguments, while important ones, require as yet untested assumptions about the nature of code-switching and its interaction with the grammars of the varieties in question and with social register, and must be treated with caution. Alone they might not be convincing. In conjunction with other arguments, they might add weight to a conclusion.

I will also compare my findings with Gunawan's (1981) description of affix use among non-native speakers of Indonesian, and show that while there are some similarities, there are important differences. These differences will help to establish the existence of SJI as an independent variety, distinguishing it from the colloquial Indonesian of non-native speakers.

1 The Data on Affix Use and Register

One of the characteristics which distinguishes colloquial SJI from Standard Indonesian is the relatively low frequency of use of verbal prefixes, both transitive and intransitive, in SJI. This is particularly true of more colloquial registers of SJI, but is also true in formal register. In this section I will present the figures on the
frequencies of use and omission of verbal affixes, together with statistical analyses of those frequencies, and some discussion of their implications.

The data considered in this chapter all comes from a 90 minute discussion among three male speakers, all of whom have met previously. For approximately 30 minutes they converse freely. They then turn to the suggested topic of discussion, in this case sports in Indonesia. Having interpreted their task as holding a debate, rather than as having a conversation, they begin to speak in a quite formal style, using formulaic expressions which approximately translate as “thank you for this opportunity to speak” to introduce their turns. However, they very quickly return to normal turn-taking and a more colloquial style of speech. Several times in the course of the next 40 minutes they remind themselves or each other of the “assigned task”, and return to formal style for short periods, only to slip back into free conversation a short while later. Towards the end of the conversation, they notice that the tape is running out and realize that they have not properly discussed the topic. The last part of the tape is devoted to the topic, and a formal style is maintained throughout this section.
In analyzing this data I originally set up five categories of speech style: colloquial (the first 30 minutes of the tape, with completely normal turn-taking), debate (formally organized, explicitly stated turn-taking), post-debate narrative (personal narratives with non-feedback turn taking suspended until the end of the narrative), post-debate conversation (completely normal turn-taking), and post-debate semi-monolog (conversation dominated by one individual who has special rights to the floor). The categories were based on criteria of turn-taking patterns, interruptions and laughter, topic being discussed, use of formulaic expressions and specific references to the "assigned task". I identified each section of the tape according to these categories, and coded all verbs according to category in the data base. I then did a series of Chi-square tests, comparing the percentage of presence and absence of meN-, ber- and N- for each category individually with each of the other four categories. I found that four of the categories (colloquial, post-debate narrative, post-debate conversation, and post-debate semi-monolog) did not show statistically significant variation with each other, but that all of them did show statistically significant variation (of the same type and in the same degree) with debate. I therefore grouped those four
categories together as "colloquial", and compared them with the
debate section, termed "formal".

1.1 Intransitives

I divided intransitives into two major categories for this
section of the study: those that could take ber- and those that could
take meN-. As mentioned in Chapter One, there are certain
problematic roots: those that may also occur with no affix in
Standard Indonesian, those that may occur with either ber- or
meN- in Standard Indonesian, and those that occur with ber- in
Standard Indonesian but are found in the corpus with no affix and
with N-. I resolved these problems in the following fashion. Roots
that could occur with or without an affix in Standard Indonesian
were not included if they only occurred without an affix in the
corpus, since the goal of my study was to investigate variation in
affix use. However, if they occurred both affixed and unaffixed in
the corpus, all instances of the root were included in the count.
Roots which could occur with either ber- or meN- in Standard
Indonesian were included according to the affix they occurred with
in the corpus. Thus, if they occurred with meN-, then those roots
when they occurred without an affix were counted as instances of omission of \( meN \). If they occurred with \( ber \), then those roots when they occurred without an affix were counted as instances of omission of \( ber \). Roots which occur in Standard Indonesian with \( ber \)-but in the corpus only occurred either affixless or with \( meN \)-\( N \)-were counted when they occurred without an affix as instances of omission of \( meN \).

1.1.1 \( Ber \)

In this section I will present the data for \( ber \), and a discussion of it. In the discussion I will show that there is evidence against the diglossic hypothesis, and suggest two kinds of evidence against the code-switching hypothesis, one having to do with grammatical rules and the other having to do with morpheme-level switching. Finally I will show that this data also differs from the speech of the non-native speakers described in Gunarwan's study.

The frequency and percentages of presence and absence of \( ber \)- in formal and informal speech are shown below (see Table 4).
Percentages are with respect to register total, not to affixation type total.

Table 4  Observed Frequencies and Percentages of ber-

<table>
<thead>
<tr>
<th></th>
<th>No Affix</th>
<th>ber-</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>16 (37%)</td>
<td>27 (63%)</td>
<td>43</td>
</tr>
<tr>
<td>informal</td>
<td>75 (45%)</td>
<td>91 (55%)</td>
<td>166</td>
</tr>
</tbody>
</table>

The percentages show clearly that use of ber- is more frequent than its omission in both registers, and that the difference is greater in formal register than in informal. However, the difference is not particularly great in either register. In formal register we have a difference of 25.58 percentage points, in informal register a difference of only 9.64 percentage points. This difference proved not to be statistically significant, when tested using Chi-square (with Yates Correction factor). A lack of statistical significance means that the data could be distributed randomly with respect to register. In other words, the observed difference between the use and omission of ber- in formal and informal register might be due to chance. This should not be taken as necessarily disproving the idea that the variation is linked to a register difference, but simply as not proving it. It is possible that the variation is sensitive to register, but the degree of difference between the two registers is so small that it cannot be measured statistically. It is equally possible, statistically speaking, that the variation between the two registers

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is simply due to chance. It seems quite likely that the first hypothesis is true, and that the use of *ber*- varies according to register, since we will see that for many of the other affixes there is a statistically significant correlation between formality of register and use of standard vs non-standard forms. It is likely that this is true of *ber*- also; however, this is not statistically verifiable.

The data provides evidence against the diglossic hypothesis, since the formal register used in this corpus is quite different from Standard Indonesian. In Standard Indonesian as defined and promoted by the Pusat Pembinaan dan Pengembangan Bahasa (Language Development Center, the government agency concerned with language planning and development) all of the roots in question would be prefixed with *ber*-. However, if SJI is admitted to be a separate variety, this does not present a problem. One could simply say that in SJI use of *ber*- alternates with its omission, for reasons as yet to be determined, in both formal and informal registers, and that register is not a factor in the alternation.

There seems to be no evidence so far against the code-switching hypothesis. In fact, the data seems totally consistent with it, since in Betawi *ber*- is considered optional with intransitive and semitransitive verb roots
(Muhadjar 1981). However, looking at the nature of the individual roots from which ber- is omitted, we find that in this corpus, as with Gunarwan's speakers, ber- may be omitted not only with verbal roots, but also with nominal roots. In my corpus of 209 clauses, 12 contain roots which are definitely nominal, and another 10 contain a root which may be. This could perhaps be considered an argument against the code-switching hypothesis, since it is not in accord with the grammatical rules of Betawi to omit ber- with nominal roots, only with verbal ones. However, the rule in question is not a phrase structure rule, and the only rules that it has been demonstrated that code-switching must obey are phrase structure rules (Woolford 1981). If it is indeed true that code-switching must obey other rules of the language that is switched into, then this is an argument against the code-switching hypothesis.

There is also one piece of evidence of what would have to be called code-switching at a morphological level. In Example 24 below Y is discussing the development of sports in Indonesia, and finds himself at a loss for words to complete his utterance. D and S both offer suggested completions, both of which are rejected by Y, who later goes on to complete the thought himself in the section following this example.
Example 24  

Y: kita berharap hal-hal yang begini: bisa we *ber-hope* thing thing which like this can  
D: bertahan  
*ber-endure*  
Y: bukan, disamping itu bukan: soal no besides that no matter bertahannya ya,  
*ber-endure-gen yes*  
S: ikut andil (standard form: berandil) follow share  
Y: e bukan, uh no  

Y: We hope that this kind of thing can  
D: endure  
Y: no, besides it's not a question of its enduring  
S: participate.  
Y: uh no,

The root *andil*, a nominal root found with no affix, is a Standard Indonesian root which requires the prefix *ber-* in order to be used as a verb. This root is not found in Chaer (1981), suggesting that it is not in the Betawi lexicon. If this is indeed the case, then the use of this Standard Indonesian root with a Betawi "affix", or rather the absence of an affix as permitted in Betawi but not in Standard Indonesian, could only be explained in a code-switching hypothesis by allowing for switching between a root and its bound affix, which is not considered to be permissible according to the known principles of code-switching.⁴ Thus, there seems to be some evidence against the code-switching hypothesis, both in terms of grammatical constraints of

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Betawi not observed in the corpus, and the need to refer to morpheme level code-switching.

This corpus also differs from Gunarwan's findings on the Indonesian of non-native speakers. In that study, the variation in the use and omission of *ber-* correlated with demographic factors, but it also correlated with register in a statistically significant way. The speakers in my study show variation, but as they are demographically similar to each other this variation does not correlate with demographic factors. It also does not correlate with register in a statistically significant way. There was considerably greater difference in the use of *ber-* in different registers in Gunarwan's data than there is in mine. This is another kind of evidence for the existence of SJI as a separate dialect. The speakers of SJI do not operate under the same constraints as second-language speakers of Indonesian. Instead, they appear to have developed their own, native variety of Indonesian, with its own constraints and conditioning factors.

1.1.2 *MeN-*

In this section I will present the data for *meN-*, and a discussion of it. I will show that there is evidence against the diglossic hypothesis, and
suggest three kinds of evidence against the code-switching hypothesis, one having to do with formality and informality, the second having to do with morpheme-level switching and the third having to do with grammatical rules. Finally I will show that this data also differs from the speech of the non-native speakers described in Gunarwan's study.

The frequency and percentages of presence and absence of meN- and N- in formal and informal speech are shown below (see Table 5). Percentages are with respect to register total, not to affixation type total.

<table>
<thead>
<tr>
<th>Table 5 Observed Frequencies and Percentages of meN-</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>informal</td>
</tr>
</tbody>
</table>

Looking at the percentages, it is immediately clear that meN- is much more common in formal register than either N- or no affix, while N- is much more common in informal register than meN-, and somewhat more common than no affix. The affixless forms constitute a somewhat larger percent of the total in informal register than in formal. When tested, these figures proved to be statistically significant (chi-square: 37.753, df: 2, p: < .0005). This tells us that the variation is not random, but does indeed correlate with register. The Chi-square does not tell us, however, exactly what is the
source of the statistical significance. It doesn’t evaluate the contribution of
the different affixes to overall statistical significance. To determine this we
have to explicitly compare observed with expected frequencies and
percentages for each column (see Table 6).5

Table 6 Expected Frequencies and Percentages of meN-

<table>
<thead>
<tr>
<th></th>
<th>No affix</th>
<th>meN-</th>
<th>N-</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>12 (39%)</td>
<td>8 (26%)</td>
<td>11 (35%)</td>
</tr>
<tr>
<td>informal</td>
<td>25 (38%)</td>
<td>18 (27%)</td>
<td>23 (35%)</td>
</tr>
</tbody>
</table>

We can see that the expected frequencies and percentages for no
affix are very similar to the observed frequencies and percents in both
formal and informal register. This tells us that in each register, if distribution
were random, there would be approximately the same amount of affixless
roots as actually occurs. Thus the variation between no affix and the use of
meN- and N- in different registers, like the variation between the use and
omission of ber-, is not great enough to be verified statistically. While it may
be due to change in register, with omission being more common in informal
register and less common in formal register, this cannot be proven.
However, for both meN- and N- there is a great difference between
observed and expected results. So they are the main source of the
statistical significance. In other words, the use of meN- and N- is not
distributed randomly, and their distribution cannot be attributed to chance\textsuperscript{6}. Rather *meN-* correlates with formal register and *N-* with informal register.

Again, this data provides evidence against the diglossic hypothesis, since the formal register contains a large percentage of affixless roots, and a number of instances of *N-* which are not acceptable in Standard Indonesian. Furthermore, the informal register contains a relatively large percentage of roots with *meN-, which most researchers have not described as occurring in Betawi, although Muhadjir (1981) mentions its use in formal register.\textsuperscript{7} An argument that the informal register of Betawi as used by non-Betawis is characterized by the use of a form that is found only in formal register, if at all, in Betawi, strikes me as unconvincing. It is thus clear from the use of these affixes that the formal register cannot be equated with Standard Indonesian, and the informal register cannot be equated with informal register Betawi, and thus probably cannot be equated with Betawi at all.

As far as the code-switching hypothesis goes, this data presents a certain amount of difficulty, although again the hypothesis is not disconfirmed outright. The fact that there is a significant correlation between register and choice of either *meN-* or *N-* is in contradiction with the claim
that when code-switching occurs, it takes place at a consistent ratio of
language A to language B, a ratio that is an established community norm
(Grosjean 1982). It is also in contradiction with the claim that code-switching
is a phenomenon limited to informal situations (Forson 1977). The
language use found in the corpus would require an analysis in which code-
switching proportions changed with a change in register, something which
has not to my knowledge been described in the literature.

There is also one case among these roots that would have to be
explained as morpheme level code-switching if the code-switching
hypothesis were accepted. This is illustrated in Example 25 below.

Example 25     Y: nanti ngendap tu itunya, kotoran semua
               later N-settle that that-3sg dirt all

               Y: All the dirt will settle out later on

The root *endap* 'settle, become sediment' which is found in Standard
Indonesian but apparently is absent in Betawi, is found in the corpus with
the *N*-prefix. If *endap* is indeed not found in Betawi, then this is an
anomalous form whose existence would require either a redefinition of
code-switching or an abandonment of the code-switching hypothesis.
In evaluating the code-switching hypothesis, we also need to consider violations of grammatical constraints. Again, there is no violation of phrase structure rules. The two varieties in question, Betawi and Standard Indonesian, are so closely related that it is possible that they have no disagreements in phrase structure at all. In considering other areas of grammar, there are possible violations. If $N$- were used with an adjective or omitted with a noun, that would violate the rules of Betawi. However, neither of these violations occurs in the corpus. If $N$- and no affix were distributed in the text in a way that violated the constraints of Betawi, this might also be considered an argument against the code-switching hypothesis. It has been claimed (Muhadjir 1981, Wallace 1977) that in Betawi $N$- is used to express processes and no affix to express states. It is therefore necessary to determine whether or not this is true in my corpus. I will return to this argument later, in Chapter Six, when I compare the functions of the affixes in different varieties.

If we attempt to compare the data in this corpus with Gunarwan’s findings for non-native speakers, a major discrepancy immediately stands out. In Gunarwan’s data, the use or omission of $N$- was phonologically conditioned. It was not open to variation. His speakers apparently used or omitted $me$- only, and this variation correlated with register in a statistically
significant way. In my corpus, a root may occur with or without $N$-individually of $meN$-. In other words, for native speakers of SJI there are three options; for the non-native speakers of Indonesian in Gunarwan's study there are only two. It is thus clear that with respect to intransitive $meN$, as with respect to $ber$, SJI differs greatly from the Indonesian of non-native speakers. This again suggests that SJI is an independent variety, operating under its own set of rules.

1.1.3 Summary of Intransitives

I have shown that the presence or absence of affixes with intransitive roots is not correlated with formality of register in a statistically significant way. Rather, in SJI in both formal and informal registers, intransitive verbs which require affixes in Standard Indonesian may occur without affixes. The presence of an affix is more likely in formal register, and its absence more likely in informal register, both for $meN$- and $ber$-. However, the difference is not great enough to definitely not be due to chance. Thus, while register may play a role, this cannot be verified.

For the choice between $meN$- and $N$- register is highly significant. This suggests that $meN$- and $N$- can indeed be considered to be in
alternation, and that one function of this alternation is to mark a register
difference. That is not to say that this is the only function of the variation
between *meN*- and *N*- There may be other functions which will only
become obvious when facts about discourse context are taken into
consideration. To consider the effect of discourse context on both the
alternation between *meN*- and *N*- and the omission/use alternation, we must
look not at the data from just these three speakers, but from all the
speakers.

1.2 Transitive Prefixes

For this section of the study, based on the same corpus of data
described above, I included all transitive (two-argument) roots which
normally take trigger morphology. There are roots which generally do not
occur with *meN*- but which can occur with *di-* such as *makan* 'eat'. Some of
those roots occurred in the corpus only in affixless form, and they were
omitted from the study. Others occurred both in affixless form and with *di*.
In those cases I included all instances of the root in the study, both those
with *di*- and those with no affix. I further excluded all cases where it was not
possible to determine whether the root was affixless or was preceded by a
syntactically cliticized pronoun. The remaining roots were divided into four
groups, those with no affix, those with di- or a clitic, those with meN-, and those with N-. Each of these roots was coded for register.

1.2.1 The Data

The frequency and percentages of presence, absence and form of affix in formal and informal speech are shown below (see Table 7). Percentages are with respect to register total, not to affixation type total.

<table>
<thead>
<tr>
<th></th>
<th>No affix</th>
<th>di/clitic</th>
<th>meN-</th>
<th>N-</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>28 (19%)</td>
<td>46 (30%)</td>
<td>72 (48%)</td>
<td>5 (3%)</td>
<td>151</td>
</tr>
<tr>
<td>informal</td>
<td>145 (35%)</td>
<td>156 (38%)</td>
<td>48 (11%)</td>
<td>65 (16%)</td>
<td>414</td>
</tr>
<tr>
<td>total</td>
<td>173</td>
<td>202</td>
<td>120</td>
<td>70</td>
<td>565</td>
</tr>
</tbody>
</table>

These results proved to be statistically significant (Chi-square: 92.981, df: 3, p: < .0005). This tells us that the variation is not randomly distributed across the two registers, but rather correlates with register. However, it is not immediately clear which parts of the variation correlate with register. In order to properly interpret these results, it is helpful to compare observed and expected frequencies and percentages (see Table 8).
Table 8 Expected Frequencies and Percents

<table>
<thead>
<tr>
<th></th>
<th>No affix</th>
<th>di/clitic</th>
<th>meN-</th>
<th>N-</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>46 (30%)</td>
<td>54 (36%)</td>
<td>32 (21%)</td>
<td>19 (13%)</td>
</tr>
<tr>
<td>informal</td>
<td>127 (31%)</td>
<td>148 (36%)</td>
<td>88 (21%)</td>
<td>51 (12%)</td>
</tr>
</tbody>
</table>

To further clarify matters, the difference in percentage points between observed and expected results is summarized in Table 9.

Table 9 Difference between Observed & Expected Percents

<table>
<thead>
<tr>
<th></th>
<th>No affix</th>
<th>di/clitic</th>
<th>meN-</th>
<th>N-</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>11.92</td>
<td>5.30</td>
<td>26.49</td>
<td>9.27</td>
</tr>
<tr>
<td>informal</td>
<td>4.34</td>
<td>1.93</td>
<td>9.67</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Interestingly, the difference between observed and expected is much larger in formal register than in informal register. For both registers, the largest difference between observed and expected results is for meN-, which has an unusually high frequency in formal register, and a low frequency in informal register. Again in both registers the next largest difference between observed and expected results occurs the affixless roots, which have a lower frequency in formal register and a higher frequency in informal than the null hypothesis would predict. N- shows almost the same pattern as affixless roots, but there is a slightly smaller difference between observed and expected. Roots with di- or a clitic show the least difference between observed and expected.
1.2.3 Analysis

The statistical analysis of the data indicates that when di- or a clitic is used, the results are practically what would be expected with random variation. That means that the effect of register on the use of this type of affix is very small. The effect of register on the use of meN- is much larger. And it is significant that in formal register, when the frequency of meN- increases by so much, the forms that decrease in frequency are N- and affixless roots. This suggests that all of these affixation types have something in common, perhaps a similarity of function, such that when there is a register shift they can replace each other without disturbing the discourse structures of the text.

It is not surprising that this is the case with N-. N- and meN- are phonologically quite similar, and are probably cognate morphemes. Many of the languages spoken in western Indonesia have a prefix with a similar form (e.g. Minangkabau maN-, Malay meN-, Javanese N-, Toba Batak maN-), and they are probably all cognate forms, originating in the same protomorpheme. In many of these languages the cognate prefixes show a degree of similarity of function which is not surprising given a genetic connection. N- and meN- in SJI were probably borrowed from Betawi and
Standard Indonesian respectively, in which varieties they probably have similar functions. Thus when they were borrowed into SJI, they may have been borrowed with their original similar functions, and the similarity recognized by the speakers of SJI. Alternatively, their phonological similarity (nasals which undergo homorganic assimilation) could have been recognized, or perhaps both a phonological and a functional similarity were perceived. Since they came from two varieties which had very different social status, the combination of a perceived similarity of form and/or function together with the discrepancy in social status, may have provided the impetus for giving these prefixes the added function of marking register on transitive verbs, as appears to be the case with intransitives. However, a detailed discourse study must be undertaken before it can be determined whether or not $N$- and $meN$- have differences in function in SJI besides indicating social register.

It is less immediately obvious why the affixless verbs would alternate with $meN$- in marking social register. Arguments have after all been advanced in favor of considering all affixless transitive verbs patient trigger. The fact that this alternation seems to exist is a piece of evidence that affixless verbs might be more appropriately considered actor trigger, like verbs affixed with $meN$- and $N$-. This claim will have to be further evaluated.
in Chapter 4 in the light of evidence about the function of affixless verbs that is obtained by examining discourse context.

1.2.4 Comparison with Other Varieties

As in the discussion of intransitives, so too the use of transitive prefixes presents evidence against the diglossic hypothesis. Forms unacceptable in Standard Indonesian (affixless verbs, N-) are found in the formal register sections of the corpus, which the diglossic hypothesis would suppose to be identical with Standard Indonesian. And forms with meN- are found in the informal register sections of the corpus, which the diglossic hypothesis would suppose to be identical with Betawi, although meN- is found in Betawi only in formal register. This again would require us to assume that in this diglossic community formal Betawi was used in informal register.

Evidence against the code-switching hypothesis again has two parts. The first is the same argument mentioned in reference to the variation in the use of meN- and N- in different registers with intransitive verbs. With transitive verbs as well we find statistically significant variation in the use of meN- and N- in different registers. Again we are driven to conclude that if
this is a code-switching situation, there is not a single, community-wide norm of appropriate amounts of code-switching such as has been hypothesized to exist in other bilingual communities, and that code-switching is not restricted to informal speech.

The second argument has to do with morphological level switches. Among the transitive verbs in the corpus a number of anomalous forms are found, which combine aspects of Standard Indonesian morphology with aspect of Betawi morphology. There are roots that occur with the Standard Indonesian prefix *meN*- and the Betawi suffix *-in* (see Example 26). There is also an instance of a root which has the Standard Indonesian prefix *meN*-, but obeys Betawi morphophonemics (see Example 27).

**Example 26**

Y: mungkin saya rasa, (.25) bangsa tujuh puluh maybe I feel type seventy per lima persen atau enam puluh persen itu per five percent or sixty percent that udah menguasain dia, already *meN*-power-*in* he

Y: I think probably if you control 75 or 60 percent, (standard form: menguasai)

**Example 27**

Y: dan saya memang ngga menyari musuh and I really neg *meN*-look-for enemy

Y: and I really don't look for enemies (standard form: mencari)
These forms are not in accordance with the code-switching hypothesis, and constitute an argument against it.

Finally, as with the intransitives, if it is shown that the $N$- and affixless forms are not used according to the constraints of Betawi, this might constitute a grammatical argument against code-switching. It remains to be seen whether or not transitive roots with $N$- occur as processes and transitive roots with no affix as states in informal register in the corpus. This matter will be considered in Chapter Six.

Since Gunarwan did not distinguish between transitive and intransitive verbs in his study, the comments made above about intransitive $meN$- hold for transitive $meN$- as well. Gunarwan’s speakers did not have the same options available to them as the speakers of SJI, since $N$- did not exist as a separate morpheme. Thus, with respect to transitive $meN$- as well as intransitive $meN$-, SJI differs greatly from the Indonesian of non-native speakers, and can clearly be considered a separate variety.
1.3 Transitive Suffixes

With the transitive suffixes, it is not a question of presence or absence, but rather of choice of suffix, that is of concern. The frequency and percentages of each transitive suffix in formal and informal speech are shown below (see Table 10). Percentages are with respect to register total, not to affixation type total.

<table>
<thead>
<tr>
<th>Suffixes</th>
<th>-i</th>
<th>-kan</th>
<th>-in</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>9</td>
<td>47</td>
<td>10</td>
<td>66</td>
</tr>
<tr>
<td>Informal</td>
<td>9</td>
<td>40</td>
<td>64</td>
<td>113</td>
</tr>
</tbody>
</table>

These results are statistically significant (Chi-square: 29.674, df: 2, p: .000). Looking at the percentages we can see that -i and -kan each double in frequency in formal register, while -in declines radically. This shows that the choice of which suffix to use is definitely sensitive to register.

The behavior of suffixes presents a clear argument against the diglossic hypothesis, since in formal register -in is still present, while in informal register both -i and -kan are still used. However, in Standard Indonesian -in is not acceptable, and in Betawi -i and -kan do not exist. It is
therefore clear from the use of suffixes that formal register is not identical with Standard Indonesian, and informal register is not identical with Betawi.

There is also a certain amount of disconfirmation of the code-switching hypothesis. As was the case with transitive and intransitive meN-, so also with the transitive suffixes there is a positive correlation between certain forms and formal register, and between other forms and informal register. As discussed above, this discrepancy between levels of code-switching in different registers might be considered an argument against code-switching.

There are also cases of what might have to be analyzed as morphological level code-switching in this set of data (see Example 28).

Example 28   Y: trus, kasi satu sendok, (.25) ini aja satu then give one spoon this only one sendok makan gitu.\(^9\) (.50) dilarutin gitu. spoon eat like di-dissolve-in like

Y: Then, add one spoonful, (.25) just this much like one tablespoon. (.50) Let it like dissolve. (standard form: dilarutkan)

The root larut 'dissolve' is not found in Chaer (1982), but is found in dictionaries of Standard Indonesian. Its occurrence with the Betawi suffix

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-in rather than the Standard Indonesian suffix -kan would thus constitute an example of morphological level code-switching, and therefore a counter-argument to the code-switching hypothesis. In addition, there are occurrences of affixless verbs (a Betawi construction) with -i and -kan suffixes (from Standard Indonesian), which also present problems for the code-switching hypothesis. In summary, the evidence from the use of suffixes points away from code-switching, and towards the acceptance of SJI as an independent variety.

1.4 Non-Volatives

With the non-volative forms also we are not concerned with presence or absence of affixes, but rather with the choice of affix. The frequency and percentages of each non-volative form in formal and informal speech are shown below (see Table 11). Percentages are with respect to register total, not to affixation type total.

<table>
<thead>
<tr>
<th></th>
<th>ke-</th>
<th>ke-an</th>
<th>ter-</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal</td>
<td>1</td>
<td>5</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>(5%)</td>
<td>(25%)</td>
<td>(70%)</td>
<td></td>
</tr>
<tr>
<td>informal</td>
<td>12</td>
<td>7</td>
<td>33</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>(23%)</td>
<td>(13.5%)</td>
<td>(63.5%)</td>
<td></td>
</tr>
</tbody>
</table>
The number of cases of non-volatives is too small to run accurate statistical tests on. The percentages suggest that there is little correlation between register and affix. *Ter-* is the only affix present in sufficient quantity to provide any sense of a pattern, is almost equally common in both registers (only 7 percentage points difference). *Ke-an* is slightly more common in formal register than in informal, but given the small sample size this cannot with any confidence be taken to represent a trend. It is equally likely that this form is distributed randomly with respect to register as it is that it correlates with register. *Ke-* is rather more common in informal register than in formal; in fact in formal register it occurs only once. This is more likely to represent a trend than the figures for *ke-an*, simply because there is a greater discrepancy between the percentages in formal and informal registers. However, the sample size is too small to make an accurate prediction.

This set of data presents evidence against the diglossia hypothesis, since in formal register we find an example *ke-*, which is not acceptable in Standard Indonesian, and in informal register we find fairly extensive use of *ter-*, which is not an affix of Betawi. It does not present any evidence against the code-switching hypothesis.
2.0 Reasons for code-switching reexamined

There are a number of suggestions of possible reasons why a speaker would choose to code-switch, some of which were mentioned above. Some of them could conceivably be applicable to the data at hand, while others could not. One of the most common causes of code-switching is lack of vocabulary in one language or another (Grosjean 1982). This reason is not applicable in this case, since the vast majority of the roots in question are found in both Standard Indonesian and in Betawi. The same root with one set of affixes is a Standard Indonesian form, and with another is a Betawi form. Other reasons which are not applicable in the data under consideration include the desire to exclude someone from the conversation (Valdes Fallis 1976, Scotton & Ury 1977, Lance 1979, Grosjean 1982); there is no one in the conversation in question who could be excluded through the shift, since all participants have equal facility in the same language varieties. Another common reason for code-switching which does not apply is conveying confidentiality, anger or annoyance (Grosjean 1982); these types of interactions do not occur in this conversation. Code-switching is frequently used for direct and indirect quotes (Gumperz 1982), but there are no quotes in the data. Finally, code-switching may be used to add authority or status to the role of the speaker (Scotton & Ury 1977,
Grosjean 1982), however these activities are not relevant to the interactions occurring in this conversation.

Reasons for code-switching that could conceivably apply to this data include marking group solidarity (Di Pietro 1977, Grosjean 1982), specifying speaker involvement (Grosjean 1982), also referred to as personalization (Gumperz 1982), addressee specification (Gumperz 1982), and reiterating, qualifying, amplifying or emphasizing a message (Gumperz 1982). Addressee specification and reiteration, qualification and amplification of messages occur frequently in the data. However, these processes do not appear to correlate with switches, and switches occur frequently in the absence of the processes mentioned. The other reasons given above are difficult to evaluate, because of the impossibility of determining speaker motivation after the fact. It is always possible that a speaker felt particularly involved at a certain point, or wished to emphasize a point, or to increase group solidarity. However, throughout this conversation, while many switches occur that could be motivated by these reasons, there is generally no particular evidence that they are. Nothing in the dynamics of the interaction or the flow of ideas makes it particularly likely that a switch should occur at a given spot.
Another common reason for switching is that certain topics are often uniquely associated with a single code (Valdes Fallis 1976, Lance 1979, Grosjean 1982). However, in the conversation that this study is based on, the switches are just as likely to occur in mid-topic as with a change in topic. The pattern that I described above, where the speech style appears to change when the speakers' attention returns to the task at hand, cannot really be interpreted as topic change. The general topic of sports holds both with and without attention to the task. The change is from rambling on about experiences with sports to making sure that all aspects of the speaker's involvement in sports (type of sport, where played, where learned) are covered. This attention to task, rather than to content, is much more reminiscent of what is known about patterns of register-change than patterns of code-switching.

Since reasons for code-switching have so much to do with speaker motivations and interactional factors that are not independently verifiable, it is not possible to completely rule out code-switching simply by examining the data in this way. What is possible is to show, as I have, that there is no compelling evidence to interpret what is going on in this conversation as code-switching motivated by the factors generally described in the literature on code-switching.
3.0 Possible Conditioning Factors for Variation

In Gunarwan’s study of non-native speakers’ use and omission of affixes, he found a statistically significant correlation with the number of syllables of the root, the nature of the preceding sound, and the lexical class of the root. I coded all the roots in the database for these three factors, and tested the degree of correlation by means of a series of Chi-squares. Since Gunarwan only used non-formal data to derive his results, I excluded the formal sections of my data from the study. I found that in my data there was no correlation between the number of syllables of the root and the presence or absence of either ber-, meN-, or N-. Nor was there any correlation between the nature of the preceding sound, or the existence of an audible pause before the verb, and the presence or absence of any of the prefixes.

In examining the lexical class of the root, I did find some correlations, although not for ber-. Among roots with ber-, the strongest correlations Gunarwan found were with adjectives, adverbs and numerals, of which there were too few in my data to consider. In Gunarwan’s study verbal roots correlated positively with absence of an affix, while nominal roots did not. However, in my data I found that the distribution of nominal and verbal roots with respect to presence or absence of ber- was apparently random and not
statistically significant. Among roots which may occur with meN- or N-,
Gunarwan found that verbal roots correlated highly with omission of the
affix, nominal roots correlated slightly with omission, and adjectival roots
correlated with retention. In my data the number of adjectives (8) was too
small to base any conclusions on; however, all of them were affixless, which
suggests a somewhat different system from the one Gunarwan described. I
was able to analyze the behavior of nominal and verbal roots, and the
results are given in Table 12. Percents are with respect to column totals.

Table 12  Lexical Classes of Roots

<table>
<thead>
<tr>
<th></th>
<th>noun</th>
<th>verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>with prefix</td>
<td>8 (15%)</td>
<td>164 (63%)</td>
</tr>
<tr>
<td>no prefix</td>
<td>47 (85%)</td>
<td>97 (37%)</td>
</tr>
<tr>
<td>total</td>
<td>55</td>
<td>261</td>
</tr>
</tbody>
</table>

This distribution proved to be statistically significant (Chi-square: 42.708,
df: 2, p: < .0005). To determine the source of the significance, observed
totals must again be compared with expected totals (see Table 13).

Table 13  Expected Lexical Classes

<table>
<thead>
<tr>
<th></th>
<th>noun</th>
<th>verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>no prefix</td>
<td>30 (55%)</td>
<td>142 (54%)</td>
</tr>
<tr>
<td>with prefix</td>
<td>25 (45%)</td>
<td>119 (46%)</td>
</tr>
</tbody>
</table>

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A comparison of the two tables indicates that the nominal class probably accounts for most, if not all, of the statistical significance. The difference between observed and expected results for the nominal class is 40 percentage points, while the difference between observed and expected results for the verbal class is only 9 percentage points. Thus, the variation in the verbal class is likely to be random, but the variation in the nominal class is clearly conditioned. In this corpus, nominal roots strongly favor omission of the prefix, while verbal roots appear to be neutral with respect to retention or omission of the prefix.

The difference between my results and Gunarwan's is quite striking. Almost all the factors that he found significant proved to be irrelevant in my data, and the one factor that was significant in both my data and Gunarwan's behaved differently in the two data sets, favoring deletion in Gunarwan's study, and retention in mine. Thus it appears that the use and omission of prefixes is conditioned by quite different factors, or is differently conditioned by the same factor, in the two populations. For Gunarwan's population, phonological factors were relevant, but for mine they proved not to be. Lexical factors on the other hand, are relevant for both populations, but have different effects in the two cases.
4.0 Summary

In this chapter I have discussed variation in the use and omission of verbal affixes in SJI, showing that much of the variation is sensitive to register. Affixes under consideration included the prefixes ber-, meN-, N-, ke- and ter-, the suffixes -i, -kan and -in, and the circumfix ke-an. I showed that the alternation between meN-, N- and no affix among transitive verbs, between meN-, and N- among intransitives, and that between -i, -kan and -in were clearly correlated with a variation between formal and informal register. In both cases, the forms found in Standard Indonesian correlated with formal register, and the forms found in Betawi correlated with informal register. However, the use and omission of intransitive prefixes proved not to correlate with register in a statistically significant way. Use is more common in formal register, and omission in informal register, but the differences were too small to be verifiable statistically. While they could be due to the difference in register, they could also be due to chance. The relative infrequency of ke-, ter- and ke-an makes it impossible to determine conclusively whether or not there is a correlation with register, but the data suggests that the form ke- may correlate with informal register.
I used facts about the alternation in affixes to argue that SJI should be recognized as an independent language variety, and that the language situation of this speech community should not be analyzed as either diglossia, with Standard Indonesian as a high variety and Betawi as a low variety, nor as code-switching between the two. Arguments against diglossia were based on the fact that the formal register in my data showed differences from Standard Indonesian, while the informal register showed differences from Betawi. In formal register there were many instances of non-standard verb forms, either without a prefix or with a non-standard affix, while the informal register made use of forms that either are not found in Betawi (such as ter-, -i, -kan) or are infrequent and restricted to formal register in Betawi (such as meN-). If this were a situation of diglossia, then the speech in formal register should be recognizably that of the high variety, while that of the informal register should be recognizably that of the low variety. Since this is not the case, it seems clear that the population being studied is not diglossic in Standard Indonesian and Betawi.

The code-switching hypothesis is more interesting than the diglossia hypothesis, and considerably harder to disprove, although there are a number of arguments against it. There are certain aspects of the data at hand which are inconsistent with code-switching as it is described in the
literature. For one thing, the variation occurs in both formal and informal registers, although at different rates, while code-switching is generally considered to be a phenomenon of non-formal speech, which takes place at a consistent ratio of language A to language B whenever it occurs within a community. In the absence of evidence that code-switching in known code-switching communities occurs at a reduced level in more formal registers, it seems preferable to interpret the data as representing an independent speech variety with variation in affixation that is partly register dependent.

Secondly, there are a number of cases of what may be morpheme-level code-switching, where a Betawi root occurs with a Standard Indonesian affix or vice-versa. However, there is no systematic replacement of a Betawi system with a Standard Indonesian system, just individual cases of mixing. For the most part, morpheme-level code-switching is believed not to occur. When morpheme-level code-switching has been observed in a known code-switching community, it was a case where the irregular morphological system of one of the two languages involved was replaced by the regular system of the other language in all cases. This is nothing like the kind of "morpheme-level code-switching" observed in my data. Again, in the absence of studies suggesting that this kind of behavior is a part of code-switching, it seems preferable to consider this an argument against a code-
switching analysis, and in favor of an analysis where SJI is an independent variety, which utilizes affixes found in two other varieties, Betawi and Standard Indonesian, but uses them according the morphological rules of SJI. The fact that these rules differ from the morphological rules of Betawi or of Standard Indonesian may perhaps be considered support for the argument that SJI is an independent variety. It has been shown that code-switching must obey the phrase structure rules of the languages concerned. It has not been demonstrated that other grammatical rules must also be obeyed. However, if this is the case (which seems plausible), then the fact that SJI does not obey the morphological rules of Betawi and Standard Indonesian would constitute an argument against code-switching.

An examination of the data in terms of the reasons that speakers are usually found to code-switch shows that many of them do not apply to the situation in which the data was collected. These include lack of vocabulary, desire to exclude someone from the conversation, conveying confidentiality, anger or annoyance, quoting, and adding authority or status. Of those that could apply, change in topic definitely does not correlate with switching. Marking group solidarity, speaker involvement and emphasis could apply, and one might argue that they do when a switch occurs. It is, of course, impossible to prove that one of these three reasons was not the speaker’s
intent at any given time, so it is impossible to rule them out. However, it is correspondingly impossible to prove that one of them was the speaker's intent at any given time. An examination of the data provides no compelling reason to assume particular speaker intent in the majority of the switches.

Given the situation described above, I believe that while the code-switching hypothesis is initially plausible, there are no really strong arguments in its favor, and there are a number of arguments against it which make recognizing SJII as an independent variety a preferable solution.

Finally, I considered several factors that had been suggested as possible conditioning factors for omission of the prefixes ber- and meN- in a study of the speech of non-native speakers of Indonesian, such as number of syllables of the root, nature of the preceding segment, and lexical class of the root. I found that most of these factors were irrelevant to my data, the one exception being that nominal roots which take meN- were unlikely to occur without a prefix. The variation found in the data, where it is not conditioned by sociolinguistic factors of register, will have to be explained in terms of something other than phonology. In the next chapter I will consider the possibility of discourse determinants in the alternation of some of the verbal affixes of SJII.
CHAPTER 3 NOTES

1. Forson (1979) has described a case of morpheme-level code-switching between Akan and English; however, it is of a special type in which an entire system of morphological marking from one language replaces that of the other language. In two cases, tense/aspect marking and pluralization, one language has a complicated system, and the other a simple one. In Forson’s study it was found that the simpler English tense/aspect markers were used in place of the more complex Akan ones in all code-switching environments, while the simpler Akan plural marking was used in place of the more complex English system in all code-switching environments. These substitutions were regular and across the board, not fluctuating. This type of systematic replacement does not occur in my data, where the two varieties do not have morphological systems of differing levels of complexity. The kind of mixing that occurs in my data is between two very parallel systems, and is not systematic. In some cases the affixes of Betawi are found with Indonesian roots, while in other cases the affixes of Indonesian are found with Betawi roots.

2. Gunanwan (1981) found that nominal roots did not correlate statistically with either retention or deletion of ber-. Rather, both possibilities existed, and in approximately equal frequency.

3. The 12 instances include 6 roots. They are olahraga ‘sports’; 3 instances, mupakat ‘consensus’; 1 instance, keluarga ‘family’: 4 instances, pesta ‘party’: 1 instance, andil ‘part, quota’: 1 instance, and cerita ‘story’: 2 instances. The 10 instances of possibly nominal roots are 10 instances of jalan ‘road’. I’m not certain whether Muhabdir would consider this a nominal root, which requires ber-, or a precategorical one (one of a group of roots “whose class is clear only when they have undergone morphemic processes” [Muhabdir 1981]), which does not. However, Chaer (1982) lists it as occurring in Betawi without a prefix.
4. Omision of a morpheme is not the same process as morpheme use. However, the result is basically the same: the use of a Standard Indonesian root in a form which is acceptable in the morphological system of Betawi but not acceptable in the morphological system of Indonesian.

5. A Chi-square test determines whether or not a given distribution is normal or skewed in a statistically significant way, by comparing the observed frequencies with expected frequencies. Expected frequencies are determined according to a mathematical formula of \( E_{ij} = n_i n_j / N \), where \( E = \) expected, \( i = \) row, \( j = \) column, \( n = \) row or column subtotal and \( N = \) total number of cases. The Chi-square itself tells us that somewhere within the data observed and expected frequencies differ in a way that almost certainly can not be due to random variation, but it doesn’t tell us what the difference is. By going back and looking at the individual cells we can see where that difference occurred.

6. Statistical analysis determines a degree of probability, so it is not really possible to state categorically that something is not due to chance. However, when the probability is below a certain value, (in most disciplines, below .01) this is generally considered sufficiently low as to be negligible, and the results can be stated definitely with a good degree of confidence.

7. Wallace (1977), Chaer (1982), and Ikranevara (1980) do not even mention the possibility of meN- occurring in Betawi. Muhadjar (1981) describes meN- in Betawi in certain archaic forms in poetry and proverbs, in borrowings from Indonesian, in reduplication of the form root-meN-root, and states that it also occurs in formal register in place of N-. He does not give any indication of its frequency, but the scant discussion that he gives it, coupled with its absence in other descriptions of Betawi, suggests its rarity.

8. Since it is the size rather than the direction of difference that is relevant, I have reported these figures as absolute values.

9. *Gitu* (literally 'like that') is used in SJ1 much as 'like' is used in colloquial Los Angeles speech of the type often associated with "Valley Girls".
10. It might be argued that this actually shows that previous claims about code-switching not occurring at the morpheme level are incorrect. Clearly, either morpheme-level code switching exists, or the situation at hand is not code-switching. In the absence of other compelling evidence in favor of code-switching, and also in the absence of studies of other cases showing this kind of code-switching (in spite of considerable attention to the subject in recent years), I am inclined to think that it is the code-switching analysis of SJI that is in error, not the definition of code-switching.
0 Introduction

In this section of the dissertation, the data under consideration consists of 17 naturally occurring narratives produced on a variety of occasions by 8 different speakers, 5 female and 3 male. Some of these narratives are basically monologues, with little or no feedback from the listeners, while others are told more interactionally, involving questions and answers, discussion and digressions. These sections were chosen to provide the basis for a study of discourse transitivity because it is much easier for an outsider to a conversation to determine such crucial indicators of discourse transitivity as the eventiveness or non-eventiveness of an utterance, and the referentiality of a referent, when there is a plot which can be followed. All clauses containing potentially transitive verbs (verbs which could take two arguments in the form in which they were used) were included in the data base.

This chapter is divided into three main sections. In section 1 I consider whether or not there is a discourse determined explanation for the alternation between *men* and *N* in terms of levels of transitivity (as opposed to the sociolinguistic, register-marking function discussed in Chapter 3). In section 2 I will discuss the degree to which transitivity plays a
role in determining the choice between AT and PT. In section 3 I will deal with the status of affixless verbs.

I examined the data in terms of the factors originally entered into the database, not all of which proved relevant. For the referents of each clause (actor and patient) this included referential status, animacy, syntactic type, lookback, referential status at previous mention, syntactic type at previous mention, grammatical status at previous mention, and semantic role at previous mention. For the clause as a whole the factors included mood, aspect, speaker's perspective, being on or off the timeline, word order, argument structure, presence of auxiliaries, and clause combining\(^1\). Initially all clauses containing verbs which could have two arguments were included in the database. However, in actual comparisons, certain clauses were later excluded from consideration, on the grounds that in these clauses trigger choice was grammatically determined. When this was the case the reasons for excluding each clause type will be detailed.

1 Comparison of *meN*- and *N*-

In this section I discuss discourse factors affecting the use of the prefixes *meN*- and *N*- with transitive verbs.
1.1 Introduction

In the data under consideration, there were 44 cases of clauses containing *meln*- and 82 cases of clauses containing *N*- with potentially transitive roots. Comparison of the factors in the database revealed interesting differences between the way the two prefixes were used, some having to do with discourse transitivity, and others having to do with formality.

1.2 Transitivity

There proved to be no substantial difference between the two prefixes in terms of the status of the actor. For both prefix types, the prototypical actor is identifiable, animate, syntactically zero, and last mentioned in the immediately preceding clause, where it was either the actor of an actor trigger clause or the subject of an intransitive clause, and was syntactically either zero or pronoun. The degree of variation away from this prototype was practically the same for both prefixes; any differences that did occur were not statistically significant, and can be assumed to be due to chance.
There was also no substantial difference in terms of mood, aspect, or timeline. Both prefixes followed a low transitivity profile, with strong associations with irrealis, non-eventive, off-the-timeline clauses. This was entirely as expected, since as noted in Chapter 2, both prefixes have been shown to be associated with low transitivity in related varieties such as Betawi and Standard Indonesian.

There were differences in terms of the status of the patient however. It appears that meN- is more strongly associated with low transitivity than N-; its patients are less likely to be animate (see Table 14) and referential (see Table 15).²

<table>
<thead>
<tr>
<th>Table 14</th>
<th>Animacy of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>animate³</td>
</tr>
<tr>
<td></td>
<td>total %</td>
</tr>
<tr>
<td>meN- N-</td>
<td>8 (19%)</td>
</tr>
<tr>
<td></td>
<td>30 (45%)</td>
</tr>
<tr>
<td></td>
<td>$X^2 = 6.435, p = .01^4$</td>
</tr>
</tbody>
</table>

In Table 14 we see that while both meN- and N- are more likely to have inanimate patients than animate ones, thus both being associated with lower transitivity, with N- this tendency is fairly weak, while with meN- the tendency is extremely strong, 81% of all patients being inanimate.
Table 15 Referentiality of Patient

<table>
<thead>
<tr>
<th></th>
<th>no patient</th>
<th>non-ref</th>
<th>non-id</th>
<th>ident</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>meN</strong></td>
<td>2 (5%)</td>
<td>25 (57%)</td>
<td>6 (14%)</td>
<td>11 (24%)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>15 (18%)</td>
<td>22 (27%)</td>
<td>9 (11%)</td>
<td>36 (44%)</td>
</tr>
</tbody>
</table>

\[ X^2 = 18.253, \ p = .001 \]

In Table 15 we see that while both prefixes may occur with no patient (that is used intransitively) and with non-referential patients, *meN*- has a much higher percentage of non-referential patients (57% non-referential with *meN*- compared to 27% non-referential with *N*-), and *N*- has a somewhat higher percentage of intransitive use (this difference will be discussed in section 1.3). Among referential patients, identifiable ones are more common than unidentifiable ones on the whole. *MeN*- and *N*- have approximately the same amount of unidentifiable patients, in both cases considerably less than the identifiable. *N*- has a higher percentage of identifiable patients (44% identifiable with *N*- compared to 24% identifiable with *meN*-). It thus seems that while both are low transitivity forms capable of occurring intransitively and with non-referential patients, *meN*- has an even greater affinity for low transitivity than *N*- which is reflected in the greater use of *meN*- with non-referential patients and *N*- with identifiable ones.
1.3 Clause Structure and Argument Structure

*meN*- also is associated with fuller clauses than *N*. 45% of all clauses with *meN*-(20 clauses) contained an auxiliary, while only 24% of all clauses with *N*-(20 clauses) did so. As mentioned above, *meN*- is less likely to be used intransitively than *N*-. When used transitively, *meN*- is more likely to occur with explicitly expressed arguments, as opposed to zero anaphora (see Table 16).

<table>
<thead>
<tr>
<th></th>
<th>no arg</th>
<th>one arg</th>
<th>two arg</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>meN</em></td>
<td>7 (16%)</td>
<td>23 (53%)</td>
<td>14 (32%)</td>
</tr>
<tr>
<td><em>N</em></td>
<td>33 (40%)</td>
<td>36 (44%)</td>
<td>13 (16%)</td>
</tr>
</tbody>
</table>

$X^2 = 11.590, p = .01$

Table 16 shows that *N* is the preferred form when no arguments are present (83% of all clauses with no expressed arguments take *N*). On the other hand, *meN*- generally occurs with at least one argument, and 32% of all *meN*- clauses have two arguments present. Examples 29 and 30 illustrate the clause structure typically found with *meN*-, each containing an auxiliary (italicized), an explicit actor and an explicit patient. Examples 31 and 32 illustrate the clause structure typically found with *N*-, each containing a verb with no overt arguments.
Example 29  C: setiap saya *membina* hubungan,
each I want *meN*-build connection
temen-temen saya pasti *menghancurkan*
friend-friend I surely *meN*-destroy
C: every time I try to *start* a relationship, my
friends are sure to ruin it.

Example 30  C: jadi orang *ngga menyepelah* saya
so person not *meN*-trivialize I
C: so people don't take me lightly.

Example 31  I: kadang lembur untuk *ndafer*
sometimes overtime for *N*-register
I: sometimes I work overtime to register
(students).

Example 32  R: saya *ngga mau*, ah, ude *cape-cape*, minta
I not want ah already tired request
nyebrangin
*N*-take across-*in*

R: I didn't want to, ah, (I) was already tired,
(she) requested that (I) take (her) across.

The difference in clause structure between clauses with *meN*- and
clauses with *N*- may be a reflection of the register marking function of the
affixes. More formal speech, like written language, is characterized by more
complete clauses, while colloquial speech is characterized by more
abbreviated clauses, and a greater use of zero anaphora. It is possible that
meN-, because of its association with formal register, seems less appropriate in abbreviated clauses than does N-, and is therefore more likely to be reserved for use in clauses with more overt arguments. The use of auxiliaries can not be considered a mark of formality; auxiliaries are common in colloquial speech as well. However, they do make a clause fuller, and it may be for this reason that they are more common with meN- than with N-.

1.4 Summary

A comparison of clauses with meN- and N- shows that both are often found in clauses that are low on the transitivity scale according to the related parameters of mood, aspect, and timeline, and according to patient status, since both occur with no patient and non-referential patients, and both prefer inanimate patients. There is a transitivity difference between the two, with meN- being even lower in transitivity than N- in terms of status of the patient. However, the differences are not so great that they must be considered two separate clause types, with totally separate discourse functions. Rather, they seem to represent minor variations within a low transitivity AT framework, allowing the speaker to make a finer set of distinctions than would be possible with a single AT prefix.5

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The other differences between *meN-* and *N-*, relating to occurring in a fuller or more abbreviated clause, have no connection with transitivity, and appear to be due to the sociolinguistic function of differentiating register which associates *meN-* with formal register and *N-* with informal register.

Example 33 presents a typical clause with *N-*, in which the verb appears with no auxiliary or overt arguments, but the patient is identifiable. Example 34 presents a typical clause with *meN-*, in which there is an auxiliary and an overt patient, which however is non-referential.

Example 33  I: kaka kaka itu mau pulang kesitu, older sibling that want go home to there daripada saya berebut, rumah satu, rather I *ber*-struggle house one mendingan udah deh biarin saya ngontrak, better already emph let I *N*-rent udah sana tempatin aja, akhirnya already there place-*in* just finally kaka saya yang *nempatin*, ama older sibling my rel *N*-place-*in* with ade saya. younger sibling my

I: my older brothers and sisters wanted to go live there, rather than fighting (over it), there's only one house, ok then I'll rent, you just go live in (the house), in the end it was my older brother who lived there, along with my younger brother.
Example 34  T: enter kalo belum selesai nanti, mesti kerja, 
                 later if not finish later must work 
mau ngga mau menghidupi keluarga kerja, 
want not want $meN$-support family work 
akhirnya males kullah. 
at last lazy study 

T: later on, if they haven't finished (school), they 
have to work, like it or not they have to 
support a family and work, in the end they're 
too lazy to study.

2 Comparison of AT and PT

In this section I compare the use clauses containing the AT prefixes 
$meN$- and $N$- with those containing the PT prefix $di$- or a clitic pronoun.

2.1 Introduction

The data included a total of 118 AT cases, with either $meN$- of $N$- as 
prefix, and 146 PT clauses, with either $di$- or a clearly cliticized pronoun as 
prefix. Before comparing the AT and PT data, I excluded all clauses for 
which trigger choice was grammatically determined. These included: relative 
clauses (9 PT clauses, 13 AT clauses) which must have the head of the 
clause as trigger; reflexives (2 AT clauses), which must be AT; and clauses 
which contained a potentially transitive verb being used intransitively (15 AT
clauses), which must be AT. I also excluded all PT clauses with non-referential actors, even though trigger choice is not grammatically determined in this case. Non-referential actors may appear, although infrequently, with AT or affixless verbs. However, they are quite common with PT verbs; the corpus under consideration contained 49 such clauses, which constitutes 33% of all PT clauses. They were excluded from this discussion because they appear to form a separate discourse functional class, similar to the agentless passive in English, which is quite unlike other PT clauses in terms of the parameters of mood, aspect and patient status considered here. (PT clauses with non-referential actors will be discussed in Chapter 5.) After excluding all these clause types I was left with a total of 88 AT clauses and 88 PT clauses.

There are two sets of parameters in which correlations between trigger choice and aspects of discourse transitivity are statistically significant. These are the parameters of patient status and the parameters of mood, aspect and timeline.
2.2 Aspectual Parameters

Mood, for the purposes of this study, was divided into three categories, imperative, indicative and irrealis. There were so few imperative clauses, however, that these had to be excluded from all statistical calculations in order to obtain valid results. Aspect was divided into two categories, stative and eventive, while timeline refers to whether the clause can be considered to be on the timeline of a given story or off of it. Mood, aspect and timeline not only seem intuitively to be related concepts, but also in the data there is a clear relationship, such that events on the timeline are almost exclusively a subset of eventive, and eventive clauses are almost exclusively a subset of indicative mood. Thus the fact that all three showed statistically significant correlations with trigger choice is not indicative of three independent facts requiring explanation, but rather of a single phenomenon.

2.2.1 Mood

Both PT and AT clauses are more likely to be indicative than irrealis; however, the difference is far greater for PT than for AT. In fact, statistical testing shows that PT is indicative more frequently than random distribution
would predict, while AT is irrealis more frequently than random distribution
would predict (see Table 17).

<table>
<thead>
<tr>
<th></th>
<th>Mood⁷</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>indicative</td>
<td>expected</td>
<td>irreals</td>
<td>expected</td>
</tr>
<tr>
<td>AT</td>
<td>52 (60%)</td>
<td>60</td>
<td>35 (40%)</td>
<td>26</td>
</tr>
<tr>
<td>PT</td>
<td>70 (80%)</td>
<td>61</td>
<td>18 (20%)</td>
<td>27</td>
</tr>
</tbody>
</table>

\[
X^2 = 7.194, p = .007
\]

As the columns labeled "expected" in Table 17 indicate, with random
distribution AT and PT would have had approximately the same amounts of
indicative and irrealis. However, AT has 10% less than the expected amount
of indicative, while PT has 10% more. Since indicative mood is associated
with high transitivity, while irrealis mood is associated with low transitivity
(Hopper & Thompson 1980), this type of distribution shows a correlation
between AT and low transitivity and PT and high transitivity.

2.2.2 Aspect

PT clauses proved more likely to be eventive than stative, while AT
clauses proved more likely to be stative than eventive (see Table 18).
<table>
<thead>
<tr>
<th></th>
<th>Aspect</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>event</td>
<td>expected</td>
<td>state</td>
</tr>
<tr>
<td>AT</td>
<td>27 (31%)</td>
<td>43</td>
<td>61 (69%)</td>
</tr>
<tr>
<td>PT</td>
<td>59 (67%)</td>
<td>43</td>
<td>29 (33%)</td>
</tr>
</tbody>
</table>

\[X^2 = 21.852, \ p < .0005^a\]

As Table 18 indicates, random distribution would have predicted an almost equal division between eventive and stative clauses for both AT and PT. Instead, AT is 69% stative, while PT is 67% eventive. Since eventiveness is associated with high transitivity, while stativity is associated with low transitivity (Hopper & Thompson 1980), this type of distribution again shows a correlation between AT and low transitivity and PT and high transitivity.

2.2.3 Timeline

Both AT clauses and PT clauses are less likely to be on the timeline than off of it, due to the non-linear, interactional nature of conversational narratives. However, PT is on the timeline more frequently than random distribution would predict, while AT is off the timeline more frequently than random distribution would predict, as is indicated in Table 19.
Table 19  

<table>
<thead>
<tr>
<th></th>
<th>Timeline</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>on expected</td>
<td>off expected</td>
</tr>
<tr>
<td>AT</td>
<td>22 (25%) 32</td>
<td>66 (75%) 56</td>
</tr>
<tr>
<td>PT</td>
<td>42 (48%) 32</td>
<td>46 (52%) 56</td>
</tr>
<tr>
<td></td>
<td>$X^2 = 8.864, p = .003$</td>
<td></td>
</tr>
</tbody>
</table>

As Table 19 shows, only one quarter of AT clauses are on the timeline, whereas almost half of PT clauses are. The expected distribution would have been for both AT and PT to be approximately two thirds off the timeline. Since being on the timeline is associated with high transitivity, while being off of it is associated with low transitivity (Hopper & Thompson 1980), this type of distribution again shows a correlation between AT and low transitivity and PT and high transitivity.

2.3 Patient Status

There is some correlation between trigger choice and transitivity in terms of status of patient. AT patients are less likely to be referential, individuated and animate than PT patients. There are differences between AT and PT in terms of patient syntax and continuity that reflect the referentiality and animacy differences.
2.3.1 Referentiality

AT patients are more likely to be non-referential than PT patients. If referential, PT patients are more likely to be individuated than AT patients. The figures on patient referentiality are shown in Table 20.

<table>
<thead>
<tr>
<th>Table 20</th>
<th>Referentiality of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-ref</td>
</tr>
<tr>
<td>AT</td>
<td>42 (48%)</td>
</tr>
<tr>
<td>PT</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>$X^2$ = 54.00, p &lt; .0005</td>
<td></td>
</tr>
</tbody>
</table>

As Table 20 shows, almost half (48%) of AT patients are non-referential. On the other hand, only 2% of PT patients are non-referential.\(^9\) If the patient is referential, it is more likely to be identifiable than unidentifiable, in both AT and PT clauses. However, the ratio of identifiable to unidentifiable patients differs greatly in the two clause types. For PT clauses the ratio is about 6:1; for AT clauses it is only about 2:1. Had the distribution been random, AT and PT clauses would have had the same ratio of identifiable to unidentifiable patients, 5:1. Non-referential patients are associated with low transitivity, and identifiable patients with high transitivity (Hopper & Thompson 1980). Thus the distribution of patients shows a correlation between trigger choice and transitivity.
2.3.2 Animacy

Patients of PT clauses are more likely to be animate than patients of AT clauses, as can be seen in Table 21.

<table>
<thead>
<tr>
<th></th>
<th>Animacy of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>animate</td>
</tr>
<tr>
<td>AT</td>
<td>25 (28%)</td>
</tr>
<tr>
<td>PT</td>
<td>58 (66%)</td>
</tr>
</tbody>
</table>

$X^2 = 23.348, p < .0005$

Animate patients are a characteristic of higher transitivity, so this data is further evidence of a correlation between trigger choice and transitivity. However, animacy and referentiality are not independent factors, as is shown in Table 22.

<table>
<thead>
<tr>
<th></th>
<th>Comparison of Animacy and Referentiality of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>animate</td>
</tr>
<tr>
<td>non-ref</td>
<td>2</td>
</tr>
<tr>
<td>non-id</td>
<td>3</td>
</tr>
<tr>
<td>ident</td>
<td>77</td>
</tr>
</tbody>
</table>

The non-referential patients and unidentifiable patients in the data are almost all inanimate, whereas the identifiable patients are twice as likely to be animate as to be inanimate. Thus it is not really possible to say that
animacy is an independent measure of a correlation between trigger choice and transitivity.

2.3.3 Other Correlations with Patient Referentiality

Animacy is not the only aspect of patient status to correlate with both trigger choice and referentiality. Syntactic type and lookback also show this type of correlation.

2.3.3.1 Syntactic Type

PT patients are most likely to be expressed by zero anaphora, and AT patients most likely to be expressed as noun phrases (see Table 23).

<table>
<thead>
<tr>
<th>Syntax of Patient</th>
<th>zero (33%)</th>
<th>np (53%)</th>
<th>pronoun (14%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>29</td>
<td>47</td>
<td>12</td>
</tr>
<tr>
<td>PT</td>
<td>61 (69%)</td>
<td>15 (17%)</td>
<td>12 (14%)</td>
</tr>
</tbody>
</table>

\[ X^2 = 27.894, \ p < .0005 \]

This distribution relates directly to the referentiality difference.

Non-referential patients and first mentions, which are common AT patient types, are much more likely to be full noun phrases, while identifiable
patients, which are common PT patient types, are more likely to be pronouns or zero anaphora. The distribution of syntactic type relative to referential type is shown in Table 24.

<table>
<thead>
<tr>
<th></th>
<th>zero</th>
<th>pronoun</th>
<th>np</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-ref</td>
<td>8</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>first</td>
<td>5</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>later</td>
<td>77</td>
<td>20</td>
<td>8</td>
</tr>
</tbody>
</table>

2.3.3.2 Continuity

Lookback (number of clauses since prior mention of referent) is a measure of the continuity of a referent, first developed by Givon (1983). Lookback of patient, like syntactic type, shows a correlation with trigger choice, and also with referentiality of the patient. AT patients tend to be less continuous than PT patients, according to the lookback measurement, as shown in Table 25.

<table>
<thead>
<tr>
<th></th>
<th>first mention</th>
<th>one</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>56 (64%)</td>
<td>13 (15%)</td>
<td>19 (21%)</td>
</tr>
<tr>
<td>PT</td>
<td>13 (15%)</td>
<td>42 (48%)</td>
<td>33 (37%)</td>
</tr>
</tbody>
</table>

\[\chi^2 = 45.857, p < .0005\]
Due to its high proportion of non-referential patients, AT clauses have an equally high proportion of first mention patients, since a non-referential patient by definition cannot have prior mention. PT clauses on the other hand have relatively few first mention patient, since the majority of PT patients are identifiable, and the most common way for a referent to be identifiable is through prior mention. Later mention PT patients are slightly more continuous than later mention AT patients; a PT patient is slightly more likely to have a lookback of one clause, while an AT patient is slightly more likely to have a lookback of more than one clause. However, this difference proved not to be statistically significant.

2.4 Summary

I have shown that PT clauses correlate with higher transitivity, and AT clauses with lower transitivity, with respect to two related sets of phenomena. This suggests that AT and PT verb morphology may be considered markers of discourse transitivity. With respect to the related parameters of mood, aspect and timeline, PT is consistently associated with the higher transitivity option and AT with the lower transitivity option in a statistically significant way. The same is true with respect to the related parameters of patient referentiality, animacy, continuity and syntactic type.

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However, the two sets of parameters did not show any meaningful correlation. That is, there was no correlation between aspect, mood or timeline and patient referentiality, or any of the other facets of patient status. Thus, there are two separate indicators of a relationship between trigger choice and level of transitivity. The fact that these two indicators are independent provides added support for the claim that AT and PT morphology may be considered markers of respectively lower and higher discourse transitivity, rather than markers of e.g. perfective aspect or individuated patients.

Example 35 presents a typical PT clause, indicative, eventive, on the timeline, with an individuated patient. This is in contrast with Example 34, page 130, which presents a maximally low transitivity AT clause, irrealis, stative, off the timeline, with a non-referential patient.

Example 35  S: disini kali muter gini ni. muter dulu kali here river turn like this turn before river like begini, na sekarang, kali ini dib di: apah, ya, this well now river this di- di- what yes jadi langsung ini diuruk, dipindahin kali so immediately this di-fill in di-move- in river kesini, to here

S: here the river bent like this. Before the river bent like this, well now, this river di- di- what, yes, so we filled it in right away, we moved it to here.
3 Affixless Verbs

In this section I describe the criteria by which I identified affixless verbs, and compare the class of affixless verbs first with AT verbs and then with PT verbs.

3.1 Introduction

Affixless verbs have been analyzed in a variety of ways, and there is no real consensus about their nature. It has been suggested that they are AT clauses that have dropped their prefix, which might lead one to assume that they performed the same discourse function as other AT clauses. They have also been considered "grammatically incorrect" PT clauses with misplaced auxiliaries and dropped pronouns, which would lead one to expect that they performed the same discourse function as other PT clauses. It is conceivable that they might be a third clause type, neither AT nor PT, with a third discourse function. It is even possible that they do not comprise a formal category, but rather are a combination of AT clauses with no prefix and PT clauses with a cliticized actor pronoun. For this reason, until this point in the dissertation, I have treated affixless verbs separately. Now that I have determined some significant differences between AT and
PT clauses, I can compare this with clauses with affixless verbs, to
determine their most appropriate classification. In this section I will attempt
to show that the best analysis considers the majority of clauses with
affixless verbs to be AT, with a slight difference in discourse function from
other AT clauses.

3.2 Classification of Affixless Verbs

For the purpose of this study it was necessary first to determine
whether or not all the affixless forms in the data belonged to the same
formal class. In other words, should any of these clauses be considered PT
clauses with cliticized actors? The majority clearly belonged in the class of
affixless verbs, as the verb either appeared with no overt actor, or with an
actor that either was separated from the verb by some intervening element,
or was a full noun phrase which could not be cliticized. However, a number
of cases occurred where an actor pronoun was followed directly by an
affixless verb, but the actor pronoun was not itself preceded by an auxiliary
which would provide evidence of the pronoun's cliticized status. In those
cases other criteria needed to be applied to determine the status of the
clause.
In those cases where the actor pronoun has a corresponding clitic which is formally different from the non-cliticized pronoun, this formal difference was sufficient to determine that the root was affixless, not cliticized. The pronouns dia (third person), aku (first person), and engkau (second person) are cliticized as di-, ku- and kau- respectively. Thus, if those nonclitic pronouns occurred, the verb could safely be considered affixless. However, there remained 57 cases with pronouns which had no formally differentiated clitics. Initially I excluded these cases from the data when I compared affixless verbs to AT and PT. After determining the basic patterns of similarities and differences between affixless verbs and AT and PT, I attempted to classify the more difficult cases before refining my analysis of the relationship between the three verb types. A variety of criteria were used to distinguish these clauses. Ultimately 44 of them were classified as affixless.

In some cases there were grammatical reasons why the clause could not be considered PT, and was classified as affixless. This was true of clauses with reflexive patients, those with potentially two argument verbs being used intransitively, and those with non-referential patients that were not complements of verbs of cognition and speaking.
Another group of clauses was classified as affixless on the basis of word order. These clauses were all of the order AVP, which is quite common in the corpus with AT verbs and with clearly affixless verbs, but never occurs with a clearly PT verb.

The third group consisted of verbs of cognition and speaking which take a clausal complement. These clausal complements are non-referential,¹⁰ and therefore one would not expect to find them with PT verbs. And indeed this is generally the case. Whereas there were 11 clearly AT clauses of this type (9% of all AT clauses), there were only 4 clearly PT clauses of this type, two of which had non-referential actors. As stated above, such clauses were excluded from comparison with other clause types, as they appear to form a separate class (in which distinctions of patient status are neutralized) which uses PT morphology for a reason unrelated to transitivity. This leaves only 2 PT clauses with clausal complements (2% of all PT clauses). Clearly affixless verbs in the corpus had an extremely high proportion of clausal complements (21 out of 126, or 17%). There remained 31 clauses with verbs of speaking and cognition and clausal complements where the nature of the verb (PT or affixless) was in question. Those 31 clauses were restricted to a very few verbs. All occurrences of those verbs are shown in Table 26, for verbs of uncertain
affixation type and for each of the three affixation types under discussion, together with a listing of how many times each verb occurs with a clausal complement in each affixation type.

<table>
<thead>
<tr>
<th></th>
<th>Uncertain</th>
<th>Affixless</th>
<th>AT</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>bilang</td>
<td>18 (18 clausal)</td>
<td>12 (8 clausal)</td>
<td>0</td>
<td>2 (1 clausal)</td>
</tr>
<tr>
<td>pikir</td>
<td>11 (11 clausal)</td>
<td>3 (3 clausal)</td>
<td>3 (1 clausal)</td>
<td>0</td>
</tr>
<tr>
<td>mina</td>
<td>1 (1 clausal)</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>rasa</td>
<td>1 (1 clausal)</td>
<td>2 (1 clausal)</td>
<td>7 (4 clausal)</td>
<td>1</td>
</tr>
</tbody>
</table>

Most of the uncertain cases contained either the root *bilang* ‘say’ or the root *pikir* ‘think’, with a single case each of *minga* ‘request’ and *rasa*, ‘feel’. Of these four roots, two, *pikir* and *rasa* cannot be PT unless a suffix (either -i or -kan) is affixed to the verb. A third, *minita*, when used as PT, can only take the requestee as trigger, not the request. The uncertain cases with these verbs (13 in all) must therefore be considered affixless, for grammatical reasons. When added to the 21 clearly affixless verbs with clausal complements mentioned above, this brings the number of affixless verbs with clausal complements up to 34, or 24% of all affixless verbs.

The remainder of the cases contain *bilang*, which is quite common with affixless verbs and relatively rare with PT. I classed these clauses as affixless partially on the basis of referentiality, partially to go along with the
frequency of *bilang* with affixless verbs, and partially because, unlike other verbs of speaking and cognition in the corpus, *bilang* has a distinct PT form but does not have a distinct AT form. When used to mean 'say' it does not occur with either *meN*- or *N*- . Thus, the only way to use *bilang* without making it PT is to make it affixless. Since I knew that these clauses were actually similar to clauses with affixless verbs, and differed from PT clauses in the same significant ways as clauses with affixless verbs, I felt justified in classifying all clauses with *bilang* as affixless.

Five relative clause on the patient were classified as PT, based on the grammatical constraint that the trigger of a relative clause must be the head of that clause. One might argue that the constraint holds only for clearly marked AT and PT clauses. However, since all relative clauses in this corpus and in other corpuses that I have examined which contain clearly affixless verbs are on the actor, it seems like a safe assumption that the constraint applies to affixless verbs as well. The classification of these clauses is somewhat moot, since all relative clauses were excluded from comparisons between PT and either AT or affixless verbs on the grounds that trigger choice was syntactically determined. Thus these five clauses were effectively excluded from consideration as relative clauses, regardless of the affixation type used.
There remained 8 clauses with identifiable patients for which there were no criteria for determining if these clauses were affixless or PT. They were excluded from consideration. This left a total of 170 clauses with affixless verbs to be compared with both AT and PT.

3.3 Comparison of Affixless Verbs and AT

In comparing affixless verbs and AT, I did not exclude clauses with a valence of one, relative clauses or reflexives, since they could occur with either verb type. This means that I was comparing a total of 170 clauses with affixless verbs and 118 AT clauses. In some cases, especially for patient status, after comparing the entire corpus, I did a second comparison excluding the 11 AT and 52 affixless clausal complements simply because, due to the nature of the texts as first person narratives, there were so many cases of affixless *pikir* and *bilang*, so many cases of 'I think' and 'I said' with non-referential clausal complements, that I thought this might be skewing the data. In most cases I found that the effect of removing clausal complements made AT and affixless verbs more similar, but that including them did not make affixless verbs more similar to PT. Rather, it tended to exaggerate the differences between affixless verbs and PT, which proved to
be the same differences that were found between AT and PT. This will be
discussed in detail below where relevant.

3.3.1 Grammatical Criteria

There are a number of grammatical criteria for considering affixless
verbs to be AT verbs. Both can be used in actor-headed relative clauses
(Example 36 and Example 37); also both can be used with reflexives
(Example 38 and Example 39), and both can be used intransitively
(Example 40 and Example 41). On the other hand, PT verbs cannot be
used intransitively, with reflexives, or in actor-headed relative clauses.¹²

Example 36  D: kadang-kadang yang ngejodohin, dia
sometimes rel N-matchmake-in 3sg
juga yang ngerusakin.
also rel N-wreck-in

D: sometimes the one who fixes you up is also the
one who wrecks it.

Example 37  D: saya seneng gitu ama dia juga seneng ama
I like like with him he also like with
saya eh adiknya itu
me eh younger sibling-gen that
yang bikin rusak
rel make wreck

D: like I like him he likes me too hey it's his little
sister who wrecks things

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Example 38  T: suami saya suka mendekatkan diri
husband my like close-kan self
ke agama
to religion

T: my husband started to become religious

Example 39  T: itu saya batesin diri terus, hanya
that I limit-in self continuously only
bergaul biasa,
ber-associate ordinary

T: then I controlled myself the whole time, only
had ordinary friendships

Example 40  I: kaka kaka itu mau pulang kesitu,
older sibling that want go home to there
daripada saya berebut, rumah satu,
rather I ber-struggle house one
mendingan udah deh biarin saya nongtrak,
better already emph let I N-rent
udah sana tempatin aja
already there place-in just

I: my older brothers and sisters wanted to go
live there, rather than fighting (over it),
there’s only one house, ok then I’ll rent, you
just go live in (the house)

Example 41  S: kita kerja sendiri, apa masak masak sendiri
we work self what cook cook self

S: we do our own work, what do our own cooking

Word order in clauses with affixless verbs is also similar to word
order in AT clauses, and quite different from word order in PT clauses.

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Overt actors tended to precede AT verbs and affixless verbs, while overt patients followed them. In PT clauses on the other hand, overt actors were more likely to follow the verb, and overt patients to precede it (see Table 27).

<table>
<thead>
<tr>
<th></th>
<th>preV A</th>
<th>postV A</th>
<th>preV P</th>
<th>postV P</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>46</td>
<td>0</td>
<td>1</td>
<td>66</td>
</tr>
<tr>
<td>affixless</td>
<td>81</td>
<td>1</td>
<td>17</td>
<td>101</td>
</tr>
<tr>
<td>PT</td>
<td>3</td>
<td>18</td>
<td>36</td>
<td>16</td>
</tr>
</tbody>
</table>

Given the variety of grammatical evidence in favor of considering affixless verbs to be AT, and the complete lack of grammatical evidence in favor of considering them PT, one might wonder whether there is any need to consider the question further. However, the issue is not yet completely resolved. It still remains possible that affixless verbs, while obeying some of the same grammatical constraints as AT verbs, are nonetheless sufficiently different from AT in other ways, that they should be considered a separate verb type. An examination of the discourse distribution and function of clauses with affixless verbs will clarify this matter. I therefore compared affixless verbs separately with both AT and PT. In comparing affixless verbs with AT verbs, no clause types were excluded, as there is no evidence that there are any syntactic constraints which would promote the choice of either of these two affixation types in favor of the other type. Thus the
quantities of AT and affixless clauses considered in this section is greater than the respective quantities of AT clauses considered in comparing AT and PT clauses in section 2 and of affixless clauses considered in comparing affixless clauses and PT in section 3.4.

3.3.2 Status of the Arguments

In terms of the status of their arguments, affixless verbs are generally similar to AT. Where there are differences, it is generally the case that affixless verbs carry further differences between AT and PT such as those noted previously. The status of the actor and those aspects of the status of the patient which do not relate to transitivity will be discussed in Chapter 5.

Patients of affixless verbs, like the patients of AT verbs, are frequently non-referential, unindividuated, and inanimate. Patient syntax and continuity reflect the referentiality and animacy differences with affixless verbs, just as they did with AT verbs. Where there is a difference between AT patients and the patients of affixless verbs, the patients of affixless verbs prove to be less referential, less animate, less individuated than the patients of AT verbs. However, most of the difference between AT patients and
affixless patients disappears when verbs with clausal complements are excluded, suggesting that these differences are illusory.

3.3.2.1 Referentiality

The patients of affixless verbs, like AT patients, are more likely to be non-referential or unidentifiable than to be identifiable. The difference between the two groups of patients is so small as not to be statistically significant (see Table 28).

<table>
<thead>
<tr>
<th>Table 28</th>
<th>Referentiality of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-ref</td>
</tr>
<tr>
<td>AT</td>
<td>46 (45%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>84 (54%)</td>
</tr>
</tbody>
</table>

\[ X^2 = 9.123, \ p = .104 \]

3.3.2.2 Animacy

The patients of affixless verbs are even less likely to be animate than AT patients. This difference is statistically significant, as shown in Table 29; however, the difference disappears when the calculations are done excluding verbs of speaking and cognition with clausal complements, as shown in Table 30.
Table 29  
Animacy of Patient

<table>
<thead>
<tr>
<th></th>
<th>Animate</th>
<th>Inanimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>33 (32%)</td>
<td>69 (68%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>29 (19%)</td>
<td>127 (81%)</td>
</tr>
</tbody>
</table>

$x^2 = 5.668, p = .017$

Table 30  
Animacy of Patient - Clausal Complements Excluded

<table>
<thead>
<tr>
<th></th>
<th>Animate</th>
<th>Inanimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>33 (36%)</td>
<td>58 (64%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>29 (28%)</td>
<td>76 (72%)</td>
</tr>
</tbody>
</table>

$x^2 = 1.309, p = .253$

Animacy is not independent from referentiality with affixless verbs any more than it was with AT. There is considerable overlap between inanimate and non-referential patients. Thus these two criteria actually form a single measure, not two different measures. According to this measure, affixless verbs, like AT, are low in transitivity.

3.3.2.3 Lookback

As with AT, with affixless verbs as well, lookback correlates with referentiality, and thus with low transitivity. When all clauses with affixless verbs are included, patients of affixless verbs are even more likely to be first mentions than AT patients, and this difference is minimally statistically
significant (see Table 31). However, when the clausal complements of verbs of speaking and cognition are excluded, this difference disappears and both have the same profile (see Table 32).

<table>
<thead>
<tr>
<th>Table 31</th>
<th>Lookback of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>first mention one more</td>
</tr>
<tr>
<td>AT</td>
<td>62 (61%) 14 (14%) 26 (25%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>113 (72%) 22 (14%) 21 (13%)</td>
</tr>
<tr>
<td>$X^2 = 6.139$, $p = .046$</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 32</th>
<th>Lookback of Patient - Clausal Complements Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>first mention one more</td>
</tr>
<tr>
<td>AT</td>
<td>52 (57%) 14 (15%) 25 (27%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>61 (59%) 22 (21%) 21 (20%)</td>
</tr>
<tr>
<td>$X^2 = 1.985$, $p = .371$</td>
<td></td>
</tr>
</tbody>
</table>

### 3.3.2.4 Syntax

As with AT, with affixless verbs as well, syntax of the patient correlates with referentiality, and thus with low transitivity. When all clauses with affixless verbs are included, patients of affixless verbs are even more likely to be full nouns than AT patients, and this difference is minimally statistically significant (see Table 33). However, once again when the
clausal complements of verbs of speaking and cognition are excluded, this
difference disappears and both have the same profile (see Table 34).

<table>
<thead>
<tr>
<th>Table 33</th>
<th>Syntax of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>zero</td>
<td>np</td>
</tr>
<tr>
<td>AT</td>
<td>39 (38%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>39 (25%)</td>
</tr>
</tbody>
</table>
\[X^2 = 7.419, p = .024\]

<table>
<thead>
<tr>
<th>Table 34</th>
<th>Syntax of Patient - Clausal Complements Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>zero</td>
<td>np</td>
</tr>
<tr>
<td>AT</td>
<td>39 (43%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>39 (37%)</td>
</tr>
</tbody>
</table>
\[X^2 = .774, p = .679\]

3.3.3 Aspectual Parameters

When it comes to the aspectual parameters of mood, aspect and
timeline, affixless verbs are considerably different from AT. Affixless verbs
consistently show a greater correlation with the higher transitivity values of
mood, aspect and timeline than do AT verbs.
3.3.3.1 Mood

Affixless verbs are more likely to occur in indicative clauses than are AT verbs (see Table 35). Where AT verbs are found in indicative clauses 57% of the time, affixless verbs are found in indicative clauses 79% of the time. This difference proved to be statistically significant.

<table>
<thead>
<tr>
<th>Table 35</th>
<th>Mood\textsuperscript{15}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>indicative</td>
</tr>
<tr>
<td>AT</td>
<td>67 (57%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>125 (79%)</td>
</tr>
<tr>
<td></td>
<td>$X^2 = 13.522$, $p &lt; .0005$</td>
</tr>
</tbody>
</table>

3.3.3.2 Aspect

Affixless verbs are more likely to be eventive than are AT verbs (see Table 36). Where AT verbs are eventive only 29% of the times, affixless verbs are eventive 60% of the time. This difference proved to be statistically significant.

<table>
<thead>
<tr>
<th>Table 36</th>
<th>Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>event</td>
</tr>
<tr>
<td>AT</td>
<td>34 (29%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>102 (60%)</td>
</tr>
<tr>
<td></td>
<td>$X^2 = 25.945$, $p &lt; .0005$</td>
</tr>
</tbody>
</table>
3.3.3.3 Timeline

Affixless verbs are more likely to be on the timeline than are AT verbs (see Table 37). Where AT verbs are on the timeline only 24% of the time, affixless verbs were on the timeline 42%, almost twice as frequently. This difference also proved to be statistically significant.

<table>
<thead>
<tr>
<th>Table 37</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>off</td>
</tr>
<tr>
<td>AT</td>
<td>90 (76%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>99 (58%)</td>
</tr>
</tbody>
</table>

\[X^2 = 9.260, p = .002\]

As mentioned above, due to the non-linear, interactional nature of conversational narratives, and the frequency of digression and interruption, all clause types are more frequently off the timeline than they are on it. The important point is the relative frequency of the correlation for the different clause types, not the absolute frequency of any one type.

3.3.4 Summary

In the preceding sections I have shown that affixless clauses are similar to AT clauses in terms of certain formal criteria. They agree in word
order, and in ability to take reflexive patients, to be used intransitively, and to be used in actor-headed relative clauses. Thus, formally both differ from PT in the same ways. I have also shown that with regard to measures of transitivity, affixless verbs are similar to AT in terms of parameters of patient status, correlating with lower transitivity. However, affixless verbs differ from AT in terms of the related parameters of mood, aspect and timeline, showing a statistically significant correlation with higher transitivity. The full implication of these facts will be discussed later, in section 5.

Example 42 presents a typical clause with an affixless verb. The clause is indicative, eventive and on the timeline, but the patient is not identifiable.

Example 42  
R: kebetulan bapa saya yang namanye coincidentally father my rel name-gen keluar, jadi memenangkan gitu. come out so meN-win-kan like
S: ye ye. yes yes
R: dan sebetulnya juga bapa saya dapat and really also father my get rumah, di komplek Pe dan Ka di Cilandak house in complex P and K in Cilandak

R: as it happened my father’s name came out, so he won like.
S: yes yes.
R: and actually my father got a house in the Dept. of Education complex in Cilandak.
3.4 Comparison of Affixless Verbs and PT

In comparing affixless verbs and PT, I excluded from consideration all clauses with potentially transitive verbs being used intransitively, all relative clauses and all clauses with a reflexive patient, since they could not grammatically occur in PT form. This left a total of 150 cases, which I compared with the 88 PT clauses used in the comparison with AT. I found that the arguments of affixless verbs differed from PT arguments in the same ways that AT arguments differed from PT arguments. This was true both for status of actor and status of patient. Status of actor, and aspects of status of patient not related to transitivity will be discussed in Chapter 6. I also found that in terms of mood, aspect and timeline, affixless verbs were very similar to PT.

3.4.1 Status of the Patient

The patients of affixless verbs differed from PT patients in the same way that AT patients did. They were consistently, statistically significantly, less likely to be animate, referential and individuated, with the same corollary differences in continuity and syntactic form. These differences remained even when clausal complements were excluded from
consideration. Thus, in terms of patient status, affixless verbs prove to be lower in transitivity than PT.

3.4.1.1 Referentiality

Patients of affixless verbs are far more likely to be non-referential, and far less likely to be identifiable, than PT patients (see Table 38).

<table>
<thead>
<tr>
<th>Table 38</th>
<th>Referentiality of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-ref</td>
</tr>
<tr>
<td>PT</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>83 (55%)</td>
</tr>
</tbody>
</table>

$X^2 = 98.473, p < .0005$

This difference remains statistically significant even when clausal complements of verbs of speaking and cognition are excluded (see Table 39).

<table>
<thead>
<tr>
<th>Table 39</th>
<th>Referentiality of Patient - Clausal Patients Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-ref</td>
</tr>
<tr>
<td>PT</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>32 (31%)</td>
</tr>
</tbody>
</table>

$X^2 = 57.967, p < .0005$

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The other aspects of patient status discussed below (animacy, lookback and syntax) all correlate with referentiality. Non-referential and unidentifiable patients tend to be inanimate, have no prior mention, and are expressed as full nouns, while identifiable patients tend to be animate, continuous, and expressed with zero anaphora. Since this is the case, statistically significant differences between the patients of affixless verbs and PT patients in terms of animacy, lookback and syntax will also remain statistically significant with clausal complements excluded, and this fact does not have to be demonstrated individually each time.

Since referentiality of the patient is one of the parameters of discourse transitivity, the distribution of patients shown in Table 39 presents evidence that affixless verbs, like AT, are associated with lower transitivity, while PT is associated with higher transitivity.

3.4.1.2 Animacy

Patients of affixless verbs are less likely to be animate than PT patients (see Table 40). PT patients are 66% animate, while patients of affixless verbs are only 17% animate. This difference proved to be statistically significant.
Table 40  Animacy of Patient

<table>
<thead>
<tr>
<th></th>
<th>animate</th>
<th>inanimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>58 (66%)</td>
<td>30 (34%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>26 (17%)</td>
<td>124 (83%)</td>
</tr>
</tbody>
</table>

$X^2 = 55.197, p < .0005$

3.4.1.3 Lookback

Patients of affixless verbs, like AT patients, are less continuous than PT patients (see Table 41). Where 15% of the patients of PT verbs were being mentioned for the first time, 73% of the patients of affixless verbs were. This difference proved to be statistically significant.

Table 41  Lookback of Patient

<table>
<thead>
<tr>
<th></th>
<th>1st mention</th>
<th>one</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>13 (15%)</td>
<td>42 (48%)</td>
<td>33 (37%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>110 (73%)</td>
<td>9 (13%)</td>
<td>21 (14%)</td>
</tr>
</tbody>
</table>

$X^2 = 76.902, p < .0005$

3.4.1.4 Syntax

Patients of affixless verbs, like AT patients, are more likely to be full nouns than are PT patients (see Table 42). PT patients were most likely to be zero anaphora (70%), while patients of affixless verbs were most likely to
be full noun phrases (66%). This difference proved to be statistically significant.

Table 42  Syntax of Patient

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>np</th>
<th>pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>61 (70%)</td>
<td>15 (17%)</td>
<td>12 (13%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>37 (24%)</td>
<td>100 (66%)</td>
<td>13 (10%)</td>
</tr>
</tbody>
</table>

\[ X^2 = 57.346, \ p < .0005 \]

3.4.2 Aspectual Parameters

In terms of the aspectual parameters, affixless verbs proved not to differ from PT in a statistically significant way. Affixless verbs, like PT, correlated with the higher transitivity values for mood, aspect and timeline.

3.4.2.1 Mood

Affixless verbs, like PT verbs, are usually indicative (see Table 43).

Table 43  Mood

<table>
<thead>
<tr>
<th></th>
<th>indicative</th>
<th>irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>70 (80%)</td>
<td>18 (29%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>110 (78%)</td>
<td>31 (22%)</td>
</tr>
</tbody>
</table>

\[ X^2 = .012, \ p = .913 \]
3.4.2.2 Aspect

Affixless verbs, like PT verbs, are eventive approximately two-thirds of the time (see Table 44).

Table 44 Aspect

<table>
<thead>
<tr>
<th></th>
<th>event</th>
<th>state</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>59 (67%)</td>
<td>29 (33%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>97 (65%)</td>
<td>53 (35%)</td>
</tr>
</tbody>
</table>

$\chi^2 = .054, p = .817$

3.4.2.3 Timeline

Affixless verbs, like PT verbs, are on the timeline almost half the time (see Table 45).

Table 45 Timeline

<table>
<thead>
<tr>
<th></th>
<th>off</th>
<th>on</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>46 (52%)</td>
<td>42 (48%)</td>
</tr>
<tr>
<td>Affixless</td>
<td>81 (54%)</td>
<td>69 (46%)</td>
</tr>
</tbody>
</table>

$\chi^2 = .015, p = .902$
3.4.3 Summary

In the preceding sections I have shown that with regard to measures of transitivity, clauses with affixless verbs differ from PT clauses in terms of the related parameters of patient status, correlating with lower transitivity. However, affixless verbs are similar to PT in terms of the related parameters of mood, aspect and timeline, correlating with higher transitivity. The full implications of these facts will be discussed in section 5.

4 One-Argument Verbs

Having determined that affixless transitive verbs agree with AT in terms of formal criteria and in terms of status of arguments, and with PT in terms of aspectual parameters, I considered the possibility that this aspectual distinction differentiated intransitive affixless verbs from intransitive verbs with prefixes. To this end I compared status of actor and aspect, mood and timeline for verbs with ber- and verbs with no prefix which would have had ber- in Standard Indonesian. I also compared the same factors for verbs with N- or meN- and verbs which would have taken meN- in Standard Indonesian. I found that just as there had been no significant differences between status of actor for transitive affixless verbs and
transitive AT verbs, there were also no significant differences between status of actor for intransitive affixless verbs and intransitive verbs with prefixes.

I further found that there were no significant differences between intransitive affixless verbs and intransitive verbs with prefixes when it came to mood, aspect or timeline. All four sets of intransitive verbs (verbs with ber-; verbs with no prefix which would have had ber- in Standard Indonesian; verbs with N- or meN-; and verbs which would have taken meN- in Standard Indonesian) were approximately 25% irrealis, 70% stative, and 20% on the timeline. Affixless verbs did not appear to correlate with higher transitivity values for these parameters, but rather were all fairly similar to AT, which is approximately 40% irrealis, 70% stative, and 25% on timeline.

The most likely reason for this difference between transitive and intransitive verbs is that almost all transitive verbs may occur either with or without the AT prefixes in informal register. There are a very few roots which rarely occur with an AT prefix in colloquial registers, but the vast majority may alternate freely without making the speaker sound stilted. Among intransitive verbs on the other hand, there exists a fairly large class which
rarely or never take prefixes in colloquial register, and several other classes which for one reason or another almost never occur without a prefix, even in colloquial register.

The majority of the intransitives in the corpus that occur without prefixes (57, or 64% of all affixless intransitives) contain roots that would sound extremely formal if a prefix were used. And of the 142 cases of intransitive verbs with prefixes, the majority are unlikely to occur without a prefix, and only 20 contain roots that can freely alternate between the prefixed and the prefixless form. The rest, if used without a prefix, would be interpreted either as nouns or as transitive verbs, or in some cases would simply not be interpretable, because those roots never occur independently. In the corpus under consideration, there are simply not enough cases where the use or omission of the prefix is not determined by either grammatical or sociolinguistic factors to allow for speculation about the discourse factors that might influence the alternation.

5 Conclusion

It seems quite clear that verb morphology is sensitive to levels of transitivity in SJI, just as is the case in other similar varieties. (For
comparison with other varieties, see chapter 6.) In this chapter I have shown that both of the AT prefixes, \textit{meN}- and \textit{N}-, are associated with low transitivity, the relevant parameters being mood, aspect, timeline and status of the patient. I have also shown that there is a certain amount of distinction of level of transitivity within AT, \textit{meN}- being somewhat lower in transitivity and \textit{N}- being somewhat higher in terms of status of the patient. \textit{MeN}- also tends to occur in fuller clauses, with more auxiliaries and overt arguments, perhaps as a reflection of its correlation with formal register.

There are significant differences between AT and PT in terms of status of patient (referentiality, animacy and continuity), and in terms of mood, aspect and timeline. In all of these cases PT is the higher transitivity form, and AT the lower transitivity.\textsuperscript{16}

However, it is also clear that, just as higher transitivity correlates with PT in studies of Written Indonesian but does not completely determine the choice to use PT rather than AT, so too in SJI higher transitivity does not completely determine that choice. There are AT clauses that are as high in transitivity as many PT clauses, and PT clauses that are quite as low in transitivity as most AT clauses. Other factors are operating as well, factors which I will discuss in Chapter 5.
I have shown that affixless verbs have similarities to both AT and PT. However, since there are more similarities to AT, I believe that affixless verbs are best considered a form of AT.

Arguments in favor of considering affixless verbs a subset of AT include the fact that they are similar to AT verbs in terms of status of the patient, as shown in this chapter, and in terms of status of the actor, as will be discussed in Chapter 5. They also share syntactic constraints with AT verbs, being able to occur intransitively, with reflexives, and in actor-headed relative clauses, like AT and unlike PT. Furthermore, the word order patterns which are common with affixless verbs are those commonly found with AT, not those commonly found with PT.

There is also sociolinguistic evidence in favor of considering affixless verbs AT. As I showed in Chapter 3, when in formal speech the percent of affixless verbs decreases, the percent of PT remains the same, but the percent of AT rises to match the decrease in affixless verbs. The combination of discourse, grammatical and sociolinguistic evidence in favor of classifying affixless verbs as a subset of AT clearly outweighs arguments in favor of classifying affixless verbs as PT on the basis of a similarity in the three related parameters of aspect, mood and timeline. There is some
basis for considering affixless verbs a separate class, since they are similar to both AT and PT in different ways. However, I feel that the number of arguments in favor of AT is so great that an AT analysis is preferable. I would like to suggest that, just as the use of *meN*- and *N*- allows for a distinction in level of transitivity within AT when there is a departure from lower transitivity along the parameters of patient status, so too the use of affixless verbs allows for a distinction in level of transitivity within AT when there is a departure from lower transitivity along the parameters of aspect. It seems that SJI has taken the verbal system of Standard Indonesian, with its correlation between AT (*meN*) and lower transitivity and between PT (*di*) and higher transitivity, added forms from Betawi (*N* and affixless verbs), and carved out individual niches within AT for these added forms.
CHAPTER 4 NOTES

1. Clauses were coded for two factors: the clause combining morpheme, if used, and the direction of clause combining, forward or backward.

2. Definitions of referential and non-referential are taken from DuBois 1980, and are discourse based. "A noun phrase is referential when it is used to speak about an object as an object, with continuous identity over time. ... A noun or noun phrase which is not used to speak about an object as an object is nonreferential" (pp 208-209). Object here refers not to a concrete object, but rather to any entity, class or concept for which a listener is able to create a mental file, and which may be tracked through the discourse.

3. In the texts under discussion, all of the animate referents were actually human.

4. In this, and all other tables, the $X^2$ value given refers to the overall distribution of all forms listed in the table, unless otherwise stated.

5. There is no immediately apparent reason why $N$ should be higher in transitivity than $meN$, rather than the other way around. In the varieties in which they originate (Betawi and Standard Indonesian respectively), they both fulfill the same function of marking low transitivity.

6. This term is taken from Cumming (1980). Clauses where "the agent is unknown, generic or unimportant" (p. 205) are termed non-referential. In such clauses the action is not attributed to an identifiable entity which has the potential for continuous reference. This is similar to the use of agentless passives and non-anaphoric 'they' in English (Thompson 1987).

7. In this chapter, unlike in chapter 3, observed and expected frequencies are given in the same chart. This was not done in chapter 3 as the charts would have become too large and cumbersome. Here, where less variables are being considered at once, this is not a problem.
8. The statistical package used does not carry numbers out beyond three decimal points. Therefore, when the probability value is that low, it can only be represented as < .0005.

9. It is actually surprising that any PT verb has a non-referential patient. However, both of these non-referential patients are clausal complements of verbs of speaking and cognition. Verbs of other classes apparently cannot be PT if the patient is non-referential.

10. According to Du Bois’ definition whereby non-referential noun phrases do not speak of an object as an object. A clausal complement in most cases does not introduce or refer to an object which the speaker then expects the hearer to keep track of. Semantically, the complement of a factive verb differs from that of a non-factive verb, and is more object-like. It is possible that the complements of factive verbs behave somewhat differently than the complements of non-factive verbs in discourse; their status has not been considered separately in any studies that I am aware of. However, in the data under consideration, all of the verbs were non-factives, and their complements were uncontroversially non-referential.

11. The number of clausal complements listed for each affix type in this chart is not the same as the number of clausal complements listed for each affix type in the preceding paragraph. This difference occurs because in the preceding paragraph all verbs with clausal complements are included in the totals. The chart only lists a subset of those verbs, the ones which occurred in clauses where it was not certain whether the verb were affixless or PT.

12. It is true that patient-headed relative clauses can contain verbs preceded by agent pronouns for which cliticization is difficult to determine due to lack of an intervening element. These verbs could conceivably be considered either affixless or PT. However, clearly affixless verbs never occur in patient-headed relative clauses, nor do PT verbs occur in actor-headed relative clauses. It is to the behavior of clearly affixless verbs that this section refers.
13. In some of those cases, a difference exists between AT and PT which is not great enough to be statistically significant. Clauses with affixless verbs differ from PT clauses in the same way that AT clauses did, but to a greater degree, such that the difference is statistically significant. If affixless verbs and AT are classed together, this can have the result of making those differences statistically significant for a comparison between AT and PT.

14. 102 AT clauses and 156 affixless clauses had patients, and are included in the statistics on patient status.

15. This table excludes imperatives, as there were too few to run valid statistical tests using them.

16. This is true except when PT is being used to express an agentless passive (discussed in chapter 5), which is approximately one third of the time.
0 Introduction

I have shown that, while trigger choice correlates with transitivity in a statistically significant way, transitivity levels, patient status and eventiveness cannot, in most cases, be used to predict trigger choice. Nor can we refer to a combination of eventiveness and narrative climax, of the kind described by Cumming and McCune; the loosely knit structure of naturally occurring conversational narratives does not create the types of climactic event sequences found in written fiction. Rather, we must look in other directions to understand trigger choice in SJI.

Working with the data base revealed three independent phenomena which suggest a correlation between trigger choice and notions of topicality and thematicity. Topic is here defined as what an utterance (of any size) is about.¹ The topic of a section of text need not be an individual entity; it may also be a class or a concept. There can be topics at various levels of organization (e.g. clause level, conversational turn level, episode level, story level), and at any given time there can be different topics at different levels of organization. A lower-level topic can be replaced by another lower-level topic at a boundary on that level; e.g. a conversational turn-level topic can be replaced at the beginning of a new turn. Topics are in part identified by a
sense of what a section of text is about. Topics which are referents can also sometimes be formally identified. Episode-level or turn-level topics can be identified by successive mention in a sequence of clauses in a single episode or turn. Lower-level topics can be identified by their presence in a topic-comment construction or in a two clause sequence of presentative + transitive clause or intransitive clause + transitive clause.

Theme is defined as a referent that is the focus of attention. Themes can be identified by the frequency of their mention in the text as a whole, and the syntactic type used to refer to them, characteristically a pronoun or zero anaphora. When a thematic referent is first introduced, the speaker knows that this referent is thematic, but the hearer does not, and it is to be expected that at first mention the referent is treated as non-thematic. In a given narrative more than one referent may be thematic. Thematic referents do not cease to be thematic at boundaries; they remain thematic throughout their presence in a narrative.

Topicality and thematicity are two distinct discourse notions, both of which appear to be relevant to trigger choice in SJI. Thematicity is perhaps more frequently the relevant factor, but especially when both arguments of a clause are thematic, topicality is likely to have an effect. The three
phenomena which suggest a correlation between trigger choice and theme
and topic are: trigger choice when a participant in the conversation is a
referent, discussed in section 1 of this chapter, the interaction between
trigger choice and word order, discussed in section 2 of this chapter, and
prior grammatical status of triggers, discussed in section 3 of this chapter.
Section 4 deals with clauses with non-referential actors, and section 5
discusses the remainder of the data with reference to theme and topic.
Throughout this chapter, AT is used to indicate all clauses containing verbs
with no prefix, as well as verbs with the prefixes $meeN$- and $N$-, in keeping
with the conclusions put forth in chapter 4 about the nature of affixless
verbs.

1 Participants in the Conversation

Participants in the conversation (hereafter refered to as PartC) show
an extremely strong tendency to be trigger of the clauses they appear in.
This fact appeared puzzling when the data were considered purely in terms
of transitivity. The theory of discourse transitivity does recognize a
correlation between higher transitivity and the position of the actor of a
clause on the animacy hierarchy (first person > second person > third
person > human > animate > inanimate), such that in languages with split
ergativity or split tense/aspect systems, perfective or ergative marking may be restricted to first and second person. However, this type of distinction is not known to occur in Western Austronesian languages. It has been shown that transitivity is an important factor in the morphological systems of Betawi (Wallace 1977) and precursors of Standard Indonesian such as Early Modern Malay (Hopper 1979, Cumming 1988), with traces of this system still found in Standard Indonesian (Cumming 1988, Wouk forthcoming). In these, and other Western Austronesian languages for which discourse transitivity is significant, the relevant factor for distinguishing high and low transitivity levels is individuation of the patient, and correlations are found with distinctions of aspect, mood, and eventiveness. The position of the actor on the animacy hierarchy does not play a role in determining morphological marking in these related varieties. Nevertheless, the correlation of PartC with trigger is striking. This correlation is shown in Table 46.

Table 46 Participants in the Conversation

<table>
<thead>
<tr>
<th></th>
<th>AT</th>
<th>PT</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>127 (94%)</td>
<td>9 (6%)</td>
<td>136</td>
</tr>
<tr>
<td>Patient</td>
<td>23 (34%)</td>
<td>45 (66%)</td>
<td>68</td>
</tr>
</tbody>
</table>

\[ X^2 = 79.588, \ p < 0.0005 \]
When a PartC has the role of actor in a clause, the tendency for that clause to be actor trigger is extremely strong; 94% of these clauses are AT. When a PartC has the role of patient in a clause, the tendency is not as strong, but is still observable; 66% of these clauses are PT. These differences proved to be statistically significant. If we look at the expected distribution, we can see that the figures are quite different, both for clauses containing PartC as actors and for clauses containing PartC as patients (see Table 47).

<table>
<thead>
<tr>
<th></th>
<th>AT</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>100</td>
<td>36</td>
</tr>
<tr>
<td>patient</td>
<td>50</td>
<td>18</td>
</tr>
</tbody>
</table>

As Table 47 shows, the expected distribution would be quite different from the observed distribution. In the expected distribution two thirds of each clause type would have a PartC as actor, and one third of each clause type would have a PartC as patient. The difference between observed and expected distributions indicates that the distribution of verb morphology is conditioned by the presence of a PartC, no matter what the semantic role of that PartC. This suggests a correlation between trigger choice and topicality or thematicity for two reasons. Firstly, in a conversation the PartC are inherently thematic in a way that other entities are not; they are physically
present and always identifiable. This is reflected in the fact that PartC are
coded as pronouns even when they are first introduced, or reintroduced
after a long hiatus. This type of thematicity will always hold in conversation,
and provide an impetus towards making PartC be triggers.

Secondly, PartC are likely to be situationally thematic and/or topical
because of the nature of the data under consideration. The data in this
study consists of personal narratives; in most of them the speaker is a
character in the narrative, often the main character or one of the main
characters. Thus, the speaker is almost always a theme, and is quite likely
to be a topic. This would not be the case with other types of spoken data,
e.g. third person narratives or procedural texts.

Given these facts, it seems quite likely that the correlation of PartC
with trigger is connected with the role that topicality or thematicity plays in
trigger choice in SJI, and that it would be worthwhile to consider the
remainder of the data with respect to these factors.
2 Word Order

Word order, or more specifically, the relative order of the verb and the patient noun phrase, is the second area where patterns of trigger choice suggest the importance of topicality (see Table 48).

<table>
<thead>
<tr>
<th></th>
<th>AT</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>preverbal P</td>
<td>19 (10%)</td>
<td>37 (70%)</td>
</tr>
<tr>
<td>postverbal P</td>
<td>166 (90%)</td>
<td>16 (30%)</td>
</tr>
<tr>
<td>total</td>
<td>185</td>
<td>53</td>
</tr>
</tbody>
</table>

Preverbal patients are much more common in PT clauses than in AT clauses. In fact, PT clauses were more likely to have a preverbal patient than a post-verbal one, although post-verbal patients are by no means unlikely in PT clauses. For the most part, in AT clauses the patient, if overt, follows the verb. The 19 exceptions include 14 affixless verbs of speaking and cognition with non-referential patients in the form of a quotation preceding the verb. There are only 5 AT clauses with nominal patients which precede the verb, and one of these five patients is non-referential. Non-referentiality of the patient, as discussed in chapter 4, provides a strong motivation towards using AT morphology, and it is not surprising that these 15 clauses with non-referential clausal or nominal patients would be AT in spite of the word order.
Of the four AT clauses with referential pre-verbal patients, two clauses contain the same unusual syntactic construction, and both were labeled ungrammatical by consultants who reviewed the texts. While I hesitate to use the term ungrammatical in referring to spoken data, they are certainly highly unexpected. The two clauses are given in Example 43 and Example 44.

Example 43  d: oh dia kayanya frustrasi sekali, kasih sayangnya
          oh 3sg like frustrated very love-gen
          merasa terambil
          meN-feel ter-take

          d: oh she was like very frustrated, she felt
          like (her father’s) love had been taken away

Example 44  s: karena dia pisiknya merasa kuat gitu ya
          because 3sg body-gen meN-feel strong like yes

          s: because she felt that her body was like strong yeah

Both of these clauses contain the verb *merasa* ‘feel’, which may take a clausal complement, and appears to do so in both cases. However, the clauses exhibit a raising-to-object type of construction, where a noun phrase from the lower clause is being treated as the patient of *merasa*. My consultants attempted to “correct” the two clauses by either changing the word order or replacing *merasa* with *terasa* (the same root with the *ter-*)
prefix). Little can be said about these two clauses other than that they do not follow typical Indonesian clausal patterns.

The remaining two clauses with referential pre-verbal patients will be discussed in section 5 of this chapter, as they constitute clear exceptions to the word order patterns I am discussing here, having referential patients and no perturbations of syntactic structure.

The correlation between preverbal patients and PT initially suggested topicality to me because the preverbal position itself is reminiscent of the word order in left dislocations and topic-comment constructions. In the literature there is a tendency to assume that in these constructions the noun phrase is in some way more prominent, or topical.6 This is not sufficient reason to label preverbal patients topical and claim that this topicality conditions either word order or trigger choice, but it suggests a direction for further investigation. It suggests that it is worth considering whether the preverbal patients in the data could be viewed as topical in some sense.

Cumming (1988) also found a strong correlation between word order and trigger choice in Standard Indonesian, and associated it with topicality. She claimed that the presence of a “topical” patient would “give rise to a
preverbal P, which then forces the clause to have PT morphology" (p.220).
A topical patient, according to Cumming, is one which was either just
mentioned in the immediately preceding clause, or was last mentioned
several clauses previously, and therefore in need of recalling. Cumming
considers the use of PT morphology with a preverbal patient to be a
grammatical constraint of Standard Indonesian (Cumming, personal
communication). Because preverbal arguments are not completely
restricted to PT clauses in my data, being found, albeit relatively rarely, in
AT clauses, I feel that it is preferable not to consider the use of PT
morphology with a preverbal patient to be grammaticized in SJI. At most it is
a strong tendency.

Cumming's definition of topical is a more mechanical, more easily
verifiable, definition than the one I am using. However, the two definitions
are not unrelated. If the referent of the topic of a segment of text (in the
sense of what an utterance is about) is an entity rather than a concept, then
within a short segment its topicality is likely to be reflected in frequent
mention in successive clauses, while in a longer segment its topicality is
likely to be reflected in intermittent mention, over a series of digressions. It
is to be expected that within the data under consideration, the majority of
cases of preverbal patients, if topical, would agree with Cumming's criteria.
Of the 36 PT clauses with preverbal patients, only four fell into Cumming's first category, that of clauses where the patient is found in the immediately preceding clause, as in Example 45, where R is describing a trip to a major sports complex at a time when it was in use but not fully completed, so that there were unfinished buildings in the area. (In this and the following examples, the clause with a preverbal patient is in bold face.)

Example 45  
r: nyebrang jalan, nyebrang itu, bangunan yang N-cross street N-cross that building rel lagi dibangun, itu masi digali kan process di-build that still of-dig agrmt

r: we crossed the street, crossed that, a building that was still being built, it was still being dug you know

In this example, the building is first mentioned as the patient of an AT verb, then mentioned again in the immediately following clause, in preverbal position, as the patient of a PT verb. This type of mention is topical by Cumming's definition, as it is mentioned in the immediately preceding clause. By the definition used in this dissertation it may be considered topical at the clause level. It is not thematic, however, as it is only mentioned here and does not figure in the narrative at any later time.

Another 10 clauses with preverbal patients contained third person patients which had not been mentioned for several clauses, while 14
contained first person patients which had not been mentioned for several clauses. By Cumming's definition the patients in all of these clauses are topical. Using my definition, the situation is more complicated. As was mentioned above, first person referents are inherently thematic, and in the data under consideration are often thematic, or topical, or both. In the 14 clauses with preverbal first person patients, in all cases the first person referent is thematic, although only four of them are topical by my definition. The remaining 10 could not be considered topics of the section of text in which they occur. Example 46 is one of these; the women are discussing the family problems of an obstetrician whom D knows socially. He is T's doctor, and T has just explained that he became her doctor after she was dissatisfied with her previous doctor's care when she lost her second child.

Example 46  
\[t: \text{ya enak, ama dia sih, yes pleasant with him cntr}
\]
\[d: \text{tangan dingin kan /mbak,/ hand cold agrmt sister}
\]
\[t: /baik,/ gitu. saya ditungguin ama dia, sampe, good like I \text{di-wait-in} \text{ with 3sg arrive}
\]
\[\text{terus engga terasa lahirnya ngga terasa sakit then not} \text{ ter-feel born-gen not} \text{ ter-feel pain}
\]
\[t: \text{yes, it was pleasant, with him,}
\]
\[d: \text{really skilfull, isn’t he?}
\]
\[t: \text{he’s like good. He looked after me, the time came, then I didn’t feel any pain}
\]
After this excerpt the women go on to discuss the doctor’s personality. By Cumming’s definition T is topical because, after having been the topic for a while, she is not mentioned for a few clauses, and then reintroduced. By my definition, both T and the doctor are thematic. The doctor is a theme for the entire narrative, which focuses on his problems with his daughter, while T is inherently thematic as a PartC and situationally thematic since she has been discussing her childbearing experiences, which led her to become the doctor’s patient. In fact, during that discussion T was topical by my definition. However, the immediate topic of this segment is the doctor’s skill, and in the following discussion attention remains on the doctor, and does not return to T. Therefore I would say that at the point where reference to T is in preverbal position, she could no longer be considered topical. However, as pointed out above, as a PartC she is thematic.

Example 47 shows a first person referent which can be considered topical. In this narrative D is discussing her relationship with a young man whom she is in love with and his family. She has just described her problems with the young man’s sister, and now she turns to his parents.
Example 47  

d: tapi bapa ibunya sayangnya setengah mati  
   but father mother-gen love-gen half dead  
   mbak ama saya  
   sister with me  

t: oh  

d: heeh, udah dianggap anak nih  
   uhuh, already di-consider child this  

t: oh ya.  

d: udah dikenal-kenalni ke keluarganya,  
   already di-know-in to family-gen  

t: hm  

d: itu saudaranya Okki, Okki peragawati.  
   that relative-gen Okki, Okki fashion model  

t: oh Okki, Okki.  

d: hm hm saya dibawa udah dibawa ke situ,  
   hm hm I di-bring already di-bring to there  
   terus, saya kan orangnya sederhana aja,  
   then I argmt person-gen simple just  

d: but his parents really love me.  

t: oh  

d: uhuh, they consider me their child,  

t: oh yes.  

d: they've introduced me to their family,  

t: hm.  

d: one of their relatives is Okki, Okki the fashion model  

t: oh Okki, Okki.  

d: uhuh, they brought brought me there, then you know  
   I'm just a simple person,  

By Cumming's definition the preverbal pronoun is topical since D has been  
the focus of attention, was not mentioned for a few clauses while Okki was  
identified, and then is reintroduced. By my definition D is inherently and  
situationally thematic. She is also topical. She is the focus of this section,  
not the parents, and she continues to be the focus after Okki's introduction.
Unlike the clauses with preverbal first person patients, which were usually thematic but often not topical, all 10 of the clauses with preverbal third person patients are topical both by Cumming's definition and by mine. In the example that follows, a group of men are discussing the quality of well water. Y describes his well, and the poor quality of its water, which led him to buy bottled water. However, as he explains, he cannot afford to have it delivered, as he is the only customer in his neighborhood.

Example 48  

\[\begin{align*}
\text{y: } & \text{nanti aja deh kalo udah banyak saya bilang.} \\
& \text{later just emph if already many I say}
\end{align*}\]

\[\begin{align*}
\text{kalo udah banyak kan bisa seratus lima puluh} \\
& \text{if already many agrmt can 150,000}
\end{align*}\]

\[\begin{align*}
\text{ribuan itu. kalo enam ratus lima puluh, berat.} \\
& \text{like if 650 heavy}
\end{align*}\]

\[\begin{align*}
\text{s: itu didalem in bisa saya kira} \\
& \text{that di-deep-in can I think}
\end{align*}\]

\[\begin{align*}
\text{y: itu saya dua belas meter kan,} \\
& \text{that my 12 meter agrmt}
\end{align*}\]

y: later on, if there's a lot (of customers) I said. If there's a lot of customers you know it's around 150,000 like. If it's 650 (thousand), it's too much.

s: it could be deepened I think.

y: mine is 12 meters (deep) you know,

In Example 48, after Y completes his saga, S returns to the well, suggesting that it be deepened. He and Y discuss the depth of the well. The well, the original topic that launched Y's story, has been reintroduced as the topic of the following segment of the conversation.
Aside from these 28 clauses, all of which contain topical patients by Cumming's definition and topical or thematic ones by mine, there are 8 PT clauses which contain preverbal patients which are not topical by Cumming's definition, as the patient is mentioned for the first time in each of them. However, four of them are related to the topic in the sense of "what a section of talk is about". For example, in the story of the doctor referred to in Example 46, page 186, D very early explains that the doctor is extremely rich, but not happy because of his family problems. After the problems have been described and discussed, and shortly after the section quoted in Example 46, D brings the story to an end with a summing up (see Example 49).

Example 49  d: ternyata sebetulnya kalo kita udah telusuri ya, ter-clear really if we already explore yes kebahagiaan itu engga bisa dinilai dari uang, happiness that not can di-value from money

d: It seems really if we explore (the matter), happiness can't be evaluated on the basis of wealth.

Happiness has not been mentioned previously, and thus is not topical in Cumming's sense. However, the doctor has been described as a rich but unhappy man (both attributes are expressed more than once) who tried to solve his adopted daughter's problems with money. At the level of the story then, the doctor's pursuit of happiness, and his failure to achieve it, may be
considered topical. Several of the first-mention preverbal patients in the data were topical in this sense. Although not previously specifically mentioned, they were an integral part of the overall topic of the story.

However, there remained four cases of preverbal patients for which it was not entirely clear why they should be in preverbal position. In Example 50 R is beginning a story about a childhood experience going to a department store called Sarinah.

Example 50  R: trus, karna sering ke Sarina itu, ada so because often to Sarinah that exist pengalaman yang menarik ya, (.25) jadi, kita experience rel interesting yes so we kan, (1.5) sengaja tiap hari tu uang jajan kita agrmt deliberately every day that money snack our dikumpul, supaya bisa hari minggu tu jalan ke di-collect-in so can day sunday that go to Sarinah, Sarinah

R: so, because I went to Sarinah often, I had an interesting experience yes, (.25) so, we you know, (1.5) on purpose every day we saved our snack money so that we could go to Sarinah on Sunday.

After this introduction, he goes on to describe the trip, and how they got home after they ran out of money and couldn’t pay for the last bus. So in some sense the need for money is an overall topic in this story, which may
explain why the snack money in the quoted section is in preverbal position. The connection is much less direct than the one noted in Example 49. And in some of the other cases the connection with an overall topic seems even more tenuous.

It thus seems that in SJI, as in Cumming's written data, the presence of a preverbal patient correlates with the use of PT morphology. It further appears that there is a correlation between preverbal position and the topicality or thematicity of those patients in the overall text, or at least of some kind of connection between those patients and the general topic of the text. These facts add weight to the supposition that topicality and/or thematicity play a role in trigger choice in SJI, and provides further impetus to investigating that notion. As stated above, I prefer not to claim that the association of PT morphology and preverbal patients is grammaticized, as there are several exceptions in the data. Rather I believe that both word order and trigger choice are influenced by the phenomena of topicality and thematicity.
3 Prior Grammatical Status of Arguments

Prior grammatical status of an argument is the grammatical status it had the last time it was mentioned. It could have been the subject of an intransitive verb (S), the trigger of a transitive verb, the non-trigger direct argument of a transitive verb, or an oblique argument of some type. The prior grammatical status of the trigger and non-trigger arguments proved to be distributed in a non-random manner which suggests a correlation with thematicity or topicality. In all cases, the most likely prior mention was as an S, which is hardly surprising, since the ratio of transitive to intransitive clauses in the data was approximately 1:4. However, when the prior mention occurred in a transitive clause, interesting differences appeared between AT and PT clauses.

3.1 Actors

AT actors (triggers) proved more likely to have been triggers the last time they were mentioned, while PT actors (non-triggers) proved more likely to have been non-triggers. The figures are given in Table 49.
Table 49  
Prior Grammatical Status of Actors

<table>
<thead>
<tr>
<th></th>
<th>Subject</th>
<th>Non-Trigger</th>
<th>Trigger</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>144 (56%)</td>
<td>22 (8%)</td>
<td>87 (34%)</td>
<td>5 (2%)</td>
</tr>
<tr>
<td>PT</td>
<td>35 (44%)</td>
<td>28 (35%)</td>
<td>14 (18%)</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

$X^2 = 36.309, \ p = .001$

AT actors proved much more likely to have been triggers previously than did PT actors. In fact, PT actors were as likely to have been non-triggers as AT actors were to have been triggers. This proved to be quite independent of the tendency for AT actors to be PartC, and PT actors to be non-PartC. As Table 50 shows, both for PartC and for non-PartC current grammatical status is a useful predictor of prior grammatical status and vice versa. In other words, actors, whether PartC or non-PartC, show a tendency either to remain triggers or to remain non-triggers in successive mentions.

Table 50  
Interactions between Referentiality and Prior Grammatical Status of Actor

<table>
<thead>
<tr>
<th></th>
<th>Trigger</th>
<th>Non-Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT PartC</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>AT non-PartC</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>PT PartC</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PT non-PartC</td>
<td>14</td>
<td>26</td>
</tr>
</tbody>
</table>

The assumptions stated with respect to Table 50 were verified with statistical tests. Within AT, the distribution of PartC and non-PartC with
respect to prior grammatical status proved not to be statistically significant 
\( X^2 = 1.541, p = .214 \). When only non-PartC were compared, the difference 
between AT and PT remained statistically significant \( X^2 = 12.798, \) 
p = .001), as it had been for all cases.

3.2 Patients

For patients also the distribution of prior grammatical status proved 
not be be entirely random (see Table 51).

<table>
<thead>
<tr>
<th>Table 51</th>
<th>Prior Grammatical Status of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subject</td>
</tr>
<tr>
<td>AT</td>
<td>32 (40%)</td>
</tr>
<tr>
<td>PT</td>
<td>37 (51%)</td>
</tr>
</tbody>
</table>

\[ X^2 = 13.993, p = .001 \]

PT patients (triggers) proved to be much more likely to have been triggers 
than non-triggers at their previous mention. AT patients (non-triggers), on 
the other hand, proved equally likely to have been triggers or non-triggers 
at their previous mention. Again, this distribution was totally independent of 
the correlation between trigger choice and status of a referent as a 
participant in the conversation, as shown in Table 52.

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Table 52  Interactions between Referentiality and Prior Grammatical Status of Patient

<table>
<thead>
<tr>
<th></th>
<th>Trigger</th>
<th>Non-trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT PartC</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>AT non-PartC</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>PT PartC</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>PT non-PartC</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>

As above, statistical analysis verified the independence of the two factors. Within PT, the distribution of PartC and non-PartC with respect to prior grammatical status proved not to be statistically significant ($X^2 = .712, p = .399$). When only non-PartC were compared, the difference between AT and PT remained statistically significant ($X^2 = 9.8, p = .002$), as it had been for all cases.

These results suggest a correlation between trigger choice and thematicity or topicality because the same referents appear to have the same grammatical role in successive mentions. Especially striking is the tendency for triggers to maintain their status as trigger over more than one clause, in some cases after a break of several clauses. This suggests that there may be something to do with the identity of that particular referent which causes it to be repeatedly chosen as trigger. Having considered and rejected a number of possible correlations of a mechanical type (with syntactic status, lookback and other values entered into the data base), I felt
it was likely that the explanation lay elsewhere, in the role that those referents played in the overall organization of the texts. In other words, certain referents were being repeatedly chosen as trigger because of their greater saliency, here described in terms of thematicity and topicality.

4 Non-referential Actors

The use of PT with non-referential actors is puzzling when trigger choice is considered in terms of transitivity, for two reasons. Firstly, clauses with non-referential actors are inherently lower in transitivity than clauses with referential actors, because non-referential actors cannot have volition, agency or kinesis, and in a certain sense do not involve two participants, just as clauses with non-referential patients do not really involve two participants and are coded as intransitive in many languages. Secondly, in the data under consideration, the PT clauses with non-referential actors differ from other PT clauses in a number of ways which will be discussed below, all having to do with the status of the patient, a crucial characteristic of the definition of high transitivity in Western Austronesian languages. Thus for many reasons these clauses are anomalous from the point of view of a transitivity analysis. However, when considered in terms of a
topicality/thematicity analysis, this use of PT makes a great deal of sense, for it is in many ways similar to agentless passives in English.

4.1 Patients in Clauses with Non-Referential Actors

Patients in PT clauses with non-referential actors differ crucially from patients in PT clauses with referential actors in terms of animacy, referentiality, syntax and lookback. In all cases clauses with non-referential actors had patients that were less individuated than patients in clauses with referential actors, and in all cases the differences proved to be statistically significant.

In clauses with non-referential actors, patients were far more likely to be inanimate than animate, while the reverse was true of clauses with referential actors (see Table 53).

<table>
<thead>
<tr>
<th></th>
<th>animate</th>
<th>inanimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-referential actor</td>
<td>11 (26%)</td>
<td>31 (74%)</td>
</tr>
<tr>
<td>referential actor</td>
<td>58 (66%)</td>
<td>30 (34%)</td>
</tr>
</tbody>
</table>

$X^2 = 16.449, p = .001$
In clauses with non-referential actors patients were more likely to be non-referential, generic or first mention than were patients in clauses with referential actors. They were also more likely to be third person, where patients in clauses with referential actors were most likely to be PartC (see Table 54).

<table>
<thead>
<tr>
<th>Table 54</th>
<th>Referentiality of Patient in PT Clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>non-ref</td>
</tr>
<tr>
<td>non-ref actor</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>ref actor</td>
<td>2 (2%)</td>
</tr>
<tr>
<td></td>
<td>( X^2 = 16.555, p = .001 )</td>
</tr>
</tbody>
</table>

Patients of clauses with non-referential actors were less continuous than patients of clauses with referential actors; they were more likely to be first mentions, and if they were later mentions, they were less likely to have been mentioned in the immediately preceding clause, and more likely to have been mentioned some distance back, than were the patients of clauses with referential actors (see Table 55).

<table>
<thead>
<tr>
<th>Table 55</th>
<th>Lookback of Patient in PT Clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>first mention</td>
</tr>
<tr>
<td>non-referential actor</td>
<td>12 (29%)</td>
</tr>
<tr>
<td>referential actor</td>
<td>13 (15%)</td>
</tr>
<tr>
<td>( X^2 = 7.595, p = .022 )</td>
<td></td>
</tr>
</tbody>
</table>
This result is not surprising, given the difference in patient referentiality. The higher percentage of non-referential and unidentifiable patients would quite naturally be reflected in a similarly high percentage of first mention noun phrases.

Patient syntactic type also reflects the referentiality difference. Non-referential and unidentifiable arguments are usually expressed as full noun phrases, while highly continuous arguments are usually expressed as pronouns and zero anaphora. In the data under consideration, patients in clauses with non-referential actors are more likely to be full noun phrases, and less likely to be zero anaphora than patients in clauses with non-referential actors (see Table 56).

<table>
<thead>
<tr>
<th>Syntax of Patients in PT Clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-referential actor</td>
</tr>
<tr>
<td>zero</td>
</tr>
<tr>
<td>pronoun</td>
</tr>
<tr>
<td>noun</td>
</tr>
<tr>
<td>referential actor</td>
</tr>
<tr>
<td>zero</td>
</tr>
<tr>
<td>pronoun</td>
</tr>
<tr>
<td>noun</td>
</tr>
<tr>
<td>(X^2 = 6.071, p = .048)</td>
</tr>
</tbody>
</table>

It is clear from the figures presented above that patients of PT clauses with non-referential actors are much less individuated than patients of PT clauses with referential actors. There is thus no explanation, from the
point of view of levels of transitivity, why PT should be the form chosen to express this low transitivity function.

4.2 Non-Referential Actors and Topicality

Cumming (1988) points out that in written Indonesian clauses with non-referential actors have preverbal patients, and suggests that the use of PT morphology may be triggered by word order, as she also suggests is the case for clauses with referential actors and preverbal patients. I have suggested above that the preverbal patient and PT morphology may both correlate with more thematic or topical patients (as defined in this dissertation), rather than the morphology being a mechanical response to a particular word order. I feel that this is the case also with clauses with non-referential actors. We cannot simply refer to word order as an explanation for the use of PT morphology with these clauses. For one thing, the consistent word order pattern that Cumming found in written data is not found in spoken data. Of 42 PT clauses with non-referential actors, only 16 had preverbal patients. Another 8 had post-verbal patients, while the remaining 18 did not have an overtly expressed patient at all.
Rather than attempt to explain this phenomenon in terms of word order patterns, it might be profitable to consider it in terms of levels of topicality. Certainly many, if not most of the patients in these clauses are not thematic. They may only be mentioned once; they may be generic; they may be referential but infrequently mentioned, not highly consequential to the text. Only in a few cases are they participants, and thus inherently thematic, and even they may not be situationally thematic. However, they are all, without exception (even the generic ones), more topical, more closely related to "what the text is about", than the non-referential actors, the faceless "they" who are purported to be acting on them. This is clearly the case for the 7 PartC patients and the 27 identifiable patients. By virtue of being identifiable, trackable through the discourse, they are more topical than an unidentifiable actor. However, it is also true of the 4 unidentifiable (first mention), the 2 generic, and the 2 non-referential patients. The first-mention patients are specific instances of a type that has been mentioned previously, as in Example 51. The generics are classes which are relevant to the story, as in Example 52. The non-referential patients are also closely related to the topic under discussion, as in Example 53.

In Example 51 B is describing the process by which a young people’s organization was set up in her neighborhood.
Example 51 B: selesai rapat itu, dibuat lagi, after meeting that do-make again

B: after that meeting, (another one) was held,

The phrase *dibuat lagi* has a non-referential actor. The patient, the second meeting, is mentioned for the first time, but as one of a sequence of meetings, where meetings have already been discussed.

In Example 52 R is describing the neighborhood in which his father won a house in a lottery. The neighborhood, at that time, was on the outskirts of the city, in an undeveloped area.

Example 52 R: jalan masih (.25) sempit, ya. (.50) sekolah street still narrow yes school masih (.25) bole dibilang belun ada, ya, still can do-say not yet exist yes

R: the roads were still (.25) narrow, you know. schools still could be said to not exist, you know,

The condition of the neighborhood, including its lack of schools, is certainly more topical than the hypothetical person who would make the observation about the schools. Furthermore, a few clauses later but still within the same turn, R says that his father traded that house for one in another area, so that the children could go to school easily. Clearly, while not the overall topic of this turn, the class of schools is related to that topic.
In Example 53 S is discussing his badminton club, and how they get funding for the upkeep of their field. Right before the section quoted, he explains that if large sums of money are needed, the money is requested from the neighborhood government.

Example 53  S: setiap satu bulannya  di:tarik  iuran,
            every one  month-gen  di-collect dues
S: every month dues are collected,

The dues, another source of money for the needs of the organization, is more topical than the individuals within the organization who do the actual collecting.

Given these facts, if it can be shown that topicality is relevant to the data as a whole, not just to the subsets discussed in sections 2 and 3 of this chapter, then it would be reasonable to propose that PT morphology is used for agentless passives because in those clauses the patient, while perhaps not highly topical, in its own right, is more topical than the agent.

5 Remainder of the Data

In this section I will consider the remainder of the data in terms of the notions of thematicity and topicality. By remainder of the data I mean all

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those clauses that have not been excluded by virtue of being relative clauses, whose morphology is grammatically determined, AT clauses having no patient or a non-referential patient (including clauses with affixless verbs of speaking and cognition with clausal complements), whose morphology is determined by level of transitivity, and clauses with a PartC as trigger, PT clauses with preverbal patients, and PT clauses with non-referential actors, which are discussed in earlier sections of this chapter. I will attempt to show that the majority of these clauses, when analyzed in terms of topicality and thematicity, evidence a consistent pattern of AT morphology when the actor is more topical or thematic and PT morphology when the patient is.

There are three possible distributions of thematicity in a clause with two arguments. Either neither is thematic, one is thematic and the other is not thematic, or both are thematic. I will consider each of these possibilities in turn, and then discuss a group of apparent exceptions, showing that there are principled explanations for most of the exceptions.
5.1 Neither Participant is Thematic

Neither participant is considered thematic when both are only mentioned once, or at most twice, in the text, and play no major role in the action. There were 7 clauses of this type, all with AT morphology.

Example 54 exhibits this type of situation. In this text E is relating the story of how he got lost while visiting Sarinah (a department store), and his entire family was enlisted to find him. At this point in the story he breaks off into a digression about how one crossed the street in those days, before returning to his story. (The clause in question in this and the following examples, is given in boldface.)

Example 54  E: orang tua saya trus sudara saya, (.25) pade parents my then relative my plural
ikut nyariin, (.75) mane kalo dulu kan, kalo follow N-search-in how if before agrmt if
nyebrang tu, pake stopan tu, N-cross street that use stop sign that
R: /iya,/
yes
S: /iya,/ yes
E: kalo nyebrang masi inget, if N-cross street still remember
R: ee
E: tapi pas gitu saya keluar dari Sarina but exactly like I exit from Sarinah

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E: my parents and my relatives (.25) all helped look for me, (.75) remember how in the old days, to cross the street, you used a hand held stop sign
R: /yes,/
S: /yes,/
E: to cross the street I still remember
R: uhuh
E: but just when I went out of Sarinah ...

In this digression, neither the generic actor nor the generic patient plays a role in the text, and neither is ever mentioned again. Thus neither is thematic. The verb is an AT affixless verb. Judging by this sample of data, it appears that when neither participant is thematic, AT is the preferred verb form.7

At first one might suppose that this is related to transitivity, since unindividuated patients would naturally be non-thematic. This does not appear to be the case though, since over half of these patients are individuated, and their presence in AT clauses could not be explained by transitivity.

When referents are first introduced, they cannot be considered thematic until their thematicity is established, usually through successive mentions. If they are introduced in a transitive clause, it is most likely that they will be treated as non-thematic, even though in subsequent mentions

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they will be treated as thematic. Example 55 contains referents of this type.

Here S is introducing the story of how his parents lost the land they lived on when he was a child.

Example 55  S: em.: (1.0) na dulu disana ye, crit ye ini si um well before there yes st yes this cntr crita ye, (.50) critanye orang tua tu bell: tana story yes story-gen parents that buy land disana:, there

S: em (1.0) well before there yes, st yes this is the story, yes, (.50) the story is my parents bought land there

Both the parents and the land will be thematic for the story S is going to tell. However, at introduction they are not yet thematic, and AT morphology is used, just as it was in cases where neither referent is thematic. There were three cases of this type, all with AT morphology.

5.2 One Argument is Thematic

When one argument is thematic and the other is not, the thematic argument is the trigger. The non-thematic argument may either be a single mention, a first mention, or repeated mention of a referent which is only present a few times and does not play a major role in the text. There are 14
AT clauses and 2 PT clauses in which the trigger is thematic and the non-trigger is only mentioned once. This type of construction is illustrated in Example 56 and Example 57. In Example 56 R is narrating a story of how when he and his entire neighborhood went to a sports event, one little girl disappeared, and everyone had to search for her.

Example 56
R: nanti kan orang pada tanggung jawab,
later argmt person plural responsible
ngajak anak itu yah,
N-invite child that yes
E: em
R: iya, ahirnya di, (.50) di lagi dibawa, (.25) ini,
yes, finally di di process di-carry this
satpam gitu ya,
security guard like yes
R: we would have been responsible, because we invited her.
E: em
R: yeah, finally she was, (.50) was was being brought,
(.25) by a, security guard like,

The security guard (actor and non-trigger) who carries the little girl appears only once, whereas the girl (patient and trigger) has been an ongoing referent over the last 30 clauses, mentioned 10 times before the clause in question is uttered. In Example 57 S is talking about a badminton field that he and his neighbors built on some empty land in his neighborhood. First he gives a history of the land.
Example 57  S: na yang saya kota'in sekarang itu, dulunya well rel I measure-in now that before tu, dia tu, pembantunya masih pembantunya that he that assistant-gen still assistant-gen Pa Karna dulu. (.25) pembantunya dulu. na Sukarno before assistant before well sekarang jadi peker® apah, pegawai museum now become wor what, employee museum tu sejak dulu ya, dia tu sekarang pegang that since before yes he that now hold intalasi listrik installation electric

S: well, the land that I'm measuring now, before it used to belong to a man who had been an assistant an assistant to Sukarno before. His assistant before. Now he had become a wor what, a museum employee since a long time ago. He's in charge of the electric installation.

The man who owned the land (actor and trigger of the clause in question) is a theme in this stretch of the narrative, where his work history is described in detail. Following this section S goes on to describe how he came to obtain the land, so he continues to be thematic. The electric installations at the museum (patient and non-trigger), on the other hand, are only mentioned this one time, and do not figure in the story.

There are 3 AT clauses and 1 PT clauses where the trigger is thematic and the non-trigger is a referent mentioned for the first time which will have subsequent mentions. In some cases the non-trigger turns out to

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be thematic as the story progresses; in others the referent is only mentioned a couple of times and then disappears again. However, at the time of the first mention the referent that is to become thematic has not yet been established as a theme, so it seems quite reasonable that it should at this point be treated as nonthematic and not become a trigger. Example 58, which illustrates this situation, is taken from the story about the doctor discussed earlier in this chapter. This segment is taken from near the beginning, after the doctor has been introduced.

Example 58  
T: oh Johar Jalil.  
D: hee, die tuh, istrinya kan mandul kan, uhuh he that wife-gen agrmt barren agrmt  
T: iye, engga punya anak. yes not have child  
D: jadi dia, angkat anak, temenan satu Pancasila so he adopt child friend one Pancasila ama saya, with me  
T: oh Johar Jalil.  
D: uuhh, that's him, his wife is barren you know, T: yes, she can't have children.  
D: so he, adopted a child, a friend, my classmate at Satu Pancasila,  

At this point in the story, Dr. Jalil (actor and trigger) has been established as a theme, but the daughter (patient and non-trigger), who will become thematic, is just being introduced and has not yet been established as thematic.
There is one counter-example to the claim that thematic participants are treated as non-thematic at first mention (see Example 59). This clause comes from the story that R relates about his neighborhood trip to a sports complex, and the little girl who got lost. The first half the story describes the trip to the complex, and then there is a topic shift, to the search for the little girl. It is this topic shift that constitutes the counter-example.

Example 59  R: pas giliran waktu (.25) ampir mau pulang, 
exactly turn when almost want go home
  dicarlin ada satu anak yang ilang,
  di-search-in exist one child rel disappear
  R: just when we were about to go home, (we) looked for (her) there was a child who had disappeared,

The lost girl introduced here is thematic for the rest of the story, and certain sections of it are focused on her. However, this is the first time she enters the story, and the introduction is very strange; the little girl is represented by zero anaphora, as the trigger of a PT verb. Immediately thereafter she is introduced in a presentative clause. While it is impossible to be certain what the speaker’s intent was, it is possible that the use of a PT clause and zero anaphora was felt by the speaker to be inappropriate (as the principle of thematicity would predict), and that the presentative was used to rectify the situation. If this is not the case, and the use of PT morphology here was in keeping with the speaker’s intent, then this clause presents a clear and unexplainable counter example.
Finally, there are 7 AT clauses in which the trigger is thematic and the non-trigger, while identifiable, is a relatively minor character. This situation is illustrated in Example 60. Here, R is talking about how his family came to own their house. He explains that his father's department provided housing for employees, but did not have enough for everyone, so a lottery was held.

Example 60  R: kebetulan bapa saya yang namanye keluar, coincidentally father my rel name-gen exit jadi. (.50) memenangkan gitu. so meN-win-kan like

R: as it happened my father's name came out, so. he like won (the lottery).

Here the father (actor and trigger) is a theme throughout the story. The lottery (patient and non-trigger), which is not overt but is understood from context, has been mentioned previously. However, it is present only for a short section of the story, is only mentioned a couple of times, and does not figure in the later development.

Initially it might seem that the clauses where the trigger is thematic and the non-trigger is not thematic are behaving in accordance with transitivity, since so many of them are AT clauses with unindividuated patients and PT clauses with individuated patients. However, this last group,
where the patient is individuated but not thematic, cannot be accounted for with a transitivity explanation. Thus thematicity accounts for a larger segment of the data.

5.3 Both Arguments are Thematic

When both arguments are thematic it would seem that no prediction could be made about which would be trigger. However, in examining the data, one notices certain patterns. In a large number of cases where both arguments in a clause are thematic, one or the other seems to be the focus of a particular segment of the text, and remains trigger over a series of clauses. In other words, while both referents are thematic, one seems to have been chosen as the topic of a section, the referent that the section is about. There are 9 AT clauses and 14 PT clauses that appear as part of this type of a sequence, which is illustrated in Example 61. Here S is talking about the process of building the badminton field mentioned above in reference to Example 57.

Example 61  S: jadi langsung ini diuruk, dipindahin kali kesini so directly this di-fill in di-move-in river to here dilgali lagi. dilurusin itu jadi kan, kalinya di-dig again di-straight-in like so agrmt river-gen begini tadinya, belok, like this before turn
S: so we filled it it right away, we moved the river over here we dug it again. we like straightened it so you know the river used to be like this, it curved,

In the narrative as a whole there are several themes: S and his neighbors, the river, and the badminton field that they build where the river used to be. However, in this section, which describes the process of moving the river out of the way so that the field could be constructed, the topic appears to be the river. In every successive mention of the river, it appears as trigger of its clause.

There are also a number of cases where both arguments are equally thematic, and neither one seems to dominate a long segment of text. However, one of the arguments is set up as a local topic, shown either by the use of a topic-comment construction or by use of an intransitive clause containing that argument and preceding the transitive clause in question. The argument that was set up as a local topic is trigger of the clause. There are 5 AT clauses and 3 PT clauses of this type, which is illustrated in Example 62. This example is again taken from the story about Dr. Jalil, after D has explained how he adopted her friend.
Example 62  
D: anaknya ternyata tuh perek,  
    child-gen ter-clear that wild  
T: oh  
D: kasian lho bapanya tuh,  
    pity emph father-gen that  
    eh suruh "Dita, kamu nginep eh rumah saya aja"  
    eh order Dita you N-sleep eh house my just  
D: it seems that she was wild,  
T: oh  
D: her poor father, eh (he) ordered (me), "Dita, you just  
    stay at my house."

In this case the patient is the speaker, inherently thematic as speaker and  
situationally thematic because of the role she plays in the story. Dr. Jalil is of  
course also thematic. The intransitive clause that precedes the verb suruh  
sets him up as a local topic, and he is trigger of the clause that follows.

When both arguments are thematic, and neither is the topic of a  
segment of text, and neither has been set up as a local topic, it appears that  
either can be chosen as trigger. There were 5 AT clauses and 3 PT clauses  
in which both participants were thematic and there was no apparent reason  
why one was chosen over the other. In fact, which argument is chosen as  
trigger often appears to flip back and forth across a series of clauses, as in  
Example 63. Here S is recounting the story of her camping trip, when her  
parents followed her to make sure she was safe.
Example 63  
S: sudah liat aman, baru dan dilihat saya udah 
    already see safe only and di-see 1 already 
sampe, udah ngellat anaknya tu, baru 
    arrive already N-see child-gen that only 
pulang lagi. 
    go home again

S: after (they) saw that (it) was safe, only and saw that 
    I had arrived, (they) saw their child, only then did 
    (they) go back home.

Both S and her parents are thematic, neither is indicated as being more the 
topic than the other, and they alternate as trigger in these two clauses.

5.4 Other Constraints on Trigger Choice

There are a number of factors that appear to exert an influence over 
trigger choice that are not directly related to topicality and thematicity, but 
rather have to do with either syntax or sociolinguistics. Clause combining 
and collaboration between speakers created certain syntactic constraints, 
while quotes and direct address bring in questions of politeness and 
register.

There are four quoted imperatives in the data, one using PT 
morphology and adressed to a social superior, and three using AT 
morphology and addressed to intimates. There is also one case of direct
address between non-intimates, which uses PT morphology, and 3 reported
speech acts, the social environment of which is not clear, which use AT
morphology. It has been claimed that PT is used between non-intimates
and AT between intimates for imperatives and direct address (Kaswanti
Purwo, 1983). The data under consideration appear to uphold this claim, in
so far as the social environment can be determined. Further investigation
with a larger corpus of data is required to fully substantiate this claim.

Clause combining appears to influence trigger choice in certain
cases. This has already been discussed with regard to relative clauses in
Chapter 1, section 3.3.4. However, when two clauses are combined by an
overt marker, and the trigger of the initial clause is syntactically determined,
for example if it is a relative clause, this determination appears to extend to
the subsequent clause. This type of construction is illustrated in
Example 64.

Example 64  s: jadi kalo yang ngga mau dibongkar,
so if rel not want di-tear down,
dibongkarin
di-tear down-in

s: so, if (they) don't want to tear down (the houses),
(the houses) will be torn down.
The two clauses are conjoined by *jadi* 'so', which when placed at the
beginning of a clause signals that another clause will follow to complete the
idea being expressed. The first clause is a headless relative clause with PT
morphology, in which the trigger is the houses which have been condemned
to make way for urban development. In the second clause the houses are
again an argument of the verb, and they are again chosen as trigger. There
are four cases in the data which exhibit this type of construction, the one
given in the example and three AT clauses. There is a fifth case which is
slightly different, but may also show the influence of clause combining. This
case is given in Example 65, where T is describing the fights she and her
husband had when they were first married.

Example 65  T: kalo engga ini dipecahin, kalo engga dipecahin
        if not this di-break-in if not di-break-in
        semua
        all

        T: if we didn’t break one thing, we broke everything\textsuperscript{11}

The initial *kalo* ‘if’ signals that the clause is connected to another clause.
However, the completion comes with another *kalo* clause, rather than the
more usual unmarked clause. The initial clause has a preverbal patient and
uses PT morphology, as discussed in section 2 above. The concluding
clause uses an almost parallel structure, differing only in the position of the

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patient noun phrase. However, unlike the cases discussed above, the triggers of these clauses are not a shared argument; each clause has a different referent as trigger. It is possible that clause combining plays a role here, providing some impetus towards parallel structure, but this cannot be definitely determined. Again, further investigation with a larger corpus of data is required to substantiate the claim that clause combining interacts with trigger choice, and to determine exactly what are the limitations on this interaction.

Collaboration between speakers, where one speaker begins a clause and another completes it, can also constrain trigger choice. Even though the speaker completing a clause has not uttered a relative pronoun, if the speaker who began it did, the second speaker is constrained to choose a trigger that is syntactically compatible with the relative clause that the initial speaker began. There is one collaboration of this type in the data. Other types of collaborations can also occur, and one is found in the data example 66. Here B is discussing the activities of her youth group, in particular a program they arranged for Indonesian Independence Day.
Example 66  B: dari dulu dulu remaja selalu ya yang ngurus
from early early youth always yes rel N-arrange
deh gitu ya.
emph like yes
N: tapi waktu itu orang tua, e:
but time that parent um
S: mengarahkan ya,
meN-give direction-kan yes
N: berperan juga ya,
ber-role also yes
B: all along it's been the young people who like
arranged things and all.
N: but at the same time the parents um
S: give them guidance like,
N: play a role like,

Following B's last utterance, N decides to make a comment. She begins a
clause, and introduces an argument, which she intends as the subject of an
intransitive verb. However, when N, instead of immediately concluding her
utterance, begins a word search, S supplies a suggestion of a transitive
verb. Since the actor has already been mentioned in initial position, PT
morphology is ruled out, even though the patient, the young people, is
thematic, and their parents, here mentioned for the first time, are not.

Thus, there appear to be other factors, syntactic and sociolinguistic,
which play a role in trigger choice when both arguments are thematic.
However, these are areas which would require further study with a larger
corpus of data before any of the claims made in this section can be proven.
5.6 Unexplained Cases

While trigger choice in 15 clauses appears to be influenced by syntactic and sociolinguistic factors, and in 76 clauses seems to correlate with levels of prominence of the two direct arguments, prominence being defined in terms of thematicity and topicality, there remain 13 clauses where trigger choice seems to go counter to expectations, whether they are expectations based on transitivity or on thematicity and topicality. One of those clauses was mentioned in section 5.2, as a counterexample to the claim that at first mention a thematic participant is treated as non-thematic. The remainder of the exceptions are given here. It is impossible to determine the intent of the speaker after the fact; in some of these clauses verb morphology may have been used in a way that the speaker would consider inappropriate, in other words a “mistake”. Or it is possible that a larger study would turn up a sufficient number of each type for them to constitute a category, which might be explicable in terms of thematicity and topicality. Or they may simply constitute counter-examples to the claims made here, suggesting that the correlation between trigger choice, thematicity and topicality is only a tendency. I have attempted an explanation for one passage containing two anomalous clauses, using a combination of principles of conversational analysis and topicality, to
illustrate the kind of explanations that a larger study might engender
(see Example 67).

This is the story of N's visit to Safari World. When Safari World is first
mentioned, B expresses fear of it, and a short discussion ensues (quoted
here) of animals at Safari World. B and S then ask N a number of questions
about Safari World, (some of which are omitted for brevity), before going
into a discussion of what type of car is used there, which finally gives rise to
a story about N's experience there, when her car was stopped by a bear.

Example 67  B: (laugh) udah takut duluan kata Nana ada
already afraid before say Nana exist
/(laugh)/
S: /Nana pernah Na/
   Nana ever Na
B: harimau katanya ada, katanya ada ada apa tuh
tiger say exist say exist exist what that
e ada apa e
 e exist what e
N: beruang
   bear
B: beruang (laugh) beruangnya /bisa/ ngomong takut
   bear bear-gen can talk afraid
N: /beruang/
B: ni ye [(laugh)]
   this yes
N: [(laugh)]
S: [(laugh)]

(section omitted here)
S: hee trus waktu kestu gimana tu Na, (.25)
    uhuh then when to there how that Na
    pernah ini ngga, di: kan naik mobilnya gimana
    ever this not di agrmt ride car-gen how
terbuka, atau: sedan,/ atau: /apa, pick/ up gitu.
    ter-open or sedan or what pick up like
N: /ditutup./ /engga dong./
di-closed not emph
B: [jangan] [jangan kapan] terbuka,
    not not top ter-open
S: [colt] [kali ya]
    van probably yes
N: [civic]
    Civic
B: /(laugh) ada ulernya,/ exist snake-gen
S: /civic? civic kecil?/
    Civic Civic little
N: iya,
    yes
S: lho itu biasanya dinaikin kan? sama em:
    emph that usually di-climb-in agrmt by em
    apa, berua:ng, what bear
N: en/gga./
    no
S: /ma/kanya kalo mobil mobil kecil tu beruang
    therefore if car car little that bear
tu suka naikin kalo ngga kaca spionnya dia
    that like climb-in if not mirror-gen 3sg
    main mainin.
    play-in
N: iya, memang waktu itu Nana /kebetulan/ ya,
    yes really time that Nana coincidentally yes
S: /heem/
N:(.25) berhenti tu dipegat, sama berua:ng,
    stop that di-stop by bear
B: (laugh) I'm afraid in advance, Nana says there are tigers /((laugh))/
S: /Have you been there Nana?/
B: they say there are, they say there are there are what is it e there are what, e
N: bears
B: bears (laugh) bears that /can/ talk, I'm scared
N: /bears/
B: /((laugh))/
N: /((laugh))/
S: /((laugh))/

(section omitted here)

S: so when you went there what was it like Na, did you, I mean what kind of car did you ride in, was it a convertible or a /sedan/ or /what, a pick/ up like.
N: /closed/ /no of course not/
B: [not] [not a con]vertible
S: [a van] [probably]
N: [a Civic]
B: /there are snakes/
S: /a Civic? a little Civic?/
N: yes,
S: but they are usually climbed on, aren't they, by em what, bears.
N: n/o/
S: /so/ if it's a little car a bear would climb on it, if not he'd play with the side view mirror.
N: yes, really when I went it just so /happened/ yes,
S: /uhuh/
N: (.25) that we stopped we were stopped by a bear,

At the beginning of the passage quoted, B expresses her fears, and then engages in a word search for the type of animal she is afraid of. N, who it appears has been to Safari World, supplies beruang 'bear'. B picks up on this and makes a joke about it. Then a short section is omitted where they
discuss rain at Safari World. After this the topic appears to be the car used at Safari World. First there is a discussion of its type. Then, when S first mentions the possibility of bear trouble, the car (represented by the pronoun itu) is in preverbal position, the verb is PT, and the bear is an oblique agent, entirely as would be expected. The car is then set up as a local topic marked by a topic-comment construction, and the side view mirror is also placed in preverbal position. One would certainly expect PT verbs in both of those clauses, yet in both cases the verb is AT, and the bear is the trigger. S does not actually know that N has a story to tell about bears, so she cannot be consciously providing introduction to that story by topicalizing bears. However, the unfolding of a conversation is a constant and subtle negotiation between participants about what may be discussed. In this case, bears, and the danger from them, became a potential topic when N first mentioned them. However, the topic was not immediately developed. Later S seems to pick up on the topic of bears, during the discussion of cars. She uses the relationship of bears to cars as a mechanism for her transition to a new topic. This in turn provides an opening for N to begin her story of the time her car was stopped by a bear. While S does not know that N has a story to tell, the very fact that N had mentioned bears in the first place hints that there might be something interesting here, if given an opportunity to surface. S gives it this opportunity. This unconscious collaboration which
leads to N's successful storytelling is not at all unusual in conversation, and could explain S's unusual choice of verb form. It's almost as if she were saying "Let's talk about bears now. Tell me anything interesting you know on the subject." Within the speech of a single speaker, topic changes have been demonstrated to frequently be negotiated in the way that this one was, slipping the new topic in as part of an old one (Jefferson, 1978). However, a collaboration between two speakers of the type described here has not been noted in the literature. It remains to be seen whether or not this type of collaboration occurs with some regularity.

Four unexplained cases are found in a section of the story about the doctor who had problems with his adopted daughter. The story begins with a description of the family situation, followed by the section quoted in Example 68, which describes the girl's schooling experience, then goes on after that to discuss D's involvement with the family.
Example 68  D: udah gitu kan bapanya kaya mbak ya, already like agrmt father-gen rich ma’am yes
    T: iye, yes
    D: kamu sekolah inih, pulang pergi ke luar negeri, you study this come-home go to overseas
        sekolah disana ditinggali sekola di Pancasila study there di-leave-in study at Pancasila
        masuk, ditinggali. sekolah di diploma udah enter di-leave-in study in academy already
        ber- register this
    T: iye, yes
    C: ditinggali
        di-leave-in
    D: ditinggali
        di-leave-in
    D: well like you know her father’s rich you know,
    T: uh-huh
    D: “You study here.” She went back and forth
        overseas, she studied there, she dropped out (of
        the school), she studied at Pancasila, she entered,
        she dropped out (of Pancasila). She studied at an
        academy, she already registered,
    T: uh-huh,
    C: she dropped out (of the academy),
    D: she dropped out (of the academy).

In this passage, D presents a sequence of similar actions, that of leaving a
school. Every time the girl leaves a school, PT morphology is used. The
actions form a series, with a beginning point and an end point. One could
say that the topic of this section is dropping out, while the thematic referent
is the girl. The schools are not thematic, as each one is mentioned only briefly, and does not play any role in later development.

Two more unexplained examples are found in the story of moving the river to construct the badminton field (see Example 69).

Example 69  Y: diuruk ngga,
di-fill in not
S: diuruk? wah dalem pa, (.25) dalem, diuruk,
di-fill in wah deep sir deep di-fill in sampe, (.25) berapa sampe satu bulan,
until how much until one month tiga bulan baru selesai nguruknya,
three month only finish N-fill in-gen
Y: tanah ngga bertuan dong berarti tuh.
land not ber-owner emph ber-mean that
S: hah,
T: huh
Y: tanah ngga bertuan dong.
land not ber-owner emph
S: iya, (laugh) (.25) jadi langsung ini diuruk,
yes so directly this di-fill in
dipindahin kali kesini digali lagi. dilurusin
di-move-in river to here di-dig again di-straight-in
gitu jadi kan, kalinya begini tadinya, belok,
like so agrmt river-gen like this before turn masuk kesini ini, kali kan (unclear) rumahnya enter to here this river agrmt house-gen
pa Suardi ni yang saya punya rumah ini.
father Suardi this rel i own house this begini, nah sekarang dilurusin gini, (.25)
like well now di-straight-in like
dimatin. jadi nguruknya sampe sini nih. (.50)
di-die-in so N-fill in-gen until here this muter. (.50)
turn
Y: did you fill it in or not?
S: we filled it in, wow, it was deep sir, deep, we filled it in, for, (.25) how long for a month, it was three months before we were finished filling it in.
Y: that means nobody owned the land then
S: huh
Y: nobody owned the land then.
S: yes, (laugh) (.25) so we filled it in right away, we moved the river over here we dug it again, we like straightened it so you know the river used to be like this, it curved, it went in here, you know the river (unclear) Mr. Suardi’s house is here, my house is here. Like this, well now we straightened it like this, (.25) we cut it off. So we filled it in up to just here. It curved.

Both the river and S and his neighbors are thematic in the story as a whole. As mentioned before, the river is the topic in this section, and is the trigger of almost all the clauses in the excerpt. In the two cases where it is not, the trigger is of course S and his neighbors. However, given the greater topicality of the river in this section, this is very surprising usage.

The next exception come from the story about B’s neighborhood youth organization (see Example 70). B has just explained that for a long time her neighborhood had no official organization, just a series of ad hoc committees to plan activities after they heard about an activity in another neighborhood.
Example 70  S: itu, itu, mungkin karena, *dilat* dari eh ko that that maybe because *di*-see from eh spr tempat lain ko, ada ini si:, kita ngga ngga, place other spr exist this cntr we not not

S: it, it, maybe it's because, you look at it from hey, wow, over there, wow, they have this like, we don't,

The patient of the verb *dilat*, which is not overt, is the situation of the other neighborhood having an activity. However, after that situation was described, the focus shifted to the response of the young people in S's neighborhood, and they have been the topic for the last few clauses, as they continue to be in the following section. There is some possibility that the use of PT morphology here is related to the fact that the group of young people includes B, who is S's addressee, and that sociolinguistic factors may be operative. If this is not the case, then the use of PT morphology here is unexpected.

The next exception comes from the beginning of the story of D and her boyfriend (see Example 71). D has just explained that her response to problems in her love life is to pretend she doesn't care.

Example 71  D: jadi orang engga menyepakankan saya, so person not *men*-simple-*kan* me

D: so people don't look down on me,
The actor in this case is non-referential, and the patient is the speaker, who is both thematic and topical. For both these reasons we would expect PT here, yet the clause is AT.

The last two exceptions both come from the story of how T met her husband. In both cases the non-trigger is the speaker, who is both theme and topic at the time of each utterance. In Example 72 T has just explained that she never had any boyfriends except her husband, and that she had always intended it to be that way.

Example 72  T: cuman kalo diliat sikap temen temen, kok only if di-see attitude friend friend spr enak bener ya, pacaran sana, pacaran sini pleasant really yes dating there dating here

T: only if I look at my friends’ attitude, it seems like they really enjoyed themselves, dating all over the place

In Example 73 T again regrets not dating when she had the chance.

Example 73  T: malah bego bene:r? gitu, on the contrary stupid really like si ini rgejar sini hm this N-chase here

T: but I was like really? stupid, this one chased me

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In both cases, one would expect T to be the trigger. In these, and the other clauses mentioned in this section, trigger choice goes contrary to expectation.

6 Conclusion

In this chapter I have suggested that thematicity and topicality play a role in trigger choice in SJI. I have shown that there are a number phenomena which provide impetus for considering the interaction between trigger choice in SJI and thematicity and topicality. These phenomena include the status of participants in the conversation, the presence of preverbal patient noun phrases, and the prior grammatical status of trigger noun phrases.

Participants in a conversation, who have inherent thematicity due to actually being present, and situational thematicity in the large number of first person narratives in the corpus, show a statistically significant tendency to be trigger of the clauses they appear in.
Preverbal patients, whose preverbal position generally correlates with status as a theme or topic within the discourse, are almost entirely restricted to PT clauses.

Referents show a strong tendency to be trigger in successive mentions, rather than being trigger one time and non-trigger the next. This suggests that status as trigger is partly dependent on the identity of the referent, with certain referents being more likely to repeatedly have trigger status within a text. Thus these referents are more prominent than other referents. This suggests a correlation with thematicity and topicality.

I have suggested that the use of PT morphology with non-referential actors is consistent with an analysis where PT is associated with thematic patients, since in this type of clause the patient is almost always more thematic than the actor.

I have shown that for clauses which do not contain preverbal patients, participants in the conversation, or non-referential actors, and for which trigger choice is not determined by sociolinguistic or syntactic constraints, there is good reason to think that thematicity and topicality play an important role in trigger choice. In the vast majority of the cases, the
trigger noun phrase is thematic, topical or both, although there are a number of exceptions to this generalization. I believe that the analysis presented here, while limited in scope, provides impetus for further investigation into the interaction of trigger choice and the prominence of certain referents in discourse.
CHAPTER 5 NOTES

1. This is similar to Thompson's (1987) definition of theme.

2. Topic-comment constructions in SJI take the forms *kalo* 'if' + NP, preceding a clause which is a comment on that NP.

3. This is similar to Nichols' (1981) definition of theme.

4. Although they may ultimately prove to be related to a single psychological principle such as saliency.

5. Cumming (1988) noted this correlation in the spoken data she considered, and also attributed trigger choice to thematicity.

6. This assumption has rarely been given careful consideration, although Keenan & Schieffelin (1976) present evidence that
left dislocations in English conversation are used to foreground referents which are being introduced or
reintroduced.

7. The actual morphology may be either *meN-, N-, or affixless.

8. As previously described, a thematic argument has been
mentioned previously and plays an ongoing role in the
narrative.

9. Here the speaker begins to say the Indonesian work *pekerja*
'worker' but stops in the middle and substitutes another lexical
item. I have therefore glossed *peker* as 'wor', the beginning of
the work 'worker'

10. The different spellings for the root *lihat* 'see' in this excerpt
represent different pronunciations, both of which are common
in SJI.

11. The negative marker *enga* found in the Indonesian is
present as a parallel to the one in the first clause. It does not
imply negation in this case, and is not reflected in the
translation, which was supplied by one of my consultants.
0 Introduction

In this dissertation I have discussed the use of verb morphology in Spoken Jakarta Indonesian. I have presented sociolinguistic evidence that SJI is an independent variety, not a state of diglossia or code-switching between Standard Indonesian and Betawi, the native variety of Jakarta. I have discussed discourse constraints on the use of verbal prefixes, considering the relevance of transitivity, thematicity, and topicality to trigger choice. In this chapter I will summarize the arguments presented, and then compare the situation in SJI with what has been described for Standard Indonesian, second-language Indonesian and Betawi. Finally I will consider the diachronic implications of this synchronic account.

1 Sociolinguistic Analysis

I have shown that verb morphology varies according to register in SJI in a statistically significant way and have argued from evidence of the effect of register on affix use that neither diglossia nor code switching is an adequate explanation of this phenomenon. Rather, SJI must be recognized as an independent variety.
I have shown that a number of alternations are clearly correlated with a variation between formal and informal register in a statistically significant way. These include a greater frequency of meN- in formal register, and N- and no affix in colloquial register with transitive verbs, a greater frequency of meN- in formal register and N- in colloquial register with intransitives, and a greater frequency of -i, and -kan in formal register and -in in colloquial register. The use and omission of the intransitive prefixes ber-, meN-, and N- varies with register as well, with use more common in formal register and omission more common in colloquial register; however, the differences are too small to be statistically significant. It is possible that these differences are conditioned by variation in register, just as the other differences clearly are, but it is also possible that the distribution is due to chance.

I argued that diglossia cannot be used to explain these alternations, as the formal register is not identical with standard Indonesian, while the colloquial register is not identical with Betawi. I argued against code-switching on the grounds that there are certain aspects of the data which are inconsistent with code-switching as it is described in the literature. Code-switching is generally considered to be a phenomenon of non-formal register only, which takes place at a consistent ratio of language A to language B whenever it occurs within a given speech community¹. In SJI

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the variation between use and omission of affixes, or between the affixes found in Standard Indonesian and those found in Betawi, differs from code-switching in two ways. It occurs in both formal and informal registers, and the ratio of the different verb forms to each other changes in the different registers. Secondly, there are a number of cases of what may be morpheme-level code-switching, where a Betawi root occurs with a Standard Indonesian affix or vice-versa. The type of morpheme-level code-switching found in my data is highly unsystematic, unlike the type of morpheme-level code-switching that has been observed in code-switching communities. Thirdly, most of the factors which trigger actual instances of code-switching in a code-switching situation are not applicable to the situation in which the data was collected. For these reasons, I argued that SJI must be recognized as an independent variety with its own set of social registers.

2 Trigger Choice in SJI

Trigger choice in SJI proved not to be conditioned by a single factor. Rather, the interaction of several different discourse principles must be considered together to explain trigger choice.

2.1 Transitivity
Discourse transitivity proved to correlate with trigger choice in SJI for a large portion of the data, but proved not to be the conditioning factor in many cases. The parameters of discourse transitivity that proved to be relevant in SJI are mood, aspect, timeline and patient status (referentiality, animacy, continuity, and syntactic representation). There is a statistically significant correlation between AT and lower levels of discourse transitivity, and between PT and higher levels of discourse transitivity, such that trigger choice appears to have a discourse function of indicating level of transitivity. However, the parameters mentioned proved not to be accurate predictors of trigger choice. The exception to this was non-referentiality of the patient, which is an almost completely consistent predictor of AT. This lack of predictive value caused me to suggest that trigger choice must be influenced by factors other than transitivity as well.

2.2 Topicality and Thematicity

Topic, defined as what a section of text is about, and theme, defined as a referent with a continuous and important role in a section of text, proved to interact with trigger choice in a significant way. PT clauses tended to have thematic patients, while AT and affixless clauses tended to
have thematic actors. When both participants are thematic, considerations of topicality come into play, and the currently most topical argument is the most likely choice for trigger. I argued that the correlation between trigger choice and thematicity and topicality explained a number of observed phenomena in the data which could not be explained in terms of transitivity.

Firstly, participants in a conversation show a statistically significant tendency to be trigger of the clauses in which they appear. This makes sense when considered in terms of thematicity and topicality, since PartC are inherently thematic during a conversation, and in the case of personal narratives are also situationally thematic and often topical. Secondly, preverbal patients are almost entirely restricted to PT clauses. This too can be explained in terms of topicality, since preverbal position tends to be used for topical patients. Thirdly, referents show a strong tendency to be trigger in successive mentions, rather than being trigger one time and non-trigger the next. Again, this type of behavior makes sense in terms of topicality and thematicity, since certain referents are more thematic and topical than others, and thus are chosen repeatedly as trigger, while non-topical, non-thematic referents are not chosen as trigger. Finally, PT morphology is used with non-referential actors. This seems natural in terms of topicality, since the patients in these clauses are more topical than the actors.
2.3 Affixless Verbs

I argued that affixless verbs should be considered AT, appealing to evidence from syntax, sociolinguistics, and discourse. I pointed out that affixless clauses are similar to AT clauses and differ from PT clauses according to formal criteria of word order, ability to take reflexive patients, ability to be used intransitively, and ability to be used in actor-headed relative clauses. Sociolinguistic evidence also suggests identifying affixless verbs as a subset of AT; when in formal speech the percent of affixless verbs decreases, the percent of PT remains the same, but the percent of AT rises to match the decrease in affixless verbs, suggesting that the two forms are comparable in some way. The evidence relating to discourse transitivity is equivocal. Affixless verbs agree with AT verbs in patient status, and with PT verbs in mood, aspect and timeline. However, other discourse evidence favors an identification of affixless verbs with AT, since they behave the same way in reference to topicality and thematicity; affixless verbs, like AT verbs, are preferred for topical actors and dispreferred for topical patients. The balance of arguments is in favor of classifying affixless verbs as AT.
3 Comparison with Other Varieties

In this section I will compare my analysis of SJII with analyses of Betawi, Standard Indonesian, and Second-Language Indonesian.

3.1 Betawi

Studies of Betawi show a distinction in level of transitivity to be significant to trigger choice. With intransitive verbs, the nasal prefix indicates process and continuity, while no prefix indicates state and punctuality. The opposition between continuity and punctuality is a familiar one from studies of transitivity; it is the aspectual distinction between lower transitivity imperfective action and higher transitivity perfective action. The opposition between process and state, on the other hand, is not usually associated with transitivity. This aspectual distinction in intransitives could not be verified in SJII due to limitations of the data. There were not enough examples of use of intransitive verbs from classes which may occur either with or without a prefix to determine any pattern to their alternation.

AT in Betawi is associated with lower transitivity values along several parameters: absence or non-referentiality of patient, imperfective, durative
or habitual action, and non-indicative mood. PT, which includes affixless verbs, is associated with higher transitivity values along the same parameters: presence or definiteness of patient, perfective or punctual action and indicative mood. This is in many ways similar to the use of AT and PT in SJI. The most notable difference is the positioning of the affixless verbs. In Betawi they are similar to PT not only in terms of aspectual parameters, but also in terms of patient status. In SJI, on the other hand, affixless verbs are like PT in aspectual parameters, but like AT in patient status, and I have classed them with AT.

Topicality and thematicity may also play a role in trigger choice in Betawi, as it does in SJI. Wallace (1973) suggests that d£- implies "focus on goal", the nasal implies "focus on actor" and that no affix implies "focus possible on any participant." The term focus is not clearly defined, but probably implies something similar to topicality or thematicity. If that is the case, then the system again shows partial similarity to that of SJI. As with transitivity, also with topicality, the difference appears to be in the use of the affixless verbs. In SJI affixless verbs, like other AT verbs, are associated with greater thematicity of the actor, while in Betawi affixless verbs are indeterminate as to thematicity.
Affixless verbs are formally indeterminate; there is no morphology which dictates what category they belong in. From a formal standpoint they could just as easily be a subtype of AT as of PT. However, they are clearly, in both varieties under discussion, strongly associated with perfectivity. This association can be interpreted in one of two different ways, either as the basic identifying criterion for classification, or as a secondary criterion, and this is where SJI and Betawi differ. It seems that in Betawi perfectivity is taken as the the basic identifying criterion, and affixless verbs are used to indicate a clause that is basically PT, but which veers away from the standard PT profile in terms of topicality of the patient. In SJI on the other hand, perfectivity is taken as a secondary criterion, and affixless verbs are used to indicate a clause that is basically AT, but which veers away from the standard AT profile in terms of aspect.

3.2 Standard Indonesian

Most analyses of trigger choice in standard written Indonesian make reference to transitivity. AT is associated with lower transitivity values, and PT with higher transitivity values of such parameters as grounding, aspect, mood and patient status. However, most analyses agree that transitivity alone is an insufficient explanation for trigger choice, for one of two reasons.
The first reason is the presence of many AT clauses which are not notably low in transitivity, and the second is the presence of many PT clauses which, although generally high in transitivity, have unindividuated patients. A variety of other explanations are proposed to interact with transitivity, including cohesion (Wouk forthcoming), detail (Dreyfuss 1981) and climactic episodes (Cumming 1988). These works do not discuss the use of affixless verbs, which are infrequent in Standard Indonesian.

These analyses are similar to my analysis of SJI in the finding that transitivity plays a role but is by no means the sole determining factor in trigger choice. However, the explanations proposed are of a type appropriate to written texts, but less readily applicable to conversational data, due to the differences in planning and organization in the two genres. And of course, the use of affixless verbs in the two varieties cannot be compared, other than to point out that this a common form in SJI and a rare one in Standard Indonesian.

Cumming (1988) provides some evidence that topicality plays a role in trigger choice in Standard Indonesian, in her discussion of preverbal patient noun phrases. In the light of this finding, and in view of the role of topicality and thematicity in SJI, an investigation of the interaction between
topicality and thematicity and trigger choice in clauses without preverbal patients in Standard Indonesian would be of considerable value.

Verhaar (1986) provides an analysis of Indonesian that differs greatly from other analyses. He argues that Indonesian is a split ergative language. However, he uses the term split ergativity in a rather unusual way. He claims that there is a sociolinguistic split in Indonesian; written Indonesian is organized accusatively, with AT used in active clauses and PT in passive clauses, while spoken Indonesian is organized ergatively, with AT used in anti-passive clauses and PT in ergative clauses. It is this division that Verhaar refers to as split ergativity. In his analysis there is a connection between ergative PT clauses in Spoken Indonesian and transitivity and punctuality, a connection which does not exist for passive PT clauses in Written Indonesian. In his work, he assumes that affixless clauses are a subset of PT, in both Written Indonesian and Spoken Indonesian.

I feel that Verhaar's argument that Spoken Indonesian is organized ergatively and Written Indonesian accusatively cannot be upheld. I have not found a relationship between discourse transitivity and trigger choice in SJL which is strikingly different from the relationship other studies have found between discourse transitivity and trigger choice in Standard Indonesian.
That is, I have not found that in SJI there is a higher correlation between PT and higher levels of discourse transitivity than there is in Standard Indonesian, as Verhaar claims. Rather, in both varieties there seems to be a strong, but incomplete correlation between AT and low transitivity and between PT and high transitivity. In my SJI data, as in written Standard Indonesian, PT clauses on the whole are higher in transitivity than AT clauses, but many individual AT clauses are equal in level of transitivity to individual PT clauses. And in fact, PT is found in a notably low transitivity construction with non-referential actors, which has a function similar to the English agentless passive. Furthermore, PT is strongly associated with topicality and thematicity of the patient, and AT with topicality and thematicity of the actor. In an ergative system we would expect ergative clauses to be associated with topicality and thematicity of the actor (Cooreman, Fox & Givon 1984); by this criterion PT is very un-ergative. Thus I do not feel that an ergative/anti-passive analysis is appropriate to SJI.

Verhaar's assumption that affixless verbs are a subtype of PT is also not appropriate to the data I have examined. It is very clear that for the speakers of SJI that I worked with, affixless verbs are best considered a subtype of AT.
3.3 Second Language Indonesian

Rafferty (1983) claims that foregrounding is the main factor in determining trigger choice in a text by a second-language speaker of Indonesian. According to her analysis, AT is found in background sections, and PT in foreground sections. Cumming (1988) suggests that topicality is the relevant factor for the same text, PT being used when the patient is highly topical.

The nature of my texts is such that a distinction between foregrounding and backgrounding could not be made readily. Interactive conversational data does not lend itself to narrative style analysis, even when the content of the conversation is a story. Thus I cannot make a comparison between Rafferty's analysis and mine. Cumming's analysis is very similar to what I found in my SJI data; for both of these varieties topicality appears to play an important role in trigger choice.

3.4 Summary

Comparison with other varieties shows considerable similarities between use of verb morphology in SJI and in related varieties such as
Betawi, Standard Indonesian, and Second-Language Indonesian, especially in the area of transitivity. Further studies of the role of topicality in all four related varieties is necessary to properly evaluate the degree of similarity which is found in this area. Also, more study is needed to determine the status of affixless verbs on those (relatively rare) occasions when they do occur in Standard Indonesian.

4 Diachronic Implications

It is a popular activity to suggest that Indonesian is in the process of change, from a transitivity marking system to some other type of system. Some see it as moving in the direction of an active/passive dichotomy, such as is found in English, perhaps with some motivating force from contact with western languages (Becker & Wirasno 1980). Others have suggested that it is moving in the direction of a fully ergative language (Givon, personal communication). In an ergative system high transitivity is associated with ergative clauses and low transitivity with anti-passive clauses (Hopper 1979). Still others have suggested that written Indonesian is becoming accusative, while spoken Indonesian is becoming ergative (VerHaar 1983, 1984). Judging by the evidence in this data, if SJI is moving away from transitivity, it is moving toward accusativity, which has an emphasis on
topicality, not towards ergativity, which has an emphasis on transitivity. The situation I have described in SJ is strikingly different from the situation in a transitivity dominated language like Tagalog, which some have called ergative (Cooreman, Fox & Givon 1984), and much more similar to the situation in thematicity dominated languages like English, which is clearly accusative.

In Tagalog discourse transitivity plays an important role in determining clause structure. The correlation between trigger choice and discourse transitivity is extremely strong, with the single most important factor in determining level of transitivity being referentiality of the patient (Wouk, 1986). Furthermore, in Tagalog PT clauses with postverbal patients are by far the most frequently used clause type in discourse (Cooreman, Fox & Givon 1984), and PT morphology correlates with highly topical actors and much less topical patients\(^2\), unless the patient is in preverbal position, in which case the topicality of actors and patients is roughly equal (Cooreman, Fox & Givon 1984).

In English, transitivity has not been observed to be a dominant factor in determining clause structure. Notions of thematicity and topicality have been shown to influence the use of passive and active, passives being

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chosen when the actor is less thematic or topical than the patient (Tomlin 1987, Thompson 1987). Furthermore, in English active is by far the more common clause type.

In SJL we have seen that PT correlates with lower transitivity and AT with higher transitivity in a statistically significant but not absolute way. However, PT clauses are less common than AT clauses, and are frequently chosen when the patient is higher in topicality or thematicity than the actor. This suggests that if a change is taking place, it is a movement from a basically transitivity oriented system to a system that is equally responsive to, or perhaps more responsive to, topicality and thematicity.
CHAPTER 6 NOTES

1. This is discussed in Chapter 3, Section 0.

2. The comparison here is between PT actors and PT patients, not between PT patients and AT patients. Since PT patients must be referential in Tagalog, while AT patients are non-referential, it is not surprising that AT patients are even less topical than PT patients.
BIBLIOGRAPHY


Appendix: Transcription Conventions

The transcriptions used in this dissertation use the following format: each line of SJI text is accompanied by a morpheme-by-morpheme gloss directly beneath that line. SJI verbal affixes are not given glosses, but rather are repeated in the gloss. An idiomatic English translation of each section follows the glossed transcription.

Punctuation reflects intonational patterns, not syntactic structures. A period represents falling intonation, a comma represents a slight fall, and a question mark represents a rise. Spelling generally follows Standard Indonesian orthography. However, when there is more than one pronunciation of a word in colloquial speech, the spelling reflects the pronunciation used. Pauses between words or syllables are represented within parentheses, by the length of the pause, which is measured in conversational beats, e.g. (.25) for a quarter of a beat. A conversational beat is derived by counting one-one thousand, two-one thousand etc. during a pause, in time to the rhythm of the conversation, four-one thousand being one beat.

Overlapping speech is shown by aligning the overlapping segments of the two speakers and placing them between slashes, as follows:

A: don't you think /so/
B: /well/ I don't know

In this made-up example, the "well" of speaker B is spoken at the same time as the "so" of speaker A. When there is a series of overlaps in a segment of conversation, slashes alternate with square brackets, as follows:

A: /I wanted/
B: /he said/
A: [what?]
B: [so he said]

In this made-up case speaker A's "I wanted" overlaps with speaker B's "he said", while speaker A's "what" overlaps with speaker B's "so he said".
The following abbreviations are used in glossing the transcriptions:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>emph</td>
<td>emphatic particle</td>
</tr>
<tr>
<td>cntr</td>
<td>contrastive particle</td>
</tr>
<tr>
<td>rel</td>
<td>relative clause marker</td>
</tr>
<tr>
<td>agrmt</td>
<td>agreement seeking particle</td>
</tr>
<tr>
<td>3sg</td>
<td>third person singular</td>
</tr>
<tr>
<td>neg</td>
<td>negative</td>
</tr>
<tr>
<td>gen</td>
<td>genitive marker</td>
</tr>
<tr>
<td>spr</td>
<td>particle expressing surprise</td>
</tr>
<tr>
<td>cnf</td>
<td>particle expressing confirmation</td>
</tr>
<tr>
<td>hm</td>
<td>particle preceding human expressions</td>
</tr>
</tbody>
</table>