

UC Berkeley

Dissertations, Department of Linguistics

Title

Cognition in Grammar: The Problem of Verbal Prefixation in Malay

Permalink

<https://escholarship.org/uc/item/4zs3b5wn>

Author

Wee, Hock

Publication Date

1995

**Cognition in Grammar:
The Problem of Verbal Prefixation in Malay**

by

Hock Ann Lionel Wee

**B.A.(Hons) (National University of Singapore) 1988
M.A. (National University of Singapore) 1991
M.A. (University of California at Berkeley) 1993**

**A dissertation submitted in partial satisfaction of the
requirements for the degree of**

Doctor of Philosophy

in

Linguistics

in the

GRADUATE DIVISION

of the

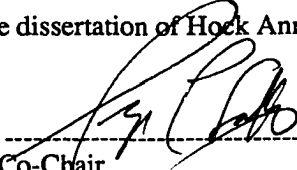
UNIVERSITY of CALIFORNIA at BERKELEY

Committee in charge:

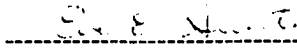
**Professor George P. Lakoff, Co-Chair
Professor Eve E. Sweetser, Co-Chair
Professor Gary B. Holland
Professor Johanna B. Nichols**

1995

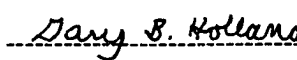
The dissertation of Hock Ann Lionel Wee is approved:

 5/19/95

Co-Chair Date

 5/20/95

Co-Chair Date

 5/16/95

Date

 June 9, 1995

Date

University of California at Berkeley

1995

CONTENTS

Malay Spelling Conventions	ix
Abbreviations	xi
Acknowledgements	xii
 Chapter 1	
Introduction	1
1.1. The problem of verbal prefixation in Malay	3
1.2. The nature of categorization	12
1.3. Theory and description	17
1.4. Grammar and lexicon	19
1.5. Grammaticalization	20
1.6. Summary	23
 PART ONE: FOUR VERBAL PREFIXES	25
 Chapter 2	
Voice, Volitionality, And Perfectivity	26
2.1. Meeting the prefixes	26
2.2. Some questions about the prefixes	31

2.3. A volitionality system	38
2.4. Summary	46
Chapter 3	
The Verbal Paradigm	48
3.1. Two recent versions	48
3.1.1. Hassan 1974	48
3.1.2. Benjamin 1993	51
3.2. Three construction types	55
PART TWO: UNDERSTANDING THE PREFIXES	59
Chapter 4	
The View From Above:	
Reconfiguring The Paradigm	60
4.1. Introduction	60
4.2. Lexical semantics of the stems	61
4.3. Adverbial modification	65
4.4. The three construction types	69
4.4.1. The Initiator/Endpoint Subject Construction	69
4.4.2. The Initiator Subject Construction	71
4.4.3. The Initiator Oblique/Absent Construction	74
4.5. Summarizing the volitionality system	78
4.6. A possible objection	80
4.7. The development of the system of prefixation	85
4.8. Conclusion	90

Chapter 5

The View From Below:

Properties Of The Individual Prefixes	92
5.1. Introduction	92
5.2. <i>Ber-</i>	92
5.2.1. Defining the middle	94
5.2.2. Some <i>ber-</i> sentences	98
5.2.3. Relating the different uses of <i>ber-</i>	104
5.2.3.1. 'Reflexive' and 'reciprocal' actions	105
5.2.3.2. 'Collective' actions	107
5.2.3.3. 'Mental events'	108
5.2.3.4. '(Auto)locomotion'	109
5.2.3.5. 'Natural events'	114
5.2.3.6. 'Active' and 'passive' uses	116
5.2.3.7. A schematic representation of the polysemy of <i>ber-</i>	117
5.2.4. Further notes on the semantics of <i>ber-</i>	120
5.2.4.1. Level of transitivity	120
5.3. <i>Ter-</i>	122
5.3.1. <i>Ter-</i> and perfectivity	122
5.3.2. The scope of non-volitionality	126
5.3.3. Representing the <i>ter-</i> radial category	131
5.4. <i>MeN-</i> and <i>di-</i>	133
5.4.1. More on adverbial modification	139
5.5. Conclusion	141

Chapter 6

Back To The Paradigm:

Some Further Issues	144
6.1. <i>Ber-</i> and restricted transitivity	144
6.2. Default vs. marked volitionality	146
6.3. Conclusion	150

PART THREE: PREFIX-STEM COMPOSITES 154

Chapter 7

Outside The Verbal Paradigm	155
7.1. Introduction	155
7.2. 'Intensifier' <i>ter-</i>	157
7.3. <i>Tidak</i> and <i>ter-</i> : 'Lack of capacity'	164
7.4. 'Possession' <i>ber-</i>	180
7.5. Why these are outside the verbal paradigm	184

Chapter 8

Converted Stems	188
8.1. Introduction	188
8.2. Systematically monvalent and divalent stems	190
8.3. Two hypotheses about conversion	198
8.4. Constraints governing the co-occurrence of converted stems and prefixes	203
8.4.1. Incompatibility in volitionality	203
8.4.2. Incompatibility in valence	204
8.4.3. Semantic specificity: An Elsewhere condition	205

8.4.4. Conflicting transitivity levels	208
8.5. Ranking the constraints	209
8.6. An overview	211
8.7. Summary	216
 Chapter 9	
Suffixed Stems	217
9.1. Introduction	217
9.2. The verbal suffixes <i>-i</i> and <i>-kan</i>	218
9.2.1. Source domain <i>-i</i> : Profiling the location	224
9.2.2. Target domain: <i>-I</i> as a causative	226
9.2.3. Source domain <i>-kan</i> : Profiling either the transferred entity or the recipient	229
9.2.4. <i>-Kan</i> as a causative	232
9.2.4.1. Mapping no. 1: Transferred entity as causee	233
9.2.4.2. Mapping no. 2: Recipient as causee	234
9.2.5. <i>Ter-</i> and the suffixes: Conflicting volitionality values ?	237
9.2.5.1. Why is <i>-i</i> less preferred than <i>-kan</i> ?	240
9.2.5.2. Why can't the Initiator be the subject ?	243
9.2.6. <i>Ber-</i> and the suffixes: Conflicting transitivity levels ?	245
9.2.7. The nominalizing suffix <i>-an</i>	250
9.2.8. Summary	254

Chapter 10

Some Idiomatic Prefix-Stem Composites	258
10.1. Introduction	258
10.2. Motion	259
10.3. Anger	263
10.4. Death	266
10.5. Pregnancy and birth	270
10.6. What about <i>di-</i> and <i>ter-</i> ?	272
10.7. Summary	278

Chapter 11

Concluding Remarks	279
11.1. Introduction	279
11.2. The voice/focus debate	279
11.3. The Topicalization Construction	283
11.4. The Generativistic Fallacy	292
11.5. Conclusion	297

Bibliography	301

MALAY SPELLING CONVENTIONS

Phoneme	Grapheme
p	p
t	t
c	c
k	k
ʔ	k (if syllable-final), - (if syllable-initial)
b	b
d	d
j	j
g	g
m	m
n	n
ɲ	ɲ
ŋ	ng
f	f
s	s
ʃ	s
x	kh
h	h
v	v
z	z

l	l
r	r
w	w (if syllable-initial), u (if syllable-final)
y	y (if syllable-initial), i (if syllable-final)
a	a
e	e
i	i
o	o
u	u
ai	ai
au	au
oi	oi

ABBREVIATIONS USED IN GLOSSES

1	1st Person
2	2nd Person
3	3rd Person
CL	Classifier
EMPH	Emphasis/Contrastive Marker
LOC	Locative
MID	Middle
NEG	Negative
NOM	Nominalizer
PL	Plural
PROG	Progressive
REL	Relative Clause Marker
REFL	Reflexive
SG	Singular

ABBREVIATIONS USED IN REFERENCING CLASSICAL MALAY TEXTS

HT	Hikayat Hang Tuah	(Bakar Hamid, A. 1979)
SM	Sejarah Melayu	(Shellabear, W. G. 1967)

ACKNOWLEDGEMENTS

Before coming to Berkeley, friends who had previously been here were praising its intellectual environment, talking about how dynamic and stimulating it was. Such high praise usually needs to be taken with a pinch of salt since there is always the danger of being let down by reality. However, Berkeley has more than lived up to my expectations. In particular, I am privileged to have been part of the Department of Linguistics, where the community of faculty and graduate students has made my stay a truly enriching experience.

My deepest thanks go to George Lakoff and Eve Sweetser, who co-chaired this dissertation. As mentors and friends, they have been encouraging, critical, and inspiring. I was drawn to Berkeley because of George's work on cognitive linguistics. The best compliment I can offer him is to say that I leave Berkeley even more convinced that I made the right decision. Eve's influence is more specific and perhaps all the more remarkable given that I originally had very little interest in grammaticalization. But because of her, the subject has now become an indispensable part of my linguistic thinking.

Many thanks also to Gary Holland and Johanna Nichols, whose interest in transitivity and alignment made working on this dissertation both fun and challenging. The biggest tribute I can offer to all four members of my committee is this: it was a great experience, and if I had to do it all again, I would hope to work with the very same individuals.

Thanks also to Jocelyn Ahlers, Leela Bilmes, Chung Yoon-Suk, Andy Dolbey, Chuck Fillmore, Belen Flores, Joe Grady, Kyoko Hirose, Larry Hyman, Sharon Inkelas, Matt Juge, Barbara Kaiser, Paul Kay, Jim Matisoff, Sam Mchombo, Kevin Moore, Pamela Morgan, Orhan Orgun, David Peterson, Sarah Taub, Teo Kok Seong, Elisa Trucco, Nancy Urban, Esther Weiss, Cheryl Zoll, and Wen Hsu, for enlightening discussions, good meals, and pleasant memories. A special note of gratitude to Bill Weigel whose encyclopedic knowledge and good humor make for conversations that are always educational and entertaining.

Finally, I'd like to thank the National University of Singapore whose financial support made it possible for me to concentrate on my studies.

CHAPTER 1

INTRODUCTION

Is there a specific language faculty that exists independently of other aspects of human cognition ? Is grammar a self-contained 'module' that can be understood without appealing to general cognitive processes such as prototype categorization, metaphor, metonymy, and idealized cognitive models ?

The kind of answer given to these questions constitutes one of main characteristics that distinguishes cognitive linguists from generative linguists: the former tend to reject the notion of a separate grammatical component while the latter tend to assume its existence. For example, a generativist like Chomsky assumes that the mind contains 'an array of cognitive faculties' and that 'each of these cognitive faculties, each of these mental organs, will have its own very specific properties, its own specific structural properties, its specific physical representation, specific mode of development' (Chomsky and Saporta 1978:308). Applied to the study of language, this view assumes that there is (at the very least) a strict dichotomy between grammar and general cognition so that the linguist is free to posit specific linguistic devices to account for grammatical phenomena.

In contrast, a cognitivist like Langacker (1987:12-13) stresses that '[l]anguage is an integral part of human cognition' so that '[e]ven if the blueprints for language are wired genetically into the human organism, their elaboration into a fully specified linguistic system during language acquisition, and their implementation in everyday use, are clearly dependent on

experiential factors and inextricably bound up with psychological phenomena that are not specifically linguistic in character ... Instead of grasping at any apparent rationale for asserting the uniqueness and insularity of language, we should try more seriously to integrate the findings of linguistics and cognitive psychology.' As pointed out by Harris (1993:309), a consequence of the generativist view is that any insights one might gain 'from exploring other mental structures are essentially useless for looking at language', and vice versa. On the other hand, 'the potential for generalizable findings is much greater' under the cognitivist perspective.

The proof for either of these positions, of course, lies in the empirical pudding, and the goal of this study is to demonstrate that only by making use of what is known about general cognitive processing will it be possible to provide insightful analyses of grammatical phenomena. Conversely, we will see that the arbitrary separation of grammar from other aspects of cognition leads to a much narrower analytic scope (the data to be analysed is often either simplified or restricted), as well as a neglect of the more interesting questions (grammatical polysemy, to the extent that it is recognized, is treated by listing the various senses associated with a form; there is little or no attempt to deal with the relations that exist between the senses).

The approach taken in this study is as follows. In generative linguistics, it is common to justify leaving aside chunks of data or ignoring aspects of the data on the grounds that these are either 'tainted' by processes of general cognition, or are the consequences of historical accidents, or involve cultural variables. This is usually done by appealing to such distinctions as 'competence' vs. 'performance', or 'core' vs. 'periphery'. Whatever the specific nature of the contamination, it is presumed that by sharply delimiting the data under investigation, it is then possible to discern language-specific principles at work. The

operative phrase for the generativist here is 'we can assume uniformity, idealizing away from variation' (Chomsky, in Piattelli-Palmarini, ed, 1979:109).

Another strategy for the generativist, when faced with data which show the presence of general cognitive principles, is to appeal to logical possibility. As Chomsky (in Piattelli-Palmarini, ed, 1979:138) points out, it is not enough to merely show that certain aspects of language use and structure are related to other aspects of cognitive development, since it still leaves open the possibility that some other 'properties of language use and structure are determined in the initial state by language-specific principles...'

This study takes up the challenge empirically by producing as complete as possible an analysis of the verbal system of a single language. The choice of the verbal system is significant since a large body of work in generative grammar has assumed that this is where language-specific principles are most likely to be uncovered (eg. Battye and Roberts 1995; Hornstein and Lightfoot 1994; Pollock 1989). The goal of such an in-depth study is to demonstrate that the ENTIRE system is so permeated with processes of general cognition that it is impossible to isolate any properties that can be plausibly claimed to be determined by language-specific principles (cf. Langacker's statement above). In the final chapter, I go further and argue that attempts to delimit the data are actually detrimental to a proper understanding of the verbal system since they leave crucial properties of the system unexplained; these properties can only be explained if we avoid arbitrarily delimiting the data in a search for grammatical uniformity. The generativist strategy of 'idealizing away variation' then emerges as a fallacy whereby the grammatical baby gets thrown out with the cognitive bathwater.

1.1. THE PROBLEM OF VERBAL PREFIXATION IN MALAY

The particular case to be considered in this study is the problem of verbal prefixation in Malay.¹ The Malay case is ideal because it has a fairly limited morphology. This allows for an investigation that is extensive enough to cover all the prefixes, and intensive enough to deal with any sign of polysemy that a prefix may exhibit.

Malay has four verbal prefixes -- *meN-*,² *di-*, *ber-*, and *ter-* -- which are mutually exclusive. These prefixes are obligatory and highly productive so that anyone learning the language must inevitably come to grips with their uses. This also means that the prefixes are part of the 'core' grammar and cannot be ignored by simply being relegated to the 'periphery'.

The prefixes are often treated as voice markers (Alsagoff 1992; Chung 1976; Muller-Gotama 1994) though it is generally recognized that they are more complex than that, requiring an appeal to a semantic notion such as volitionality in order to be properly understood (Hassan 1974). The following are some illustrations of how the prefixes are used.

¹Following Prentice (1992), the term 'Malay' in this work simply refers to the modern, standard variety. This standard is variously known as Bahasa Indonesia (in Indonesia), Bahasa Malaysia (in Malaysia), and Bahasa Melayu (in Brunei and Singapore). Most of the data for this work, though, come from references and native speakers of Bahasa Indonesia and Bahasa Malaysia. Where it is necessary to distinguish between the standard varieties, I will refer to them by their specific names. The main differences between the standard varieties lie in the vocabulary (Alsagoff 1992:2; Prentice 1992:374), and for the purpose of this work, I will assume such differences are unimportant to my project unless there is reason to think otherwise. For example, while both Bahasa Indonesia and Bahasa Malaysia use *kereta* to mean 'car', they differ in that the former additionally uses the term *mobil*, which is not used in the latter variety. Conversely, the latter uses the term *motokar*, which is not used in Bahasa Indonesia. Finally, as noted by Benjamin (1993:357), the most significant dialectal 'gap' lies between the colloquial/rural varieties and the standard, rather than among the various standards.

²The prefix ends in an underspecified nasal which assimilates to the place of the initial consonant of the stem. If the stem begins with a vowel, the nasal appears as a velar. There are a number of complications. If the initial consonant of the stem is voiceless, it gets deleted. And if the stem begins with an /s/, the nasal appears as a palatal. This is a historical reflex if we assume that the /s/ was originally a palatal stop or fricative (Adelaar 1992:106). In this work, I will present the prefix separate from the stem in all my examples so that with a stem like *tangis* 'cry', instead of writing *menangis*, the form will be *meN-tangis*. The reason for this is clarity of exposition since it will allow the stem in each case to be easily identified.

(1)

- a. Ali meN-pukul John
 Ali meN-hit John
 Ali hit John
- b. John di-pukul (oleh Ali)
 Johh di-hit (by Ali)
 John was hit (by Ali)

So far so good. One might be willing to treat *meN-* as an active voice marker (1a), and *di-* as a passive voice marker (1b), and leave the matter at that. But what about (2) ?

(2)

- a. Ali ter-pukul John
 Ali ter-hit John
 Ali accidentally hit John
- b. John ter-pukul (oleh Ali)
 John ter-hit (by Ali)
 John was accidentally hit (by Ali)

The behaviour of *ter-* suggests that it is a marker of non-volitional actions (Wouk 1980). Furthermore, notice that *ter-* can appear in both active and passive constructions. We will see that *ber-*, too, is sensitive to volitionality (in this case, volitional actions), and it can also appear in both active and passive constructions. Is there a reason for this, or should we simply list different *ter-* prefixes and different *ber-* prefixes ?

Already, we are led to deal with the issue of grammatical polysemy. The situation becomes even more complicated once we recognize that *ter-* can also act as a superlative/intensifier when prefixed to an adjective. The choice between a superlative and an intensifier interpretation is pragmatic, and for convenience I will simply treat this as an intensifier use. Yet another case involves the interaction between *ter-* and the negative marker *tidak*; their combination results in a specific construction that indicates a ‘lack of capacity’ on the part of the subject. Both the intensifier and ‘lack of capacity’ uses of *ter-* are shown in (3).

(3)

- a. Rumah Suyin ter-besar
 House Suyin ter-big
 Suyin's house is extremely big

- b. Ali tidak ter-angkat peti berat itu
 Ali NEG ter-lift box heavy the
 Ali is unable to lift the heavy box

The prefix *ber-* also introduces some complications of its own since it can be used to indicate possession when attached to nouns.

- (4) Ali ber-senjata
 Ali ber-weapon
 Ali has a weapon

As mentioned, it is always possible to simply list different senses of the prefixes. But this merely evades the more interesting and challenging questions such as:

(i) How are the various senses of a prefix like *ter-* related to each other ? That is, how are the uses of *ter-* as a marker of non-volitionality (2) related to its use as an intensifier (3a), and how are these uses related to its marking of 'lack of capacity' (3b) ?

(ii) The 'lack of capacity' use, of course, raises a question of its own: Assuming that *ter-* is basically a marker of non-volitionality (an assumption to be supported later), how do non-volitionality and negation interact to give us a 'lack of capacity' sense ?

(iii) Similar questions need to be asked of *ber-*. In particular, how is the possession use related to the marking of volitional actions ?

(iv) Why is it that *meN-* and *di-* are much less polysemous when compared to the other two prefixes ? Is there a principled reason for this relative lack of polysemy, or is it just an accident ?

In addition to the ones listed above, even more questions about the Malay verbal prefixes arise when we expand our discussion to consider the interaction between the prefixes and various suffixes, as well as the specific kinds of verbs that the prefixes appear with, among others. For example, Malay has a stativizing suffix *-an* that can only appear with the prefix *ber-*; no other prefix is able to co-occur with *-an* (5a). Why is this the case ? In other words, why should the stativizing suffix only be able to co-occur with *ber-*, and not with any of the other prefixes ?

(5)

- a. Kelawar *meN-/*di-/*ter-/ber-gantung-an di dahah itu
Bats ber-hang-an LOC branch the
Bats are hanging from the branch
- b. makan 'eat'
makan-an 'food'

Notice that *-an* can also appear by itself to form nominals (5b). This raises the interesting question of whether this ability of *ber-* to co-occur with *-an* is in any way related to the fact that *ber-* can also be attached to nouns to indicate possession (4).

Consider also the examples in (6), where the stems present are all verbs of motion. Notice that the prefix present in (6a) is *ber-*. In (6b), however, the prefix is *meN-* instead. Is the choice of prefix purely idiosyncratic or is there a reason why *ber-* should be used with a motion verb like 'pass by', while *meN-* is used with a verb like 'creep/crawl' ?

(6)

- a. Kereta itu ber-lalu di sini
Car the ber-pass by LOC here
The car passed by here
- b. Semut-semut sedang meN-rayap di lantai
Ants PROG meN-creep/crawl LOC floor
Ants are creeping/crawling on the floor

Notice that when the motion becomes more specific or elaborate (creeping/crawling as opposed to passing by), the *meN-* prefix is used instead. To anticipate, we will find that *ber-* is restricted in the kinds of events that it can mark. Following Kemmer (1993), we will see that *ber-* is a semantic middle, so that it can only mark events with a relatively low degree of specificity or elaboration. As Kemmer (1993:209) points out, the relative degree of elaboration reflects the granularity of an event, which is ‘the level of precision at which a speaker conceptualizes an event.... Granularity is relevant to language in that the difference in the level of granularity selected by the speaker affects the degree to which details and distinctions in the described situation are expressed linguistically.’ When the motion verb is too specific or elaborate (eg. ‘creeping’ as opposed to ‘passing by’), *ber-* can no longer be used, and the semantically less restricted prefix *meN-* is used instead.

As Kemmer (1993:210) points out, the degree of event elaboration ‘tolerated’ by a linguistic marker has consequences for the issue of transitivity. *Ber-* is often referred to as a marker of intransitivity (Haji Omar and Subbiah 1985; Macdonald and Darjowidjojo 1967) because of a sentence like (6a) as well as those below.

(7)

- a. Bapa-nya ber-kata
 Father-3 ber-speak
 His father is speaking

- b. Ali sedang ber-fikir
 Ali PROG ber-think
 Ali is thinking/pondering

But what about a sentence like (8) where *ber-* seems to appear in a transitive construction?

- (8) Ali ber-ganti baju
Ali ber-change shirt
Ali changed (his) shirt

Recent works have shown transitivity to be a gradient phenomenon (Hopper and Thompson 1980) that reflects the way in which an event is construed (Rice 1987). Speakers possess a conception of the prototypical transitive event, which, following Kemmer and Verhagen (1994:126), involves

an agentive participant, that is, a highly individuated entity capable of volition, and volitionally exerting physical energy on a second participant, which is also a highly individuated participant. This participant absorbs the energy, whereby it undergoes a change of state that would not have taken place without the exertion of energy. The effect on the second participant is direct, that is, there are no observed intermediaries such as a third participant: the effect is complete; there is physical contact between the two participants; and this contact is seen as giving rise to the change of state.

As in the case of granularity, it is important to distinguish between transitivity as a property of conceptual construals of events, and transitivity as a corresponding property of various linguistic markers. The linguistic marking of transitivity indicates certain kinds of construals made by the speakers, and the nature of the construal has consequences for the morphosyntax. For example, Rice (1987:255) suggests that, in Samoan, the distribution of a particular suffix *-Cia* can be accounted for by noting that when properties associated with high transitivity such 'conferring participant status on the downstream entity in the action chain' are absent, the suffix is not allowed. In the case of *ber-*, because the prefix can only code events with a relatively low degree of elaboration or granularity, this affects

the transitivity level of the events it can code so that most of the events coded tend to involve only a single participant. (9) is still relatively intransitive, however, because the direct object cannot be fully individuated. As (10a) shows, a determiner cannot be present so that only one participant is allowed to be fully individuated. When the direct object is fully individuated, the semantically less restricted *meN-*, once again, is used instead (10b).

(10)

a. *Ali ber-ganti baju itu

Ali ber-change shirt the

Ali changed the shirt

b. Ali meN-ganti baju itu

Ali meN-change shirt the

Ali changed the shirt

In fact, the approach to transitivity constitutes yet another major difference between generative and cognitive linguistics. As noted by Kemmer and Verhagen (1994:150), '[i]t is an accepted result in Cognitive Linguistics that transitivity is a matter of degree, and different languages respond in different ways to deviations from prototypical transitive and intransitive events (cf. Hopper and Thompson 1980).' On the other hand, among generativists, transitivity is regarded as an absolute property so that verbs are categorized as being transitive, intransitive, or both (cf. the discussion in Rice 1987:30). For example, Hoekstra (1984) treats transitivity as resulting from whether or not verbs are subcategorized for an external theta role. Under such a view, transitivity is always categorial and never a matter of degree. Obviously, it is no accident that generativists prefer not to treat transitivity as a gradient phenomenon resulting from a speaker's construal

of an event since to do so would immediately mean introducing aspects of general cognition into grammar, thus weakening the claim that grammar is a self-contained module.

1.2. THE NATURE OF CATEGORIZATION

We have seen that to deal with the questions raised by the Malay verbal prefixes, we must be willing to confront the problems raised by grammatical polysemy. Most previous work has avoided dealing with polysemy by concentrating on only those prefixes, like *meN-* and *di-*, which are 'polysemically-challenged'. In the process, the more difficult data and the more interesting questions are not dealt with. This is, perhaps, understandable since polysemy, as distinct from mere homonymy, is not arbitrary but often results from metaphorical and metonymic inferences. These inferences are very much motivated by a speaker's experience of, and interaction with, the world around him/her (Johnson 1987; Lakoff and Johnson 1980). To the extent that these inferences have an effect on the development of the grammatical system (Hopper and Traugott 1993; Lakoff 1987; Sweetser 1990; Traugott and König 1991), they indicate that grammar and other aspects of human cognition are inseparable.

There is a related issue at stake here: when different senses arise so as to give us polysemous entities, this necessarily brings us to the nature of categorization and its role in grammatical theory. This means that any adequate theory of grammar must come to grips with the nature of categorization (we already saw an indication of this in the discussion of transitivity and event elaboration). Since Aristotle, the classical view of categorization has been that all members of a category necessarily have something in common. However, this view fundamentally misconstrues the nature of categorization:

Categorization, ..., will remain a mystery as long as we see it as the grouping together of like things; we grasp the essence of the process of categorization only when we see it as the grouping together of things that are not the same in that they will count as the same (Ellis 1993:25).

This rejection of the classical view is due to an appreciation of the writings of Wittgenstein and Saussure, as well as the work of Rosch in the field of cognitive psychology, among others. In what follows, I will only briefly touch on the significance of these works. For a fuller discussion, the reader is advised to consult Ellis 1993, Lakoff 1987, and Taylor 1989.

Wittgenstein 1953, of course, gave us the idea of family resemblances. He saw that not all categories are defined by some property that is common to all members. A category like 'game', for instance, lacks a defining property that characterizes all the different kinds of games. Nonetheless, there is still some coherence to the notion of a game. The idea of a *family resemblance* brings out the fact that various kinds of traits predominate in different games, so that the category is characterized by an overlapping series of traits, rather than commonly shared features. Some games involve mere amusement while others may involve competition, and yet others both. In the same way, certain family members may share facial features, while others share temperament or eye color (Lakoff 1987:16).

From Saussure 1916 came the idea that for a category to be fully understood, we must also appreciate the way in which the category relates to other categories. That is, part of what gives a category coherence is the way in which that category differentiates itself from others, syntagmatically and paradigmatically. This insight provided the foundation for structuralism, the notion that the phenomena of human experience can be best accounted 'if one looks at them in their relational character, sees the connections as constituting a

structure, and finds that behind the apparently endless variation of their different shapes and combinations, there is a limited set of abstract patterns subject to simple general rules' (Lepschy 1992:163).

These ideas find empirical support in Rosch's work on prototype effects and basic-level categorization. Experimental results show correlations between family resemblances and numerical ratings of representative members of a given category (Rosch and Mervis 1975). Also, children's acquisition of categories at the basic level seem to be cognitively privileged, as shown by the results of sorting tasks (Rosch et al. 1976). The children had little or no problem putting, say, dogs and cows into different sorts. However, sorting at the superordinate level, say, grouping a dog and a cow together when compared to a car, is more difficult. These results show that our most natural form of categorization is at the basic level, since basic-level distinctions are characterized by maximally easily perceived differences in shapes and interactive motor skills.

The presence of prototype effects and basic-level categories actually serves to answer a question that was not addressed by Saussure and Wittgenstein. Wittgenstein pointed to the way in which a category can have internal coherence, albeit of a fairly loose kind. Saussure highlighted the relationships among different categories. But this leaves open the question of why a category should tolerate the kind of 'loose organization' that a family resemblance suggests (Ellis 1993:38), as well as how this affects its relationship to other categories. Rosch argues that the cognitive import of categorization is that it makes manageable the otherwise unlimited variation in the world. Since attributes do not occur randomly, but tend to be correlated with each other, a category is useful precisely because classifying a thing as a member of a particular category allows us to both know what other attributes that thing possesses, as well as what attributes are excluded (1975:197). And it is at the basic level that the number of attributes shared by members of the category are

maximized, while the number of attributes shared with members of other categories are minimized (Taylor 1989:51). Notice what this means: Categorization is not merely a passive act of taxonomizing; it actively involves processes of inferencing.

The importance of having loosely organized categories is best summarized in Geeraerts (1985:141):

Cognition should have a tendency towards structural stability: the categorial system can only work efficiently if it does not change drastically any time new data crop up. But at the same time, it should be flexible enough to adapt itself to changing circumstances. ... It will be clear that prototypical categories are eminently suited to fulfil the joint requirements of structural stability and flexible adaptability. On the one hand, the development of nuances within concepts indicates their dynamic ability to cope with changing conditions and changing expressive needs. On the other hand, the fact that marginally deviant concepts can be incorporated into existing categories as peripheral instantiations of the latter, proves that these categories have a tendency to maintain themselves as holistic entities, thus maintaining the overall structure of the categorial system.

In Malay, we will see that this dual tendency towards stability and flexibility shows up in the system of verbal prefixation, where despite variations in categorial structure, there still remains a set of core structures that recur across the prefixal categories.

The Malay data also bear on a number of currently controversial areas of linguistic theory such as the relationship between theory and description, the organization of a grammar, and the significance of grammaticalization studies. I argue in the next few sections that these controversies can only be satisfactorily addressed within a framework such as cognitive

linguistics. We have already seen that cognitive linguistics rejects the assumption that grammar is independent of other aspects of cognition. The following is a fuller list of the foundational assumptions that characterize cognitive linguistics (Goldberg, to appear):

- (A) Semantics is based on speaker's *construals* of situations, not on objective truth conditions.
- (B) Semantics and pragmatics form a continuum, and both play a role in linguistic meaning. Linguistic meaning is part of our overall conceptual system and not a separate modular component.
- (C) Categorization does not typically involve necessary and sufficient conditions, but rather central and extended senses.
- (D) The primary function of language is to convey meaning. Thus formal distinctions are useful to the extent that they convey semantic or pragmatic (including discourse) distinctions.
- (E) Grammar does not involve any transformational component. Semantics is associated directly with surface form.
- (F) Grammatical constructions, like traditional lexical items, are pairings of form and meaning. They are taken to have a real cognitive status, and are not epiphenomena based on the operation of generative rules or universal parameters.
- (G) Grammar consists of a structured inventory of form-meaning pairings: phrasal grammatical constructions and lexical items.

1.3. THEORY AND DESCRIPTION

There is presently an enormous gap between linguistic theory and the description of natural languages (see Foley 1993 for further discussion of this issue). Part of the reason for this gap follows from the claims of generative linguistics that there exists a highly idealized language-specific capacity, and that linguistic representations are 'abstract' rather than 'concrete' (Baker 1993:13). The result has been that '[m]any descriptive linguists find this retreat from language as based in the human social world to be a move which renders much of the resulting theorizing irrelevant to their concerns' (Foley 1993:2).

Both these claims -- the autonomy of the language capacity, and the abstract nature of linguistic representation -- are rejected by cognitive linguists. In particular, assumption (B) explicitly rejects the claim that there is a separate language faculty, while (E) assumes that linguistic representations should be true to surface form, so that 'what you see is what you get'.

Note that the objection to abstract linguistic representations is not an objection against abstraction per se. It is, after all, a truism that any act of analysis and any act of categorization involves some level of abstraction. But when it is simply assumed that a language-specific capacity exists, and that the proper understanding of this capacity must appeal to 'the idealized conditions of a speech community' (Chomsky and Lasnik 1991:4), the path is open towards a linguistic theory that need not, and can not, be constrained by any theory-external considerations. By fiat, generative linguistics need not take note of language-related work being done in other disciplines, and consequently, there is considerable latitude in the kinds of theoretical entities being posited (see Lakoff 1977 for a similar point). In this respect, it is all the more difficult to understand Chomsky when he complains that 'linguistics, and "soft sciences" generally, are often subjected to

methodological demands of a kind never taken seriously in the more developed natural sciences' (1992:44, footnote 4).

The entire situation is compounded by Chomsky's deep (no pun intended) distrust of surface forms, and his continuing belief in a derivational theory of language. At this point, an abstract level of linguistic representation becomes a theoretical imperative, so that the theory no longer serves to illuminate language. Rather, the nature of a surface form is blithely ignored when in conflict with the theory. A clear example of this comes from the claim that the expletive 'there' in a sentence like (5a) is actually an LF (logical form) affix to the NP 'a strange man' (Chomsky 1994:39; Lasnik 1993:15). The LF for (5a) is shown in (5b) (adapted from Webelhuth 1995:49).

(5)

- a. There is [a strange man] in the garden
- b. A strange man-there_i is t_i in the garden

Briefly, in the latest incarnation of the Principles and Parameters framework, the Minimalist Program (Chomsky 1992), it is claimed that movement can only be motivated by morphological requirements. For example, the feature of Tense is assumed to motivate raising. For theory-internal reasons, the NP in (5) must be adjoined to the expletive, otherwise there is no way to account for the grammaticality of the sentence. Thus, it is concluded that there must exist covert LF morphology, with 'there' in this case, being an LF affix. This may be useful in maintaining the internal coherence of the theory, but it holds little value for a grammarian who is interested in understanding the facts of a particular language. To borrow a phrase from the legal philosopher H. L. A. Hart, it runs the risk of achieving, not understanding, but 'uniformity at the price of distortion.'

The crucial point here is that to do justice to the languages being described, grammatical descriptions are often necessarily 'untidy'. Conflicting data need to be accounted for, speakers' knowledge of their language may involve a high degree of redundancy, and there may not be distinct grammatical components waiting to be described (a point to be addressed below). This means that a cognitively-oriented framework is much more satisfying since it allows contact to be made between the language and the socio-cultural matrix in which that language is embedded. This is important since the Malay verbal prefixes also have a number of highly idiomatic uses. In this study, we will attempt to account for these idiomatic uses by appealing to general properties of idioms, as well as to culture-specific knowledge which may have motivated the development of individual idiomatic constructions.

1.4. GRAMMAR AND LEXICON

Another controversy concerns the organization of a grammar, particularly whether there is a need for a distinct lexical component. The generative view is that a demarcation must be made between lexicon and grammar. Even the Minimalist Program, despite its elimination of D- and S-structures, maintains this demarcation since it still posits a clear distinction between the lexical resources that enter into a derivation, and the derivation itself.

In contrast, cognitive linguistics rejects such a sharp distinction (assumptions (F) and (G)). The relation between lexicon and grammar is treated as a continuum rather than a separation into discrete components (Fillmore, Kay, and O'Connor 1988; Lakoff 1987; Langacker 1987; Goldberg 1995). A consequence of treating the lexicon and grammar as a continuum is that both lexical and clause-level constructions are now essentially the same kind of 'animal'; both are form-meaning pairings. A clause-level construction merely differs from a lexical construction in the degree of lexical specification. The need to recognize the

existence of constructions has been noted by various authors (eg. Bolinger 1968; Fillmore, Kay, and O'Connor 1988; Goldberg 1995; Lakoff 1987; Zwicky 1989, among others), and it is this willingness to treat a construction as a theoretical entity in its own right that marks yet another crucial difference between cognitive linguistics and the Principles and Parameters framework. In the latter, the goal is to eliminate constructions entirely from the grammar. Instead, the grammar is said to consist of highly general principles and parameters whose interactions are presumed to result in surface constructions. Under this view, constructions are merely 'descriptive artifacts' (Chomsky and Lasnik 1991:9).

In dealing with the Malay verbal prefixes, we will posit a number of constructions which serve to bring out the similarities and differences across the prefixes. This is particularly important since one of main obstacles towards a proper analysis of the prefixes has been the failure to recognize such constructions. To illustrate, one of the prefixes, namely *ber-*, is often treated as a middle voice marker. While this is correct, it is insightful only if we recognize that the category of the middle voice is internally complex and involves diverse constructions (Kemmer 1993; Pederson 1991). However, most previous discussions have tended to ignore the internal complexity of the category, thus treating the middle voice simply as a label for talking about supposedly 'common' properties such as agent-patient coreferentiality. This obscures the constructional diversity within the middle category since the middle is often also used in passive-like constructions where there is no agent-patient coreferentiality exists (Kemmer 1993). As a consequence, the fact that similar constructions can also be found with the other prefixes -- none of which are considered middle voice markers -- is not recognized. This, of course, brings us right back to Ellis' observation that the true nature of categorization lies not the grouping together of like things, but in the grouping together of different things so that they may count as the same.

1.5. GRAMMATICALIZATION

Finally, recent work on grammaticalization phenomena (see Bybee et al. 1994; Hopper and Traugott 1993; Traugott and Heine 1991; Heine et al. 1991) has raised a number of theoretical issues concerning the nature of grammatical change. The Principle and Parameters framework, with its highly idealized view of grammar, is able to deal with such issues only at the cost of considerable oversimplification. First, a distinction is made between significant grammatical change, which results from a new parameter setting, and arbitrary changes (see the discussion in Hopper and Traugott 1993:204ff). Then, it is claimed that a particular parameter is given a different setting by the child who is in the process of acquiring a particular language (Battye and Roberts 1995; Lightfoot 1979, 1991). The child hears the adult's output or E- (external) language, which underdetermines the child's own grammar or I- (internal) language. This is because a particular E-language can be consistent with more than one I-language. And because the child only has access to the adult's E-language, the result is that the child may select a collection of parameter settings which differs from the adult's.

There are a number of problems with this account of language change. For example, the theoretical distinction between 'significant' and 'arbitrary' changes is highly questionable; it assumes that the motivation for (significant) grammatical change lies solely in the choice of parameter setting, and has little or nothing to do with processes of inference (both metaphorical and metonymic) which underlie the use of language. But as Hopper and Traugott (1993:207) note, the study of grammaticalization suggests that 'very few changes are arbitrary, precisely because of the pragmatic inferencing that constrains them.' In other words, since most grammatical changes -- including the so-called 'significant' ones -- are motivated by pragmatic inferences, this casts doubt on the distinction between changes that are the result of new parameter settings and changes that are not.

Also, this kind of account puts the responsibility for the change solely on the child's 'misacquisition' of the adult language. It says nothing at all about the fact that grammaticalization can be observed over the course of a single individual's life, thus blurring the distinction between children's and adults' acquisition of languages (Bybee and Slobin 1982:36-37). And finally, a switch in parameter setting should lead to fairly sudden and abrupt changes, a prediction that is not empirically supported by the gradual and continuous nature of grammaticalization (Hopper and Traugott 1993:204ff; Lichtenberk 1991).

The situation does not improve within the Minimalist Program, which claims that constraints on derivations are universal. Parametric differences between languages (and presumably, between earlier and later variants of a language), including basic word order, are now assumed to be due to differences in lexical features (Marantz 1995:366). For example, verb-initial languages are assumed to have V-features which are 'strong'. The 'strong' nature of these features forces the verb to be raised from the VP prior to Spell-Out so that by the time the derivation enters the PF (phonological form), we have a verb-initial structure. On the other hand, if the V-feature were 'weak', then the verb would be allowed to stay within the VP. This is just part of the story. The theory also allows N-features to be 'strong' or 'weak', apparently providing room for further theoretical fine-tuning. As the Minimalist Program is made to account for an increasing number of grammatical differences, we can no doubt look forward to a proliferation of ad hoc lexical features.

More specifically, treating a change in basic word order as resulting from a new parameter setting goes against a whole body of work that treats constituent order as inextricably linked to pragmatic/discourse/processing factors (see, among others, Cumming 1991; Dixon 1994; Hawkins 1995; Lambrecht 1994; collected papers in Li 1975 and Payne 1992,

among others). It is only by ignoring this body of work that the Minimalist Program can assume that word order is lexical in nature.

Cognitive linguistics, on the other hand, coheres much more easily with the observations of grammaticalization phenomena since it assumes (assumption (C)) that categorization is not discrete, but may involve a variety of senses, some of which are more central, some of which are less so. Change is expected to be gradual, given the non-discrete nature of categorization. And since categorization is usually motivated by various inferences, no sharp distinction is made between 'arbitrary' and 'significant' changes. Furthermore, since similar principles motivate both children's and adults' categories (Mervis 1984), the gradualness of grammaticalization over an individual's life is not a problem.

In the case of Malay, we have seen that some of the verbal prefixes are highly polysemous. We will see that some of the senses form a part of the verbal paradigm while other senses lie outside the paradigm. Moreover, the various senses tend to be related via inferences involving metaphors and metonymies, a situation that is perfectly consistent with the assumption that the primary function of language is to convey meaning (D), where meaning is understood as involving a speaker's construal of a situation rather than any objective reality (A). Positing such a collection of different but related senses also raises questions about their development: This study will attempt, where possible, to address historical questions, and to bring out the relationship between the history of a prefix and its synchronic status in the Malay system.

1.6. SUMMARY

While my focus of attention throughout will be on the nature of the specific grammatical phenomenon of verbal prefixation, this study will also demonstrate that a proper

understanding of these particular data can only be gained by adopting an appropriate analytical framework, one that recognizes the role of general cognition in grammar. Thus, to the extent that this study succeeds in showing how verbal prefixation operates in Malay, it is also a validation of the cognitive approach to grammar.

In the next chapter, I discuss in greater detail the kinds of issues raised by the verbal prefixes. This will set the scene for the discussion in the rest of this work.

PART ONE:
FOUR VERBAL PREFIXES

CHAPTER 2

VOICE, VOLITIONALITY, AND PERFECTIVITY

2.1. MEETING THE PREFIXES

Malay is a language belonging to the Western Malayo-Polynesian subgroup of the Austronesian family, and is spoken in Brunei, Indonesia, Malaysia, and Singapore, as well as parts of Burma and Thailand (Prentice 1992). It has a contrasting set of three verbal prefixes -- *meN-*, *di-*, and *ber-* (I will discuss the fourth prefix, *ter-*, shortly). These are usually characterised as voice markers, in sense that they indicate the kinds of grammatical relations the arguments of a verb are mapped onto (Chung 1976a; Müller-Gotama 1994). However, a number of other researchers have claimed that treating the prefixes as voice markers is misleading, preferring instead to emphasize the semantic roles borne by the arguments of a verb. For example, Thomas 1980 prefers to use the terms 'agent/actor focus'¹ and 'non-agent focus' in place of active and passive respectively. Cumming 1986 uses 'agent-trigger' and 'patient-trigger' while Prentice 1992 introduces the terms 'agent-orientation' and 'object-orientation'.

¹ The term 'focus' has a rather idiosyncratic use in Austronesian linguistics. It refers not to contrastive or new information, but to an NP that bears both a particular semantic role as well as a particular discourse function, usually that of topic. The term has usually been used with reference to Tagalog, in a debate over whether or not the language bears the grammatical relation of 'subject' (Foley and Van Valin 1977; Kroeger 1993; Schachter 1976; Sweetser 1980, among others).

The contention between proponents of the voice position and the others rests mainly on whether it is grammatical relations or semantic roles that are being marked by the verbal prefixes. The analysis to be presented in this work is essentially neutral with regard to this debate, although in Chapter 11, I will have more to say about it. For ease of exposition, however, I will continue to use the terms 'active voice' and 'passive voice'.

The following are some initial examples of way the prefixes are used.

meN-

(1)

- a. Ali sudah⁴ meN-tari
 Ali PERF meN-dance
 Ali has already danced

- b. Ali meN-pukul John
 Ali meN-hit John
 Ali hit John

⁴ *Sudah* belongs to a class of aspect/modal markers which never take the prefixes. If present, these markers always precede the lexical verb. Other examples of such markers include *masih* 'still', *boleh* 'can', and *mahu* 'want'.

Among the lexical verbs, a number of them idiosyncratically tend to appear unprefixes. Some examples are *datang* 'come', and *tidur* 'sleep'.

Ali sudah datang
 Ali PERF come
 Ali has arrived

di-

(2)

- a. John di-pukul (oleh Ali)
John di-hit (by Ali)
John was hit (by Ali)

- b. Buku itu di-baca (oleh Ali)
Book the di-read (by Ali)
The book was read (by Ali)

ber-

(3)

- a. Ali ber-cukur
Ali ber-shave
Ali shaved (himself)

- b. Ali ber-kelahi dengan kawan-nya
Ali ber-quarrel with friend-3
Ali is quarrelling with his friend

On the basis of sentences like those in (1-3), *meN-* is often treated as marking active voice, *di-* passive voice, and *ber-* middle voice. However, a number of analysts (Alsagoff 1992; Chung 1976) have also claimed that *meN-* is restricted to active transitive constructions. In fact, Alsagoff (1992:12, footnote 4) explicitly leaves out of consideration a sentence like (1a) on the grounds that the intransitive prefix-stem combinations are usually lexicalized. We will see that while this observation is correct, it fails to take into account the fact that there are a large number of intransitive *meN-* constructions that are not lexicalized. It also

fails to consider that the tendency towards lexicalization is not restricted to intransitive *meN*-, but can be observed with intransitive correlates of the other prefixes as well. In Part 2, I will discuss why this should be so.

There is also a fourth prefix *ter*-, which has been variously analyzed as marking either non-volitionality or perfectivity.

ter-

(4)

a. Ali *ter*-pukul John

Ali *ter*-hit John

Ali accidentally hit John

b. Ali *ter*-peranjat

Ali *ter*-be shocked

Ali was shocked

Contrasting (1b) with (4a), we see that when the same verb is prefixed by *ter*- instead of *meN*-, the action is construed as being non-volitional. Also, *ter*- tends to take intransitive stems that indicate involuntary behaviour (4b). This is what leads most analysts to treat *ter*- as a marker of non-volitionality (Hassan 1974; Wouk 1980).

(5)

a. Ali sedang *meN*-pukul John

Ali PROG *meN*-hit John

Ali is hitting John

- b. ?Ali sedang ter-pukul John
 Ali PROG ter-hit John
 Ali is accidentally hitting John

Contrasting (5a) with (5b), we see that the *meN-* clause can easily take the progressive marker *sedang* while the *ter-* clause is anomalous. This is because *ter-* clauses are usually understood to involve actions that are already completed, leading to the treatment of *ter-* as an aspectual marker of perfectivity.

However, since no one denies that a *ter-* clause can have both non-volitional as well as perfective interpretations, the question arises as to how these interpretations are related to each other. An attempt to deal with this issue can be found in Winstedt (1927:86-87), who seems to treat *ter-* primarily as a perfective marker, and secondarily as a marker of non-volitionality:

- (1) The prefix *ter-* denotes the perfected act, the realized condition. (2) It emphasises not a process in which an agent takes part but a result - absolutely complete, sometimes sudden and due not to conscious activity on the part of the subject but to external compulsion or accident.⁵

⁵ The reader may wonder why I am interpreting Winstedt to be treating *ter-* as a perfective rather than a perfect. It is not clear, of course, whether he made any such distinction in the first place. However, while the two are closely related in that they tend to focus on the consequences or completion of a situation (see Comrie 1976:64-65 for detailed discussion), there are differences. The most notable is that 'the perfect links a present state to a past situation, whether this past situation was an individual event, or a state, or a process not yet completed, so that there is nothing in the definition of the perfect to preclude combination with the imperfective or progressive' (p62). On the other hand, since the perfective 'involves lack of explicit reference to the internal temporal constituency of a situation' (p21), it is not compatible with the imperfective or progressive (p25). And because it is clear that *ter-* has difficulty co-occurring with the progressive (see example (5b) above), it seems that Winstedt's quote would be viewed more favorably if we interpret him to mean 'perfective' rather than 'perfect'.

Another feature of *ter-* is that it participates in both active and passive constructions, as shown by comparing (4a) with (6).

- (6) John *ter-pukul* (oleh Ali)
John *ter-hit* (by Ali)
John was accidentally hit by Ali

Distributionally, all four verbal prefixes are mutually exclusive (so that a verb can take at most only one verbal prefix), as well as obligatory (so that a verb must take at least one verbal prefix). The obligatory nature of the prefixes, however, seems to hold more clearly for Bahasa Indonesia (Benjamin 1993:357). In Bahasa Malaysia, the prefix *meN-* is occasionally dropped in informal communication (Liaw 1988:73). Hassan (1974:102) suggests this is because *meN-*, being the active voice marker, is the 'least-marked' of the four prefixes.

2.2. SOME QUESTIONS ABOUT THE PREFIXES

At this point, we can see why these prefixes might be of interest. First, what accounts for the mutual exclusivity of all four prefixes? If *meN-*, *di-*, and *ber-*, are treated as having contrastive voice specifications, their inability to co-occur is understandable. But if *ter-* is either a marker of non-volitionality or perfectivity, there is no apparent reason why it can't co-occur with any of the other prefixes. We need to account for this.

We could always simply stipulate that the verbal stem in Malay has at most a single morphological slot for a prefix. This is surely undesirable since there is no independent

evidence that Malay has any kind of position class morphology.⁶ On the other hand, if we treat *ter-* in terms of voice (active or passive), then we reclaim the voice contrast as the reason for why only one verbal prefix can be present at a time. However, this is clearly unsatisfactory since it says nothing about the non-volitionality and perfectivity that is associated with a *ter-* clause. We would also have to say in what way the active and passive *ter-* constructions differ from the active *meN-* and passive *di-* constructions, and clearly, this difference has something to do with either volitionality or perfectivity.

In relation to the distributional issue, it has been generally assumed that all four prefixes form a paradigmatic set (Benjamin 1993:363). But this assumption clearly hinges on a satisfactory treatment of *ter-*. I suggest that attempts to describe the verbal paradigm have been misguided in a number of ways. It has been assumed that because there are four phonologically distinct prefixes, the paradigm must therefore involve a four-way contrast. It has also been assumed, based on standard treatments of *meN-*, *di-*, and *ber-*, that the contrast is essentially due to differences in voice specifications. These assumptions are problematic for the reasons just discussed in the preceding paragraph.

Second, if we focus on *ter-* alone, the prefix seems to lend itself to a variety of characterizations -- non-volitional, perfective, active, and passive. But even assuming the

⁶ I do not rule out, in principle, situations where morphosyntactic markers are mutually exclusive by virtue of being in competition for the same slot. For example, Anderson (1992:145) notes that in Georgian, the first person subject marker and the second person object marker are in competition for the same formal position. Since there is no obvious semantic incompatibility between a subject marker and an object marker, a 'slot' analysis appears to make sense. In the Georgian case, the second person object marker has priority so that the first person subject marker gets suppressed.

Intuitively, the more complex the morphology of a language is, the more likely it is that different markers will end up competing for the same slot. This appears to be the case in Georgian. The schema for the Georgian verb is shown below (adapted from Anderson 1992:143):

(Preverb) (Agr. Prefix) (Version Vowel) STEM (Tense/Aspect Marker) (Agr. Suffix)

Malay, on the other hand, does not have a particularly rich morphological system, and thus, we are obliged to first search for semantic principles to account for distributional phenomena rather than appeal to morphological slots.

prefix is polysemous, how are its variants related to each other ? Contrary to Winstedt, we will see that *ter-* is primarily a marker of non-volitionality, and that its association with perfectivity is achieved through a default interpretation of a *ter-* clause. The voice-related variants of *ter-* are orthogonal to its non-volitionality since in both the active and passive constructions, *ter-* still requires that its (core) arguments be non-volitional.

However, there is a further problem. As example (7) shows, *ter-* can also act as a superlative/intensifier when prefixed to an adjective.⁷

- (7) Rumah Suyin ter-besar
House Suyin ter-big
Suyin's house is extremely big

How is this related to the other characterizations of *ter-* ? What we need to be able to do is to say which senses of *ter-* are relevant to the verbal paradigm and which senses lie outside the paradigm. Intuitively, it seems clear that the active and passive variants of *ter-* are relevant while the intensifier *ter-* is not. But intuition is not enough, and we need a principled way of making the distinction. In Part 2, I will propose a grammatical schema

⁷ It is not always easy to differentiate between adjectives and verbs. In this study, I assume that a form is adjectival rather than verbal if it can be used as a nominal modifier (a), or in a comparative construction (b).

- (a) bilik besar
room big
big room
- (b) Rumah Suyin kurang besar daripada rumah saya
House Suyin less big than house 1SG
Suyin's house is smaller than mine

I distinguish nominals from adjectivals and verbals by their ability to take determiners:

- (c) Kereta itu besar
Car the big
The car is big

that abstractly characterizes the properties of any verbal prefix within the paradigm. This will allow us to understand why the superlative/intensifier *ter-* is not a part of the verbal paradigm.

In fact, we will see that among the four prefixes, both *ber-* and *ter-* are highly polysemous, while *meN-* and *di-* are not. In the case of *ber-*, too, we want to be able to say which of its senses are part of the verbal paradigm and which of its senses are not. However, the issue is not simply a distributional one. More importantly, we want to motivate the relationship between the different senses so that what ultimately emerges is a radial category (Lakoff 1987) that reflects the semantic and/or historical basis for the polysemy of a particular prefix.

In addition to the problems above, previous discussions of the paradigmatic relations among the prefixes have tended to ignore their co-occurrence possibilities with a variety of suffixes. For example, Malay has two verbal suffixes, *-i*, and *-kan*, which have developed into causatives, as well as a stativizing suffix *-an*. (Some examples of how these suffixes are used can be seen in the next section.) There are significant semantic differences between the verbal suffixes since *-i* apparently developed from a locative (Winstedt 1927:100), while *-kan* developed from a directional (Winstedt 1927:98) and can also be used as a benefactive marker (Hopper and Thompson 1980:260). Since the verbal prefixes are obligatory, this means that the presence of the suffixes usually presuppose the presence of the prefixes, but not vice versa. In other words, the suffixes are usually attached to prefixed stems.

This is not to say that the suffixes can never appear without the prefixes. For example, Malay has a specific topicalization construction (discussed below) where the verb is always unprefixes, though it may be suffixed (Alsagoff 1992). Another example comes from the

fact that the stativizing suffix *-an* also acts as a nominalizer, forming nouns from a variety of stems (8). Since these nominals occur as arguments of a predicate, no prefix can be present.

(8)

- a. Tulis-an itu di-baca oleh guru
Write-an the di-read by teacher
The writing was read by the teacher

- b. Ali meN-jawab soal-an itu
Ali meN-answer ask-an the
Ali answered the question

While *meN-* and *di-* co-occur productively with both *-i* and *-kan*, *ber-* and *ter-* co-occur with *-kan* only under restricted conditions. Also, *ber-* never co-occurs with *-i*. On the other hand, among the prefixes, only *ber-* co-occurs with the nominalizer *-an*. These distributional restrictions are summarized in (9), and any attempt to characterize the verbal paradigm should also account for these co-occurrence relationships.

(9)

a. Co-occurrences between the prefixes and *-i* or *-kan*

meN-...-i productive

meN-...-kan productive

di-...-i productive

di-...-kan productive

ber-...-i unacceptable

ber-...-kan restricted

ter-...-i restricted for some speakers, unacceptable for others

ter-...-kan restricted

b. Co-occurrences between the prefixes and *-an*

meN-...-an unacceptable

di-...-an unacceptable

ber-...-an productive

ter-...-an unacceptable

As mentioned, Malay has a construction where the verb is necessarily unprefixes. This construction has been variously treated as a passive or a kind of topicalization (Alsagoff 1992; Chung 1976a). Examples are shown below.

(10)

- a. Buku itu Ali baca
 Book the Ali read
 The book Ali read

- b. Siti Ali beri-kan buku itu
 Siti Ali give-kan book the
 (To) Siti Ali gave the book

This construction has been of great interest because it manifests ‘split-subject’ properties. That is, properties typically associated with the subject relation (relativization, raising, antecedent for reflexive) tend to be distributed among the NPs rather than uniquely converging on a single NP (Alsagoff 1992; Chung 1976a). Also, notice that the verb can still take a suffix (10b), even though it can’t take a prefix. Ideally, an analysis of the system of verbal prefixation should account for the absence of prefixes in this construction, and relate this absence to the ‘split-subject’ properties.

We see then that questions arising from any attempt to understand the nature of the verbal prefixes fall into four broad categories. First, we have problems concerning the relations among the prefixes. We want to account for their mutual exclusivity without having to resort to the ad hoc stipulation that only a single prefixal slot is available. There is a strong intuition that the four prefixes form a paradigmatic set, and we therefore want to be able to describe the paradigmatic relations between them. Second, some of the prefixes are clearly

more polysemous than others. We would like to account for the full range of polysemies while still maintaining the distinction between senses that participate in the verbal paradigm and senses that don't. Third, there are restrictions on various prefix-suffix combinations and a complete account of the prefixes will have to address these combinatorial constraints. Fourth, we would like to say why the construction in (10) is not allowed to take any prefix, and, if possible, motivate this constraint in a way related to the 'split-subject' properties.

2.3. A VOLITIONALITY SYSTEM

We will see that the verbal paradigm actually involves a three-way contrast in terms of volitionality values. *Ter-* encodes non-volitional action, *ber-* encodes volitional action, and both *meN-* and *di-* are unspecified for volitionality. This means that *meN-* and *di-* are active and passive variants within the same volitionality category. We then have a principled basis for the fact that *ter-*, too, has active and passive variants. Likewise, I will show, in the case of *ber-*, that what has usually been treated as an unstructured category of middle voice also includes active and passive variants. The result is that what has been standardly conceived as a voice system is in effect a volitionality system. The voice distinction is a secondary one contained within the categories that primarily represent volitionality contrasts. This system is given a preliminary schematization in (11). A fuller formulation of the volitionality system -- one that takes into account the voice distinctions within each category -- will be shown in Part 2.

(11)	vol []	vol [+]	vol [-]
	<i>meN-,di-</i>	<i>ber-</i>	<i>ter-</i>

The organization of this work, then, is as follows. In the next chapter, we will begin by examining two relatively explicit and recent attempts to characterize the verbal paradigm (Hassan 1974; Benjamin 1993). The discussion will be brief since these attempts already embody most of the problems we have noted above. At the end of the discussion, I will introduce three construction types, characterized by a mapping of both semantic roles and grammatical relations. I will show that the similarities and differences in the behaviour of the prefixes can be brought to light if we approach the data in terms of these three constructions.

In dealing with the semantic roles, I will follow Croft 1991 and Kemmer 1993 in using the terms 'Initiator' and 'Endpoint'. These are macro-semantic roles that subsume more specific thematic participant roles. The Initiator is a 'volition-neutral term for the "agent"/"cause"' (Croft 1991:166). More generally, the Initiator refers to any participant in a event which is construed as a source of action or energy. The Endpoint, on the other hand, refers to any participant that is construed as being affected by any action or energy. This is typically a patient in a two-participant event or a recipient in a three-participant event. In this way, the macro-semantic roles are defined with respect to the asymmetric transmission of force or energy. In the case of a single participant event (such as walking or sneezing), I will treat that participant as being both an Initiator and an Endpoint. And depending on the semantics of the particular verb, the single participant may be construed as being more of an Endpoint or more of an Initiator. (This assumes a semantic characterization of the Unaccusative Hypothesis, postulated in Perlmutter 1978 and given a syntactic treatment there. For a detailed semantic discussion of the Unaccusative Hypothesis, see Van Valin 1990, as well as Dowty 1991. Also, see Levin and Rappaport Hovav 1995 for an approach that uses both semantic and syntactic criteria.)

In Part 2 (Chapters 4-6), I will make use of the three construction types and present the paradigm as a three-way volitionality system. I will also provide support for the volitionality system based on data from closely-related languages, as well as a discussion of how such a system might have arisen historically. I will then examine more fully the properties of the individual prefixes, concentrating particularly on *ter-*, *ber-*, and *meN-*. This will give us an understanding of the prefixes both ‘from above’ (in terms of their paradigmatic relations) and ‘from below’ (in terms of their individual properties). Some of these individual properties will also lead us to re-examine the verbal paradigm, and ask if any modifications need to be made.

The result is that we can look at a prefix-stem composite and know what the meaning of the entire composite should be. The meaning of the prefix is straightforwardly determined by its place in the volitionality system, and the meaning of the stem is determined by its lexical semantics. However, during our discussion in Part 2, we will also have occasion to note various departures from these central or prototypical cases of prefix-stem composites. In these departures, the meaning of the prefix-stem composite is no longer predictable from the meaning of the parts. We will see in these cases that the meaning of the composite can be motivated by appealing to factors such as metaphorical or metonymic inferences, among others.

A fuller discussion of these departures and the theoretical issues raised by them will be left to Part 3, which consists of Chapters 7-11. These departures can be classified as follows:

- (i) *Cases where the prefix has properties that lie outside the verbal paradigm.* These include the use of *ter-* as an intensifier, as well as the use of *ber-* to indicate possession. Both these cases were mentioned in Chapter 1. A further example of intensifier *ter-* is shown in (12), and (13) shows another example of *ber-* being used to indicate possession

when prefixed to nouns. I shall be claiming that both *ber-* and *ter-* have developed distinct senses which extend beyond their roles in the verbal paradigm.

- (12) Rumah Suyin ter-besar
House Suyin ter-big
Suyin's house is extremely big

- (13) Ahmad ber-isteri
Ahmad ber-wife
Ahmad has a wife

A more complex case, also mentioned earlier, involves the interaction between *ter-* and the negative marker *tidak*; their combination results in a specific construction that indicates a 'lack of capacity' on the part of the subject. We need to account for how a non-volitional marker like *ter-* can indicate 'lack of capacity' when combined with *tidak*.

- (14) Ahmad tidak ter-angkat peti berat itu
Ahmad NEG ter-lift box heavy the
Ahmad is unable to lift the heavy box

Our main concern will be to show how despite being outside the verbal paradigm, these uses of the prefixes are still relatable to the volitionality categories that the prefixes represent.

(ii) *Cases where the stem is a verb that is derived from a noun or an adjective.* As the examples below show, *meN-* can be prefixed to an instrumental noun or an adjective. The result is a series of metonymies so that we either get a verb describing an action

conventionally associated with the instrument, or a verb indicating acquisition of the quality denoted by the adjective. Respectively, these metonymies can be described as INSTRUMENT FOR ACTION and QUALITY FOR ACQUISITION OF QUALITY.

(15)

- a. Ali meN-gunting rambut-nya
 Ali meN-scissors hair-3
 Ali cut his hair with a pair of scissors

- b. Asap meN-tebal
 Smoke meN-thick
 The smoke became thick

Based on examples like these, it has been claimed that a sharp distinction must be made between derivational *meN-* and inflectional *meN-* (Prentice 1992:376). This distinction assumes that it is the *meN-* prefix that is responsible for the conversion or change in syntactic category, deriving a verb from either a noun or an adjective.

I will argue instead that the examples in (15) are better treated as involving zero derivation. That is, the derivations occur independently of the prefixes. The presence of the prefixes simply indicates their regular marking of voice and volitionality. The strongest support for the zero-conversion claim will come from the fact that even in constructions where no prefix is possible, nouns can also be used as verbs.

(iii) *Cases where the prefixes co-occur with suffixes.* We already mentioned the need to account for the co-occurrence possibilities that exist between the prefixes and the three

suffixes, *-i*, *-kan*, and *-an*. Here are some examples of the kinds of cases we will be looking at.

meN-...-kan:

- (16) Ali meN-duduk-kan anak-nya di atas tikar
Ali meN-sit-kan child-3 LOC on mat
Ali seated his child on the mat

meN-...-i:

- (17) Ali meN-duduk-i tikar itu
Ali meN-sit-i mat the
Ali sat on the mat

Contrasting (16) with (17), we see that with *-kan*, the event involves a transfer of the direct object to a final location, while with *-i*, the event involves the subject itself moving to a final location. We will also find that the suffixes *-i* and *-kan* are quite polysemous due to their participation in various metaphorical mappings for causation. One of our concerns will be to see what consequences the differences between these suffixes have for their ability to co-occur with verbal prefixes.

ber-...-an:

- (18) Ali dan Siti ber-salam-an
Ali and Siti ber-greet-an
Ali and Siti greeted (each other)

In (18), we see that the interpretation is one of reciprocal action. We already saw earlier that a *ber-* construction induces either a reflexive or reciprocal reading (3), which is why

ber- has been treated as a middle voice marker. The question here is why the stativizing suffix *-an* is present in (18). Following Kemmer (1993:102), I will make a distinction between naturally reciprocal actions and non-naturally reciprocal actions. The former refer to actions that are inherently or necessarily reciprocal while the latter are actions that need not be. Repeating (3b) here as (19), we see that where the action is naturally reciprocal (eg. quarrelling), the *-an* suffix is not needed.

- (19) Ali ber-kelahi dengan kawan-nya
 Ali ber-quarrel with friend-3
Ali is quarrelling with his friend

As discussed in the previous chapter, I will suggest that as a middle voice marker, *ber-* is limited in the level of transitivity it can encode. I will treat transitivity as a complex gradient phenomenon that is dependent on the volitionality of the Initiator, the affectedness of the Endpoint, the degree to which the participants are individuated, the punctuality of the event, among others (Hopper and Thompson 1980). This conceptualization of transitivity affects the morphosyntax so that if the transitivity level is deemed inappropriately high or low for a particular affix, then that affix will not appear in the clause.

With a naturally reciprocal action, the transitivity level is sufficiently low since the participants are not maximally individuated by virtue of the fact that each participant is simultaneously both Initiator and Endpoint. However, since a greeting need not be reciprocated, it is not a naturally reciprocal action; the Initiator and the Endpoint are usually distinct. Thus, a stativizer like *-an* is needed to reduce the level of transitivity. It is able to do this because it lends the entire event a more configurational as opposed to processual or dynamic characteristic. As shown by Rice (1987:165ff), events that are construed as being stative tend to have a lower level of transitivity.

(iv) *Cases where the prefix-stem composite has an idiomatic meaning.* These cases are much more heterogeneous and will be seen to involve various metaphors and metonymies. For example, in (20) what motivates the use of *tinggal* ‘to remain, be left behind’ to mean ‘to die, to pass away’ when prefixed by *meN-* ? And in (21) what motivates the use of *tolak* ‘to push’ to indicate departure when prefixed by *ber-* ?

(20) Ayah-nya meN-tinggal di tanah suci
 Father-3 meN-remain LOC land holy
His father died in the holy land

(21) Dia ber-tolak petang ini
 3SG ber-push afternoon this
S/he will depart this afternoon

I will consider idioms for talking about four different domains of experience: motion, death, anger, and pregnancy/birth. We will see that the idiomatic prefix-stem composites usually involve *meN-* or *ber-* as prefixes. *Ter-* and *di-* either rarely or never appear as part of an idiom. Building on work by Lakoff and Turner (1989), and Nunberg et al. (1994), I will suggest that this tendency to avoid having *ter-* or *di-* as part of an idiomatic prefix-stem composite is motivated by the use of idioms to capture conceptual archetypes (Langacker 1991) or cognitively salient scenes such as **X is doing something to Y**, **X is moving to Y**, or **X is giving Z to Y**. I call such scenes ‘actional frames’. I suggest that the effectiveness or memorability of an idiom depends on the degree to which it evokes such general scenes. And for reasons to be discussed, the semantics of *ter-* and *di-* are simply ill-suited for capturing the nature of such frames.

Finally, I will deal with cases where the prefixes are obligatorily absent. I will suggest that a construction like the one in (10) is unable to take a prefix precisely because the subject properties are split, and do not converge on a single NP. This will fall out from my characterization of the prefixes in the earlier chapters so that nothing further needs to be said. I end with the observation (made in Alsagoff 1992) that the construction in (10) displays some dialectal variation. I will suggest that the variation might usefully be considered in terms of a grammaticalization towards a single (and therefore unambiguous) subject entity, so that the split in subject properties represents an unstable situation.

2.4. SUMMARY

The scope of this work, then, extends beyond the usual discussions of the verbal prefixes. We will first propose a different way of looking at the verbal paradigm, so that what is usually assumed to be a four-way voice contrast turns out to actually be a three-way volitionality contrast. Then, we will examine a wide range of cases, including examples which involve conversion, idioms, the restriction of co-occurrence possibilities between the prefixes and various suffixes, as well as cases where the prefixes are prohibited from occurring.

As we proceed, it will be clear that in order to understand the data, we must make reference to prototypes, metaphors, metonymies, and frames. Thus, whatever our preferred assumptions about the nature of the language faculty, the enterprise of actually dealing with data shows that we are required to bring in processes of general cognition. If one were to try to maintain the claim of an autonomous language faculty, one could either arbitrarily restrict the scope of the analysis by defining the recalcitrant data as irrelevant (eg. 'periphery' rather than 'core', 'competence' rather than 'performance'), or employ a variety of diacritics such as 'Strong' and 'Weak' features (see Chapter 1). These options are not at

all appealing. As I argue later, the first option, which assumes a distinction between data that truly reflects a pure linguistic competence and data that involve general cognitive mechanisms, is extremely difficult to maintain empirically so that, in practice, they tend to be applied in an ad hoc manner. Even worse, they impede our ability to capture important generalizations about grammatical phenomena. The second option is essentially a promissory note since the burden has merely been shifted to the need to provide the diacritics with some kind of conceptual content. Otherwise, we will have only relabelled the problem. I discuss both these options further in Chapter 11 when we are in a better position to see precisely what kinds of difficulties are raised by the Malay data.

CHAPTER 3

THE VERBAL PARADIGM

3.1. TWO RECENT VERSIONS

In this chapter, we briefly examine two relatively explicit attempts to characterize the verbal paradigm. The first one, Hassan 1974, actually recognizes the relevance of volitionality to the system. Hassan treats *ter-* as a marker of non-volitionality, but is hampered by the inability to properly deal with the fact that *ter-* has both active and passive variants. The second one, Benjamin 1993, seems to downplay the relevance of volitionality to the paradigm, and instead follows Winstedt in treating *ter-* primarily as a perfective marker. Benjamin, however, makes the interesting suggestion that the verbal paradigm is sensitive to transitivity, which he defines notionally as the transmission of energy from a source to a goal.

3.1.1. HASSAN 1974

The diagram in (1) is based on Hassan (1974:100).

- (1)
- | | |
|-------------|---------------------------------------|
| <i>meN-</i> | ‘active voice (volitive)’ |
| <i>ber-</i> | ‘middle voice’ |
| <i>di-</i> | ‘passive voice (volitive)’ |
| <i>ter-</i> | ‘active/passive voice (non-volitive)’ |

Some of Hassan's examples illustrating the behaviour of the prefixes are given in (2). The English glosses are also his.

(2)

- a. Dia meN-nyanyi
 3SG meN-sing
 He sings

- b. Dia ber-cukur
 3SG ber-shave
 He shaves (himself)

- c. Dia di-pukul oleh pencuri
 3SG di-hit by thief
 He is hit by the thief

- d. Dia ter-jual kain
 3SG ter-sell cloth
 He sells (unintentionally) cloth

- e. Kain ter-jual oleh dia
 Cloth ter-sell by 3SG
 Cloth is sold (unintentionally) by him

Note that Hassan's paradigm is cast primarily in terms of voice. The treatment of *ter-* is distinctive in that it is presented as having both active and passive variants; in contrast, the other three prefixes are given a single voice classification. Note also that Hassan's

paradigm includes quite prominently the feature of volitionality. Both *meN-* and *di-* are presented as being volitional, while the prefix *ter-* is presented as being non-volitional. Nothing, however, is said about the volitionality value of *ber-*.

There are a number of problems with Hassan's characterization of the prefixes. The first problem is empirical. If *meN-* is really volitional, how do we account for sentences like those in (3) ?

(3)

a. Ali *meN*-tangis

Ali *meN*-cry

Ali cried

b. Ali *meN*-pukul John dengan tidak sengaja

Ali *meN*-hit John with NEG intention

Ali hit John unintentionally

In (3a), it is unlikely (though not impossible) that crying would be construed as a volitional act. But (3b) makes it clear that a *meN-* clause can take an adverbial indicating non-volitional action. At the same time, however, there is no doubt that in the absence of any explicit adverbial of non-volitionality, there is a tendency to interpret the subject of a transitive *meN-* clause as acting volitionally (4).

(4) Ali *meN*-pukul John

Ali *meN*-hit John

Ali hit John

And as we contrast (2a) with (3a), we see that *meN-* can be prefixed to stems which tend to be construed as volitional as well as non-volitional. The proper conclusion, then, seems to be that *meN-* is not really volitional. Rather, it is neutral or unspecified for volitionality.

A second problem with the formulation in (1) is that there is no apparent reason why the active and passive variants of *ter-* should not be separated. If the paradigm is also sensitive to voice, then what rules out having a five-way distinction instead of the four-way distinction given in (1) ? In other words, why are we not given the formulation in (5) instead ?

- (5) *meN-* ‘active voice (volitive)’
 ber- ‘middle voice’
 di- ‘passive voice (volitive)’
 ter- ‘active voice (non-volitive)’
 ter- ‘passive voice (non-volitive)’

As I suggested in Chapter 2, there is a misguided assumption that because there are four phonologically distinct prefixes, the paradigm must involve separate voice categories. This is what leads Hassan to propose the formulation in (1), despite its problems -- one of which is that, ironically enough, it is unable to rule out a formulation like (5).

3.1.2. BENJAMIN 1993

The following set is adapted from Benjamin (1993:361). The example sentences are also his.

- (6) *meN-* ‘active (transitive) voice’ or ‘actor-focus’¹
 ber- ‘active (intransitive)’ or ‘middle voice’
 di- ‘passive (transitive) voice’ or ‘patient-focus’

(7)

- a. Saya *meN-cukur*
 1SG *meN-shave*
 I shave (someone else)
- b. Saya *ber-cukur*
 1SG *ber-shave*
 I shave (myself)
- c. Saya *di-cukur*
 1SG *di-shave*
 I am shaved (by someone else)

The prefix *ter-* is not mentioned in the paradigm even though Benjamin notes that ‘[w]hatever the source and possible earlier meanings of *ter-*, it has ended up in the modern formal language as a component element of the paradigmatic set ...’ (p363). However, Benjamin bases much of his discussion of *ter-* on Winstedt 1927 who, as we saw earlier, treats the prefix primarily as a perfective marker.

¹ Benjamin’s formulation seems to reflect a degree of healthy agnosticism, at least in the cases of *meN-* and *di-*, regarding the debate between voice and focus treatments of the verbal prefixes. I am sympathetic to such a view since, as I mentioned in Chapter 2, my own analysis is essentially neutral with respect to the debate.

Accordingly, Benjamin's notion of the verbal paradigm can be constructed as shown below.

- (8) *meN-* 'active (transitive) voice' or 'actor-focus'
 ber- 'active (intransitive)' or 'middle voice'
 di- 'passive (transitive) voice' or 'patient-focus'
 ter- 'perfected act' or 'realized condition'

There are clearly some problems with this, especially regarding the status of *ter-*, which stands out from the other prefixes in being given an aspectual characterization while the others are given voice specifications. Notice that like Hassan, Benjamin, too, seems committed to a four-way distinction, despite the difficulties this raises for the integration of *ter-* into the paradigm. The situation will not improve even if we decide to treat *ter-* as a marker of non-volitionality since Benjamin's paradigm, unlike Hassan's, does not make reference to volitionality. As mentioned in Chapter 2, this does violence to the notion of a paradigmatic contrast since it fails to explain why *ter-* cannot co-occur with any of the other prefixes.

Benjamin also distinguishes the prefixes according to their transitivity. He appeals to a notional definition of transitivity, which is defined as 'the condition or process whereby something passes from one domain to another, especially when those domains are thought of as source and goal respectively.' Syntactic indicators of transitivity (such as the presence of a direct object) are, for him, only overt and optional markers of the 'actual' transitivity of a particular prefix (1993:369).

This allows him to treat the sentence in (7a) as a transitive construction. This may help to resolve the apparent conflict between Benjamin's claim that *meN-* is transitive and

Hassan's example in (2a), if we are willing to treat the act of singing in (2a) as involving a source (presumably the singer) and a goal (presumably whoever is being sung to). In fact, this is precisely what is being claimed. The difference between the sentences in (9), according to Benjamin (p378), is that in (9a) *ber-nyanyi* means 'singing one's song, singing one to another, singing all together', and is used to describe 'much more socially reciprocal' conditions where singing was done as a communal or collective act. In contrast, *meN-nyanyi* is used, for example, when a professional singer performs for an audience of 'others'.

(9)

a. Dia ber-nyanyi
 3SG ber-sing
 He sings (for himself)

b. Dia meN-nyanyi
 3SG meN-sing
 He sings (to someone)

This appeal to a notionally-defined transitivity finds no parallel in Hassan's formulation. It is interesting to note that even though Benjamin and Hassan show some dissatisfaction with a purely syntactic characterization of the paradigm (Benjamin introduces semantic transitivity, and Hassan brings in volitionality), both still remain committed to the primacy of voice as the essential feature of the paradigm. This assumption appears to have been unquestioned. Thus, both analysts find themselves in the uncomfortable position of first attributing voice contrasts to the three prefixes, *meN-*, *di-*, and *ber-*, and then attempting (unsuccessfully) to fit in the fourth prefix, *ter-*.

3.2. THREE CONSTRUCTION TYPES

In the next chapter, I turn the tables and give primacy to the fact that *ter-* marks non-volitionality. I also reject the assumption that the paradigm necessarily involves a four-way distinction. We are then free to explore the possibility that the paradigmatic contrast is one of volitionality rather than voice. Each member of the paradigm is a category with complex internal structure. The result is a reconfiguration of the paradigmatic structure standardly presented in the literature, a reconfiguration that is supported by evidence from closely related languages. I then discuss how such a volitionality system might have arisen.

We will also see that Benjamin is right in emphasizing the importance of transitivity. However, Benjamin's notion of transitivity is binary. In contrast, the present study assumes that transitivity is more properly treated as a gradient phenomenon involving a prototype.

This brings up a terminological issue. There is potential for confusion here between the more conceptual notion of transitivity and the traditional uses of the terms 'intransitive' and 'transitive', where the latter terms refer to the number of arguments canonically associated with a particular verb. As such, when describing the arguments of a verb, I will use the term 'valence'. I will speak of a verb as being monovalent or multivalent, for example. The term 'transitivity' will be used to describe a more complex phenomenon concerning the conceptualization of an event in terms of the interaction between entities, the directionality of the action, the manner in which the action is performed, and the effect of that action on an entity (Rice 1987:253).

Another problem relates to the terms 'active' and 'passive' which tend to be understood in syntactic terms even though recent works have argued for a more functional/semantic

understanding of voice phenomena (eg. Fox and Hopper 1994; Klaiman 1991). It is this syntactic understanding of voice which is often contrasted with claims that the prefixes are really focus/trigger/orientation markers. As mentioned in the previous chapter, I will assume an analysis that is more neutral with respect to this debate over whether the prefixes mark a semantic role or a grammatical relation. Specifically, I will make a distinction between three construction types, which are neutral because they are each characterized by a single NP filling both a particular macro-semantic role and a particular grammatical relation.

The first construction is based on the observation that all languages distinguish between event types that typically involve only a single participant, and event types that typically involve more than one participant (Dixon 1994:6). Where only a single participant is expected, that lone participant can be considered both the Initiator and Endpoint of the action. I will treat clauses that code event types where typically only a single participant is expected to be present as instantiating a **Initiator-Endpoint Subject Construction**.

In events where more than one participant is involved, it is now possible to have the semantic roles of Initiator and Endpoint filled by distinct participants. Importantly, since separate participants are now present, it is possible for either one to be coded as the subject and topic. This gives us two construction types: the **Initiator Subject Construction**, and the **Initiator Oblique/Absent Construction**. In the latter, the Initiator is either present as an oblique or absent altogether so that the subject relation is occupied by a non-Initiator NP. This is usually the Endpoint, though in a three-participant event such as a transfer event, it can be either the recipient or the transferred entity. Roughly, these correspond to the 'active/passive' distinction and, occasionally, it will be convenient to make use of those terms.

To conclude this chapter, I summarize, with some examples, the three main construction types that will allow us to bring out the similarities across the various verbal prefixes.

(i) Initiator-Endpoint Subject Construction:

(11)

a. Ali meN-tari
 Ali meN-dance
 Ali danced

b. Ali ter-tawa
 Ali ter-laugh
 Ali laughed

(ii) Initiator Subject Construction:

(12)

a. Ali ter-pukul John
 Ali ter-hit John
 Ali accidentally hit John

b. Ali suka ber-belanja
 Ali suka ber-spend (money)
 Ali likes to spend (money)

(iii) Initiator Oblique/Absent Construction:

(13)

- a. John di-pukul oleh Ali
 John di-hit by Ali
 John was hit by Ali
- b. Kain itu tidak ber-jahit
 Cloth the NEG ber-sew
 The cloth was not sewn

PART TWO:
UNDERSTANDING THE PREFIXES

CHAPTER 4

THE VIEW FROM ABOVE: RECONFIGURING THE PARADIGM

4.1. INTRODUCTION

To motivate the claim that the Malay verbal prefix system is sensitive to volitionality values, I will show that the prefixes *ter-* and *ber-* mark non-volitional and volitional action respectively, while the prefixes *meN-* and *di-* are both unspecified for volitionality. The evidence for this will come from two sources: the lexical semantics of the stems that the prefixes are usually found with, and the ability of the prefixes to co-occur with adverbials which explicitly indicate the volitionality of the Initiator.

I will also show that the prefixes *ber-* and *ter-* are each able to participate in the three construction types discussed in the last chapter: a construction where the subject is both the Endpoint and Initiator, a construction where the subject is only an Initiator, and a construction where the Initiator is either an oblique or absent. On the other hand, *meN-* is able to participate only in the first two constructions, while *di-* is able to participate only in the third.

We will then have a three-way volitionality contrast where each volitionality category contains the same three construction types. *Ber-* and *ter-*, which have their own volitionality values, contain within their categories the full set of construction types. *MeN-* and *di-*, by contrast, being unspecified for any volitionality value, complement each other

by combining to give us all of the three construction types. In this way, the verbal paradigm will have been reconfigured, and the similarity in cross-categorical structure brought out.

Since I will be mainly concerned with motivating the system of paradigmatic contrasts, I will refrain from discussing the semantics of any individual prefix in too much detail. This will be left for the next chapter.

4.2. LEXICAL SEMANTICS OF THE STEMS

I demonstrate the kinds of stems that each prefix is usually found with. The stems here are all monovalent. Therefore, the *di-* prefix will not be represented since it only occurs with stems which are multivalent.

The following are some examples of the kinds of stems that *ter-* is usually found with. These are mainly ‘unaccusatives’ though laughing (1a) is usually considered an ‘unergative’ verb (Levin and Rappaport Hovav 1995:36).

ter-

(1)

a. Ali *ter-tawa*

Ali *ter-laugh*

Ali laughed

b. Ali *ter-peranjat*

Ali *ter-be shocked*

Ali was shocked

- c. Ali ter-jatuh
 Ali-ter-fall
 Ali fell

- d. Siti ter-gelincir
 Siti ter-slip
 Siti slipped

Notice that in these cases, the lexical semantics of the stems are such that they involve unintentional actions which are performed by sentient beings ('falling', 'slipping', 'laughing', etc). These actions are non-volitional in the sense that they involve a **LOSS** of volitionality. In this work, I will continue to use the term 'non-volitional' for cases involving a loss of volitionality. This is different than cases involving non-sentient entities undergoing changes of state (eg. smoke thickening, rice turning yellow, etc.). For non-sentient entities, volitionality is not even an issue, and so I claim that these involve a **LACK** of volitionality instead. As we will see in Chapter 8, cases where there is a lack of volitionality take the *meN-* prefix instead of *ter-*.

If *ter-* marks non-volitionality, then this makes it natural that the stems in (1) would be found with the prefix *ter-* rather than with any of the other prefixes. In fact, we will see later that some of these prefix-stem combinations are so conventionalized as to become lexicalized.

In the case of *ber-*, we find that the stems are typically verbs indicating changes in body posture (2a) or grooming (2b-c). Other verbs are naturally reciprocal acts (2d-e). These all clearly involve volitional action on the part of the subject and, except for the naturally reciprocal acts, are generally treated as belonging to the class of 'unergative' verbs. As

shown by Kemmer 1993, changes in body posture, grooming, and naturally reciprocal acts, are all parts of a more general network of senses that characterize the middle voice. I will discuss this further in the next chapter.

ber-

(2)

a. Orang itu ber-baring di tempat tidur-nya

Person the ber-lie down LOC place sleep-3

The man is lying down on his bed

b. Gadis itu ber-dandan

Girl the ber-dress up

The girl is dressing up

c. Ali ber-cukur

Ali ber-shave

Ali is shaving

d. Ali ber-kelahi dengan kawan-nya

Ali ber-quarrel with friend-3

Ali is quarreling with his friend

e. Zain dan Mazlan sedang ber-bual

Zain dan Mazlan PROG ber-converse

Zain and Mazlan are conversing

Finally, *meN-* can take a variety of stems, some of which require volitional action (3a,b), some which are more typically non-volitional (3c,d), and some which appear to be open to either volitional or non-volitional interpretation (3e,f).

meN-

(3)

- a. Ali sudah meN-tari
 Ali PERF meN-dance
 Ali has danced

- b. Ali boleh meN-nyanyi
 Ali can meN-sing
 Ali can sing

- c. Saya meN-kelamun di rumah sahabat
 1SG meN-day dream LOC house friend
 I was day-dreaming at a friend's house

- d. Budak itu meN-tangis semalam-malaman
 Child the meN-cry whole night
 The child cried the whole night through

- e. Tiba-tiba Siti meN-jerit
 Suddenly Siti meN-scream/shriek
 Suddenly Siti screamed

- f. Ali meN-sungut tentang keputusan penghulu itu
 Ali meN-mutter about decision chief the
 Ali is muttering about the chief's decision

Thus far, we have seen that the prefixes *ter-* and *ber-* tend to take stems whose lexical semantics are either non-volitional or volitional in nature, while *meN-* can take a mixture of such stems. We now consider what happens when an adverbial that explicitly indicates the volitionality of the Initiator is used.

4.3. ADVERBIAL MODIFICATION

Tests for adverbial modification will be conducted using the phrases *dengan sengaja* 'intentionally' and *dengan tidak sengaja* 'unintentionally'. Consider first the behaviour of *ter-* sentences when the adverbials are added.

ter-

(4)

- a. *Ali ter-pukul John dengan sengaja
 Ali ter-hit John with intention
 Ali ter-hit John intentionally
- b. ?Ali ter-pukul John dengan tidak sengaja
 Ali ter-hit John with NEG intention
 Ali ter-hit John unintentionally

(5)

a. *Ali ter-pijak ekor kucing itu dengan sengaja

Ali ter-step tail cat the with intention

Ali ter-stepped on the cat's tail intentionally

b. ?Ali ter-pijak ekor kucing itu dengan tidak sengaja

Ali ter-step tail cat the with NEG intention

Ali ter-stepped on the cat's tail unintentionally

Informant reactions to (4-5) are uniform. As the English translations show, the (a) sentences are contradictory and therefore completely unacceptable. This indicates that the *ter-* prefix encodes a volitionality value that is incompatible with an adverbial of intentionality, suggesting that the prefix is a marker of non-volitionality.

This is supported by the reactions to the (b) sentences, which are perceived as being 'merely' anomalously redundant. Such a redundancy can only be accounted for if we assume that both the adverbial and the prefix mark non-volitionality.

Consider now the way *ber-* clauses behave with the same adverbials.

ber-

(6)

a. ?Ali ber-jalan dengan sengaja

Ali ber-walk with intention

Ali walked on purpose

- b. *Ali ber-jalan dengan tidak sengaja
 Ali walked with NEG intention
 Ali accidentally walked

(7)

- a. ?Gadis itu ber-dandan dengan sengaja
 Girl the ber-dress up with intention
 The girl dressed up on purpose
- b. *Gadis itu ber-dandan dengan tidak sengaja
 Girl the ber-dress up with NEG intention
 The girl accidentally dressed up

Because *ber-* actions are already understood to be volitional, speakers find the (a) sentences redundant and anomalous. For the very same reason, speakers find the (b) sentences contradictory. Notice that the effects of the adverbials with *ber-* are the converse of their effects with *ter-*. This is expected since *ber-* marks actions which are volitional, while *ter-* marks actions which are non-volitional.

In the case of *meN-*, however, there is no sign of either contradiction or anomalous redundancy.

meN-

(8)

- a. Ali meN-pukul John dengan sengaja
 Ali meN-hit John with intention
 Ali hit John on purpose

- b. Ali meN-pukul John dengan tidak sengaja
 Ali meN-hit John with NEG intention
Ali accidentally hit John

(9)

- a. Ali meN-koyak surat itu dengan sengaja
 Ali meN-tear letter the with intention
Ali tore the letter on purpose
- b. Ali meN-koyak surat itu dengan tidak sengaja
 Ali meN-tear letter the with NEG intention
Ali accidentally tore the letter

In the case of *di-*, it is not possible to apply the adverbial test since the adverbial will be interpreted only as indicating the volitionality of the Initiator, and the subject of a *di-* clause is never an Initiator (see (16) below). However, we can compare two versions of the Initiator Oblique/Absent Construction: one involving the prefix *di-* and one involving the prefix *ter-*.

(10)

- a. John ter-pukul oleh Ali
 John ter-hit by Ali
John was hit by Ali
- b. John di-pukul oleh Ali
 John di-hit by Ali
John was hit Ali

Because of the presence of *ter-* in (10a), John is necessarily interpreted as being a non-volitional hittee (we shall see in Chapter 5 that the hitter, Ali, need not necessarily be non-volitional since oblique participants are able to ‘escape’ the requirement of non-volitionality). In (10b) however, John may have been a non-volitional hittee, but that is not a necessary interpretation. Thus, if we should want to describe a situation where John, for some masochistic reason, wanted to get hit, we would have to use (10b). This indicates that *di-*, like *meN-*, is unspecified for any particular volitionality value.

The evidence from adverbial modification, together with the discussion in the previous section, make it clear that *ter-* actions are non-volitional, *ber--* actions are volitional, and both *meN-* and *di-* are not specified for any particular volitionality value.

4.4. THE THREE CONSTRUCTION TYPES

Having seen that we can separate the four prefixes into three distinct groups according to their volitionality values, we now investigate the internal structure of each group, looking specifically at the kinds of constructions that each prefix enters into.

4.4.1. THE INITIATOR-ENDPOINT SUBJECT CONSTRUCTION

Looking at the examples in (1-3), we can see that *ter-*, *ber-*, and *meN-* are all able to participate in the Initiator-Endpoint Subject Construction. For convenience, some representative examples are repeated here.

(11)

- a. Ali ter-tawa
 Ali ter-laugh
 Ali laughed

- b. Gadis itu ber-dandan
 Girl the ber-dress up
 The girl is dressing up

- c. Ali sudah meN-tari
 Ali PERF meN-dance
 Ali has danced

The point of this section will be to show that the fourth prefix *di-* cannot take part in such a construction. For example,

(12)

- a. *Ali di-tari
 Ali di-dance

- b. *Ali di-nganga
 Ali di-open mouth widely

- c. *Ali di-nyanyi
 Ali di-sing

d. *Ali di-tawa
 Ali di-laugh

e. *Ali di-dandan
 Ali di-dress up

The stems in (d-e) are normally associated with the prefixes *ter-* and *ber-* respectively, so perhaps their unacceptability with *di-* is expected on the grounds that they already belong to distinct categories. But as (a-c) show, even the stems that can take *meN-* are unable to take *di-*. The point is that *di-* simply has no way of taking part in a construction where the subject is both Initiator and Endpoint.

4.4.2. THE INITIATOR SUBJECT CONSTRUCTION

The following sentences show that the prefixes *ter-*, *ber-*, and *meN-* can all take part in a construction where the subject is only an Initiator.

ter-

(13)

- a. Dia ter-jual kain
 3SG ter-sell cloth
 She unintentionally sold the cloth
- b. Siti ter-pijak kaca itu
 Siti ter-step glass the
 Siti accidentally stepped on the glass

- c. Ali ter-pukul John
 Ali ter-hit John
Ali accidentally hit John
- d. Dia ter-dengar berita itu
 3SG ter-hear news the
S/he overheard the news
- e. Polis itu ter-tembak kawan-nya
 Policeman the ter-shoot friend-3
The policeman accidentally shot his friend

ber-

(14)

- a. Budak lelaki itu ber-lari ke sekolah
 Child male the ber-run to school
The boy runs to school
- b. Budak itu ber-jalan dengan cepat
 Child the ber-walk with fast
The child walks quickly
- c. Lelaki itu ber-cakap dahulu
 Man the ber-speak first
The man spoke first

d. Dia ber-tanya kepada maksud lelaki itu
3SG ber-ask about intention man the
She asked about the man's intentions

e. Ibu sudah ber-belanja
Mother already ber-spend (money)
Mother has already spent (money)

meN-

(15)

a. Ali meN-pukul John
Ali meN-hit John
Ali hit John

b. Ali meN-ganti baju itu
Ali meN-change shirt the
Ali changed the shirt

c. Kucing itu meN-curi se-ekor ikan
Cat the meN-steal one-CL fish
The cat stole a fish

d. Ali meN-koyak surat itu
Ali meN-tear letter the
Ali tore the letter

- e. Dia meN-buka pintu itu
 3SG meN-open door the
 She opened the door

In contrast, we can see from (16) that the subject of *di-* can never be an Initiator.

di-

(16)

- a. *Ali di-pukul John
 Ali di-hit John
 Ali hit John
- b. *Ali di-ganti baju itu
 Ali di-change shirt the
 Ali changed the shirt
- c. *Ali di-buka pintu itu
 Ali di-run door the
 Ali opened the door

Thus far we have seen that the three prefixes *ter-*, *ber-*, and *meN-* can enter into a construction where the subject is both Initiator and Endpoint as well as one where the subject is only an Initiator. The prefix *di-* has been the odd one out. In the next section, we find that *ter-* and *ber-* are still present, as well as *di-*. It is *meN-* which is now unrepresented.

4.4.3. THE INITIATOR OBLIQUE/ABSENT CONSTRUCTION

Consider the following sentences.

ter-

(17)

- a. Kain ter-jual oleh dia
Cloth ter-sell by 3SG
The cloth was sold by him/her

- b. Kaca itu ter-pijak oleh Siti
Glass the ter-step by Siti
The glass was stepped on by Siti

- c. Bola itu ter-pukul oleh Ali
Ball the ter-hit by Ali
The ball was struck by Ali

- d. Makanan sudah ter-saji di atas meja
Food already ter-serve LOC on table
Food has been served on the table

- e. Tingkap rumah itu sudah ter-tutup
Window house the already ter-close
The windows of the house have already been closed

ber-

(18)

- a. Kain itu sudah ber-jahit
Cloth the already ber-sew
The cloth has already been sewn

- b. Soalan itu belum ber-jawab
Question the not-yet ber-answer
The question has not yet been answered

- c. Batu itu ber-tulis
Stone the ber-engrave
The stone is engraved

- d. Pintu rumah itu ber-ukir
Door house the ber-carve
The door of the house has been carved

- e. Sayur itu ber-ikat
Vegetable the ber-bind
The vegetables are bundled

di-

(19)

- a. Buku itu di-baca oleh Ali
Book the di-read by Ali
The book was read by Ali

- b. Lelaki itu di-kejar oleh anjing
 Man the di-chase by dog
 The man was chased by a dog

- c. Berita itu di-dengar oleh dia
 News the di-hear by 3SG
 The news was heard by him/her

- d. Rumah itu sudah di-beli
 House the already di-buy
 The house has already been bought

- e. Buku itu di-ambil
 Book the di-take
 The book was taken

meN-

(20)

- a. *Berita itu meN-dengar (oleh dia)
 News the meN-hear (by 3SG)
 The news was heard (by him/her)

- b. *Rumah itu sudah meN-beli (oleh dia)
 House the PERF meN-buy (by 3SG)
 The house has already been bought (by him/her)

Comparing (17-19) with (20), it is clear that among the four prefixes, only *meN-* is unable to take part in a construction where the Initiator is an oblique.

4.5. SUMMARIZING THE VOLITIONALITY SYSTEM

The table below summarizes the properties of the four prefixes. Specifically, it includes information concerning the volitionality values of the prefixes, and the semantic roles of the subject in the various constructions, the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction. The 'x' indicates that the prefix participates in the relevant construction; a blank indicates that it does not.

Let me be clear that I use the notations 'vol [], vol [+], vol [-]' only as convenient shorthand. They are NOT meant to indicate anything like discrete features within any kind of formal framework. As we shall see, a proper understanding of what is going in the Malay verbal system (as with any other language) requires an appreciation of subtle semantic/pragmatic factors that the speakers make use of in their coding choices. The reification of features, on the other hand, runs the risk of disembodiment of the grammar from its speakers, and tends to reduce understanding to the mere formulation of algorithms (see Lakoff 1987; Langacker 1987, among others, for more discussion on the errors of an 'objectivist' view of grammar).

(21)	<u><i>ber-</i></u>	<u><i>ter-</i></u>	<u><i>meN-</i></u>	<u><i>di-</i></u>
	vol [+]	vol [-]	vol []	vol []
Initiator-Endpt Subj	x	x	x	
Initiator Subj	x	x	x	
Initiator Oblique/Absent	x	x		x

It is clear that *meN-* and *di-* complement each other by combining to give us the full set of constructions. *MeN-* takes part in the first two but not the third; *di-* takes part only in the third and not the first the first two. On the other hand, *ber-* and *ter-* are each able to take part in all three constructions. And since both *meN-* and *di-* are unspecified for any volitionality value, we can combine the *meN-* and *di-* prefixes as part of the same volitionality category (22).

(22)	<u><i>ber-</i></u>	<u><i>ter-</i></u>	<u><i>meN-di-</i></u>
	vol [+]	vol [-]	vol []
Initiator/Endpt Subj	x	x	x (<i>meN-</i>)
Initiator Subj	x	x	x (<i>meN-</i>)
Initiator Oblique/Absent	x	x	x (<i>di-</i>)

This then gives us a three-way distinction rather than the problematic four-way distinction that we saw in Hassan's and Benjamin's versions. *Di-* is best considered a member of the

same volitionality category as *meN-*, and we can see that the smaller number of constructions on the parts of *meN-* and *di-*, when compared to *ber-* and *ter-*, is due to the fact that *meN-* and *di-* serve to complement each other.

This three-way distinction also allows us to see the role that the feature of volitionality plays in characterizing the relations among the prefixes. It is crucial in maintaining the distinctions among the three categories.

- (23) Verbal prefix
 vol [X] (where 'X' is some volitionality value)
- Initiator-Endpt Subject Construction
- Initiator Subject Construction
- Initiator Oblique/Absent Construction

(23) abstracts out a schema for the Malay verbal prefix, shows that a prefix represents a volitionality category, and also participates in the various construction types.

4.6. A POSSIBLE OBJECTION

One might object to the three-way system in (22) on the grounds that it still doesn't account for the mutual exclusivity of the prefixes. The objection might be as follows: given that *meN-* belongs to a category vol [], what prevents this category from receiving an added volitionality value by combination with a prefix like *ter-* ? After all, we have seen that a *meN-* construction can be 'further specified' via an adverbial (see (8-9) above). What

prevents *meN-* from receiving this further specification from the prefix *ter-* instead of an adverbial ? In other words, the skeptic will claim that unless this objection can be dealt with, we have no grounds for ruling out a construction like (23).¹

(23) **meN-ter-STEM*

In fact, there are two possible ways to deal with this objection. One way would be to simply concede that, yes, there is no apparent reason why the vol [] of *meN-* cannot receive further specification from *ter-*. The inability of *meN-* and *ter-* to co-occur will then not be due to the volitionality values, but to the construction types that they participate in.

Recall that *ter-* participates in all three construction types, while *meN-* is unable to participate in the Initiator Oblique/Absent Construction. Let us consider what happens if we try to have both *meN-* and *ter-* co-occur. The result will either be conflicting constructions (if *ter-* wants the Initiator to be an oblique or absent, which *meN-* is unable to license) or redundant constructions (both prefixes want the Initiator-Endpoint, or just the Initiator, to be a subject). Put simply, since the prefixes mark both volitionality and ‘voice’, we either have a voice conflict (‘passive’ *ter-* and ‘active’ *meN-*) or redundant voice specifications (‘active’ *ter-* and ‘active’ *meN-*). In the first situation, the conflicting voice values should be enough to prevent the prefixes from co-occurring. But what about the second case ? Languages do tolerate vast amounts of redundancy (agreement markers, cross-referencing of arguments) so we can’t appeal to redundancy simpliciter.

However, note that having two phonologically distinct markers for the same category *within the same word* amounts to a case of multiple exponence. As Peterson (1994:98) notes, multiple exponence is a marked phenomenon: ‘[i]n the unmarked case, ME

¹ I thank Paul Kay for bringing this to my attention.

[multiple exponence -- LW] of a feature will not be required.' The crucial point is that we are not compelled to justify cases where multiple exponence is absent, rather it is claims of multiple exponence that need to be carefully examined. And in fact, it appears that the most uncontroversial cases of multiple exponence tend to be restricted to negation. For example, in Luganda, the verb stem contains two phonologically distinct markers of negation, one involving segmental material, and one involving tone.

There is, of course, good reason why negation should be prone to multiple exponence: negative statements are marked while positive statements are unmarked. Thus, if a marker of negation has undergone grammaticalization to a point where it is considered insufficiently salient, speakers may feel it necessary to bring in a new (and phonologically more substantial) marker to restore the salience of negation. This 'reinforcement' is needed precisely because of the marked nature of negation. Active voice, on the other hand, is unmarked relative to the more marked passive and middle voices. Thus, there is no motivation to have double marking of the active voice. In the light of all this, we can rule out multiple exponence of 'active' voice markers.²

A second and stronger way to deal with the objection would be to point out that the entire objection is based on a highly questionable assumption in the first place. It assumes that there is no significant difference between encoding non-volitionality in the form of an adverbial, and encoding it in the form of the prefix *ter-*, so that the two are seen to be essentially interchangeable. This kind of assumption only arises if we make the mistake of treating parts of a grammar as being equivalent simply because they appear to have the same truth-values or bear similar 'propositional content'. This kind of mistake is reminiscent of attempts to treat the passive as a purely syntactic variation on the active. But as numerous works have shown us (DeLancey 1981; Langacker 1987; Rice 1987;

² See Jespersen 1924 and McIllet 1912 for general discussions about the renewal of negative markers.

Shibatani 1985; Van Oosten 1986), the passive is a marked coding choice, carrying a variety of semantic/pragmatic nuances; it presents an event from the perspective of the terminal phase, defocuses the Initiator, and thus indicates that the prototypical overlapping of Initiator and topic does not apply.

Coming back to the case at hand, as Talmy (1985:122) points out, in understanding the relationship between form and meaning, it is necessary to pay attention to salience, defined as ‘the degree to which a component of meaning, due to its type of linguistic representation, emerges into the foreground of attention or, on the contrary, forms part of the semantic background where it attracts little direct attention ... a semantic element is backgrounded by expression in the main verb root or in any closed-class element (including a satellite -- hence, anywhere in the verb complex). Elsewhere it is foregrounded.’

The following examples are Talmy’s:

(24)

- a. Last year I went to Hawaii by plane
- b. Last year I flew to Hawaii

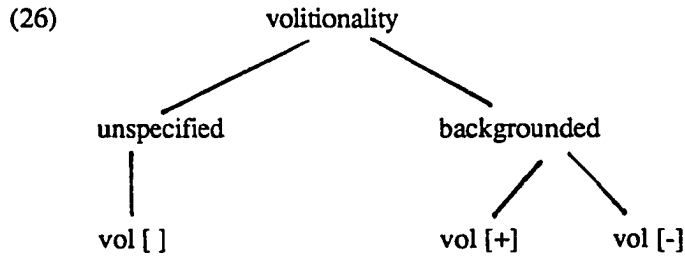
Talmy notes that the sentences in (24) are ‘virtually equivalent in the total information that they convey, but they differ in that the fact of transit by air is pivotal’ in (24a) by virtue of the adverbial, ‘whereas it is an incidental piece of background information’ in (24b) ‘where it is conflated within a verb.’ Likewise, in the following sentences, the notion of non-volitionality is either backgrounded within the verb using the prefix *ter-* (25a), or foregrounded as an adverbial (25b). In (25c) the speaker does not commit himself/herself to the volitionality of John’s action.

(25)

- a. John ter-pukul Ali
 John ter-hit Ali
 John unintentionally hit Ali [non-volitionality backgrounded]
- b. John meN-pukul Ali dengan tidak sengaja
 John meN-hit Ali with NEG intention
 John unintentionally hit Ali [non-volitionality foregrounded]
- c. John meN-pukul Ali
 John meN-hit Ali
 John hit Ali [volitionality unspecified]

The speaker therefore has to decide if s/he wants to background the volitionality of the action or not. This is a decision that the Malay system of verbal prefixes imposes on the speaker. Notice that if the speaker wants to foreground the volitionality, this cannot be done with a prefix; it must be done with an adverbial. And as we have already seen, the only prefix that will co-occur easily with an adverbial is *meN-*. Thus, choosing *meN-* either allows the speaker to remain uncommitted as to the volitionality of the action, or allows the speaker to foreground it. Choosing *ter-* only allows it to be backgrounded.

This actually leads to the interesting possibility that the three volitionality categories do not form a flat structure. Rather, they might be hierarchically related as shown below.



Thus, the contrasts between the volitionality categories is not simply a formal one. They reflect choices that Malay speakers can and must make in deciding how to code the volitionality of an action. In Chapter 6, I will say more about the structure in (26).

4.7. THE DEVELOPMENT OF THE SYSTEM OF PREFIXATION

I want to now end on a diachronic note, by speculating on how the system of prefixes might have developed. According to Teeuw (1959:145), there was no evidence of *ter-* in Old Malay. There were, however, prefixes such as *mañ-*, *ni-*, and *mar-*. These prefixes are respectively assumed to be cognate with the prefixes *meN-*, *di-*, and *ber-* (Çoedès 1930; Hopper 1979).³ The situation is summarized in (27).

(27) Verbal prefixes in Old Malay

meN- (< *mañ-*)

di- (< *ni-*)

ber- (< *mar-*)

³ Not surprisingly, disagreements exist. There are claims that *di-* actually developed from a preposition *di* that eventually came to replace *ni-*. Also, it has been speculated that *mar-* was originally a Batak borrowing rather than a cognate of *ber-*. See Adelaar 1992 and references therein for a useful discussion of these various positions.

So, while we can be fairly certain that among the four prefixes, *ter-* entered the language last, it is unclear in what order the other three prefixes entered the language.

As a hypothesis, let us simply assume that *mar-* entered the language after *mam̃-* and *ni-*. This scenario is shown in (28).

(28) One possible order in which the prefixes entered the language

Stage One: *mam̃-*, *ni-*

Stage Two: *mar-*

Stage Three: *ter-*

We can now speculate. It is possible that at Stage One, there was no volitionality distinction. *Mam̃-* and *ni-* can be said to respectively mark ‘active’ and ‘passive’, in the sense that together they give us the three construction types: the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction.

At Stage Two, *mar-* enters the language to mark volitional actions. It therefore forms a volitional category, distinct from *mam̃-* and *ni-*, which are now seen as members of a ‘volitionality unspecified’ category. The vol [] category contains within it the three construction types. By analogy, *mar-* proceeds to develop constructional analogues to *mam̃-* and *ni-*. We now see the beginning of the schema shown in (23).

When *ter-* turns up at Stage Three to mark non-volitional actions, the schema is fairly well 'entrenched' (to use a term from Ronald Langacker). Because of conflicts in volitionality values as well as the factors discussed in the previous section (such as the backgrounded nature of information coded by closed-class elements, and the fact that active voice is unmarked), *ter-* is unable to combine with any of the other two categories. So, in order to meet the requirements of the schema, *ter-*, too, develops its own variants of the three construction types. The result is what we see today: a tripartite volitionality system involving four phonologically distinct prefixes.

This would imply that the Malay verbal system is primarily sensitive to volitionality and secondarily to what has been variously called 'voice', 'focus', 'orientation', and 'trigger'. That is, the volitionality distinctions are the main organizing features of the verbal paradigm, serving to keep the categories distinct from each other. As we will see below, there is external support for the proposed system, based on data from closely related languages. These languages either have both a 'voice' and a volitionality distinction, or only the latter. Since my speculation on the development of the system of prefixation assumes that 'voice' was historically prior to volitionality, the widespread presence of volitionality distinctions in these languages would seem to suggest that it is an areal, rather than a genetic, phenomenon (cf. Ferrell 1983).

For example, languages of the Western Malayo-Polynesian Austronesian subgroup, to which Malay belongs, such as Javanese, Acehnese, and Tagalog, have long been recognized as being characterized by a system of affixes which are sensitive to the semantic roles of the arguments of the verb (Dahl 1986; Starosta 1986; Thomas 1980; Wouk 1986). It has also been argued that these languages have a set of affixes which indicate volitionality (Ferrell 1983;⁴ Schachter and Otnes 1972; Foley and Van Valin 1984). In some cases,

⁴ In fact, Ferrell (1983) notes similar phenomena in the Formosan language of Paiwan. The Formosan languages are generally considered to be an early offshoot of the Austronesian family, and Ferrell speculates

the same affix is used for both purposes, while in others, different affixes are involved. For example, in Tagalog, '[v]olitional verbs always occur with either *-um-* or *mag-* in actor focus constructions whereas non-volitional verbs occur with a range of verbal affixes, the most basic of which is *ma-*' (Foley and Van Valin 1984:70; Sweetser 1980).

The Acehnese case bears an even more striking resemblance to Malay since there is a prefix *teu-* which usually derives non-controlled predicates and a prefix *meu-* which usually derives controlled predicates (Durie 1985:72,88). While the resemblance between Acehnese *teu-* and Malay *ter-* is quite strong, see (29) below, Durie's examples of *meu-* actually seem to parallel Malay *ber-* as well as *meN-*, as shown in (30) (Durie does not give the relevant examples as sentences):

(29)

a.	<u>Acehnese</u>	<u>Malay</u>	<u>deungo/dengar 'hear'</u>
	teu-deungo	ter-dengar	
	'happened to hear'	'happened to hear'	
b.	<u>Acehnese</u>	<u>Malay</u>	<u>keujet/kejut</u>
	teu-keujet	ter-kejut	<u>'be startled'</u>
	'startled'	'be startled'	

that this morphological sensitivity to semantic roles and volitionality may have actually been a feature of the proto-language itself.

Ferrell's speculations need to be taken cautiously. We are on much surer ground if we limit ourselves to the Western Malayo-Polynesian Austronesian subgroup.

(30)

a.	<u>Acehnese</u>	<u>Malay</u>	<u>darat 'land'</u>
	meu-darat	meN-darat	
	'to land'	'to land'	
b.	<u>Acehnese</u>	<u>Malay</u>	<u>laut 'sea'</u>
	meu-laut	meN-laut	
	'to go by sea'	'to go to sea'	
c.	<u>Acehnese</u>	<u>Malay</u>	<u>kuda 'horse'</u>
	meu-kuda	ber-kuda	
	'to ride a horse'	'to have a horse, to ride a horse'	
d.	<u>Acehnese</u>	<u>Malay</u>	<u>beudak/bedak</u> <u>'cosmetic powder'</u>
	meu-beudak	ber-bedak	
	'to powder oneself'	'to powder onself'	

(The examples in (30) involve a variety of metonymies which we will have the opportunity to discuss in Chapter 8.)

An intriguing possibility is that Acehnese *meu-* may have had to expand its semantic range to cover the range that both Malay *meN-* and *ber-* have. Another possibility is that Acehnese *meu-* may actually have originally been two distinct morphemes which correspond to Malay *meN-* and *ber-* (recall the possibility that *ber-* may have derived from Old Malay *mar-*). The two morphemes may have become homophonous via a series of

phonological changes. At this point, in the absence of further data, these remain only speculations.

There is another reason why the Acehnese data are particularly interesting. Durie points out that Acehnese verbs 'do not have the system of focus-marking verbal affixes so typical of Indonesian and Phillipine languages' (p47). Thus, the verbal affixes in Acehnese only mark a verb as being controlled or non-controlled. This provides further support for my analysis of the Malay verbal prefixation system since the proposed analysis clearly assumes the primary importance of volitionality in the verbal system. Each category is mainly distinguished by its volitionality value, and it is only within each category that we get specific construction types where various macro-semantic roles are mapped onto grammatical relations.

4.8. CONCLUSION

By way of conclusion, let me point out that using the notion of a construction and in particular, a verbal prefix schema that is constituted by the three constructions types discussed above, accounts naturally for the fact that *meN-* and *di-* are less polysemous than either *ber-* or *ter-*. On the other hand, an account that treats constructions as artifactual and eschews the use of schemas, such as the Principles and Parameters framework, would have no natural way of dealing with the varying degrees of polysemy among the prefixes. It is, of course, possible to merely list three different *ber-* and *ter-* prefixes, all appropriately diacriticized. But this fails to capture the fact that what we are dealing with are cases of polysemy rather than accidental homonymy. The listing of the different uses is merely a brute force reflection of the fact that some prefixes are more polysemous than others, but leaves unexplained why this should be so. And as the next chapter shows,

there are in fact various inferences that motivate the polysemies of *ber-* and *ter-*, giving us radial categories whose structures largely correspond to the three construction types.

CHAPTER 5

THE VIEW FROM BELOW: PROPERTIES OF THE INDIVIDUAL PREFIXES

5.1. INTRODUCTION

In the last chapter we saw that the prefixes form a volitionality system. We also saw the kinds of constructions each prefix can enter into: *ber-* and *ter-* enter into all three construction types -- the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction -- within their own volitionality categories, while it is only by combining the ranges of *meN-* and *di-* that we get the same set of constructions for the category where volitionality is unspecified.

In this chapter we delve more closely into the individual properties of the various prefixes, in particular *ber-* and *ter-*. We will have much less to say about *meN-* and *di-* for the reason that they appear to be much less polysemous than the other two. We begin our discussion with the prefix *ber-*.

5.2. *BER-*

The three constructions discussed so far represent broad characterizations of the construction types that *ber-* enters into. But since we are now concerned with *ber-* as an individual prefix, we will be able to see that the relations between the construction types

actually involves a continuum; beginning with a construction where the subject is both Initiator and Endpoint, there is a gradual shift from one semantic domain to another such as that subject slowly loses properties that gives it both semantic roles, and emerges more distinctly as either an Initiator or Endpoint.

We note that *ber-* has been variously treated as marking:

- (i) reflexive action
- (ii) reciprocal action
- (iii) collective action
- (iv) mental events
- (v) (auto)locomotion
- (vi) natural events
- (vii) passive
- (viii) active

Given a list such as this, a natural reaction would be to ask if there is any reason why a single prefix should have all these uses, and how these uses are related to each other. In this section, we shall see that by appealing to a variety of metonymic inferences (in the sense of Traugott and König 1991), and a typological study by Kemmer¹ (1993), the fact that a prefix like *ber-* should have the above uses is strongly motivated by its properties as a semantic middle.

¹The prefix *ber-* does appear among Kemmer's tables of examples. However, she does not discuss it in any detail.

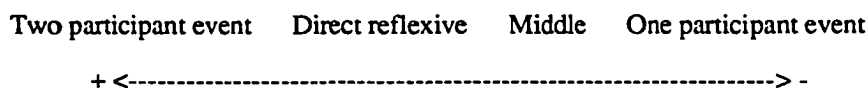
Before looking at examples of *ber-* sentences, it will first be necessary to elaborate on what is meant by a semantic middle. The following discussion is based essentially on a number of theoretical distinctions made by Kemmer (1993).

5.2.1. DEFINING THE MIDDLE

Kemmer defines the middle as a semantic category where the event involved has a low degree of elaboration such that the single participant present is both the Initiator as well as the Endpoint of the event.

The *degree of event elaboration* refers to the extent to which 'the participants and component subevents in a particular verbal event are distinguished. The variation in elaboration of events reflects alternative conceptualizations by the speaker, who has a choice of either making reference to events as undifferentiated wholes, or making reference to their substructures or components parts' (1993:121). Based on this it is possible to construct a scale of relative distinguishability of participants, and the following diagram is adapted from Kemmer (1993:73).

(1)



The two participant event is at the high end of the scale where participants are maximally distinct from each other. At the low end of the scale is the one participant event.

Both the middle and the one-participant event involve a single participant, although they differ in that the middle contains a 'minimal conceptual differentiation between the initiating and endpoint entities' (p72), as shown below.

(2) He cried [One participant event]

(3) He shaved [Middle]

Thus, (3) differs from (2) in that the subject is more clearly understood to be acting on (a part of) himself.

And though both the middle and the direct reflexive involve coreferentiality, the latter is different in that it involves a process that is usually expected to contain two separate participants, making it closer to the two participant event. Thus, the difference between (3) and (4) is that shaving is typically expected to involve a single participant while hitting typically involves two distinct participants.

(4) He hit himself [Direct reflexive]

(5) He hit the wall [Two participant event]

It is also possible to speak of the *relative distinguishability of events* (p112). This involves the possibility of construing an event as involving separate sub-events. Thus, certain events are necessarily or frequently reciprocal, giving them a low degree of distinguishability of the sub-events that constitute the relation between the participants. Kemmer calls these *naturally reciprocal events*. In non-naturally reciprocal events, on the

other hand, the actions carried out by the participants are relatively more distinguishable from one another. The following examples are taken from Kemmer (1993:113).

(6) John and Mary kissed each other, one after the other

(7) *John and Mary kissed, one after the other

The phrase *each other* in (6) allows the event to be treated as a non-naturally reciprocal event, making it possible to distinguish at least two kissing actions. This, in turn, makes it possible to use the sequential modifier *one after the other*. On the other hand, (7), without *each other*, requires that the event be construed as naturally reciprocal. This low distinguishability does not allow separate kissing actions, making the presence of the sequential modifier anomalous.

Finally, Kemmer also notes an iconic correlation between the degree of event elaboration and the phonological weight of the marker that is used to indicate an identity relation between the Initiator and Endpoint (1993:24ff). In some languages (eg Russian and Turkish), more than one marker is available. Where this happens, it is usually the case that the marker of a highly elaborated event contains more phonological material than the marker of a less elaborated event. Kemmer calls these *two-form* languages, and refers to the different markers as the *heavy* and *light* forms respectively. (Languages which use the same form regardless of the degree of elaboration, such as German and Chagana, are one-form.) The Russian examples below illustrate the difference between the heavy and light forms.

(8) On utomil sebja
He exhausted REFL
He exhausted himself

(9) On utomil-sja
He exhausted-MID
He grew weary

The example in (8) uses the heavy form *sebja* to describe a ‘reflexive situation in which someone brought about his physical exhaustion through his own exertions.’ This contrasts with the light form *-sja* in (9) where ‘a person has become weary through an unspecified process’ (Kemmer 1993:27). The main difference is that (8) is much more transitive than (9) since it is closer to a direct reflexive than the latter, which is closer to a middle. This translates into a higher degree of event elaboration for (8), which is iconically signalled by the use of a phonologically heavier form. A similar situation obtains with reciprocals where the heavy form *drug druga* contrasts with *-sja*.

What does all this have to do with the Malay prefix *ber-*? *Ber-* is a semantic middle, and Malay is a two-form language, where *ber-* is the light form marking events with a low degree of elaboration. This means that events marked by *ber-* have a restricted level of transitivity. And treating *ber-* as a middle allows us to take advantage of Kemmer’s study of the cross-linguistic properties of middles, making it easier for us to motivate the relations among the various uses of *ber-*. These properties of the middle will be discussed in the course of our analysis.

Notice that the kinds of distinctions employed by Kemmer such as the degree of event elaboration, and the relative distinguishability of participants and events, involve cognitive

mechanisms which are not unique to language. As discussed in Chapter 1, they are all manifestations of the transitivity level of an event. Transitivity itself is a special case of a more general phenomenon: the level of specificity at which an event or a part of it is conceptualized. When events are conceptualized at varying levels of specificity, the effects are seen at the clausal level, giving rise transitivity. However, parts of an event can also be treated at different levels of specificity; this is usually reflected in the choice of lexical item. The following example is taken from Langacker (1991:7), who refers to level of specificity as a dimension of imagery: animal --> reptile --> snake --> rattlesnake --> sidewinder. Note that verbs too display levels of specificity, though the choices are often more limited: vocalize --> sing --> croon.

Langacker goes on to note that although lexical items are uncontroversially accepted to form hierarchies of specificity, its relevance to more grammatical phenomena is less well known. As we will see, the level of specificity plays a crucial role in any attempt to understand the properties of the prefixes. This indicates how intimately the grammar is tied up with processes of general cognition so that any attempt to characterize the grammar in purely language-specific terms is bound to result in a serious loss of insights.

For now, having acquainted ourselves with Kemmer's work, we are ready to look at sentences showing the behaviour of *ber-*.

5.2.2. SOME *BER-* SENTENCES

I give below, with some initial comments, examples of the various uses of *ber-*:

'Reflexive': These are mainly with verbs of grooming and change in posture.

change in posture

(10)

- a. Orang itu ber-baring di tempat tidur-nya
Man the ber-lie LOC place sleep-3
The man is lying down on his bed

- b. Bumi kita ber-pusing
World 1PL ber-rotate
Our world is rotating

- c. Pemuda tidak mahu ber-alih
Youth NEG want ber-shift
The young man refuses to move

- d. Semua orang ber-keluk ke kanan
All people ber-turn to right
Everyone turned to the right

grooming:

(11)

- a. Gadis itu sudah ber-dandan
Girl the PERF ber-dress up
The girl has already dressed up

- b. Ali ber-cukur
Ali ber-shave
Ali is shaving

- c. Gadis itu suka ber-hias
 Girl the like ber-adorn
 The girl likes to put on makeup

- d. Siti sedang ber-bedak
 Siti PROG ber-cosmetic powder
 Siti is applying powder

- e. Ahmad sedang ber-dasi
 Ahmad PROG ber-tie
 Ahmad is putting on a tie

Notice that the stems in (11d-e) are derived from nouns. These involve various metonymies and, in Chapter 8, I will address some of the questions raised by the metonymies, such as whether they take place independently of the prefix or not.)

‘Reciprocal’ and ‘collective action’: These are with naturally reciprocal verbs such as verbs of quarreling or conversing, and collective acts where an action is jointly performed by a group of participants.

(12)

- a. Ahmad ber-kelahi dengan kawan-nya
 Ahmad ber-quarrel with friend-3
 Ahmad is quarreling with his friend

- b. Zain dan Mazlan sedang ber-bual
Zain and Mazlan PROG ber-converse
Zain and Mazlan are conversing

- c. Mereka masih ber-runding
3PL still ber-negotiate
They are still negotiating

- d. Mereka selalu ber-himpun di sini
They always ber-gather LOC here
They always gather here

- e. Mereka ber-jumpa di pejabat
They ber-meet LOC office
They met in the office

- f. Murid-murid sedang ber-kumpul di padang sekolah
Student-student PROG ber-assemble LOC field school
The students are assembling in the school field

‘Mental events’: These include acts of ordinary cogitation such as thinking, and more emotive acts such as those involving desire or joy.

(13)

- a. Ali sedang ber-fikir
Ali PROG ber-think
Ali is thinking/pondering

- b. Ali sedang ber-mimpi
 Ali PROG ber-dream
 Ali is dreaming

- c. Orang itu sudah ber-taubat
 Person the PERF ber-repent
 The person has repented

- d. Ahmad ber-sembahyang di masjid
 Ahmad ber-pray LOC mosque
 Ahmad prays in a mosque

‘(Auto)locomotion’: These differ from ‘change of posture’ verbs by involving motion along a path.

(14)

- a. Budak itu ber-jalan dengan cepat
 Child the ber-walk with fast
 The child walks fast

- b. Budak lelaki itu ber-lari ke sekolah
 Child male the ber-run to school
 The boy runs to school

- c. Bas itu ber-henti di sana
 Bus the ber-stop LOC there
 The bus stops there

- d. Kereta itu ber-lalu di sini
 Car the ber-pass by LOC here
The car passed by here

'Natural events': The term *natural* is used here in a broad sense to include not only events of nature, but also events which are socially required or expected.

(15)

- a. Pokok itu sedang ber-tunas
 Tree the PROG ber-sprout
The tree is sprouting
- b. Ayam itu sudah ber-telur
 Chicken the PERF ber-egg
The chicken has laid an egg
- c. Pokok itu ber-buah
 Tree the ber-fruit
The tree has borne fruit
- d. Isteri-nya ber-anak
 Wife-3 ber-child
His wife has given birth
- e. Mereka akan ber- pesta
 They will ber-festival
They will celebrate

- f. Budak lelaki itu belum ber-puasa
 Child male the not-yet ber-fast
The boy has not yet fasted
- g. Ali sedang ber-khidmat dalam tentera
 Ali PROG ber-service in army
Ali is serving in the army
- h. Saya ber-kerja dengan orang itu
 1SG ber-profession with person the
I am working with that person

As with the grooming cases, the stems in (15) are also derived from nouns.

‘Active’ and ‘passive’: These involve the *ber-* Initiator Subject Construction and Initiator Oblique/Absent Construction that we already saw in the previous chapter.

(16)

- a. Ibu suka ber-belanja
 Mother like ber-spend
Mother likes to shop
- b. Kain itu belum ber-jahit
 Cloth the not-yet ber-sew
The cloth is not yet sewn

5.2.3 RELATING THE DIFFERENT USES OF *BER-*

5.2.3.1. 'REFLEXIVE' AND 'RECIPROCAL' ACTIONS

As noted, the 'reflexive' use of *ber-* seems to be mainly with verbs of grooming or change in posture, and the 'reciprocal' use seems to be with naturally reciprocal events. Grooming and changes in posture are events with a low degree of elaboration since they typically involve a single participant who is acting on himself or herself. In this sense, they meet the definition of a semantic middle. Likewise, a naturally reciprocal event also has a low degree of elaboration even though it involves at least two participants, since each participant is necessarily the Initiator and Endpoint of the event.

Consider what happens when we try to extend the use of *ber-* to reflexive and reciprocal events that are more highly elaborated.

- (17) *Ali ber-bunuh
Ali ber-kill
Ali killed himself

- (18) Ali meN-bunuh diri
Ali meN-kill self
Ali killed himself

(17) is ungrammatical because *ber-* requires an event with low distinguishability of participants. As (18) shows, to code a direct reflexive, the verb must take a different prefix, *meN-*, and the heavy reflexive form *diri*. A similar restriction can be seen with reciprocals.

(19) *Mereka ber-pukul
 They ber-hit
They are hitting each other

(20) Mereka saling meN-pukul
 They mutually meN-hit
They are hitting each other

(19) is ungrammatical because the act of hitting is not a naturally reciprocal event (unlike, say, the act of wrestling). As (20) shows, to code an ordinary reciprocal, the prefix *meN-* is once again used, together with the heavy reciprocal form *saling*.²

In both the reflexive and reciprocal uses of *ber-*, the Initiator and Endpoint are coreferential and the events concerned are low in elaboration. More highly elaborated events require *diri* or *saling*, and a different prefix.³ Also, the restriction of *ber-*, in its reflexive use, to specific types of events such as grooming and change in posture verbs is highly typical of middle markers crosslinguistically. Thus, Kemmer (1993:54ff) notes that in languages

²Kemmer gives the form *silih* as the heavy reciprocal marker for Indonesian. However, most of my informants were unfamiliar with this form. The lone informant who was acquainted with *silih* treats it as an archaic reciprocal marker.

³More precisely, though *ber-* and the reflexive *diri* never co-occur, *ber-* can co-occur with *saling* provided the verbal stem is still a naturally reciprocal event, as shown below.

Mereka saling ber-bual
 They mutually ber-talk
They are talking among themselves

The reason for the ability of *ber-* to co-occur with *saling*, but not *diri*, follows from the fact that *ber-* can only code events that are relatively low in transitivity. Since the stem is a naturally reciprocal event, this already ensures that the transitivity level is low, the presence of the adverbial *saling* then merely serves to emphasize the reciprocal nature of the event. *Diri*, however, is not an adverbial, but a direct object. This, in itself, is not a problem since we shall see that *ber-* can take direct objects provided they are not highly individuated. However, *diri* is a reflexive marker, and when used as a direct object, it requires that its referent be highly individuated and referential. This increases the transitivity of the event since there are now at least two salient and individuated participants. The result is a conflict with the semantics of *ber-*, and so prevents *ber-* and *diri* from co-occurring.

with middle systems, grooming actions and change in posture verbs are the most commonly attested middle situations. Examples of such languages include German, Turkish, Ayacucho Quechua and Djola. We are therefore in a position to treat *ber-* as a middle marker, and Malay as a two-form language where *ber-* serves as the light form. Also, given the crosslinguistic evidence, we should treat the ‘reflexive’ use of *ber-* as the central use.

5.2.3.2. ‘COLLECTIVE’ ACTIONS

The ‘collective’ situation is highly similar to the ‘reciprocal’ in that both cases involve more than one entity who is performing the same type of action. The main difference appears to be that the ‘reciprocal’ typically involves at least two entities while the ‘collective’ typically involves more than two.

(21)

- a. Mereka selalu ber-himpun di sini
 They always ber-gather in here
They always gather here

- b. Mereka ber-jumpa di pejabat
 They ber-meet in office
They met in the office

In (21a), the pronoun *mereka* ‘they’ is assumed to involve more than two entities since ‘gather’ is a ‘collective’ action, while in (21b), *mereka* is only assumed to involve at least two entities since ‘meet’ is a ‘reciprocal’. Consider now what happens when we increase the number of entities in the ‘reciprocal’ use.

- (22) Ali dan kawan-nya kelima selalu ber-jumpa di pejabat
 Ali and friend-3 all-five always ber-meet LOC office
Ali and his friends, all five of them, always meet in the office

Although (22) uses the same ‘reciprocal’ verb as in (21b), the fact that we have a large number of entities now makes it a ‘collective’ action. This suggests that the ‘collective’ use of *ber-* be related to its ‘reciprocal’ use.

5.2.3.3. ‘MENTAL EVENTS’

As noted by Sweetser (1990:28), there is a very general and pervasive MIND-AS-BODY METAPHOR where words belonging to the domain of concrete physical acts come to be used in the mental domain. For example, Sweetser notes that words meaning physical holding and manipulation can readily come to mean intellectual understanding, and words that mean ‘to hear’ can come to mean ‘to obey’. Sweetser points out that these are not merely isolated examples, but recur throughout the Indo-European languages.

In the case of *ber-*, such a metaphor would motivate the extension of the middle to the domain of mental events so that the sentient entity is both the Initiator and Endpoint of the act of perception. The degree of affectedness of the entity obviously varies with different kinds of mental events. For example, because the event in (23a) is more emotive, it is more affected. This is less the case with more purely cognitive events as in (23b).

- (23)
- a. Orang itu sudah ber-taubat
 Person the PERF ber-repent
The person has repented

- b. Ali sedang ber-fikir
 Ali PROG ber-think
 Ali is thinking/pondering

5.2.3.4. ‘(AUTO)LOCOMOTION’

The ‘(auto)locomotion’ use is presumably related to the ‘reflexive’ via the change in posture verbs. As Kemmer (1993:69) notes, with changes in posture, the emphasis is on manipulating the shape of the body, while with ‘(auto)locomotion’, the emphasis is on moving the body as a whole from one place to another. Since this involves the notion of a path, this opens the way for the action to be treated as being directed towards an external goal or destination.

- (24) Budak lelaki itu ber-lari ke sekolah
 Child male the ber-run to school
 The boy runs to school

Therefore, while it is not uncommon for ‘(auto)locomotion’ verbs to receive the middle voice marking, it seems that we now have an entity who is readily construed more as an Initiator with the consequence that its role as an Endpoint becomes less salient.

Before moving on, notice that *ber-* cannot be prefixed to just any motion verb. The following verbs take *meN-* instead.

(25)

- a. Orang itu sedang meN-rangkak ke dalam bilik
Man the PROG meN-crawl to inside room
The man is crawling into the room
- b. Berita itu sudah meN-rebak
News the PERF meN-spread
The news has already spread
- c. Mereka boleh meN-undur
3PL can meN-retreat
They can retreat
- d. Semut-semut sedang meN-rayap di lantai
Ants PROG meN-creep/crawl LOC floor
Ants are creeping/crawling on the floor

I suggest that there is an important difference between the kinds of motion verbs that take *ber-* ('run', 'walk', 'stop' 'pass by') and the kinds of motion verbs that take *meN-* ('crawl', 'spread', 'retreat', 'creep/crawl'). The former are basic-level motion verbs, while the latter refer to much more specific kinds of motion, that is, they focus much more on the manner in which the motion is being performed, and thus belong to a subordinate level of categorization. Assuming this is the case, it still doesn't explain why *ber-* would prefer basic-level verbs.

Recall that a crucial property of the middle is that it have limited transitivity. As Kemmer notes, this means that middles tend to have a low degree of event elaboration. And it is no

coincidence that basic-level categorization tends to be characterized by gestalt perception and holistic motor movement (Brent Berlin, cited in Lakoff 1987:38-39). The properties of gestalt perception and holistic motor movement, in the case of verbs like 'run', 'walk', etc., are what lead them to have a low degree of event elaboration since when we run or walk, we are not usually aware of the sub-movements that go into making up the running or walking motion.

But with the subordinate motion verbs like 'crawl', 'spread' or 'retreat', it is more likely that we are aware of the various sub-movements since they do not represent our typical or normal manner of moving. It is important to remember here that a basic level of categorization is not an objective fact. Rather,

Basicness in categorization has to do with matters of human psychology: ease of perception, memory, learning, naming, and use. Basicness of level has no objective status external to human beings. It is constant only to the extent that the relevant human capacities are utilized in the same way. Basicness varies when those capacities either are underutilized in a culture or are specially developed to a level of expertise (Lakoff 1987:38).

If the basic-level motion verbs are less elaborated than the subordinate level ones, we may ask what happens in the case of the superordinate level motion verbs. We should expect these to be even less elaborated, and to therefore take the *ber-* prefix.⁴ One motion verb that might be considered superordinate is the verb *lalu*, repeated here as (26a). Another is

⁴One might be tempted to generalize to all classes of verbs, motion or otherwise, and ask if *ber-* is always going to be prevented from occurring with the subordinate level members. There is no reason to make this generalization. Remember that the inability of *ber-* to co-occur with a subordinate level motion verb is really a consequence of the fact that *ber-* is a middle, and thus is restricted in the transitivity level of the events it can encode. It is not at all apparent that all subordinate level verbs are equally high or low in the transitivity level of the events they describe. This is something that we probably have to determine on a case-by-case basis.

the verb *pindah*. These verbs are superordinate in that they say nothing at all about the way in which the motion is being carried out; the motion thus becomes maximally schematic. I have not been able to find any example of a superordinate level verb which indicates only the fact of motion. Both the examples below are verbs which encode both the fact of (schematic) motion and a landmark, where the landmark is presented periphrastically.

(26)

- a. Kereta itu ber-lalu di sini
 Car the ber-pass by LOC here
The car passed by here

- (26) Ali ber-pindah ke Penang
 Ali ber-move to Penang
Ali is moving to Penang

Not surprisingly, the transitivity restriction also holds with motion verbs which are derived from nouns. Malay has a number of motion verbs derived from locative nouns. These derived verbs encode both the fact of motion as well as a goal, as shown below.

(27)

- a. Kapal terbang itu akan meN-darat
 Plane the will meN-land
The plane will land

- b. Perahu itu sedang meN-laut
Boat the PROG meN-sea
The boat is going to sea

- c. Kami meN-tepi
1PL meN-edge
We moved to the edge

- d. Semua orang itu meN-pinggir
All people the meN-side
All the people moved to the side

In all these examples, the prefix is *meN-*. *Ber-* is not allowed. Since the derived verb lexically encodes a goal in addition to the fact of motion, this leads to an increase in transitivity to a point that is apparently incompatible with the presence of *ber-*. Note that it is not simply the presence of a goal that is responsible for the increase in transitivity, but the fact that the goal is encoded lexically rather than periphrastically. Independent evidence that lexical representation results in a more transitive event than periphrastic representation comes from causatives. Consider the difference between a lexical causative such as *kill* and a periphrastic causative such as *cause to die*. The former expresses direct causation while the latter is normally used when there is no direct causation. As Lakoff (1987:55) notes, '[t]he more direct the causation, the closer the morphemes expressing the cause and the result.' And obviously, direct causation involves a higher degree of transitivity than indirect causation since in the former, the effect on the Endpoint is more direct in the sense that it is immediate or punctual.

In Chapter 8, we will consider further the constraints that govern the co-occurrence of the prefixes and derived verbs. In the meantime, we continue our discussion of *ber-* by looking at the domain of ‘natural events’.

5.2.3.5. ‘NATURAL EVENTS’

As mentioned above, these include not only events of nature but socially required behaviour. What these events all have in common is that the intentions of the participants are irrelevant. As Kemmer (1993:142) points out (she uses the term ‘spontaneous events’), ‘[a] common use of the MMs [middle markers; LW] across languages is in situations which designate changes of state of an entity, but in which no Agent entity receives coding. The entity undergoing the change is the chief nominal participant ...’ In these cases, the events are ‘semantically middle in that the affected entity is not only an Endpoint, but is also conceptualized as an Initiator. The event is treated as though it emanates from the Patient’ (Kemmer 1993:145). Because the single participant is coded as both Initiator and Endpoint, this indicates that ‘natural events’ use of *ber-* are related to its ‘reflexive’ use (see also Kemmer (1993:202), where the term ‘direct reflexive’ is used instead).

In the case of events of nature (28a), the event is treated as though it ‘emanates’ from the participant, who typically has little or no control over the event (Kemmer 1993:143-145).

(28)

- a. Pokok itu sedang ber-tunas
 Tree the PROG ber-young shoot
 The tree is sprouting

- b. Budak lelaki itu belum ber-puasa
 Child male the not-yet ber-fast
The boy has not yet fasted

Likewise, in the case of socially required behaviour, the participants are engaged in the behaviour as a matter of social expectation or obligation 'rather than individual initiative and prerogative' (Klaiiman 1991:133). In (28b), the verb *puasa* refers to the religious obligation that every Muslim has concerning the act of fasting. Sweetser (p.c.) suggests that the socially obligated events are viewed as metaphorical natural state-changes, thus leading the middle marker to be extended from being used with events of nature to social events as well.

It has also been noted that *ber-* can be used to indicate a person's occupation (Liaw 1988; Tampubolon 1983). This is not a very productive use and I mention it mainly for completeness. The 'occupation' use of *ber-* usually involves being prefixed to locative nouns, and the subject is characterized as performing the activity associated with the noun for a living. The metonymy here might be described as PLACE FOR OCCUPATIONAL ACTIVITY.

(29)

- a. Bapa-nya ber-ladang
 Father-3 ber-farm
His/her father is a farmer
- b. Sudah dua tahun dia ber-kedai
 Already two year 3SG ber-shop
Si/he has been working in a shop for two years

- c. Hampir semua orang kampung ber-sawah
 Nearly all people village ber-rice field
Nearly all the villagers work in the rice field

Gary Holland (p.c.) has suggested that the ‘occupation’ use may have been motivated by the ‘natural events’ use, specifically that aspect of ‘natural events’ that involves social obligation or expectation. The idea of work-related activity certainly is part of socially required or expected behaviour, and it is likely that this could have been the impetus for the development of the ‘occupation’ use, especially given (15h) where the verb *kerja* ‘to work’ itself takes the *ber-* prefix.

5.2.3.6. ‘ACTIVE’ AND ‘PASSIVE’ USES

In some languages, the middle is used for a situation where there is an external Initiator, usually human, which has been ‘pragmatically deemphasized due to factors such as non-specificity or relative unimportance ...’ (Kemmer 1993:147). This gives rise to situations where Initiator is not expressed, and the argument that bears the subject relation is no longer an Initiator. The result is a construction that looks very much like a ‘passive’.

- (30) Soalan itu tidak ber-jawab
 Question the NEG ber-answer
The question is unanswered

The fact that the subject is no longer an Initiator suggests that we relate this use of *ber-* to the ‘natural events’ use. As noted earlier, in the ‘natural events’ use, either the subject typically lacks control over the event (as with events of nature) or the individual control of

the subject has been eclipsed by his/her social obligations, in both cases, the subject is therefore less easily construed as an Initiator.

In other situations, the constructions have a more 'active' character since the subject appears to be an Initiator only and it is the Endpoint that has been deemphasized.

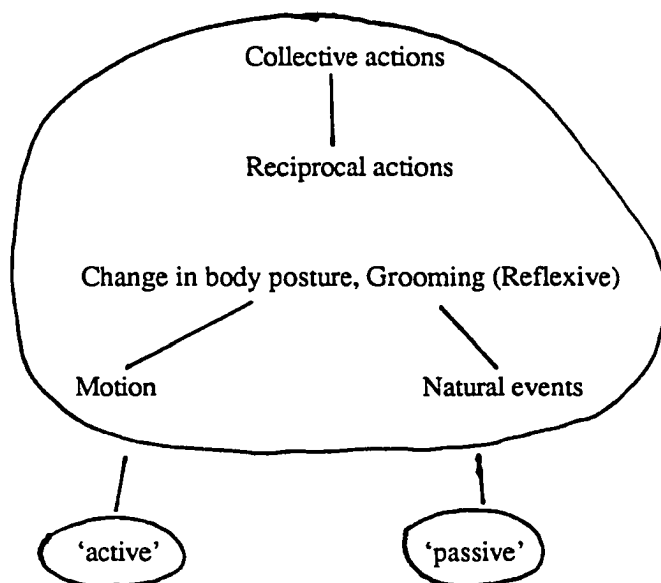
- (31) Bapa-nya ber-kata
 ..
 Father-3 ber-speak
 His father is speaking

Recall in our discussion of the 'motion' use of *ber-* that the single participant is usually construed as moving through his/her own initiative. Based on these considerations, it is preferable to relate the 'active' use of *ber-* to its 'motion' use.

5.2.3.7. A SCHEMATIC REPRESENTATION OF THE POLYSEMY OF *BER-*

We have discussed the various uses of *ber-*, and suggested the ways in which they might be related to each other. It is now possible to divide the various uses into three main groups, giving us a radial category for the prefix *ber-*, as shown below.

(32)



Notice that the structure of the radial category largely corresponds to the three construction types discussed in the previous chapter. The first group is the central member of the *ber*-category since it meets the semantic definition of a middle by having participants who are both Initiator and Endpoint. This corresponds to the Initiator-Endpoint Subject Construction. This central member comprises the 'reflexive actions', 'reciprocal actions', 'collective actions', 'motion' and 'natural events' uses, and it will have its own internal structure. To recapitulate, the 'reciprocal' uses are more peripheral because they typically involve at least two entities instead of one. 'Collective actions' are an extension of 'reciprocal actions' in that they typically involve more than two entities. The 'motion' and 'natural events' uses are also more peripheral because they each involve a single participant that tends, respectively, to be more purely an Initiator or more not.

The second group consists of the 'active' uses of *ber*- and corresponds to the Initiator Subject Construction. The second group is not to be differentiated from the first by a sharp boundary. Rather, we have a continuum where participants in various uses of *ber*- become progressively more Initiator-oriented. This is motivated by the 'motion' use which already

deemphasizes the role of Endpoint and thus opens the way for participants which are increasingly Initiator-oriented. The end result is a situation where no Endpoint is present at all.

The third group consists of the ‘passive’ uses of *ber-* and corresponds to the Initiator Oblique/Absent Construction. Once again, we have a continuum, albeit in the opposite direction where the participants are slowly less Initiator-oriented. This change is motivated by the ‘natural events’ use which already tends to downplay the role of Initiator. At the end of the continuum, we get cases where no Initiator is present. And as we will see in the next section, the ‘active’ and ‘passive’ uses of *ber-* are still specially restricted by the fact that, as a middle, *ber-* involves relatively low transitivity.

To summarize, what this discussion of *ber-* shows so far is that the polysemy of the prefix developed through a variety of inferences. The result is a category structure that mirrors the verbal prefix schema discussed in the previous chapter. This analysis is insightful because the polysemy of the prefix is accounted for in a manner that allows us to understand the relationships among its different uses. I show later that a similar analysis can be provided for *ter-*. And because the inferences that give rise to polysemy are not arbitrary, but motivated by the semantics of the prefixes, we would not expect *meN-* and *di-* to be polysemous (relative to *ber-* and *ter-*) precisely because they are semantically less ‘rich’ (recall that they belong to a category that is unspecified for any volitionality value). It is this kind of insight into the nature of grammatical phenomena that is lost if we are content to merely list the different senses of a prefix without asking how these senses are related. A theory of grammar that lays claim to a self-contained language faculty would have to show how this insight can be captured without appealing to the kinds of general cognitive mechanisms I have employed here. At present, I do not see how this can be done.

5.2.4. FURTHER NOTES ON THE SEMANTICS OF *BER-*

5.2.4.1. LEVEL OF TRANSITIVITY

The claim so far is that all the events marked by *ber-* involve relatively low transitivity. Consider a sentence where the event appears to be highly transitive.

- (33) Ali ber-ganti baju
Ali ber-change shirt
Ali changed (his) shirt

However, there is reason to believe that *baju* is not referential in (33) since it cannot take a determiner like *itu* 'the', nor can it take part in a comparative construction (Zec 1985). Since the ability of an object to undergo a comparative construction is a strong indication of its referential status, the ungrammaticality of the following sentences suggests that the *ber-* constructions do not really contain a fully referential object, making them less transitive than they seem.

- (34)
- a. *Ali ber-ganti baju itu
Ali ber-change shirt the
Ali changed the shirt
- b. *Ali ber-ganti lebih baju daripada topi
Ali ber-change more shirt than hat
Ali changed more shirts than hats

Note that the above sentences are fine once we change to a different prefix such as *meN-*.

(35)

- a. Ali meN-ganti baju itu
 Ali meN-change shirt the
 Ali changed the shirt

- b. Ali meN-change lebih baju daripada topi
 Ali meN-change more shirt than hat
 Ali changed more shirts than hats

Since the object in (33) cannot be highly individuated or referential, this shows that the event is of limited transitivity. We can then maintain the generalization that events marked by *ber-* cannot be highly transitive.

Another sign of limited transitivity for *ber-* clauses comes from the *ber-* version of the Initiator Oblique/Absent Construction. As the examples in (36) show, the Initiator can never appear at all. Since the subject of the Initiator Oblique/Absent Construction is already individuated, having the Initiator present would result in a construction that has two highly individuated participants. This would raise the transitivity level of the event to a point that is apparently incompatible with the presence of *ber-*. As (37) shows, such a constraint does not hold with the *di-* or *ter-* versions of the same construction, however.

(36)

- a. *Soalan itu sudah ber-jawab oleh Ali
 Question the PERF ber-answer by Ali
 The question has already been answered by Ali

- b. Soalan itu sudah ber-jawab
Question the PERF ber-answer
The question has already been answered

(37)

- a. Soalan itu sudah di-jawab oleh Ali
Question the PERF di-answer by Ali
The question has already been answered by Ali
- b. Soalan itu sudah ter-jawab oleh Ali
Question the PERF ter-answer by Ali
The question has already been (unintentionally) answered by Ali

We have now seen that *ber-* clauses are restricted in their level of transitivity. Such a restriction does not hold for the other prefixes, and we will ask in the next chapter if this restriction in the case of *ber-* might be a source of instability in the volitionality system of the verbal prefixes. For now, we turn our attention to the prefix *ter-*.

5.3. *TER-*

In this section, I focus on the prefix *ter-*. I will address two issues in particular: the scope of a *ter-* construction over its NPs, and the relation between non-volitionality and perfectivity. And since *ter-* is chronologically the most recent of the four prefixes, we shall be able to make use of data from Classical Malay to better understand its properties.

5.3.1. *TER-* AND PERFECTIVITY

The relation between non-volitionality and perfectivity was noted by Winstedt who, it will be recalled from the discussion in Chapter 2, treated *ter-* primarily as marking perfectivity and secondarily as marking non-volitionality. In this section, I will argue for the converse and show that perfectivity is merely a default reading of a *ter-* clause rather than an inherent feature of the prefix. Consider the following sentences.

(38)

a. Makan-an sedang ter-saji di atas meja
Eat-NOM PROG ter-serve LOC on table
Food is being served on the table

b. Ali sedang ter-jatuh
Ali PROG ter-fall
Ali is falling

In both (38a-b), the presence of the progressive poses no problems. In particular, (38b), which at first seemed awkward to a number of speakers, became acceptable with the proper context. For example, it can be felicitously uttered if Ali happened to be falling from a very high cliff so that it would take him a couple of minutes to hit the ground. In fact, the tendency to interpret non-volitional action in terms of perfectivity can also be found in Thai, which has two causative markers, *tham*, and *hay*. The former indicates 'inadvertent, or accidental cause' while the latter indicates 'intentional cause' (Vichit-vadakan 1976:461). (Tone marks have been omitted in the Thai examples.)

(39) Saakhaa tham kracok taeak
Saka tham mirror break
Saka unintentionally broke the mirror

(40) Saakhaa hay dek wing

Saka hay child run

Saka had the child run (eg. Saka made/allowed the child to run)

Vichit-vadakan (1976:464-465) notes that *tham* cannot take a progressive marker, while *hay* can.⁵

⁵My own inquiries show that even the context which permits (38b) (in the text) will not work in Thai.

*Khaw kamlang tham tuw-?eing hoklom
He PROG tham self fall
He is unintentionally making himself fall

It is not easy to state precisely why this should be unacceptable. We cannot simply attribute it to the fact that there are now two conceptually distinct participants since *tham*, being a causative, naturally occurs in constructions with two distinct participants (see (39)). However, the difference in acceptability between the Malay and Thai examples might be attributed to two interacting factors: the nature of causatives, and the scope of the progressive. A number of authors (Jackendoff 1990; Michotte 1954; Pinker 1989; Talmy 1976) have made a useful distinction between causatives where the Initiator is responsible only for initiating the event (eg *Ali threw the ball*), and where the Initiator is effectively serving as an energy source throughout the entire event (eg. *Ali dragged the box*). In both cases, however, the initiation phase of the causation process is always encoded. In other words, there seems to be no incoherent way to treat something as a causative and yet have it EXCLUDE the initiation phase. It seems to be a necessary property of any causative that it include the initiation of the event. Thus, when the progressive is present, this means that the subject is treated as a causer from the very beginning of the extended process. This would require an interpretation that the actor be aware of the entire causation process, from its inception to the end. But this is inconsistent with DeLancey's suggestion (see text) that in an accidental act, the actor is only aware of the terminal point of the event. We then have an account for why the Thai causative *tham* is unable to take the progressive.

Note that this account, if true, generalizes beyond the situation in Thai, and makes the prediction that any causative that encodes non-volitionality will never be able to take the progressive. In Malay, however, because *ter-* is not a causative (as shown, for example, by its ability to exclude the Initiator in the Initiator Oblique/Absent Construction), its incompatibility with the progressive is not absolute but merely contextually-specific. However, the difference between Malay *ter-* and Thai *tham* is not only that one is a causative and one is not. In (38b) the progressive in Malay might be said to modify the actual process of falling, while in Thai, the progressive appears to be modifying the causative marker alone. Since in Malay, the non-volitionality marker is a prefix, the scope of the progressive must include BOTH the prefix and its stem. In Thai, however, since the causative is a separate lexical item, the progressive is then interpreted as modifying the causative specifically. This seems to be the case in (41) above where the progressive modifies the causative rather than the main verb *phang* 'collapse'. The same could be said about (42) although, for pragmatic reasons, it is harder to imagine a situation where the causation process is not temporally co-extensive with the eating process.

To make this account work, we would still need to be able to say something about the ways in which the semantic features of a prefix are more easily backgrounded than those of a stem or word. This would allow us to say why even though both the prefix and the stem are modified by the progressive in Malay, the *ter-* prefix is easily backgrounded. For a discussion of the relation between backgrounding/foregrounding and morphological freedom/dependence, see Talmy (1985).

Thus, the unacceptability of the Thai example appears to be due to two interacting factors: the fact that *tham* is a causative as well as an independent lexical item. It would be interesting to find a situation that combined aspects of the Thai and Malay situation. For example, if we had a causative marker of non-volitionality that was not a free form, but an affix, this would allow us to see if morphological

(41) *Khaw kamlang tham thamnop phang
He PROG tham dam collapse
He is unintentionally causing the dam to collapse

(42) Khaw kamlang hay Saakhaa kin khaaw
He PROG hay Saka eat rice
He is feeding Saka rice

And even in English, notice that the progressive is quite anomalous (at least, without careful contextualization) if the action is claimed to be non-volitional.

- (43)
- a. He hit the table
 - b. He is hitting the table
 - c. ?He is accidentally hitting the table

To explain the association between non-volitionality and perfectivity, Vichit-vadakan (1976:465) suggests that an accident is normally conceived of as an instantaneous event rather than as extending through time. In a similar vein, DeLancey (1981:649) proposes that 'difference between an accidental and a purposeful act is precisely in whether the actor is aware of all phases or only of the act's termination.' Both authors, in other words, assume that the association is motivated by an experiential basis.

boundedness was sufficient to background the initial phase of the causation when a progressive marker is introduced. Unfortunately, at present I am not aware of any such situation.

Notice that on rare occasions, certain non-volitional events can be experienced as extending over time, as shown by (38b). However, these require a relatively more specific and elaborate context to be made sensible. The prototypical cases of non-volitional action, by contrast, are usually construed as being much more instantaneous. What we have then is that in English, Thai, and Malay, in the core cases, the progressive is anomalous when the action is non-volitional.

5.3.2. THE SCOPE OF NON-VOLITIONALITY

In this section, we consider the scope of the requirement of non-volitionality that *ter-* imposes on its arguments. We have seen that like *ber-*, *ter-* can participate in all the three main construction types: the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction. An example of each is repeated below.

Initiator-Endpoint Subject

- (44) Ali ter-tawa
Ali ter-laugh
Ali laughed

Initiator Subject

- (45) Ali ter-pukul John
Ali ter-hit John
Ali accidentally hit John

Initiator Oblique/Absent

(46) John *ter*-pukul oleh Ali

John *ter*-hit by Ali

John was hit by Ali

In (44), because there is only a single participant, it is clear that this participant must be understood as being non-volitional. What about (45) and (46) ?

In (45), both Ali and John must be non-volitional participants. Thus, Ali must have not intended to hit John and John must have not wanted to get hit. To code a situation where Ali intentionally did the hitting, (47) must be used instead.

(47) Ali *meN*-pukul John

Ali *meN*-hit John

Ali hit John on purpose

Of course, we may ask if *meN*- is unspecified for volitionality, how does it come about that Ali is understood as acting volitionally in (47) ? I will suggest in the next section that the interpretation of (47) makes use of an idealized cognitive model (ICM) of transitive events, which supplies default volitionality values. For now, let us continue with our exploration of *ter*-.

We have seen that in (45), both the subject and the direct object must be non-volitional participants. In (46), however, only the subject John need be a non-volitional participant. The oblique participant may, but need not be construed as acting non-volitionally. This suggests that the requirement of non-volitionality imposed by *ter*- applies only to its core arguments; oblique participants are able to escape the requirement. Thus, to code a

situation where John wanted to be hit, a *ter-* Initiator Oblique/Absent Construction cannot be used even though the Initiator Ali may have acted non-volitionally. Some other prefix such as *di-* must be used instead, as in (48) below. Because *di-* is unspecified for volitionality, the *di-* doesn't necessarily mean that the subject is a volitional patient, it merely allows for such an interpretation.

- (48) John di-pukul (oleh Ali)
 John di-hit (by Ali)
John was hit (by Ali) [where John wanted to be hit]

In other words, since Malay lacks the equivalent of an antipassive construction, which would allow the object to be placed either in the oblique or suppressed, a situation with a volitional Endpoint can never take the *ter-* prefix. However, since Malay is able to place the Initiator in the oblique, and have the Endpoint in the subject position, a situation where the Initiator is volitional can still be coded by *ter-*. The result is a *ter-* version of the Initiator Oblique/Absent Construction.

Further support for the fact that the oblique is not required to be non-volitional comes from Classical Malay. In a texts taken from the period of Classical Malay, there are situations such as 'X captures Y' where there is clearly a volitional Initiator acting on a non-volitional Non-Initiator. This immediately precludes the use of either the Initiator-Endpoint Subject Construction or the Initiator Subject Construction since a volitional Initiator is present.

At the same time, the fact that the Endpoint is strongly non-volitional makes it desirable to use the *ter-* prefix. What happens is that these 'capturing' situations are coded using the Initiator Oblique/Absent Construction. Examples are shown below.

- (49) ... dan anak Raja Kelantan yang perempuan itu ketiga-nya
and child Raja Kelantan REL woman the all-three-3

ter-tawan oleh Orang Melaka
ter-capture by People Melaka

*and the three daughters of the Prince of Kelantan were captured by the
people of Melaka (SM:152)*

- (50) Maka Raja Sulung ter-tawan ke Aceh
And Raja Sulung ter-capture to Aceh
And Prince Sulung was taken captive to Aceh (SM:151)

Thus, (51) is unacceptable because even though the three captive daughters are non-volitional participants, the people of Melaka are clearly not. And since the constraint of non-volitionality that *ter-* imposes extends only over its core arguments, the only way to code the 'capturing' event with *ter-* is to use the Initiator Oblique/Absent Construction as in (49) or (50).

- (51) *Orang Melaka ter-tawan anak Raja Kelantan yang perempuan itu
People Melaka ter-capture child Raja Kelantan REL woman the
ketiga-nya
all-three-3

*The people of Melaka unintentionally captured the three daughters of
the Prince of Kelantan*

Since the subject is now no longer an Initiator in (49-50), it is natural to further extend the range of possible subjects to inanimates, giving us the uses of *ter-* shown in (52). And in Modern Malay, we find examples like those in (53-54).

- (52) ... keris-nya sudah ter-hunus
 blade-3 already ter-unsheath
his blade was already unsheathed (HT:40)

- (53) Makanan ter-hidang di meja
 Food ter- serve LOC table
Food is served on the table

- (54) Tingkap rumah itu sudah ter-tutup
 Window house the already ter-close
The windows of the house have been closed

Of course, having an inanimate subject still obeys, by default, the requirement that the core argument(s) of a *ter-* clause be non-volitional since inanimates lack volition anyway. But more importantly, precisely because of this, the issue of volition now becomes irrelevant. The fact that *ter-* marks non-volitionality becomes less salient, and speakers are now free to perceive this as a different use of *ter-*. This difference is interpreted aspectually as a perfective use of *ter-*, given the close association noted in the previous section between non-volitionality and perfectivity. It is also possible that this already close association is further strengthened by the ‘passive’ nature of the construction since passives usually view an event from the perspective of the affected entity. As such, the event is presented as having already been completed or taken place (Anderson 1988:344).

5.3.3. REPRESENTING THE *TER*- RADIAL CATEGORY

To construct the radial category for *ter*-, we once again turn to data from the Hikayat Hang Tuah. In the Hikayat, there are 215 tokens of *ter*- with verbs. The most frequent uses of *ter*- are in events which are low in transitivity. For example, there are 20 tokens of *ter*- with the verb *senyum* 'to smile' and 15 tokens of *ter*- with the verb *kejut* 'to be startled'.

Some examples are shown below. They involve only a single participant, which serves to lower the transitivity level of the event.

- (55) Maka Hang Tuah ter-senyum ...
And Hang Tuah ter-smile
And Hang Tuah smiled (HT:12)

- (56) Hang Mahmud pun ter-kejut ...
Hang Mahmud EMPH ter-startled
Hang Mahmud was startled (HT:2)

- (57) Maka raja pun ter-kejut
And prince EMPH ter-startled
And the prince was startled (HT:93)

Uses of *ter*- in more highly transitive events are less frequent so that there is only one token of *ter*- with the verb *angkat* 'to lift, carry', two tokens with *bunuh* 'to kill', and three with *buka* 'to open'. However, in Modern Malay, the use of *ter*- with highly transitive events is common as we already saw from the examples in Section 3.4.

Note that although all the examples in (55-57) are relatively low in transitivity, the construction in (57) allows *ter-* to take a direct object. (57) indicates that *ter-* is already beginning to be extended to events that are slightly higher in transitivity since there are now two distinct participants in the *ter-* event. Further increase in transitivity gives us sentences like those in (58) below.

(58)

- a. **Lelaki itu ter-minum racun**
 Man the ter-drink poison
 The man accidentally drank poison

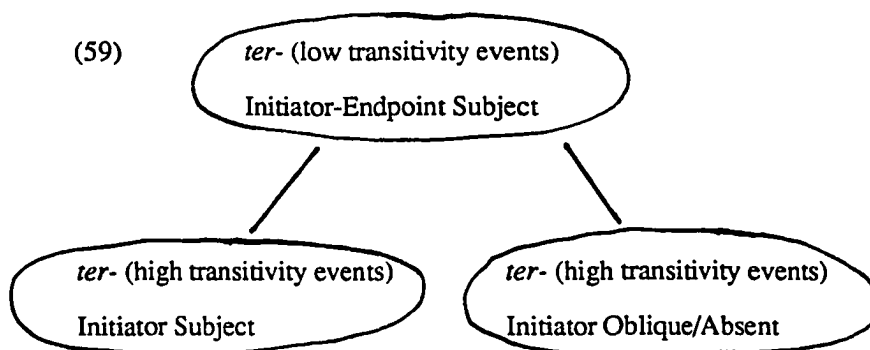
- b. **Siti ter-ambil buku kawan-nya**
 Sit ter-take book friend-3
 Sitiit accidentally took her friend's book

- c. **Polis ter-tembak kawan-nya**
 Policeman ter-shoot friend-3
 The policeman accidentally shot his friend

This suggests that *ter-* was first used mainly with low transitivity events, and gradually became extended to events which are higher in transitivity. With the more transitive events come a distinction between the Initiator and the Endpoint so that we have different *ter-* constructions where the subject can either be an Initiator or not.

I show below a schematic representation of the semantic development of *ter-* . Notice that we have the three main construction types -- the Initiator-Endpoint Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction -- represented

below. As in the case of *ber-*, the development begins with the construction where the subject is both Initiator and Endpoint, and then gradually extends to the other two constructions.



A final comment. Even though we have noted that, in the case of *ter-*, a possible motivation for the development of the Initiator Oblique/Absent Construction is the need to have a volitional Initiator escape the non-volitionality requirement of the prefix, this does not invalidate the suggestion made in the previous chapter that the development of the various *ter-* construction types could also have been spurred by the existence of a verbal prefix schema. It simply suggests that in the case of the Initiator Oblique/Absent Construction, there was more than just a single motivating factor.

5.4. *MEN-* AND *DI-*

We noted in Chapter 1 that although *meN-* is sometimes treated as an 'active' voice marker, there are claims that *meN-* is specifically an 'active transitive' marker (Chung 1976a; Alsagoff 1992). This more restricted position does not deny that *meN-* can be found with 'intransitive' (that is, monovalent) stems, but is based on the observation that the combination of *meN-* and a monovalent stem tends to be lexicalized (Alsagoff 1992:12, footnote 4). This observation, while correct, fails to take into account three facts:

(i) That not all such combinations are lexicalized. In fact, there are many more such combinations than has been recognized (Macdonald and Darjowidjojo 1967; Liaw 1988).

(ii) That this lexicalization is not restricted to *meN-*, but can also be observed when the other prefixes such as *ber-* and *ter-* combine with monovalent stems. And as with *meN-*, these two prefixes do not show any signs of lexicalization when they combine with multivalent stems.

(iii) Consistent with the observations in (i) and (ii), the prefix *di-* does not have any lexicalized forms. This is because *di-*, being a 'passive' voice marker, is prefixed only to multivalent stems.

These three facts, taken together, mean that the tendency toward lexicalization cannot be purely arbitrary since it is clear that it is mainly with monovalent stems that the resulting combinations become potential candidates for lexicalization. I hypothesize that when a prefix combines with a monovalent stem, there is a higher degree of 'semantic bondedness' between the prefix and its stem. The degree of semantic bondedness is lower with a multivalent stem.

This hypothesis of semantic bondedness allows us to account for such phenomena as prefix variability (which usually occurs with multivalent stems) and lexicalization (which usually occurs with monovalent stems). Prefix variability refers to the ability of a particular stem to take a number of different prefixes, while lexicalization refers to the tendency for certain prefix-stem combinations to become lexicalized or frozen. I illustrate prefix variability with the three prefixes *ber-*, *ter-*, and *meN-*. This is done by comparing the

behaviour of a divalent stem such as *ganti* ‘change’ with a monovalent stem such as *tawa* ‘laugh’.

(60)

- a. Ali ber-ganti baju
 Ali ber-change shirt
 Ali (intentionally) changed (his) shirt

- b. Ali ter-ganti baju
 Ali ter-change shirt
 Ali accidentally exchanged the shirt

- c. Ali meN-ganti baju
 Ali meN-change shirt
 Ali changed the shirt

As (60) shows, *ganti* can take all three prefixes, once we allow, of course, for the individual semantics of each prefix. (60a) reflects the fact that the *ber-* event requires both low transitivity (so that the object cannot be referential), and volitional action. In (60b), *ter-* adds the requirement of non-volitionality. (60c) is the least marked of the three, since *meN-* doesn’t really impose any specific volitionality value. Changing the prefixes is much more problematic once the stem is monovalent.

(61)

- a. Ali ter-tawa
 Ali ter-laugh
 Ali laughed

b. *Ali ber-tawa

c. *Ali meN-tawa

I suggest that the monovalent stems in Malay fall into distinct semantic classes such that *ber-* takes volitional predicates (restricted, of course, to an appropriate level of transitivity), *ter-* takes non-volitional predicates, and *meN-* takes either. There is also a third class where the monovalent stems appear to be interpretable as being either volitional or non-volitional, and as we saw in the previous chapter, these stems take *meN-* (eg. *meN-jerit* 'shriek/scream', *meN-sungut* 'mutter/grumble'). As a result of this classification, it is less likely that Malay speakers would need to contrast the prefixes when they are used with monovalent stems. If correct, this would provide some motivation for the higher degree of semantic bondedness that takes place between a prefix and its monovalent stem. In this regard, it is interesting to note that a similar pattern has been noted for Acehnese where it appears that some monovalent stems are always marked for 'control', some are always marked for 'decontrol', and some can be marked as either (Durie 1985).

In addition to *ter-tawa*, other lexicalized forms include *meN-tari* 'to dance', and *ber-henti* 'to come to a stop'. The semantic content originally associated only with the stem comes to be associated with both the stem and its prefix. In the case of *ter-tawa*, for example, the act of laughing comes to be encoded by the entire prefix-stem combination rather than just the stem alone. The result is that a different prefix like *meN-* is unable to be prefixed to *tawa* even though there is no semantic incompatibility that would prevent the prefixation from taking place.⁶ On the other hand, since a multivalent stem can usually co-occur with a

⁶Note that it is not a completely arbitrary matter which prefix comes to be lexicalized with which stem. For example, since *tawa* 'laugh' is most naturally construed as a non-volitional act, the stem will more likely end up with *ter-* than with *meN-*. This appears to be a kind of Elsewhere Condition: Because *ter-* is specifically vol [-] while *meN-* is merely vol [], the more specific prefix takes precedence. That this is not a hard and fast rule can be seen from the existence of occasional exceptions such as *meN-tangis* 'to cry'. In fact, the existence of these exceptions would be consistent with the speculation (in Chapter 4) that cognates

variety of prefixes, it is unlikely that lexicalization of one would result. The observation that the 'passive' marker *di-* never shows any kind of lexicalization then follows from the fact that *di-* is restricted to multivalent stems.

An interesting illustration of the consequences of the lexicalization process comes from the behaviour of the constructions *ber-henti* 'to come to a stop' and *ter-tawa* 'to laugh'. In Hassan (1974:100), it is claimed that the following constructions are possible (The English glosses are his, and I have given the lexicalized forms in bold.):

(62)

- a. **meN-ber-henti**-kan 'to cause to be stopped'
- b. **di-ber-henti**-kan 'to be cause to be stopped'
- c. **ter-ber-henti**-kan 'to cause/be caused⁷ to stop unintentionally'

(63)

- a. **meN-ter-tawa**-kan 'to cause to laugh'
- b. **di-ter-tawa**-kan 'to be caused to laugh'
- c. **ter-ter-tawa**-kan 'to cause/be cause to laugh unintentionally'

Hassan notes that with the exception of these forms, the general observation that the prefixes cannot co-occur still holds. My own informants find his examples either marginally acceptable or completely unacceptable. In particular, they reject (63c) because the suffix *-kan* is generally used with a volitionally-acting Initiator, and thus it can never

of *meN-* and *di-* were present in Old Malay, before *ber-* (or *mar-*) and *ter-* arrived. Presumably, *meN-* would already have been lexicalized with certain stems (eg. *tangis*) and would not have had its place usurped by the later prefixes.

⁷Recall that Hassan is aware that *ter-* has both 'active' and 'passive' variants.

co-occur with *ter-*.⁸ (63a-b) are (marginally) acceptable to my informants to the extent that they are willing to treat the *ter-* prefix as part of the stem. In that case, the volitionality of the Initiator is now encoded by either *meN-* or *di-*.

But it would appear that for Hassan, at least, the lexicalization process has proceeded to the point where, in certain instances, the morphological boundary between the stem and the prefix (in the case of *ber-henti* 'to come to a stop' and *ter-tawa* 'to laugh') has essentially disappeared, resulting in univerbation. The most dramatic illustration of this comes from (63c) where the prefix *ter-* appears twice.

Hassan does not say so, but I would assume that even for him, the following would be unacceptable:

(64)

- a. ***ber-ber-henti** 'to come to a stop'
- b. ***ter-ter-tawa** 'to laugh'

I make this assumption because his examples (62-63) all involve the causative suffix *-kan*, so that the resulting construction is now multivalent. Presumably the change in valency somehow allows a violation of the Repeated Morph Constraint (Menn and MacWhinney 1984; Stemberger 1981) so that (63c) is possible. To understand what is going on, we recall from the discussion in Chapter 2 that the suffix *-kan* (as well as *-i*) never occurs without a prefix. In these examples, when the suffix is added to change the valency of the form, an additional prefix must be present to license the suffix since the original prefix is

⁸As we will see in Chapter 9, *ter-* and *-kan* can actually co-occur provided the prefix is taken to refer to the '(lack of) capacity' of the Initiator rather than its non-volitionality.

no longer considered a separate morphological entity.⁹ In (64), there is no attempt to add a suffix, and so the motivation for adding another prefix is absent.

At this point we address a second question. I have assumed that the monovalent stems fall into distinct semantic classes of either volitional or non-volitional predicates. Thus, in interpreting the combination of *meN-* with a monovalent stem, the volitionality of the subject is basically determined by the lexical semantics of the stem involved. The question now is, how is the volitionality of the subject decided in the case of multivalent stems ?

5.4.1. MORE ON ADVERBIAL MODIFICATION

In the previous chapter we used the behaviour of the prefixes when their constructions are modified by adverbials which indicate (non-)volitionality to help determine the volitionality values of the prefixes. In those tests, we limited our discussion to constructions involving multivalent stems. Recall that even though both *ber-* and *ter-* showed signs of contradiction or anomalous redundancy with the adverbials, there was no such problem with *meN-*.

(65)

- a. Ali *meN*-pukul John dengan sengaja
 Ali *meN*-hit John with intention
 Ali hit John on purpose

- b. Ali *meN*-pukul John dengan tidak sengaja
 Ali *meN*-hit John with NEG intention
 Ali accidentally hit John

⁹Crucially, because the inner prefix is no longer a separate morphological entity, the examples in (60-61) cannot be considered instances of multiple exponence.

We now observe that *meN-* constructions involving monovalent stems are unable to take these adverbials (66).

(66)

- a. *Ali meN-tari dengan tidak sengaja
 Ali meN-dance with NEG intention
 Ali danced unintentionally
- b. ?Ali meN-tari dengan sengaja
 Ali meN-dance with intention
 Ali danced intentionally

This asymmetry -- where only the *meN-* constructions with multivalent stems can felicitously take the adverbials while the *meN-* constructions with monovalent stems can't -- follows from the claim made earlier that in the latter case, the prefix is highly dependent on the stem in providing an interpretation of volitionality to the subject. This accounts for why (66a) is contradictory and why (66b) is anomalously redundant.

However, in the case of the *meN-* constructions with multivalent stems, I suggest that use is made instead of an idealized cognitive model (ICM) of transitive events. This presumes a prototypical transitive event with two participants such that one participant is the energy source of an action which gets transferred to the other participant. This other participant is totally affected by the action. The source participant or Initiator is assumed to be acting volitionally on the Endpoint (Croft 1994; Dowty 1991; Hopper and Thompson 1980; Kemmer and Verhagen 1994; Lakoff 1977).

The transitive event ICM fails to apply when the stem is monovalent because there is only one participant present. The volitionality of the single participant is then determined by the lexical semantics of the verbal stem. On the other hand, when the stem is multivalent, the transitive event ICM plays a role in attributing a volitionality value to the Initiator. The semantics of the multivalent stem can optionally be construed as a specific instance of the transitive event ICM, in which case the Initiator is considered to be acting volitionally. The presence of the transitive event ICM is suggested by the ease with which we can add adverbials of (non-)volitionality. There are none of the problems of awkwardness or unacceptability that we observed with the *meN*- constructions where the stems are monovalent. This is because the transitive event ICM merely provides default values, which are easily overridden.

Notice that the transitive event ICM only cares that the stem be multivalent, so that distinct participants are present. It is irrelevant whether the Initiator is syntactically a subject or an oblique. This means that both *meN*- (if the stem is multivalent) and *di*- are able to access the ICM by virtue of their membership in the category *vol* [], even though they represent the Initiator in different grammatical relations.

5.5. CONCLUSION

In this chapter we have investigated a number of properties of the prefixes that were not obvious from the more general perspective of Chapter 4. In particular, we have been able to explore the relation between non-volitionality and perfectivity. This has allowed us to maintain the claim that *ter*- marks non-volitionality, and that its association with perfectivity is a default interpretation of a non-volitional action.

We have also been able, in the case of *ter-* and *ber-*, to construct radial categories that conform to the grammatical schema outlined in the previous chapter. In both cases, there are general similarities in that each prefix began with events which are relatively low in transitivity and gradually came to be used with events which are higher in transitivity. The move to more highly transitive events results in situations where a distinction between Initiator and Endpoint is possible, giving us the uses of the prefix in the Initiator Subject Construction and the Initiator Oblique/Absent Construction. Differences, of course, arise from the fact that *ber-* and *ter-* have different volitionality values, as well as the fact that as a middle, *ber-* places a restriction or upper limit on the transitivity level of the events it can mark. On the other hand, because *meN-* and *di-* are semantically more impoverished by virtue of not having any volitionality value specified, they lack the necessary conceptual content that might provide motivate various inferences. Therefore, their relative lack of polysemy is not unexpected.

A number of questions, some of which bear on the volitionality system established in the previous chapter, can now be raised. Because *ber-* clauses are limited in the degree of transitivity of the events that they can mark, this raises the question as to whether this transitivity limitation might be a source of instability in the volitionality system. After all, none of the other prefixes show such a limitation.

Another question is raised by the suggestion that co-occurrence of *meN-* with multivalent stems makes use of a transitive event ICM to provide a volitionality value to its Initiator. This, of course, reinforces the claim that *meN-* really is unspecified for any such value. But we are now led to the suggestion that, in the case of *meN-*, unspecified means 'consult the transitive event ICM for the default value'. This would mean that the volitionality value of [] has a slightly different cognitive status than the volitionality values of [+] or [-]. Recall our earlier speculation that the system of verbal prefixation, rather than involving a

flat structure, might instead involve a hierarchical relation where the volitionality values are organized into distinctions of unspecified vs. backgrounded, and then further into volitional vs. non-volitional actions. In the next chapter, we will go back to the volitionality system and attempt to answer these questions.

CHAPTER 6

BACK TO THE PARADIGM: SOME FURTHER ISSUES

6.1. *BER*- AND RESTRICTED TRANSITIVITY

Since among the three categories, only *ber*- places a limit on the transitivity of its constructions, we can now ask whether the fact that the category that is vol [+] happens to also be a middle poses a potential source of instability in the verbal system.

One way to answer this question would be to ask if there is any motivation for the language to develop a non-middle category which is vol [+]. That is, we need to ask if there is an instability in the system of verbal prefixes that would be better filled by a hypothetical prefix such as the one shown in (1).

- (1) *ber*₁- [not a middle, so no limitations on level of transitivity]

vol [+]

Initiator-Endpoint Subject Construction

Initiator Subject Construction

Initiator Oblique/Absent Construction

Recall that among the characteristics of the middle *ber-* was the fact that no direct object present could be referential, and that an oblique Initiator could not appear at all. Without the constraints imposed by the characteristics of a middle, *ber1-* would differ from *ber-* in at least the following respects. It would be able to take a referential direct object. In the *ber1-* version of the Initiator Subject Construction, it would be allowed it to encode two-participant situations where both the subject and the direct object are acting volitionally. And in the *ber-1* version of the Initiator Oblique/Absent Construction, the Initiator would be able to appear. This would give us the following two situations

(2)

a. Initiator Subject Construction:

Subj *ber1*-STEM Obj [where the obj is referential]

Ali *ber1*-ganti baju itu

Ali *ber1*-change shirt the

Ali changed the shirt

b. Initiator Oblique/Absent Construction:

Subj *ber1*-STEM oleh Initiator [where the oblique Initiator can appear]

Baju itu *ber1*-ganti oleh Ali

Shirt the *ber1*-change by Ali

The shirt was changed by Ali

But the situations described by both constructions are already encodable by the *meN-* and *di-* prefixes respectively, since these two prefixes are not specified for volitionality. And as a general observation, it also seems to be quite rare for a multivalent verb to lexically

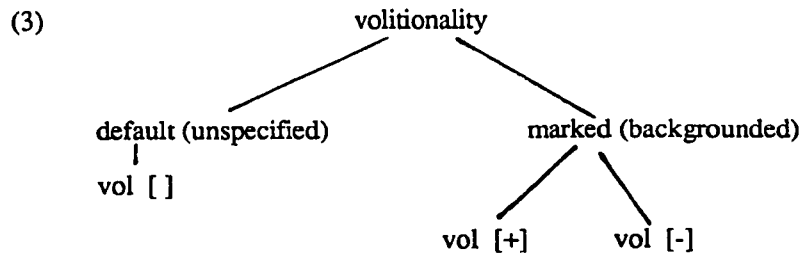
require that both its Initiator and its Endpoint be volitional, making the demand for the construction in (2a) especially unlikely. It is more common for such a verb to have a volitional Initiator acting on a non-volitional Endpoint. Of course, a naturally reciprocal event with a meaning such as ‘to converse’ might be an example of a situation where both the Initiator and the Endpoint are necessarily volitional, but these are precisely the kinds of situations that would be suited for a middle marker. It appears that there isn’t any strong need for a prefix like *ber-1*. There are, then, no compelling reasons to expect the middle nature of *ber-* to be a problem. In fact, in the next section, we will see that there are reasons why it might even make sense to have a middle marker present in the system.

6.2 DEFAULT VS. MARKED VOLITIONALITY

In this section, we consider the possibility that the three-way paradigmatic set is hierarchically related, rather than being a flat structure. Specifically, we explore the hypothesis that the verbal prefixes are organized into a series of markedness distinctions, the first level being a distinction between default (vol []) and non-default or marked volitionality. The level of marked volitionality is then further divided between vol [-] and vol [+].

We have already seen reasons to assume that the category of vol [] has a different status than the other two categories. In Chapter 4 we saw that while the other two categories background specific volitionality values, the vol [] either allows the speaker to remain uncommitted as to the volitionality of the action, or it allows the speaker to foreground (non-)volitionality via an adverbial. And in Chapter 5 we saw that, in the category vol [], when the stem is multivalent, it is possible for appeal to be made to an ICM of transitive events. This allows the Initiator, by default, to be construed as acting volitionally. Such an appeal to the ICM is not available in the case of the categories vol [+] and vol [-].

Based on these observations, we hypothesized that the volitionality categories are hierarchically related, as shown below.



We begin by noting that the vol [] category is the least specified of the three categories. This is because this category has no limitations on the transitivity of its constructions, and is unspecified for any volitionality value. The categories vol [+] and vol [-], by contrast, encode specific types of departures from the default. However, rather than merely compare the categories purely in terms of their volitionality values, some interesting observations can be made if we also look at the three construction types within the categories.

Within the vol [] category, the *meN*- version of the Initiator-Endpoint Subject Construction encodes default volitionality in the sense that the volitionality of the subject is essentially dependent on the lexical semantics of the stem. The *meN*- version of the Initiator Subject Construction and the *di*- version of the Initiator Oblique/Absent Construction both encode default volitionality by accessing the transitive event ICM.

In the other categories, in the case of the Initiator-Endpoint Subject Construction, rather than letting the lexical semantics of a particular stem ‘speak for itself’, *ber*- explicitly marks the single participant as acting volitionally, while *ter*- explicitly marks the single participant as acting non-volitionally.

Likewise, in the case of the Initiator Oblique/Absent Construction, the presence of *ber-* indicates a volitionally-acting Initiator. The situation with *ter-* is slightly more complex. We saw that an oblique Initiator is able to escape the non-volitionality requirement imposed by the prefix. But this does not mean that the Initiator is freely interpreted as acting volitionally. When a verb like *tawan* ‘capture’ is used to refer to the prototypical act of capturing so that the intended target gets caught, the Initiator must be construed as volitional. As we saw, this is what motivated the use of the Initiator Oblique/Absent Construction. However, it appears that, for some speakers, the Initiator can optionally be interpreted as being non-volitional, in which case, one possible understanding is that the wrong target was caught. Another example, shown below, comes from Hassan (1974:107) whose English gloss indicates that the Initiator, despite its oblique status, is construed as being non-volitional. One possible interpretation of (4) is that the seller sold the wrong item (cloth instead of something else).

- (4) Kain ter-jual oleh dia
 Cloth ter-sell by 3SG
Cloth is sold (unintentionally) by him

The Initiator Subject Construction is somewhat more interesting. *Ber-*, being a middle, places limitations on the level of transitivity of the events it can encode, while *ter-* doesn’t. And because of their respective volitionality values, we get, in the case of *ber-*, a marking of a situation where the transitivity level is relatively low, but the Initiator is volitional (5a). In the case of *ter-*, we get a situation where there is no limitation on the transitivity level, but the Initiator is non-volitional (5b). Compare these situations with the default where the transitivity level is not limited, and the Initiator is volitional (5c).

(5)

- a. Ali ber-ganti baju
 Ali ber-change shirt
 Ali (intentionally) changed (his) shirt

- b. Ali ter-ganti baju itu
 Ali ter-change shirt the
 Ali accidentally exchanged the shirt

- c. Ali meN-ganti baju itu
 Ali meN-change shirt the
 Ali changed the shirt

It is possible that the kinds of departures from the default that *ber-* and *ter-* mark are useful precisely since they represent situations where the combination of the transitivity level of the event and the volitionality value of the Initiator is unexpected. This is an extremely common phenomenon. As noted by Lakoff 1987, and developed by Croft 1994, 'linguistic structures ... can overtly represent the mismatch between ICM and experience ... and (t)hus, languages can mark deviations from the idealized model if necessary by grammatical or lexical means ...' (Croft 1994:90). For example, the category of *mother* shows that salient departures from the prototype can be lexically marked, such as *stepmother* or *foster mother* (Lakoff1987:76).

While the foregoing discussion motivates the hierarchy in (3) on semantic grounds, there are phonological reflexes that also support the hierarchy. Recall, from the discussion in Chapter 2, Hassan's (1974:102) observation that in spoken Malay, the *meN-* prefix is usually dropped. This freedom to alternate with a phonologically null form is not available

to the *ber-* and *ter-* prefixes.¹ This would follow from the fact that *meN-* is a default, while *ber-* and *ter-* are not, since a volitional Initiator and high transitivity form a prototype for events involving two or more participants (Croft 1991; Hopper and Thompson 1980; Kemmer and Verhagen 1994; Lakoff 1987; Rice 1987).

6.3. CONCLUSION

This ends our investigation into the properties of the verbal prefixes. We have seen that the prefixes are primarily volitionality markers, participating in three major construction types. Also, most of the specific examples we have seen so far have been fairly straightforward in that sense that the meaning of a prefix-stem composite either results simply from the lexical semantics of the stem being marked for a volitionality value, or further appeal is made to a transitive event ICM. The composite itself can be seen as participating in any one of the three construction types.

Notice, however, that to have come this far in our understanding of the prefixes, we had to recognize the role of prototype categorization structure in the grammar. For example, we saw that in the case of a prefix like *ber-*, merely claiming that it can be prefixed to motion verbs is not enough. We had to take into account the fact that *ber-* is prefixed to motion verbs which are categorized at the basic or superordinate level, and is prevented from being prefixed to the more specific motion verbs at the subordinate level.

We also saw that the radial categories of *ber-* and *ter-* developed via a variety of inferences. There was very little that these inferences had in common, even though the resulting

¹ The Initiator Oblique Constructions of the prefixes (that is, 'passive' *di-*, *ber-*, and *ter-*) are not easily dropped for similar but distinct reasons. They all represent departures from the default view of event structure, which begins with the Initiator (DeLancey 1979, 1981; Croft 1994). The Initiator Oblique Construction, in contrast, views the event from the perspective of the Endpoint.

structure of the radial categories showed great similarities, which we were able to present in terms of the three construction types.

In retrospect, it seems obvious that since *ber-* and *ter-* display both 'active' and 'passive' uses, then *meN-*, which only participates in 'active' constructions, and *di-*, which only participates in 'passive' constructions, should be combined as members of the same category. There are a number of reasons why this was not done earlier.

First, the 'active' and 'passive' *ber-* constructions were simply treated as variants of the middle. To an extent, this is correct. But the problem lay in considering these to be variants which have nothing significant to indicate about the organization of the verbal paradigm. This points to a deeper problem. It is usual to assume that polysemy is non-crucial outside of the investigation into the semantics of individual lexical items. It is also sometimes assumed that it is sufficient to list the various uses of an item, without addressing the relations among them. In the case of grammatical items, such as verbal prefixes, these assumptions are even stronger since there appears to be unwillingness to provide grammatical items with semantic characterizations. Despite a variety of works that have pointed to the semantic nature of 'purely grammatical words' (eg. Brugman 1988; Lakoff 1987; Langacker 1987, 1991; Sweetser 1990), the temptation to treat grammatical items in purely syntactic terms as much as possible still remains.

Thus, Heine et al. (1991:225) comment that when faced with grammatical polysemy,

[c]ommon strategies adopted by grammarians are either to force them into the straitjacket of existing categories, declaring the remainder of the chain to be deviant uses, or else simply to ignore their existence altogether.

In a similar vein, Emanatian (1991:2) notes that

[i]t is common even for contemporary reference grammars to simply present unstructured lists of the functions of each grammatical morpheme. It is just as typical for such works to offer undefined cover terms (like ‘Momentous’, ‘Usitative’, ‘Diminutive’) meant to encompass all the functions of a multifunctional marker ... Such unstructured lists and undefined cover terms beg the question.

The point is that there is a strong tendency to avoid dealing with polysemy, particularly in the case of grammatical items such as verbal prefixes. Notice that in the three-way volitionality system I put forward, the prefixes *ber-* and *ter-* are necessarily polysemous since they each lack the complementary relationship that *meN-* and *di-* bear to each other. I would submit that this is precisely the strength of my analysis since it accounts in a principled way for the observation that *ber-* and *ter-* each seem to have ‘active’ and ‘passive’ variants, which *meN-* and *di-* don’t.

The reluctance to provide grammatical items with semantic characterizations may be a reason why in the case of *ter-*, even someone like Winstedt (1927), who recognized that the prefix marks non-volitionality, ultimately decided to treat it mainly as a marker of perfectivity instead. Faced with a choice between perfectivity and non-volitionality, Winstedt apparently opted for the lesser of the two semantic ‘evils’.

Of course, in dealing with polysemy, unless one is willing to motivate the semantic links between related senses, one merely ends up with an unstructured list. But such motivation often requires an appeal to inferential processes, usually involving metaphors and metonymies which reflect our assumptions about the world around us.

And the presence of inferences which give rise to structured radial categories, the sensitivity of the prefixes to levels of categorization and event elaboration, the importance of the transitive event ICM to the behaviour of the prefixes (particularly those which are unspecified for volitionality values), all these point to the fact that processes of general cognition are inextricably tied up with grammar. So, while it may remain a logical possibility that a self-contained module of grammar exists, it is difficult to see what benefits this position really brings when we are actually confronted with data.

This will become even more apparent in the next part of this work, where we will examine cases which are much less straightforward. These cases pose an even greater problem for those who would maintain the existence of an autonomous grammatical component since there is not even any kind of structural similarity across the prefixes any more. Thus, it becomes much more difficult to account for the data by attempting to appeal to any principles or parameters of grammar. Even more perplexing is the fact that an individual prefix can synchronically display apparently unrelated (unrelatable ?) senses.

We will look at a range of cases exemplifying different kinds of prefix-stem composites. In some of these cases, the prefix is the source of peculiarity in that it may manifest properties that are not part of the verbal paradigm. These cases will involve properties of the prefixes that we have not yet encountered. In others, it is the stem that needs to be looked at since it involves a verb that is derived from a noun or adjective. Yet other cases involve constraints on suffixation, and prefix-stem composites with highly idiomatic meanings.

PART THREE:
PREFIX-STEM COMPOSITES

CHAPTER 7

OUTSIDE THE VERBAL PARADIGM

7.1 INTRODUCTION

So far, in all the examples of the prefix-stem composites that we have looked at, the properties of the prefixes have been consistent with the schema that characterizes the paradigm. That is, each use of the prefix can be described in terms of the three construction types (Initiator-Endpoint Subject, Initiator Subject, or Initiator Oblique/Absent) and the volitionality values (vol [+], vol [-], or vol []). We now consider some uses of the prefixes that fall outside the verbal paradigm. There are three such uses, two involving *ter-*, and one involving *ber-*. The three are these:

- (i) *Ter-* can be used as an intensifier or superlative (the choice is usually contextually determined) when prefixed to adjectives. For convenience, I will call this the ‘intensifier’ use of *ter-*.
- (ii) *Ter-*, when used in combination with the negative marker *tidak*, serves to indicate the Initiator’s inability to perform an action. I will call this the ‘lack of capacity use’ of *ter-*.
- (iii) *Ber-* can be used to indicate possession when prefixed to nouns.

I will show that these three uses can all be related to the verbal paradigm via a series of inferences involving metaphor and metonymy. In other words, essentially the same kinds of general cognitive mechanisms that were needed to understand the verbal paradigm will now be used to motivate these three cases. There is no need to resort to the stipulation that these cases are somehow irrelevant by defining them as ‘peripheral’ rather than ‘core’. And since there is no independent criteria which distinguishes the boundary between core and periphery, to even attempt such a move opens one to the charge of question-begging where ‘periphery’ simply refers to whatever one is unable to deal with at the moment. In an unusually frank moment of discussion, this was in fact pointed out by Huybregts and Van Riemsdijk (Chomsky 1982:108):

Reading the literature, one cannot escape the conclusion that notions such as markedness and periphery are being used as euphemistic terms to refer to phenomena that are not understood or do not fit into the core.

Notice also that only *ber-* or *ter-* are involved in the three cases above, neither *meN-* nor *di-* are present. As mentioned previously, this is expected under the assumption that polysemy results from processes of inferences, which are in turn motivated by the semantics of the prefix. If the prefix lacks a rich enough semantics, then it is unlikely to motivate the inferences that would give rise to polysemy. Thus, the conspicuous ‘failure’ of *meN-* and *di-* to develop a variety of senses follows from their being unspecified for a volitionality value.

I will begin by discussing the uses of *ter-*, and show how these are related to the radial category constructed for *ter-* in Chapter 5. I then continue to do the same for *ber-*. At the end of the chapter, I will discuss some reasons why the uses listed in (i-iii) are justifiably considered to lie outside the verbal paradigm.

7.2. 'INTENSIFIER' *TER*-

The following examples illustrate the use of *ter*- as an intensifier:

(1)

- a. Rumah Suyin ter-besar
House Suyin ter-big
Suyin's house is extremely big
- b. Gunung itu ter-tinggi
Mountain the ter-high
The mountain is extremely high
- c. Wang-nya ter-sedikit
Money-3 ter-less
His/her money is the least
- d. Bapa-nya orang yang ter-kaya
Father-3 person REL ter-rich
His/her father is the richest man
- e. Sekolah itu ter-dekat dengan rumah saya
School the ter-near with house 1SG
The school is nearest to my house

The first question we face is, how is 'intensifier' *ter*- related to the use of *ter*- as a marker of non-volitionality ? This is not an easy question to answer since there is no apparent

relationship between the two categories. Notice though, that in the intensifier constructions, the subject is neither an Initiator nor an Endpoint. Because of the adjectival (stative) nature of the predicate, these semantic roles fail to apply and as such, the question of volitionality is irrelevant. In this sense, the use of *ter-* as an intensifier is at least NOT in conflict with its use as a marker of non-volitionality.

We shall see that the development of ‘intensifier’ *ter-* involved a series of fairly idiosyncratic events helped along by the tendency (that was discussed earlier) to interpret non-volitional action aspectually as perfectives. And to understand this development, we will have to go back, once more, to the period of Classical Malay.

In Classical Malay, *ter-* was used mainly to indicate non-volitionality. Instances of *ter-* as an intensifier were rare, this function being performed then by a *ter-lalu* construction instead, where the word *lalu* is a verb meaning ‘to pass by’. For example, in the Hikayat, out of the 218 tokens of *ter-* present, only three occur with adjectives. The rest occur with verbs. On the other hand, we find a *ter-lalu* construction which is used mainly as an intensifier. Thus, out of the 153 tokens of *ter-lalu*, only eight are used with verbs. The rest are with adjectives. A breakdown of the various tokens is given below.

(2)

	<i>ter-</i>	<i>ter-lalu</i>
With verbs:	senyum ‘smile’ (20)	ingat ‘remember’ (3)
	kejut ‘startle (lit. awake)’ (15)	ber-tuah ‘lucky’ (1)
	dengar ‘hear’ (14)	ber-bahagia ‘be-happy’ (1)
		ber-hainya ‘be-sorrowful’ (1)
		meN-tangis ‘be-crying’ (1)
		meN-rompak ‘be-looting’ (1)

With adjs:	banyak 'many' (1)	sukacita 'joyful' (22)
	berat 'heavy' (1)	baik 'good' (17)
	utama 'excellent' (1)	banyak 'many' (14)

The brackets indicate the total number of tokens for a particular type of verb or adjective. I have included only the three most frequent types of verbs or adjectives for *ter-* and *ter-lalu* respectively. We can see that *ter-* is mainly used with verbs, and rarely with adjectives. The intensifier sense is mainly conveyed via the *ter-lalu* construction, an example of which is shown in (3).

- (3) ... kita sekalian kerjakan, kerana kebaktian saudara hamba kelima
1PL all work, because devotion friend-servant all-five
- itu pun ter-lalu besar
the EMPH ter-lalu big
- we all work together because the devotion of all five confidants is
very great (HT:7)*

It appears then, that in Classical Malay, the intensifier use of *ter-* is only beginning to be developed. As a separate development, we find that the verb *lalu* can be used to both indicate motion past a boundary as well as completed action.

- (4) Dia meN-lalu-i¹ geraja itu sebelum meN-belok ke kiri
 3SG meN-lalu-i church the before meN-turn to left
S/he passed by the church before turning to the left
- (5) Orang masuk lalu duduk
 People enter lalu sit
People entered and then sat down

The relation between (4) and (5) can be motivated by a combination of two metaphors, LINEAR SCALES ARE PATHS and MORE IS UP, LESS IS DOWN (Lakoff 1991, 1993). Under these metaphors, positions along a path are mapped onto measurements of various qualities. The starting point of the path is understood to represent the bottom of the scale, and the distance travelled along the path represents a cumulative measure of the relevant quality. The end of the path then represents the top of the scale. In English, this accounts for sentences like *John is far better at football than Bill* and *Sam is way ahead of Tom in class* (cf. Sweetser 1988, with specific reference to the development of grammatical comparatives).

In the case of *lalu*, motion past a boundary is then mapped onto the endpoint of the scale and is thus metaphorically understood as completing an action. In fact, the use of *lalu* as a marker of completed action is extremely common in Classical Malay, as shown by the examples below.

¹We will be discussing the role of the suffix in Chapter 9.

- (6) Maka Bendahara pun meN-sembah lalu ber-jalan kembali
 And official EMPH meN-pay-homage lalu ber-walk return
And the official paid homage and then returned (to where he came from) (HT:50)

- (7) ... maka Laksamana pun turun dari balai gendang itu lalu
 and Laksamana EMPH descend from hall drum the lalu

ber-jalan masuk ke dalam pagar ...

ber-walk enter to inside fence ...

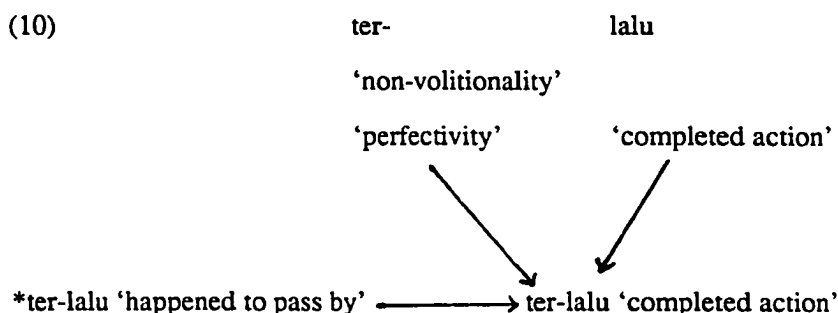
and Laksamana descended from the hall of drums and then entered the fence ... (HT:108)

Since *lalu* can indicate completed action, and since, as a marker of non-volitionality, *ter-* is closely associated with perfectivity, this must have prompted speakers of Malay to reanalyse the *ter-lalu* construction (which originally probably meant ‘happened to pass by’) as a marker of completed action, giving us the small number of uses of *ter-lalu* with verbs that we noted earlier in (2). This use of *ter-lalu* with a verb is exemplified in (8-9).

- (8) ... kerana ia ter-lalu ingat
 because 3SG ter-lalu remember
because he happened to remember completely (HT:35)

- (9) Demi Tun Tuah meN-lihat muka Tun Teja itu, ter-lalu ber-hainya
 When Tun Tuah meN-see face Tun Teja the, ter-lalu ber-be sorrowful
When Tun Tuah saw Tun Teja's face, he became extremely depressed
 (HT:58)

The hypothesized process of reanalysis is schematically represented in (10) below.



The original posited meaning of *ter-lalu* 'happened to pass by' is shown with an asterisk because I have not been able to find any attested use of *ter-lalu* with this particular meaning. In other words, *ter-lalu* appears to have been totally reanalysed as a marker of completed action in the Hikayat, although *lalu* still means 'pass by'.

Since we normally judge an action to be complete by the resulting state of the affected entity (where the more completely the action is performed, the more extreme the resulting state), this opens the way for a metonymic relation between action and state. This allows *ter-lalu*, which indicates completed action, to become an indicator of an extreme state.

- (11) ...ia pun ter-lalu amarah
 3SG EMPH ter-lalu angry
he was extremely angry (HT:5)

In this regard, notice that (8-9) are already stative, as are most of the verbs that take *ter-lalu* in (2). (*MeN-rompak* ‘be looting’, though, is an exception.) In fact, a similar situation can be observed with the English word *completely*, which modifies both an action (*completely wrecked*) as well as a quality (*completely nuts*).

Over a period of time, speakers came to treat the *ter-lalu* construction as being strongly emphatic since the construction apparently constitutes a form of notional reduplication, where similar semantic values are represented by separate forms. In this case, the similarity is between perfectivity (*ter-*) and completed action (*lalu*). A less strongly emphatic form was considered more appropriate, and the *ter-* prefix was therefore able to take over the intensifier use for itself.

Support for this suggestion comes from the fact that in Modern Malay, the *ter-lalu* construction still exists, but is distinguished from *ter-* by indicating that a quality is excessive rather than simply intensified. For example, compare (12) with (13).

- (12) Buku itu ter-besar
Book the ter-big
The book is extremely big

- (13) Buku itu ter-lalu besar
Book the ter-lalu big
The book is too big

In Classical Malay, the distinction between the ‘intensifier’ and ‘excessive’ uses was not conventionalized, and depended on the context instead; both were coded by the *ter-lalu* construction. Thus, compare (14) with (3) above.

(14) Maka dalam ber-kata-kata itu maka ber-bunyi pula orang gempar
 Then in ber-talk-talk the then ber-sound again people clamor

di tengah pesara, ter-lalu huru-hara meN-kata-kan orang
 LOC middle supporter, ter-lalu tumult meN--speak-kan people

meN-amuk dalam kampung Bendahara Paduka Raja
 meN-amuck in village Chief-Minister King

*Then, while the talking was going on, then there was the sound
 again of a mob in the midst of the supporters, (it was) too noisy to speak
 (and) people ran amok inside the village of the Chief Minister of the King
 (HT:12)*

To summarize, 'intensifier' *ter-* is relatable to its non-volitionality, though not directly. Its development was facilitated by two important factors: the close association between non-volitionality and perfectivity, and the independent development of *lalu* into a marker of completed action.

7.3. TIDAK AND TER-: 'LACK OF CAPACITY'

The following are examples illustrating the 'lack of capacity' use of *ter-*.

(15)

- a. Siti tidak ter-beli barang ini
 Siti NEG ter-buy thing this
Siti is unable to buy this thing

- b. Kami tidak ter-daki gunung itu
1PL NEG ter-climb mountain the
We are unable to climb the mountain
- c. Ali tidak ter-baca buku itu
Ali NEG ter-read book the
Ali is unable to read the book
- d. Ali tidak ter-angkat peti berat itu
Ali NEG ter-angkat box heavy the
Ali is unable to lift the heavy box
- e. Saya tidak ter-dengar suara itu
1SG NEG ter-hear voice the
I am unable to hear the voice

There are a number of things to note about the ‘lack of capacity’ use of *ter-*. The most interesting is that the Initiator is no longer a non-volitional entity. As Tampubolon comments (1983:132), the Initiator now wants to or intends to perform the action. It simply lacks the ability to do so.

Second, as (15) shows, the negative marker *tidak* is nearly always present. And if we compare (15a-b) with (16a-b), we see that the negative marker is important since without it, the sentences in (15) would then be interpreted simply as having a non-volitional Initiator. The presence of the negative marker has been noted by a number analysts (eg Macdonald and Darjowidjojo 1967:98; Tampubolon 1983:132). (I will discuss below examples where a ‘capacity’ reading appears to be possible without the negative marker.)

(16)

- a. Siti ter-beli barang ini
 Siti ter-buy thing this
 Siti unintentionally bought this thing
 **Siti is able to buy this thing*
- b. Saya ter-dengar suara itu
 1SG ter-hear voice the
 I happened to hear the voice
 **I am able to hear the voice*

Removing *tidak* from the sentences in (15) therefore does not give us the interpretation that the subject now is able to perform the action. This indicates that the presence of the negative marker is crucial to the 'lack of capacity' meaning. Because of the non-compositional nature of the relation between *tidak* and *ter-*, it has been suggested that there is a special *tidak+ter-* construction (G. Lakoff, p.c.). Support for this comes from the observation that all the examples given so far involve the Initiator Subject Construction. As we will see, this 'lack of capacity' reading is not possible with the Initiator-Endpoint Subject Construction. Also, special issues are raised in the case of the Initiator Oblique/Absent Construction.

Third, it has sometimes been claimed that *ter-* by itself can indicate actually an Initiator's 'capacity' or 'ability to perform an action' (Liaw 1988:121). However, in such cases, the construction is usually in the form of a 'passive' (Wouk 1980:84). That is, with 'passives', a 'capacity' reading is possible, though I will discuss below a case where an 'active' version appears to be open to a 'capacity' reading also (Haji Omar and Subbiah 1985).

(17)

- a. Tulis-an itu ter-baca oleh guru
Write-NOM the ter-read by teacher
The writing can be read by the teacher
- b. Soalan itu ter-jawab oleh Ali
Question the ter-answer by Ali
The question could be answered by Ali
- c. Peti berat itu ter-angkat oleh Ahmad
Box heavy the ter-lift by Ahmad
The heavy box could be lifted by Ahmad
- d. Hutang itu tidak ter-bayar oleh negara
Debt the NEG ter-pay by country
The debt could not be paid by the country
- e. Suara itu tidak ter-dengar oleh saya
Voice the NEG ter-hear by 1SG
The voice could not be heard by me

As (17) shows, when the construction is a 'passive', the presence of the negative marker is still possible but non-crucial.

Fourth, whether *ter-* denotes 'capacity' or (with *tidak*) 'lack of capacity', it seems that only multivalent stems are possible at all. Thus, the examples in (18-19), which involve

the Initiator-Endpoint Subject Construction, are all unacceptable since they involve monovalent stems.

(18)

- a. Ali tidak ter-tawa
 Ali NEG ter-laugh
 **Ali is unable to laugh*
 Ali did not laugh

- b. Ali ter-tawa
 Ali ter-laugh
 **Ali is able to laugh*
 Ali laughed

(19)

- a. Ali tidak ter-peranjat
 Ali NEG ter-be shocked
 **Ali is unable to be shocked*
 Ali was not shocked

- b. Ali ter-peranjat
 Ali ter-be shocked
 **Ali can be shocked*
 Ali was shocked

In both (18-19), regardless of whether *tidak* is present or not, the intended ‘capacity’ and ‘lack of capacity’ readings are impossible. Without the negative marker, (18b) and (19b)

are straightforwardly ‘non-volitional’. And with the negative marker, (18a) and (19a) simply indicate that the event did not take place.

We are thus faced with the following questions. How is it that *tidak* and *ter-* can combine to indicate ‘lack of capacity’ ? The resulting meaning is clearly non-compositional and needs to be accounted for. Why is the presence of *tidak* more important in the Initiator Subject Construction than in the Initiator Oblique/Absent Construction ? That is, how does *ter-* get a ‘capacity’ reading with ‘passives’ ? And finally , why is it that any kind of capacity-related meaning is impossible with the Initiator-Endpoint Subject Construction, regardless of whether *tidak* is present or absent ?

To account for the interaction between *ter-* and *tidak*, we first need to be clear about what *tidak* itself means. Malay has two different negative markers, *bukan* and *tidak*. *Bukan* is typically used to negate nouns, while *tidak* is typically used to negate verbs.

(20)

- a. Dia bukan/*tidak seorang guru
 3SG NEG one-CL teacher
 S/he is not a teacher

- b. Itu bukan/*tidak sampu surat
 That NEG envelope
 That is not an envelope

- c. Ini bukan/*tidak bakul
 This NEG basket
 This is not a basket

(21)

- a. Dia tidak/*bukan meN-baca buku itu
 3SG NEG meN-read book the
 She did not read the book
- b. Buku itu tidak/*bukan di-baca oleh dia
 Book the NEG di-read by 3SG
 The book was not read by him/her
- c. Dia tidak/*bukan ber-kerja di kedai
 3SG NEG ber-work LOC shop
 She did not work in a shop

In semantic terms, *bukan* negates entities while *tidak* negates events. Thus, the use of *tidak* in a clause makes it clear that the event did not take place. This is straightforward in the case of other prefixes, as seen from the examples in (21). However, the combination of *tidak* and *ter-*, in the case of the Initiator Subject Construction, is non-compositional since the resulting meaning is that the Initiator lacks the capacity to perform the action described by the verb.

The non-compositional meaning can be accounted for in the following way.² We have seen that as a marker of non-volitionality, *ter-* is strongly associated with perfectivity. This means that *ter-* verbs usually describe actions that have been carried out, albeit non-volitionally. When the negative marker is used, it serves to negate the existence of the resulting state since we already saw that the presence of *tidak* typically indicates that an event did not take place. The interpretation of 'lack of capacity' then follows from an

²I thank Gary Holland for this suggestion.

inference. A similar phenomenon can, in fact, be found in Mandarin Chinese. As pointed out by Li and Thompson (1981:427), ‘if someone carries out an action, but the intended resulting state does not exist, then we naturally infer that s/he *cannot* accomplish that result’ (italics in original).

In the Mandarin examples shown in (22a-b), we find a negative marker present in a construction which indicates a ‘lack of capacity’ on the part of the Initiator. When the negative marker is absent, there is a natural tendency to give the sentence a perfective interpretation, using the perfective marker *le*³ (22c-d). (If neither the negative marker nor the perfective marker are present, the sentences are judged by native speakers to be ‘incomplete’.)

(22)

a. Tā tiào bu guò qu

3SG jump NEG cross go

S/he cannot jump across

b. Wǒ kàn bu jiàn nǐ

1SG look NEG perceive you

I can't see you

c. Tā tiào guò qu le

3SG jump cross go PERF

S/he has jumped across

³Li and Thompson note that *le* has various uses. It can indicate perfectivity as well as what they call ‘current relevance’. However, they also note that both meanings can be co-present so that it becomes difficult to tease them apart (1981:296).

- d. Wǒ kàn jiàn nǐ le
1SG look perceive you PERF
I have already seen/spotted you

Thus, both Malay and Mandarin Chinese show a similar tendency to infer a ‘lack of capacity’ from the interaction between negation and perfectivity. It is this inference which accounts for the fact that the combination of *ter-* and *tidak* is able to indicate ‘lack of capacity’ on the part of the Initiator. Since the inference is not directly predictable (though it is motivated) from the individual semantics of the negative marker and the prefix, it is difficult to see how the semantics of *tidak+ter-* could be dealt with other than by appealing to the notion of a construction. If one were to insist that constructions have no theoretical status in the study of grammar, one could perhaps treat *tidak+ter-* as an idiom or a lexical item. Under the ‘idiom’ approach, one could then either dismiss idioms as irrelevant (this recalls the ‘core’ vs. ‘periphery’ distinction which, as we saw previously, begs the question of what phenomena actually is core and what is periphery), or attempt to offer a analysis of the properties of idioms. As I argue in Chapter 10, idioms are typically based on a variety of actional frames, and this essentially calls into question claims of an autonomous grammatical component. Under the ‘lexical item’ approach, one is essentially admitting that to the non-compositionality of *tidak+ter-*, and this is to effectively treat *tidak+ter-* as a construction. (Recall from Chapter 1 that lexical items are simply maximally specific constructions.)

Examples of this ‘lack of capacity’ use can be found in the Hikayat, showing that it is a relatively early development in the polysemy of the prefix, being present by the time of Classical Malay.

(23) Tidak lah ter-balas oleh saya

NEG EMPH ter-return by 1SG

(It) cannot be returned by me

(24) Setelah beginda meN-dengar sembah Tun Teja demikian itu

After ruler meN-hear salutation Tun Teja manner the

maka raja pun tiada⁴ ter-kata-kata lagi

then ruler EMPH NEG ter-speak-speak again

*After the ruler heard the way in which Tun Teja paid his respects, he was
unable to say anything else*

We have now seen how the combination of *ter-* and *tidak* might give rise to the ‘lack of capacity’ meaning.

Let us now come back to examples where *ter-* occurs in non-negative sentences involving the Initiator Oblique/Absent Construction. It has been claimed that *ter-* can indicate the Initiator’s ability to perform a particular action, and that the construction usually has the form of a ‘passive’. But we already know that the semantics of *ter-* extends only over its core arguments. In the Initiator Oblique/Absent Construction, the entity of whom the capacity is being predicated is either in the oblique, or completely absent. It seems strange to claim that *ter-* marks the semantic property of an entity who is syntactically outside its expected domain of influence. This is especially so when we recall that a possible motivation for having the entity in the oblique is precisely so that it would not be

⁴The form *tiada* is a conflation of the negative marker *tidak* and the existential marker *ada*.

semantically constrained by the prefix. (Recall, in Chapter 5 the use of the Initiator Oblique/Absent Construction to make the Initiator the oblique participant in a prototypical capturing event.)

Therefore, it is better to treat this ‘capacity’ use of *ter-* as a kind of ‘pragmatic back-formation’ that is operating at a constructional level. The Initiator in the ‘lack of capacity’ use is no longer non-volitional, but instead, an entity who wants to perform the action. The crucial property about the Initiator Oblique/Absent Construction that allows for the back-formation to take place is that the Initiator is in the oblique and is therefore free to be interpreted as acting volitionally.

It is possible that this pragmatic back-formation may have become conventionalized for certain speakers so that *ter-* might well be attributed a ‘capacity’ use, without the need for the negative marker. The main point is that this ‘capacity’ use of *ter-* will be restricted to an oblique Initiator only. To the extent that such a conventionalization has taken place, we might ask if the following sentences would be ambiguous between a ‘capacity’ reading and a ‘non-volitional’ reading.

(25)

- a. Tulis-an itu ter-baca oleh guru
Write-an the ter-read by teacher
The writing can be read by the teacher
The writing was unintentionally read by the teacher

- b. Soalan itu ter-jawab oleh Ali
 Question the ter-answer by Ali
The question could be answered by Ali
The question was unintentionally answered by Ali
- c. Suara itu ter-dengar oleh saya
 Voice the NEG ter-hear by 1SG
The voice could not be heard by me
The voice was overheard by me

The possibility of such an ambiguity is raised by comparing the following phrases taken from Macdonald and Dardjowidjoj (1976:99) (no complete sentences are given):

(26)

- a. ter-ambil oleh ibu
 ter-take by mother
accidentally taken by mother
- b. ter-angkat oleh saya
 ter-lift by 1SG
capable of being lifted by me

In fact, it appears that speakers adopt a variety of disambiguation strategies, though the degree to which the strategies are conventionalized is unclear. For example, Tampubolon (1983:128-131), whose data is explicitly Bahasa Indonesian (the standard variety of Malay spoken in Indonesia), gives the following examples. (The morpheme-by-

morpheme glosses are mine. The Malay examples and the English translations are both his.)

(27)

- a. Buku ini ter-baca (oleh) anak kelas satu
 Book this ter-read (by) child class one
 This book can be read by a first grade pupil
- b. Buah busuk itu ter-beli oleh ibu dari Pak Surip
 Fruit rotten the ter-buy by mother from Mr Surip
 The rotten fruit has been accidentally bought by mother from Mr Surip

Tampubolon claims that only in a ‘capacity’ reading can the preposition marking the oblique Initiator, *oleh*, be eliminated (p129).⁵ This still means the possibility of ambiguity exists when the preposition is present, though when the preposition is absent, he claims that only the ‘capacity’ reading is possible. Another thing to note about his choice of examples is that (27a) involves the reading of a book, while (27b) involves buying rotten fruit. Our knowledge of the world tells us that in the former, the non-volitional reading is quite unlikely, thus increasing the probability that the ‘capacity’

⁵In (27a), the Initiator is still an oblique despite the absence of *oleh* because the only other option would be to treat the Initiator as the subject, and this is impossible since Malay lacks a OVS word order. This optional nature of the preposition *oleh* is also found with the *di-* construction. Thus, the following are usually synonymous.

Buku itu di-baca Ali
Book the di-read Ali
The book was read by Ali

Buku itu di-baca oleh Ali
Book the di-read by Ali
The book was read by Ali

reading is intended, and vice versa for the latter. All this shows is that there is at least an attempt to avoid ambiguity.

Another interesting indication of yet another disambiguation strategy comes from Haji Omar and Subbiah (1985). They claim that when *ter-* is used as a 'passive' (that is, the Initiator Oblique/Absent Construction), the oblique Initiator can NEVER appear at all (p51).

- (28) Pintu itu ter-buka (*oleh Ali)
Door the ter-open (by Ali)
The door was left open (by Ali)

This obviously is not a rule that is adhered to by either Hassan, Tampubolon or Macdonald and Dardjowidjojo. But this difference means that for Haji Omar and Subbiah, the 'capacity' reading can never be confused with 'non-volitional' reading, at least with respect to an oblique Initiator.

However, the ambiguity problem for Haji Omar and Subbiah now takes a different form. According to them, the 'lack of capacity' use of *ter-* can take two different word orders: verb-medial or verb-initial.⁶

- (29)
a. Tidak ter-baca dia buku itu
NEG ter-read 3SG book the
S/he is unable to read the book

⁶This verb-initial order appears to be a retention of the basic word-order of Classical Malay. See Cumming (1991) for a discussion of the word-order change from Classical to Modern Malay.

- b. Dia tidak ter-baca buku itu
 3SG NEG ter-read book the
 S/he is unable to read the book

Either order is possible since the presence of the negative marker will always make it clear that only the 'lack of capacity' reading is possible. However, when the intended reading is 'capacity', they claim that only verb-initial order is allowed.

(30)

- a. Ter-baca dia buku itu
 Ter-read 3SG book the
 S/he is capable of reading the book

- b. Ter-angkat dia batu itu
 Ter-lift 3SG stone the
 S/he is capable of lifting the stone

Obviously, if we were to adopt a verb-medial order for the sentences in (30), we would then get the non-volitional reading.

(31)

- a. Dia ter-baca buku itu
 3SG ter-read book the
 S/he accidentally read the book

- b. Dia ter-angkat batu itu
 S/he ter-lift stone the
 S/he accidentally lifted the stone

Thus, while Tampubolon's ambiguity problem resides in the Initiator Oblique/Absent Construction, leading him to use the obligatoriness of the preposition *oleh* as a means of disambiguation, Haji Omar and Subbiah's ambiguity problem resides in the Initiator Subject Construction, leading them to use word-order.

Again, it is not clear how widespread or conventionalized the structures that Haji Omar and Subbiah describe are. In fact, in a footnote, they suggest that the verb-initial order shown in (30) is more likely to be used in written Malay so as to avoid any 'confusion'. In spoken Malay, a verb-medial order can be used especially if the verb is stressed.

As with Tampubolon's claim about the obligatoriness of the preposition *oleh*, the word-order structures of Haji Omar and Subbiah may really only be prescriptive strategies. A long-term study may ultimately show the gradual emergence of more standardized (and non-prescriptive) structures, with the possibility that different varieties of the standard may adopt different conventions. But for the moment, it seems that actual patterns of usage are much more fluid and context-dependent. Therefore, I would suspect that for the majority of speakers, the problem of ambiguity is mitigated by the fact that the most likely reading would always be the non-volitional one: Only when the context makes it clear that this reading is unlikely will the hearer then pick on the 'capacity' reading.

Finally, notice that the suggested series of inferences in (22) do not rule out the possibility that the *tidak+ter-* construction may apply to the Initiator-Endpoint Subject Construction, where the stem is monovalent. How can we then account for the

unacceptability of the sentences in (18-19) ? A possible answer to this comes from our earlier observation (in Chapter 4) that with the monovalent stems, there is a greater degree of semantic bondedness between a prefix and its stem. As we noted, this can often lead to the lexicalization of the prefix-stem composite. On the other hand, the multivalent stems show a lesser degree of such bondedness, which allows them to exhibit ‘prefix variability’. In the case of *ter-*, the prefix is lexicalized when it co-occurs with a monovalent stem, and it cannot participate in the *tidak+ter-* construction. It is possible then, that this high degree of semantic bondedness prevents the prefix from forming a special construction with the negative marker. When the negative marker is present (18a and 19a), the event is simply interpreted as not having taken place.

We have now completed our discussion of the ‘intensifier’ use of *ter-*, as well as its combination with *tidak* to indicate ‘lack of capacity’. We next move on to the prefix *ber-* which is able to indicate possession, when prefixed to nouns.

7.4. ‘POSSESSION’ *BER-*

In the ‘possession’ use of *ber-*, the prefix is attached to nouns so that the subject is characterized by the possession of the noun. The possessed noun can either be inalienable (32a-b) or alienable (32c-f).⁷

(32)

- a. Dia ber-kaki panjang
 He ber-leg long
 He has long legs/is long-legged

⁷It is occasionally observed (e.g. in Classical Greek) that a middle marker may be used to mark the relation between a body part and a human possessor (Kemmer 1993:77). However, such cases differ somewhat from the Malay situation, which is not restricted to inalienable possession.

- b. Manusia ber-tangan
Man ber-hand
Man has hands

- c. Sup itu ber-minyak
Soup the ber-oil
The soup contains oil/is oily

- d. Ahmad se-orang yang ber-harta
Ahmad one-person REL ber-property
Ahmad is a person who possesses property

- e. Ahmad ber-isteri
Ahmad ber-wife
Ahmad has a wife

I do not assume that there is a sharp distinction between nominal and verbal predicates. As I will argue in the next chapter, there is a process of zero derivation that creates denominal verbs. The fact that verbs can be derived without any overt morphological marking tends to create occasional cases of ambiguity so that when *ber-* is prefix to a noun, it is possible to construe the construction as indicating either possession of the noun, or an action that is conventionally associated with the noun. However, there are a number of nominal stems that do not appear to be able to undergo the zero derivation process, such as the ones in (32). In these cases, the predicate is more clearly nominal than verbal.

How is possession use of *ber-* itself related to the other uses of the same prefix ? Recall from our earlier discussion of *ber-* that, as a semantic middle, *ber-* was found to mark, among other things, 'natural events'. Recall also that the term *natural* was used in a broad sense to include both events of nature and events which are socially required or expected. Some examples are repeated here for convenience.

'natural events'

(33)

- a. Pokok itu sedang ber-tunas
Tree the PROG ber-young shoot
The tree is sprouting

- b. Isteri-nya sudah ber-anak
Wife-3 already ber-child
His wife has already given birth

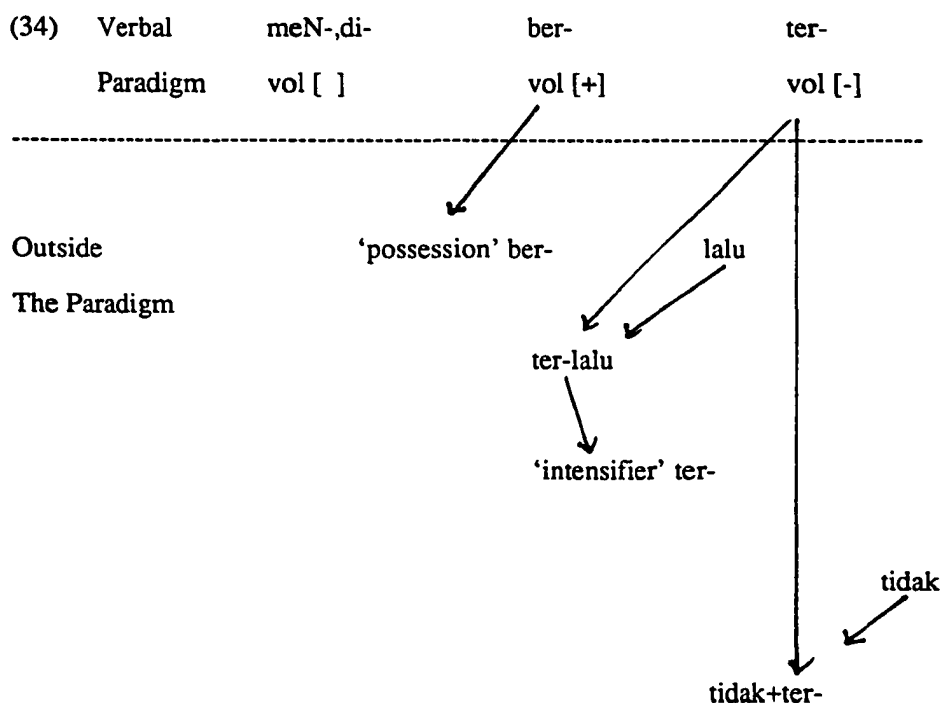
- c. Ayam itu sudah ber-telur
Chicken the already ber-egg
The chicken has laid an egg

- d. Budak lelaki itu belum ber-puasa
Child male the not-yet ber-fast
The boy has not yet fasted

- e. Ali sedang ber-khidmat dalam tentera
Ali PROG ber-serve in army
Ali is serving in the army

I suggest that the ‘possession’ use of *ber-* is metonymically related to the use of *ber-* in marking ‘natural events’. This is especially since the events of nature in (33a-c) involve the metonymy THING FOR NATURAL PRODUCTION. The result of the production can easily carry the inference that the subject comes to possess the produced entity. The conventionalization of the inference gives rise to a distinctive use of *ber-* which marks ‘possession’.

Thus far, I have simply assumed that the uses of the prefixes discussed all lie outside the verbal paradigm. The discussion has concentrated on relating these uses to the senses of the morphemes which occur in the verbal paradigm. The relations between the uses of the prefixes *ber-* and *ter-* discussed here and the verbal paradigm is schematically represented below.



In the next section, I justify the assumption that ‘possession’ *ber-*, ‘intensifier’ *ter-*, and the *tidak+ter-* construction, all lie outside the verbal paradigm.

7.5. WHY THESE ARE OUTSIDE THE VERBAL PARADIGM

It may seem obvious that the uses of *ter-* and *ber-* just discussed lie outside the verbal paradigm. Nevertheless, it will be useful to be explicit about the reasons for assigning them this ‘outsider’ status.

If the verbal prefixes can be said to form a paradigmatic set at all, there should be uniformity across the prefixes so that they make essentially the same distinctions. This assumption provided an explanation for the complementarity we observed between *meN-* and *di-*, and hence a reason for combining *meN-* and *di-* as members of the same category. It also allowed us to abstract out a verbal prefix schema which reflected the commonalities across the prefixes.

If the development of the uses of *ber-* and *ter-* discussed in this chapter were truly a part of the verbal system, we would expect the category that contains both *meN-* and *di-* to develop similar uses as well. There is evidence, however, that the absence of such uses associated with *meN-* or *di-* is not a source of instability. We already saw the prefixes *meN-* and *di-* are possibly the oldest of all the verbal prefixes. Thus, the fact that they still haven’t developed anything like an intensifier use, for example, when in the interim, *ter-* appeared on the verbal scene and then proceeded to develop an intensifier use, greatly weakens the claim that the absence of any adjectival uses in *meN-* and *di-* is a source of instability. This in turn means that the development of the intensifier use on the part of *ter-* cannot be attributed to any kind of paradigmatic pressure. The same argument can be made concerning the possession use of *ber-*.

A second reason comes from the ways in which these uses were acquired. Recall that the intensifier use of *ter-* came about as a result of a series of independent developments. First of all, speakers tend to associate *ter-* with perfectivity. Also, there was a completely separate development whereby *lalu* came to mark 'completed action'. The confluence of these two events triggered a reanalysis of the *ter-lalu* construction as a marker of 'completed action'. This was followed by a metonymy which led to *ter-lalu* having an intensifier use. Finally, the notionally reduplicative nature of the *ter-lalu* construction led speakers to use *ter-* alone as an intensifier, delegating to *ter-lalu* the function of marking a quality as being excessive.

In the case of *tidak+ter-* 'lack of capacity', there was clearly a non-compositionality that resulted from a series of inferences. No sign of any such inferences were found when *tidak* appeared with the other prefixes, nor when *ter-* was prefixed to a monovalent stem. In those cases, the resulting meanings were much more straightforward. The observation that the 'lack of capacity' reading is most robust only in the context of the Initiator Subject Construction (and only potentially available in the context of the Initiator Oblique/Absent Construction) indicates that we have here a special *tidak+ter-* construction. All these serve to indicate that neither the development of the intensifier nor 'lack of capacity' uses of *ter-* can be motivated by any properties of the verbal system as a whole.

A similar case can be made in the case of *ber-*. For example, I had hypothesized that the possession use developed from the 'natural event' use via a metonymy; in an event of nature, especially that of natural production, the subject frequently comes to be in possession of the produced entity. Thus, the 'possession' use of *ber-* developed through a salient inference that involves notions such as 'production' and 'possession', none of which are plausible candidates for verbal morphological categories.

A final reason is that even when we compare the 'possession' use of *ber-* with the 'intensifier' and 'lack of capacity' uses of *ter-*, we find no sign of systematicity among these three uses. For example, although metonymic inferences played crucial roles in the cases of both prefixes, they were all very different kinds of metonymies. This lack of systematicity is in stark contrast to the ways in which the prefixes developed their major construction types (Initiator-Endpoint Subject, Initiator Subject, and Initiator Oblique/Absent). In the cases of *ber-* and *ter-*, we saw a shift from clauses coding low transitivity events to clauses coding events that are higher in transitivity. Concomitant with this shift, the subject of each individual prefix moved from being both Initiator and Endpoint, to being either an Initiator or an Endpoint only.

Note that the development of the cross-categorical similarities can all be attributed to the same factors: the sensitivity to volitionality, and the increase in the transitivity of the events that were being coded. The uniformity in the development, as well as the kinds of notions involved (volitionality, transitivity, and semantic roles) show a clear contrast with the more idiosyncratic development of the 'intensifier', 'lack of capacity' or 'possession' uses.

This suggests that the semantic routes by which the idiosyncratic senses developed are not semantic routes that are likely to recur with the other prefixes -- the semantics and pragmatics just are not appropriate enough to allow the right kinds of inferences to take place. On the other hand, I claim that we do have a right to expect more semantic regularity and generality to be present in the verbal prefixes which are in a semantic as well as morphological paradigmatic relation to each other: semantic change will proceed differently in such a paradigm than in other semantic contrast sets.

We therefore need to distinguish between polysemy that is motivated by the schema of the verbal system and polysemy that develops through a series of fortuitous events. As such, it implies that it is entirely possible for *meN-* or *di-* to develop, say, new and different uses as well, if given the right series of circumstances. But even then, we would still not want to treat these newly developed uses as part of the Malay verbal paradigm. In trying to characterize polysemy, it is therefore not only crucial to observe the various senses synchronically, but it is also important to see how they came about.

CHAPTER 8

CONVERTED STEMS

8.1. INTRODUCTION

I use the term ‘converted stems’ as a general label for cases involving a change in the syntactic category of the stem. (I avoid the locution ‘category change’ since the term ‘category’ has already been used in a more conceptual sense to set up the volitionality categories of the verbal paradigm.)

Before continuing, it will be useful to clarify the relationship between the terms ‘conversion’ and ‘metonymy’. We have already seen some instances of conversion, for example, when we observed in the case of *ber-* that a noun referring the product of an event of nature could be used to refer to the act of production. This involved the metonymy PRODUCT FOR NATURAL PRODUCTION. For example,

- (1) Pokok itu ber-tunas
Tree the ber-young shoot
The tree is sprouting shoots

‘Conversion’ focuses on the fact that a change in syntactic category is involved while ‘metonymy’ is a semantic phenomenon where one conceptual element is used to stand for another. In the framework of cognitive linguistics, the syntactic change is an indication of

this metonymic conceptual shift.¹ For example, it is assumed that the conversion of the noun *tunas* into a verb reflects a conceptualization whereby the thing that *tunas* represents comes to stand for (thus the metonymy) the process that is conventionally associated with it. Of course, the relationship between conversion and metonymy is asymmetric since all conversions necessarily involve metonymies while not all metonymies need involve conversions. Thus, in a sentence like *The ham sandwich wants his check* we have a metonymy of FOOD FOR CUSTOMER. And clearly, no change in syntactic category is involved.

In this chapter, we will discuss a range of metonymies where different prefixes (not only *ber-*) are involved. Some of the metonymies involve adjective to verb conversions as well as noun to verb conversions. In our discussion, we will be concerned with a number of issues:

(i) We will see that certain kinds of conversions systematically result in monovalent stems while others result in divalent stems. How is this to be represented ? While I am not prepared to present a full-blown theory of conversion, I will briefly sketch an approach which I think is promising. Since little in the succeeding sections depends crucially on the details of this approach, the sketchiness of the discussion should not pose a serious problem.

(ii) It is commonly assumed that the conversion is effected by the presence of the verbal prefix (Prentice 1992; Tampubolon 1983). This essentially assumes that the prefix involved has a derivational character. We will see that there is evidence to suggest that this assumption is mistaken, raising the question as to how the conversion is to be treated, if it

¹In this regard, there is apparently an early work by Kiki Nikiforidou which treats nominalization as being metonymic in nature. Unfortunately, I have not been able to locate any references to this work.

is not triggered by the presence of the prefix. The evidence will take two forms: Malay has a specific construction where NO prefix at all is allowed and yet conversion is still possible, and certain metonymies can co-occur with different prefixes. These suggest that we need to allow the metonymies to be independent of the prefixes.

(iii) At the same time, it seems undeniable that certain kinds of metonymies regularly correlate with specific prefixes. How then, can we account for cases where a particular metonymy and a particular prefix never co-occur ? I will suggest that a number of factors are involved: a semantic version of the Elsewhere Condition (where semantic specificity overrides semantic generality), the transitivity level of the event being coded, and compatibility between the valence and volitionality values of the prefix and stem.

These, then, are the issues that concern us in this chapter.

8.2. SYSTEMATICALLY MONOVALENT AND BIVALENT STEMS

We first observe that some cases of conversion are systematically monovalent while others are systematically divalent. Consider the following examples, all of which involve the prefix *meN-*. Aside from being prefixed to verbs, *meN-* can also be prefixed to stems derived from nouns relating to different domains (location, and the use of an instrument), as well as to stems derived from adjectives. Stems derived either from adjectives or locative nouns are monovalent while those derived from instrumental nouns are divalent. (*MeN-* can take a number of other metonymies as well. We will see a list of them at the end of the chapter. In the meantime, the ones presented here are enough to facilitate discussion of the issues.)

stems derived from instrumental nouns

(2)

- a. Ali meN-pancing ikan
 Ali meN-fish hook fish
 Ali hooked the fish

- b. Perempuan itu meN-rotan anak itu
 Woman the meN-cane child the
 The woman canes the child

- c. Nelayan itu sudah meN-jaring ikan
 Fisherman the already meN-net fish
 The fisherman has netted the fish

- d. Lelaki itu sudah meN-gunting rambut-nya
 Man the already meN-scissors hair-3
 The man has already cut his hair with a pair of scissors

These involve the metonymy INSTRUMENT FOR ACTION, and the instrument usually appears in a preposition phrase in the non-metonymized version. Thus, (3) is a common paraphrase of (2d).

- (3) Lelaki itu sudah meN-potong rambut-nya dengan gunting
 Man the already meN-cut hair-3 with scissors
 The man has already cut his hair with a pair of scissors

stems derived from adjectives

(4)

- a. Padi itu meN-kuning
 Rice the meN-yellow
 The rice has yellowed

- b. Darah-nya meN-beku
 Blood-3 meN-coagulated
 His/her blood has coagulated

- c. Kaki-nya meN-bengkak
 Leg-3 meN-swollen
 His/her leg has swollen

- d. Asap meN-tebal
 Smoke meN-thick
 The smoke has thickened

- e. Lembaga itu meN-besar
 Silhouette the meN-big
 The silhouette has become large

Finally, the examples in (4) involve a metonymy QUALITY FOR ACQUISITION OF QUALITY. A paraphrase of the sentences in (4) will have the adjective as a complement of the main verb, which is usually the verb *jadi* 'become'. (5) is a paraphrase of (4e).

- (5) Lembaga itu meN-jadi besar
 Silhouette the meN-become big
The silhouette has become large

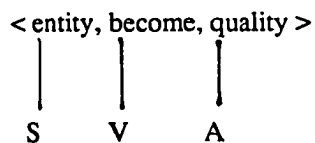
Notice that the examples in (2) all have divalent stems while those in (4) all have monovalent stems. This means that any account of conversion must say something about the argument structure of the derived stem. To deal with this, I suggest that we first make a distinction between two types of frames: lexical frames and actional frames. The two are not meant to be mutually exclusive. By a lexical frame, I refer to a kind of fairly rich, culturally specific, and lexeme-specific idiosyncratic knowledge. For example, the term *father* is part of a lexical frame which contains knowledge pertaining to kinship, parenthood, and masculinity. An actional frame, on the other hand, is much more schematic and involves knowledge pertaining to event types. For example, it has been argued that various scenes such as **X transfers Z to Y**, **X uses Z to act on Y**, are conceptually privileged (Bowerman 1982; Clark 1978; Langacker 1991; Slobin 1985; cited in Goldberg 1992:237).

I shall assume that whether or not the metonymy results in a stem that is monovalent or divalent is dependent on the nature of the actional frame involved. That is, an actional frame is conventionally associated with a specific number of salient elements. When the frame is used in a metonymy, the total number of elements gets reduced by one since one of the elements, the Metonymic Source, is now standing for another, the Metonymic Target.² For example, consider a frame dealing with the sentences in (4) where the metonymy **QUALITY FOR ACQUISITION OF QUALITY** is involved. For comparison, (6a) represents the situation in (5).

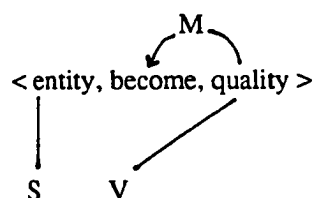
²This account of conversion may be formalizable in a theory of linking, though I will not attempt to do so here.

(6)

a. without the metonymy, as in (5)



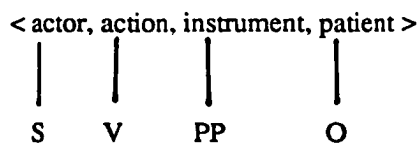
b. with the metonymy, as in (4e)



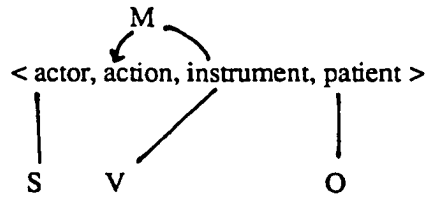
In (6b), the metonymy results in a monovalent stem, which is exactly what we want. Consider (7b) which deals with the metonymy INSTRUMENT FOR ACTION. As we saw in (2), the stems here are all divalent.

(7)

a. without the metonymy, as in (3)



- b. with the metonymy, as in (2d)



(7) gives us the divalent stem that we observed in (2d).

Notice that in (6b) and (7b), it is the Metonymic Target rather than the Metonymic Source that constrains the syntax so that it is always realized as a V rather than a PP or A. This appears to be just right. It has been observed (see discussion in Pollard and Sag 1994:69) that in cases involving metonymy (Pollard and Sag, following Nunberg 1977, use the term ‘reference transfer’), phenomena such as number agreement is guided by the Metonymic Target rather than the Metonymic Source. The following examples are taken from Pollard and Sag (p69).

(8)

a. The hash browns at table nine are/*is getting cold

b. The hash browns at table nine is/*are getting angry

In (8b), the metonymy CUSTOMER FOR FOOD requires a verb marked for singular even though the Metonymic Source (hash browns) is inherently plural. When no such metonymy is present (8a), the number of the verb is straightforwardly plural.

While this account of conversion seems to work, there appear to be two problems that might be raised. One is the problem of circularity. For example, if we need to account for a construction that has X number of elements, we can simply set up the actional frame that the converted item participates in to contain $X+1$ elements. Also, while the assumption that an actional frame is conventionally associated with a specific number of elements is not controversial in the case of verbs, which usually code events and are assigned particular argument structures, it is obviously much more difficult to unambiguously assign a noun or an adjective to a particular action frame.

The problem of circularity cannot be totally eliminated since, in many ways, it is a rather intuitive matter what the salient elements in a frame are, and how many they number. However, speakers usually have a fair amount of agreement on the salient elements in an actional frame, and it is this agreement that serves as a constraint on how many elements are being posited. On the other side of the matter, we know, for example, that independent of the conversion phenomenon, motion verbs are usually monovalent across languages (Kemmer 1993:56). This cross-linguistic observation will constrain the construction that we get after conversion. So, there are some checks on the frame being posited before a metonymy has taken place, as well as on the nature of the resulting construction. All this will allow us a certain degree of independent motivation in setting up the frame for a particular action.

The second problem is somewhat easier to deal with. It might be objected that nouns can participate in a variety of actional frames, and that any attempt to assign a noun to a particular actional frame assumes a stability of association that is at odds with their variability. For example, a noun like *table* can obviously participate in many different actional frames ('X kicked a table', 'X bought a table', etc). (This objection may have less

force in the case of adjectives since the kinds of actional frames involving adjectives is much more restricted.)

This is a problem only if we insist on a false dilemma -- that every lexical item must either be unambiguously assigned a determinate actional frame, or it must not be assigned any actional frame at all. Under a theory of language that treats categorization as being experientially motivated, we can simply allow for a noun (or adjective) to participate in a variety of actional frames, although its lexical frame would probably be somewhat more stable. Certain nouns, such as instrumental nouns, via their association with highly salient kinds of action, can then come to conventionally participate in particular actional frames, and in principle, this will in no way preclude them from participating in other actional frames as well.³

In this section, I have suggested how we might go about accounting for the observation that certain kinds of metonymies give us monovalent stems, while other metonymies give us bivalent stems. In all the examples in this section, the prefix *meN-* has been present.

³In the light of these problems, it might be suggested that we abandon the notion that the conversion is metonymic in the first place and opt instead for a more purely syntactic account. It is not clear what such an account would be. In the case of verbs derived from instrumental nouns, it might be suggested that the instrument, which would normally take the form of a PP, has been converted into a verb (ie. PP --> V). This, of course, brings us right back to the problems associated with transformational syntax. Another problem is that not just any PP gets converted. We are looking at a group of nouns describing instruments, and this brings us right back to a more semantic account.

A different possibility, but more in the spirit of what I am suggesting, can be found in Lieber (1992:116ff). Lieber suggests that individual affixes may change the Lexical Conceptual Structure (LCS) of a word, and that this may have consequences for that word's argument structure. A prefix like English *en-* would specify that that it take a noun and makes it into a verb. The representation of the LCS for *en-* (p119) would be

en- LCS: [Event CAUSE ([Thing], [Event GO ([Thing], [Place AT [Place(LCS of base)]))]]]

Lieber's LCS is essentially based on the work of Jackendoff (1987, 1990), who treats LCS as being decomposable into a set of semantic primitives.

In the case of Malay, presumably the various kinds of conversion will be effected by affixes having only LCS specifications, but no phonological content. A general discussion of the theoretical differences between Jackendoff's approach and the one assumed in this work can be found in Jackendoff 1991, Lakoff 1991, and Gibbs (1994:167-169). See also Jackendoff 1988 and Lakoff 1988.

This has given some analysts the impression that *meN*-, and some of the other prefixes have derivational properties. The next section shows that this impression is mistaken.

8.3. TWO HYPOTHESES ABOUT CONVERSION

As mentioned, a common assumption in Malay linguistics has been that the conversion is effected by the prefix itself (Prentice 1992; Tampubolon 1983). Under this hypothesis, the prefix is assumed to have a highly derivational character. I shall call this the Derivational Prefix Hypothesis. We will see that this assumption needs to be rejected. Instead, I will show that the conversion happens independently of the prefix, giving us a case of zero-conversion. I shall call this the Zero Conversion Hypothesis.

The evidence against the Derivational Prefix Hypothesis comes from two sources: (i) there are constructions where NO prefix is possible; these still show conversion, and (ii) there are cases where the same conversion-type can occur with more than one prefix. I discuss these in turn below.

Malay has a particular construction where the Endpoint is fronted, and the verb is NECESSARILY unprefixes (Alsagoff 1992; Chung 1976).

(9)

a. Buku itu Ali baca

 Book the Ali read

The book, Ali read

b. Buku itu Ali *meN-/*ter-/*di/*ber-baca

(10)

- a. Budak itu Ali cubit
 Child the Ali pinch
 The child, Ali pinched

- b. Budak itu Ali *meN-/*ter-/*di-/*ber-cubit

I leave a discussion of the properties of this particular construction until Chapter 11. For now, what interests us is the fact that no prefix is allowed in this construction as shown in (9b) and (10b). The examples in (11) show that even in this construction, conversion is still possible. Since the construction requires a fronted Endpoint, obviously a conversion that results in an monovalent stem will not be acceptable. Therefore, the examples in (11) involve the metonymy INSTRUMENT FOR ACTIVITY which we saw earlier gives us divalent stems.

(11)

- a. Rambut dia Ali gunting
 Hair 3SG Ali scissors
 His hair, Ali cut (with a pair of scissors)

- b. Anak Lisa Ali rotan
 Child Lisa Ali cane
 Lisa's child, Ali caned

- c. Ikan itu Ali jaring
 Fish the Ali net
 The fish, Ali netted

This shows clearly that prefix itself cannot be responsible for the conversion. We must reject the Derivational Prefix Hypothesis. And since no prefix at all needs to be present, we need to adopt the Zero Conversion Hypothesis.

Further evidence against the Derivational Prefix Hypothesis comes from the examples in (12-13), where the same conversion type can be observed with more than one prefix.

(12)

- a. Ali meN-jaring ikan itu
 Ali meN-net fish the
 Ali netted the fish

- b. Ikan itu di-jaring oleh Ali
 Fish the di-net by Ali
 The fish was netted by Ali

- c. Ali ter-jaring ikan itu
 Ali ter-net fish the
 Ali unintentionally netted the fish

(13)

- a. Ali meN-rotan budak itu
 Ali meN-cane child the
 Ali caned the child

- b. Budak itu di-rotan oleh Ali
 Child the di-cane by Ali
 The child was caned by Ali
- c. Ali ter-rotan budak itu
 Ali ter-cane child the
 Ali unintentionally caned the child (eg. he caned the wrong child)

In (12-13), the same metonymy can be observed with the prefixes *meN-*, *di-*, and *ter-*. Since the very same metonymy occurs with a variety of prefixes, this means that even the claim that different prefixes effect different derivational changes is not supported. And in fact, in these cases, the verbal prefixes appear to be doing their usual work of marking volitionality and ‘voice’, as if on any other verb stem. Once again, we are left with the Zero Conversion Hypothesis.

So far, we have seen that the same metonymy can occur with different prefixes. But there also cases where a particular metonymy and a particular prefix never co-occur. A skeptic might then be willing to allow that the INSTRUMENT FOR ACTION metonymy is zero-derived, but still insist that in those cases where particular metonymies and prefixes don’t co-occur, we still need to appeal to the Derivational Prefix Hypothesis. The skeptic might, in particular, point to the fact that INSTRUMENT FOR ACTION gives us divalent stems, while a different metonymy such as QUALITY FOR ACQUISITION OF QUALITY gives us monovalent stems. We noted in Chapter 4 that monovalent stems tend not to exhibit prefix variability, and instead tend to be restricted to specific prefixes. A similar kind of restriction should be expected of monovalent stems that result from metonymy; and indeed monovalent converted stems are more lexically linked to prefixes than multivalent ones are.

There are a number of problems with the skeptic's argument, however. First, the appeal to the lack of prefix variability for monovalent stems is actually self-defeating for the skeptic. This is because, in order to claim that a monovalent stem resulting from a metonymy can be idiosyncratically associated with a particular prefix, the skeptic is essentially agreeing that the prefix plays no generalizable role in determining the valency of the stem. The skeptic would then have to assume that the valence of the stem is determined independent of the prefix -- which leads us right back to the Zero Conversion Hypothesis. The alternative is to claim that the prefixes can have idiosyncratic conversion properties just in case the nominal or adjectival stems they attach to will result in monovalent verbs -- surely a far more implausible claim since it further requires either an ability to look ahead (and thus anticipate the resulting valency) or an output filter so that derived verbs which are not monovalent are prevented from occurring. Furthermore, this alternative claim has to say something about cases where the same prefix appears with a multivalent verb -- have its erstwhile idiosyncratic conversion properties (which are claimed to derive monovalent verbs) been 'shut off' ?

Second, a person who insisted that *meN-* can derive deadjectival and denominal verbs would still need to show how the derivational character of *meN-* is relatable to its place in the verbal paradigm. This may well be possible to do. As we saw in the last chapter, relatively idiosyncratic semantic developments can lead the prefixes to have properties that lie outside the verbal paradigm. But this would have to be shown, rather than just insisted upon, in the case of *meN-*. Of course, this individual might not really care about polysemy relations, and might be content to say that there is simply a *meN*₁- and a *meN*₂-. But as I showed in my reconfiguration of the volitionality paradigm, and as I am arguing now in the case of converted stems, this kind of move merely avoids the more interesting questions, and can actually lead to a loss of important generalizations about the grammar of the language.

In fact, it is always more interesting if we can show that the co-occurrences between metonymies and prefixes fall out from general principles. So, I prefer to attempt to show that the co-occurrence of metonymies and prefixes can be accounted for by a number of independently motivated constraints. In other words, for those individuals who make descriptive economy a priority, the use of independently needed constraints results in a simpler description of the grammar than the addition of derivational properties to the prefixes. This will be the focus of the next section.

8.4. CONSTRAINTS GOVERNING THE CO-OCCURRENCE OF CONVERTED STEMS AND PREFIXES

8.4.1. INCOMPATIBILITY IN VOLITIONALITY

The first example of a co-occurrence restriction is fairly straightforward. If there is any incompatibility between the volitionality value of a prefix and the volitionality of the activity evoked by the metonymy, they do not co-occur. For example, it appears that in a metonymy like QUALITY FOR ACQUISITION OF QUALITY, there is no sense of volitionality at all. As the examples below show, the subjects are all non-sentient, and cannot be attributed intention of any sort. Therefore, the examples all involve a LACK, rather than a LOSS, of volitionality (see Chapter 4).

(14)

- a. Paði itu meN-kuning
Rice the meN-yellow
The rice has yellowed

c. Kaki-nya meN-bengkak

Leg-3 meN-swollen

His/her leg has swollen

d. Asap meN-tebal

Smoke meN-thick

The smoke has thickened

This suggests that the metonymy should not be able to take either the prefixes *ter-* or *ber-* since these carry specific volitionality values. The choice of *meN-* then follows naturally from the fact that *meN-* is not specified for any kind of volitionality value at all.

8.4.2. INCOMPATIBILITY IN VALENCE

Consider once again the metonymy QUALITY FOR ACQUISITION OF QUALITY, which, as we have seen, gives us monovalent stems. An example is shown below.

(15) Bibir Siti meN-merah

Lips Siti meN-red

Siti's lips are becoming red

We might expect that a prefix like *di-*, which takes only multivalent stems, would then not be able to co-occur with this metonymy. This seems to be correct as shown in (16).

(16) *Bibir Siti di-merah

Lips Siti di-red

But notice that it is possible to use the causative suffix *-i* with the metonymy (17a), and with the suffix present, the *di-* prefix is now allowed (17b). (See Chapter 9 for a discussion of suffixes.)

(17)

- a. Ali meN-merah-i bibir Siti
 Ali meN-red-i lips Siti
 Ali reddened Siti's lips

- b. Bibir Siti di-merah-i oleh Ali
 Lips Siti di-red-i by Ali
 Siti's lips were reddened by Ali

The presence of the suffix increases the valence of the stem, and this allows the prefix *di-* to be used. Once again, this shows that the metonymy is independent of the prefix, and that its inability to co-occur with the prefix is due to the fact that the stem that results is monovalent, while the prefix itself take multivalent stems. Once this incompatibility has been 'repaired' by the presence of the suffix, the co-occurrence restriction is removed.

8.4.3. SEMANTIC SPECIFICITY: AN ELSEWHERE CONDITION

The next example of a co-occurrence restriction is slightly more complex and seems to involve a kind of semantic Elsewhere Condition. Informant judgements here are less unequivocal, though opinions of the sentences in (18) range from awkward to unacceptable. None are completely well-formed.

(18)

- a. ?*Siti sedang meN-bedak
 Siti PROG meN-cosmetic powder

- b. ?*Ahmad sedang meN-dasi
 Ahmad PROG meN-tie

(18) involves the metonymy THING FOR ACT OF WEARING⁴ and the prefix *meN-*. The metonymy results in a monovalent stem. But since *meN-* is the most unrestricted of the verbal prefixes, neither incompatibility of valence nor volitionality values can be the source of the problem.

Notice that the problems with (19) disappear once the prefix is changed to *ber-*. Why is this ?

(19)

- a. Siti sedang ber-bedak
 Siti PROG ber-cosmetic powder
 Siti is putting powder (on her face)

- b. Ahmad sedang ber-dasi
 Ahmad PROG ber-tie
 Ahmad is putting on a tie

⁴It is, of course, arguable if one really 'wears' makeup in the way that one wears a tie, and to capture these differences one could possibly treat them as slightly different metonymies. However, I think the differences are unimportant to the point that is being made here: That both the act of wearing makeup and the act of wearing a tie come under the semantic domain of grooming, and therefore take the prefix *ber-*.

I suggest that the answer lies in our observation (in Chapter 6) that independent of the metonymy, *ber-* is already used to mark acts of grooming. Examples are reproduced below.

(20)

- a. Gadis itu sudah ber-dandan
 Girl the already ber-dress up
 The girl has already dressed up

- b. Gadis itu suka ber-hias
 Girl the like ber-adorn
 The girl likes to put on make up

As (21) shows, prototypical grooming acts (where the Initiator and Endpoint are coreferential) are not usually coded by the prefix *meN-*. (21c) is fine, but note that the verb does not refer to grooming, in this construction. This suggests that the constraint on semantic specificity does not operate on lexical items, but on the semantics of the prefixed stems in context.

(21)

- a. *Gadis itu sudah meN-dandan
 Girl the already meN-dress up
 The girl is dressing up

- b. *Gadis itu suka meN-hias
 Girl the like meN-adorn
 The girl is putting on makeup

- c. Gadis itu sedang meN-hias rumah-nya
 Girl the PROG meN-adorn house-3
The girl is decorating her house

I assume that the metonymy THING FOR ACT OF WEARING is construed as belonging to the semantic domain of grooming. Because this domain is independently associated with *ber-* rather than with *meN-*, the metonymy too will tend to take *ber-* than *meN-*. As mentioned, this hypothesis assumes a kind of Elsewhere Condition. We already saw a similar phenomenon in Chapter 4 during our discussion of lexicalization. We noted that a verb like *tawa* ‘laugh’ is lexicalized with *ter-*, rather than with any other prefix. This gives us the lexicalized form *ter-tawa*. Because *meN-* is unspecified, there is no reason why *meN-* should not take *tawa* instead. But since an act of laughing tends to be more naturally construed as non-volitional, and since *ter-* has a volitionality value of [-], it is more specifically suited than *meN-*. Once again, the semantic selection of the prefix is based on an Elsewhere Condition.

8.4.4. CONFLICTING TRANSITIVITY LEVELS

We just saw that a denominal verb of grooming has to take *ber-* because the prefix is independently associated with the domain of grooming. Constructions involving the prefix *meN-* are not acceptable. However, suppose we want to code a situation where the denominal verb still describes an act of grooming but departs from the prototype in that the Initiator and Endpoint are no longer coreferential but distinct. This has the consequence of increasing the transitivity level of the grooming action. For example, instead of (22), we want to describe a situation where Siti is powdering someone else’s face. Note now that the prefix can no longer be *ber-* because of the increase in transitivity (23). Instead, the prefix *meN-* must now be used.

- (22) Siti sedang ber-bedak
Siti PROG ber-cosmetic powder
Siti is putting powder (on her face)

(23)

- a. Siti sedang meN-bedak muka Maria
Siti PROG meN-cosmetic powder face Maria
Siti is powdering Maria's face
- b. *Siti sedang ber-bedak muka Maria
Siti PROG ber-cosmetic powder face Maria
Siti is powdering Maria's face

This indicates that when a conflict arises between semantic specificity and level of transitivity, the latter overrides the former. We are thus led to ask if all four constraints can be ranked in terms of how they interact with each other. This is pursued in the next section.

8.5. RANKING THE CONSTRAINTS

We have seen that by appealing to four different constraints, we can account for the co-occurrence possibilities between a metonymy and a prefix. I would like to now explore the possibility that these constraints are not equally prohibitive, but can be ranked in a hierarchy. The basic ideas discussed here are taken from Optimality Theory (McCarthy and Prince 1993; Prince and Smolensky 1993), though I make no serious attempt to formalize the constraints. Within Optimality Theory, constraints are phrased in terms of avoidance, and the relative ranking of two constraints A and B, is determined by the observation that B

is sometimes violated in order to avoid violating A. Intuitively, it is more important or 'costly' to avoid violating A than to avoid violating B. This would suggest that constraint A is ranked higher than constraint B.

The weakest of the four constraints appears to be the need for the semantics of the metonymy and that of the prefix to be as specific to each other as possible; I referred to this as a semantic Elsewhere Condition. In the parlance of Optimality Theory, this might be recast as an Avoid Semantic Generality constraint. We saw that this constraint is violable, particularly when meeting it would result in conflicting transitivity levels. Thus, even though *ber-* has a specific semantic association with self-grooming verbs (that is, 'middles' of grooming), *meN-* is used when the grooming action is causative in nature. This gives us a ranking where it is more important to Avoid Conflicting Transitivity Levels than to Avoid Semantic Generality.

However, we have yet to observe cases where conflicting transitivity levels are allowed. Likewise, the constraints on the compatibility of valence and volitionality values are also never violated. We can assume, until further evidence suggests otherwise, that all three constraints are equally prohibitive. This means that Avoid Semantic Generality is ranked lower than the other three constraints -- Avoid Incompatible Valence Values, Avoid Incompatible Volitionality Values, and Avoid Conflicting Transitivity Levels -- which appear to be of the same rank.

A nice outcome of this ranking is that the three unviolated constraints are also the most grammaticalized. Valence is a clearly a morphosyntactic property. And I have argued in this work that both volitionality values and transitivity levels are lexically associated with specific prefixes (we will see in the next chapter that specific suffixes are also lexically

associated with particular volitionality values and transitivity levels). In contrast, criteria for semantic generality are much less well-defined.

8.6. AN OVERVIEW

The following is a list of metonymies that I have so far found with the prefix *ber-*. The semantic domains the metonymies belong to are given in bold. Note that the semantic domains all are a subset of the domains independently associated with *ber-* (discussed in Chapter 4). By the third constraint discussed above, that of semantic specificity, we expect only the metonymies that fall into one of the semantic domains independently associated with *ber-* to take this prefix. Otherwise, we expect them to take the less restricted *meN-*.

(24) GROOMING:

- a. Ali sedang ber-dasi
Ali PROG ber-tie
Ali is wearing a tie (THING FOR ACT OF WEARING)

MOTION

- b. Mereka ber-perahu ke Tioman
3PL ber-boat to Tioman
They went to Tioman by boat (MODE OF TRANSPORT FOR TRAVEL)

NATURAL EVENTS

- c. Pokok itu ber-buah
Tree the ber-fruit
The tree has borne fruit (THING FOR NATURAL PRODUCTION)

- d. Mereka akan ber- pesta
They will ber-festival
They will celebrate (THING FOR SOCIALLY-OBLIGATED ACTIVITY)

Compare the list above with the one below, which represents a list of metonymies found with *meN-*. (25a-c) are metonymies that we have already seen. The rest of (25) represents a much more idiosyncratic set. Notice also that I have not indicated the semantic domains anywhere. The reason for this will become clear.

(25)

- a. Nelayan itu sudah meN-jaring ikan
Fisherman the already meN-net fish
The fisherman has netted the fish (INSTRUMENT FOR ACTION)
- b. Kami meN-tepi
1PL meN-edge
We moved to the edge (LOCATION FOR MOTION TO LOCATION)
- c. Lembaga itu meN-besar
Silhouette the meN-big
The silhouette has become large (QUALITY FOR ACQUISITION OF QUALITY)
- d. Ibu sedang meN-sayur
Mother PROG meN-vegetable
Mother is cooking vegetables (THING FOR PREPARATION)

- e. Seniman itu meN-patung
 Artist the meN-statue
 The artist is sculpting a statue (THING FOR CREATION)

- f. Lelaki tua itu suka meN-rokok
 Man old the like meN-cigarette
 The old man likes to smoke (THING FOR SMOKING)

- h. Mereka meN-atap rumah itu
 3PL meN-roof house the
 They are putting a roof on the house (THING FOR ATTACHMENT)

Notice that while some of the examples in (25) seem to fall into fairly clear classes, there are others which are more heterogenous. In the case (25f-h), it is unclear if we want to even list the metonymies at all, given their rather idiosyncratic nature. The point is that, unlike *ber-* which is associated with specific domains, *meN-* is simply the Elsewhere case. Therefore, it can take a much wider range of metonymies than *ber-*, some of which don't seem to fall into any clear semantic domain.

The examples in (25) raise the question of whether we need to state the metonymies with such specificity. The answer appears to be 'Yes'. For example, it is not possible to predict what kinds of things will get associated with kinds of activities: Why are vegetables metonymic for an act of preparation since one might easily assume that eating is their most primary association ? This suggests that even though it may be possible to relate the metonymies under the rubric of a more general one (eg. most of the specific metonymies seem to instances of a general THING FOR CONVENTIONAL ACTIVITY), the specific

metonymies still need to be listed because it is not possible to predict exactly what kind of thing will end up being associated with what kind of activity.

What about the prefixes *di-* and *ter-* ? I have not come across any metonymies that are restricted to either of these prefixes. The observation that *di-* does not have any special association with any particular metonymy follows from the fact that the prefix belongs to the same category as *meN-*. It will apparently take any metonymy that *meN-* takes, as long as the stem is not monovalent.

In the case of *ter-*, it appears that the main restriction is that the activity the metonymy describes should be construable as non-volitional. This predicts that the metonymies in (24) that are associated with *ber-* should not be able to take *ter-* since the *ber-* and *ter-* categories have conflicting volitionality values. This appears to be correct.

(26)

- a. *Ali sedang ter-dasi
 Ali PROG ter-tie (THING FOR ACT OF WEARING)

- b. *Mereka ter-perahu ke Tioman
 3PL ter-boat to Tioman (MODE OF TRANSPORT FOR TRAVEL)

- c. *Pokok itu ter-buah
 Tree the ter-fruit (THING FOR NATURAL PRODUCTION)

- d. *Mereka akan ter- pesta
 They will ter-festival (THING FOR SOCIALLY-OBLIGATED
 ACTIVITY)

Among the metonymies in (27), *ter-* can only take INSTRUMENT FOR ACTION. All the others are not acceptable.

(27)

- a. Ali *ter-jaring* ikan itu
 Ali *ter-net* fish the
 Ali unintentionally netted the fish (INSTRUMENT FOR ACTION)

- b. **Lembaga* itu *ter-besar*
 Silhouette the *ter-big* (QUALITY FOR ACQUISITION OF QUALITY)

- c. **Kami* *ter-tepi*
 1PL *ter-edge* (LOCATION FOR MOTION TO LOCATION)

- d. **Ibu* sedang *ter-sayur*
 Mother PROG *ter-vegetable* (THING FOR PREPARATION)

- e. **Seniman* itu *ter-patung*
 Artist the *ter-statue* (THING FOR CREATION)

- f. **Lelaki* itu suka *ter-rokok*
 Man the like *ter-cigarette* (THING FOR SMOKING)

- g. **Mereka* *ter-atap* rumah itu
 3PL *ter-roof* house the (THING FOR ATTACHMENT)

Since it is quite improbable for the events in (27c-g) to be performed unintentionally, their inability to co-occur with *ter-* is expected.

8.7. SUMMARY

In this chapter, we have looked at metonymies that change the syntactic category of a stem, what I have called 'conversion'. Some of the stems are systematically monovalent or divalent, and I have suggested that this might be accounted for by appealing to the elements within an actional frame. We have also seen that the assumption that the prefixes are derivational must be rejected in favor of a Zero Conversion Hypothesis. Finally, we have discussed various motivations for the co-occurrence relations between metonymies and prefixes. This led to the formulation of four different constraints. We also explored the possibility that these constraints could be ranked according to how violable they were.

CHAPTER 9

SUFFIXED STEMS

9.1. INTRODUCTION

In this chapter, I consider the relationships between the prefixes and suffixed stems. I will concentrate on three suffixes: the two verbal suffixes *-i*, and *-kan*, and the nominalizing suffix *-an*. While both *-i* and *-kan* co-occur freely with *meN-* and *di-*, they are much more restricted in co-occurring with *ber-* and *ter-*. In fact, *ber-* never takes *-i* at all. On the other hand, the nominalizing suffix *-an* only co-occurs with *ber-*, and not with any of the other prefixes. The aim of this chapter will be to account for these distributional relations.

I will begin by discussing *-i* and *-kan*. It should be noted that when discussing the properties of *-i* and *-kan*, the prefixes used in the examples will be either *meN-* or *di-*. This then serves the dual purpose of illustrating the properties of the suffixes and demonstrating their free co-occurrence with *meN-* or *di-*. The more restriction co-occurrences with *ber-* and *ter-* will be discussed after that.

I will show that the prefix-suffix combinations can be easily accounted for only if we are willing to treat transitivity as a construal phenomenon that makes reference to a transitivity event ICM. The ICM provides a prototype which allows various events to be construed as being high or low in transitivity depending on how well they fit the prototype. At the end

of the chapter, I discuss the problems that plague any attempts to account for the data without making use of prototypes and construals.

9.2. THE VERBAL SUFFIXES *-I* AND *-KAN*

Both of these suffixes are quite polysemous, and a full discussion of their properties is beyond the scope of the present work since our main concern is with their ability to co-occur (or not) with the verbal prefixes. Historically, *-i* appears to have been derived from a locative meaning 'at', while the suffix *-kan* was originally a directional *akan* meaning 'toward, to' (Hopper and Thompson 1980:261). The following examples of *akan*, adapted from Winstedt (1927:98), show an early use in situations involving metaphorical transfer.

(1)

a. Jika ada kasih tuan akan kakanda

 If exist love lord toward 1SG

If there is love in you, my lord, towards me ...

b. Di-cium di-pelok oleh baginda akan menantu-nya

 Di-kiss di-embrace by prince toward son-in-law-3

There was kissing and embracing by the prince towards his son-in-law

Synchronically, both suffixes display directional meanings, with differences that are due to their original meanings. For example, while *-kan* indicates the transfer of something towards a recipient, *-i* indicates motion towards a location. This has consequences for the kinds of entities that the suffixes can profile. For example, *-i* participates in a frame involving an entity moving towards a location, and it always profiles the location only.

This allows the location to appear as a direct object in an ‘active’ sentence, and a subject in a ‘passive’ sentence. (I discuss the relationship between profiling and grammatical relations below.)

- (2) Ali meN-masuk-i gua itu
 Ali meN-enter-i cave the
 Ali entered the cave

In contrast, *-kan* participates in a transfer frame, involving an entity who initiates an act of transfer, the transferred entity, and the recipient. *-Kan* can be used to profile either the transferred entity or the recipient (Macdonald and Dardjowidjojo 1967:89).

- (3)
- a. Ali meN-beri-kan buku itu kepada saya
 Ali meN-give-kan book the to 1SG
 Ali gave the book to me
- b. Ali meN-beri-kan saya buku itu
 Ali meN-give-kan 1SG book the
 Ali gave me the book

According to Langacker (1991b:5), every linguistic predication involves the imposition of a profile on a base. Essentially, the base is a semantic/conceptual domain within which a subpart is given a particularly high level of prominence. The predication can also be relational so that what is profiled are interconnections among various entities (eg. a verb like *hit*). Importantly, relational predications are usually asymmetrical so that the most prominent entity is treated as a ‘figure’ against which other entities act as the ‘ground’, that

is, as a reference points against which the figure is located. In an action like hitting, the Initiator is usually the figure and the Endpoint is the most prominent part of the ground. However, actual motion is not necessary. For example, a sentence like *The book is above the paper* and *The paper is below the book* differ in the choice of figure (The book is the figure in the former, the paper is the figure in the latter) (see Langacker 1991b:9).

These semantic/conceptual properties have implications for grammatical relations. The subject corresponds to the most prominent participant within a profiled relationship (the figure), while the direct object corresponds to the second-most prominent participant (the most prominent participant within the ground). (See Langacker (1987, 1991a, 1991b) for fuller discussion and exemplification.) In the case of the Malay affixes, the suffixes *-i* and *-kan* profile various non-initiating entities such as the location, the transferred entity, or the recipient. This means that when a prefix like *meN-* is present, the entity profiled by the suffix becomes the direct object. This is because *meN-* profiles the Initiator, which is the most prominent participant present. However, with a prefix like *di-*, which effectively de-profiles the Initiator since it causes the Initiator to either be an oblique or absent altogether, the entity profiled by the suffix can now become the subject. Thus, by employing the Langackerian notion of profile, and its hypothesized implications for grammatical coding, we are able to motivate the various kind of semantic entities that appear as subject or object, and relate this to the presence of the various affixes.

Via a metaphorical mapping (to be shown below), both suffixes have also come to used as causatives. The main difference between *-i* and *-kan* is that the *-i* causee is less deeply affected than the *-kan* causee.¹ For example, Hopper and Thompson compare the

¹I once considered the possibility that *-i* and *-kan* might be causative duals, with *-i* inheriting from the STATES ARE LOCATIONS metaphor, and *-kan* inheriting from the PROPERTIES ARE POSSESSIONS metaphor. This doesn't appear to be the case. As we will see from the examples to be discussed below, the duality is best considered orthogonal to the *-i/-kan* distinction.

following sentences and note that the direct object in (4a) is less affected than the direct object in (4b).

(4)

- a. Dia meN-panas-i air
 3SG meN-heat-i water
 She heated the water
- b. Dia meN-panas-kan air
 3SG meN-heat-kan water
 She heated the water

According to them, with *-i*, ‘the action of heating is gentler and more controlled...’. With the suffix *-kan*, on the other hand, ‘the suggestion is of a more drastic heating...’ (p261).

I will suggest below that it is NOT the case that *-kan* specifically requires a more drastic effect on the causee. Rather, because the *-i* causative is restricted to relatively mild or superficial effects, in cases where the two suffixes contrast, the *-kan* version gets interpreted as involving a greater effect. The *-kan* causative is actually not concerned with how greatly affected the causee is -- it simply constitutes the Elsewhere case. This also means that where the speaker is not particularly concerned with how effected the causee is, *-kan* will probably be the suffix of choice. The result is that *-kan*, as we will see, tends to occur more freely than *-i*.

This difference in degree of affectedness will follow from the nature of the metaphorical mappings, to be shown below. Since *-kan* can profile either the transferred entity or the recipient, the suffix then gives us two slightly different metaphors for causation, whereas *-i*

gives us only one. Also, we will see that with the *-kan* mappings, there is no necessary implication that the causee be superficially affected, while with the *-i* mappings, such an implication does exist. A further sign that *-i* is more restricted than *-kan* comes from the fact that stems ending in /i/ or /ai/ can never take the *-i* suffix (Winstedt 1927:100). This phonological restriction means that in those cases, the only available choice is *-kan*. As (5) shows, with a stem like *tinggi* ‘to raise’, *-kan* is the only available suffix.

(5)

- a. Ali meN-tinggi-kan kerusi itu
 Ali meN-high-kan chair the
 Ali raised the chair

- b. *Ali meN-tinggi-i kerusi itu
 Ali meN-high-i chair the

As causatives, both suffixes require that the causer be acting volitionally. This is shown for *-i* in (6-7) below, and for *-kan* in (8-9).

-i

(6)

- a. Siti meN-merah-i bibir-nya dengan sengaja
 Siti meN-red-i lips-3 with intention
 Siti reddened her lips on purpose

- b. *Siti meN-merah-i bibir-nya dengan tidak sengaja
 Siti meN-red-i lips-3 with NEG intention
Siti accidentally reddened her lips

(7)

- a. Ali meN-pagar-i kebun-nya dengan sengaja
 Ali meN-fence-i garden-3 with intention
Ali fenced his garden on purpose
- b. *Ali meN-pagar-i kebun-nya dengan tidak sengaja
 Ali meN-fence-i garden-3 with NEG intention
Ali accidentally fenced his garden

(8)

- a. Siti meN-marah-kan suami-nya dengan sengaja
 Siti meN-angry-kan husband-3 with intention
Siti purposely made her husband angry
- b. *Siti meN-marah-kan suami-nya dengan tidak sengaja
 Siti meN-angry-kan husband-3 with NEG intention
Siti unintentionally made her husband angry

(9)

- a. Orang kampung meN-lapang-kan jalan itu dengan sengaja
 People village meN-wide-kan road the with intention
The villagers widened the road on purpose

- b. *Orang kampung meN-lapang-kan jalan itu dengan tidak sengaja
 People village men-wide-kan road the with NEG intention
 The villagers unintentionally widened the road

Since both *-i* and *-kan* require that the causer be volitional, the (b) sentences where the adverbial indicating non-volitional action is present are clearly unacceptable. Given our experience with the adverbial modification tests earlier, we might wonder why the (a) sentences show no sign of anomalous redundancy or awkwardness. This may be because even though *-i* and *-kan* require a volitional causer, they actually profile the causee, which is present here as the direct object. Of course, the prefix *meN-* here profiles the Initiator, but then recall that *meN-* imposes no volitionality requirement on its Initiator.

I will begin by looking at *-i* and *-kan* in their Source domain uses. As mentioned, *-i* participates in a frame involving motion to a location, while *-kan* participates in a frame involving transfer. This will serve as a starting point, and allow us to see the ways in which the nature of the frames motivate the mapping of the suffixes to the Target domain of Causation.

I begin with the more restricted suffix, *-i*.

9.2.1. SOURCE DOMAIN *-i*: PROFILING THE LOCATION

The sentences in (10) show that *-i* allows a location to be present as a direct object instead of a preposition phrase. For comparison, the sentences in (11) show the constructions where the suffix is absent. Note that sometimes, the location can already be present as a direct object (11b) even though the suffix is absent. In these cases, the presence of the suffix adds a sense of emphasis.

(10)

- a. Ali meN-duduk-i tempat saya
Ali meN-sit-i place 1SG
Ali sat in my place
- b. Pencuri itu meN-masuk-i rumah-nya semalam
Thief the meN-enter-i house-3 yesterday
The thief entered his house yesterday
- c. Mereka tidak meN-singgah-i pelabuhan itu
3PL NEG meN-visit-i port the
They did not call at that port

(11)

- a. Ali duduk di tempat saya
Ali sit LOC place 1SG
Ali sat in my place
- b. Pencuri itu masuk rumah-nya semalam
Thief the enter house-3 yesterday
The thief enter his house yesterday
- c. Mereka tidak meN-singgah di pelabuhan itu
3PL NEG meN-visit LOC port the
They did not call at that port

With the suffix *-i* present, the location is now able to become the subject of a passive.

(12)

- a. Tempat saya di-duduk-i oleh Ali
Place 1SG di-sit-i by Ali
My place was taken by Ali
- b. Rumah-nya di-masuk-i oleh pencuri semalam
House-3 di-enter-i by thief yesterday
The house was entered by the thief yesterday
- c. Pelabuhan itu tidak di-singgah-i oleh mereka
Port the NEG di-visit-i by 3PL
The port was not called at by them

In the Source domain, *-i* is then mainly used in a frame of motion to a location, with the location being profiled.

9.2.2. TARGET DOMAIN: *-I* AS A CAUSATIVE

As a causative, *-i* is used to describe situations where the effect on the causee is 'surfacy', 'transitory', or where the causee is not deeply affected. As in the previous section, note that the examples show that the prefixes *meN-* and *di-* can both freely co-occur with *-i*.

(13)

- a. Siti meN-merah-i bibir-nya
Siti meN-red-i lips-3
Siti reddened her lips

- b. Kebun itu di-pagar-i oleh Ali
 Garden the di-fence-i by Ali
 The garden was fenced by Ali

- c. Rambut-nya di-basah-i oleh anak itu
 Hair-3 di-wet-i by child the
 The child's hair was wet by him (= the child)

- d. Sebuah kipas meN-sejuk-i bilik itu
 One-CL fan meN-cold-i room the
 A fan is cooling the room

- e. Ali meN-ketahu-i hal itu
 Ali meN-know-i matter the
 Ali knows about the matter

In (13a-c), the effect is on the surface, transitory and fairly superficial. In (13d), the effect is again superficial in that the room is not permanently changed or affected by the cooling process. And in (13e), the process involves an act of cognition rather than emotion.

I suggest that there is a metaphorical mapping from the use of *-i* as a locative marker to its use as a causative, and that epistemic correspondences from the Source domain concerning locations have motivated the restriction of the causative to relatively superficial causal events. (See Croft 1991; Lakoff 1993, among others, for a discussion of metaphorical models of causation. Langacker 1991b contains a discussion of 'action chains', which are abstract conceptual paths that represent causal processes. A more recent account that also treats causation as being based on a conceptual model of event structure can be found in

Kemmer and Verhagen 1994. These conceptual abstractions are certainly compatible with the more explicitly metaphorical approaches to causation.)

At the same time, we also have a Target Domain Override, which means that certain inferences from the Source domain are NOT mapped onto the Target domain (Lakoff 1993). For example, in the Source domain, the entity is moving on its own accord (self-propelled motion). If directly mapped onto the Target domain, we would have a conflation of the causer and the effect. This is overridden since in the Target domain, the causer and the effect are never the same thing: The former must exist independently of and prior to the latter. Another reason for the override is that in the Source domain, self-propelled motion is usually volitional. Since volitionality is irrelevant to an effect, though not to the causer, this gets mapped onto the causer but not the effect.

(14)

Source Domain: Motion to Location

Target Domain: Causation

The initiating entity is the causer

The moving entity is the effect

The location is the causee

Epistemic correspondences:

Source: The initiating and moving entities are usually coreferential (self-propelled motion)

Target Domain Override: The causer and the effect are not coreferential

Source: The initiating and moving entities are acting volitionally (self-propelled motion is usually volitional)

Target Domain Override: Only the causer is acting volitionally; volitionality is irrelevant to the effect.

Source: The location is usually not affected by the arrival of the moving entity

Target: The causee is superficially affected by the effect

This metaphorical mapping gives us an understanding of causation in terms of caused motion (Lakoff 1993). As a result of this mapping, we get *-i* being used in cases where the action is volitional but where the causee is not deeply affected.

9.2.3. SOURCE DOMAIN *-KAN*: PROFILING EITHER THE TRANSFERRED ENTITY OR THE RECIPIENT

The following are some sentences (15) which show *-kan* as a suffix which profiles the transferred entity.

(15)

- a. Ali meN-beri-kan buku itu kepada saya
 Ali meN-give-kan book the to 1SG
 Ali gave the book to me

- b. Ahmad meN-masuk-kan mesin taip ke dalam bilik
 Ahmad meN-enter-kan machine type to in room
 Ahmad brought the typewriter into the room .

- c. Siti meN-hulur-kan se-galas air kepada suami-nya
 Siti meN-pass-kan one-glass water to husband-3
Siti passed a glass of water to her husband
- d. Jamal meN-lempar-kan mangga itu ke dalam air
 Jamal meN-throw-kan mango the to in water
Jamal threw the mango into the water

In (16), I show some sentences where the suffix is absent. As with *-i*, *-kan* sometimes appears to be optional (16a) so that its presence is mainly emphatic. In other cases, the absence of *-kan* forces a more periphrastic construction to be used (16b).

(16)

- a. Ali meN-beri buku itu kepada saya
 Ali meN-give book the to 1SG
Ali gave the book to me
- b. Ahmad meN-bawa masuk mesin taip ke dalam bilik
 Ahmad meN-carry enter machine type to in room
Ahmad brought the typewriter into the room

In (17), the status of the transferred entity as the profiled entity is indicated by its being present as the direct object. Under passivization, it is this entity that becomes the subject (Macdonald and Dardjowidjoj 1967:244).

(17)

- a. Buku itu di-beri-kan oleh Ali kepada saya
Book the di-give-kan by Ali to 1SG
The book was given by Ali to me
- b. Mangga itu di-lempar-kan oleh Jamal ke dalam air
Mango the di-throw-kan by Jamal to in water
The mango was thrown by Jamal into the water

In (18), we see that *-kan* can also profile the recipient.

(18)

- a. Ayah meN-beli-kan Ali kasut baru
Father meN-buy-kan Ali shoe new
Father bought Ali new shoes
- b. Guru meN-beri-kan kami kerja rumah
Teacher meN-give-kan 1PL work home
The teacher gave us homework
- c. Ali meN-cari-kan Siti pensil itu
Ali meN-find-kan Siti pencil the
Ali found Siti the pencil
- d. Ali meN-jual-kan saya kereta itu
Ali meN-sell-kan 1SG car the
Ali sold me the car

Under passivization of these examples, only the recipient is allowed to become the subject. The transferred entity cannot assume the subject position.

(19)

- a. Ali di-beli-kan kasut baru oleh ayah
 Ali di-buy-kan shoe new by father
 Ali was bought new shoes by his father

- b. *Kasut baru di-beli-kan Ali oleh ayah
 Shoe new di-buy-kan Ali by father
 New shoes were bought Ali by his father

(20)

- a. Kami di-beri-kan kerja rumah oleh guru
 IPL di-give-kan work home by teacher
 We were given homework by our teacher

- b. *Kerja rumah di-beri-kan kami oleh guru
 Work home di-give-kan IPL by teacher
 Homework was given us by teacher

The *-kan* suffix, then, is used mainly in a transfer frame with either the transferred entity or the recipient being profiled, and which is profiled appears to be a lexical characteristic of the stem.

9.2.4. -KAN AS A CAUSATIVE

In this section, we focus on *-kan* as a causative in a variety of causal events. As with causative *-i*, the causer must also be acting volitionally. But because *-kan* can profile either the transferred entity or the recipient, we get two slightly different mappings.

9.2.4.1. MAPPING NO.1: TRANSFERRED ENTITY AS CAUSEE

In the first mapping, there is a metaphorical transfer of the causee. This is similar to the mapping that we saw in the case of *-i*, where causation is understood in terms of caused motion. This is shown in the following sentences.

(21)

- a. Ahmad meN-terjemah-kan buku itu ke dalam bahasa Melayu
 Ahmad meN-translate-kan book the to in language Malay
Ahmad has translated the book into Malay

- b. Kerajaan telah meN-lulus-kan undang-undang itu minggu lepas
 Government already meN-get through-kan statute-statute the week last
The government already passed the statutes last week

The mapping is as follows.

(22)

Source domain: Transfer (Transferred entity profiled) Target domain: Causation

The initiating entity is the causer

The transferred entity is the causee

The recipient or destination is the caused state:

Sub-mapping:

If the recipient is a location (destination), this gets mapped onto a state.

Otherwise, the recipient remains animate.

Epistemic correspondences:

Source: The initiating entity usually intends for the transfer to take place

Target: The causer acts volitionally

Source: The transferred entity is usually inanimate

Target: The causee is usually inanimate

9.2.4.2. MAPPING NO. 2: RECIPIENT AS CAUSEE

In the second mapping, it is the use of *-kan* to profile the recipient that serves as the Source domain. The causee is no longer the transferred entity, but the recipient. This gives us a different understanding of causation; one that involves transfer rather than motion (Lakoff 1993; Goldberg 1995). The following are some examples. They all involve the stem *jadi* ‘become’ and two nominal complements. The first complement is the causee and appears either as a proper noun or a definite NP, while the second is the effect and it appears either as an indefinite NP or a nominal that seems to actually stand for an attribute.

(23)

- a. Mereka meN-jadi-kan Ahmad se-bagai tuan
3PL meN-become-kan Ahmad one-CL chief
They made Ahmad a chief

- b. Orang-orang kampung meN-jadi-kan orang baru itu sebagai imam
 Person-person village meN-become-kan person new the one-CL imam
The villagers made the newcomer an imam
 (imam: Islamic religious leader)
- c. Rakyat negeri itu meN-jadi-kan pemuda itu raja
 People country the meN-become young-man the king
The citizens of the country made the young man king
- d. Ali meN-jadi-kan cek itu wang
 Ali meN-become-kan cheque the money
Ali cashed the cheque

With regard to the 'passive' construction, only the first complement is allowed to assume the subject relation.

(24)

- a. Cek itu di-jadi-kan wang (oleh Ali)
 Cheque the di-become-kan money (by Ali)
 The cheque was cashed (by Ali)
- b. *Wang di-jadi-kan cek itu (oleh Ali)

It is also possible for the first complement to be indefinite, in which case the second complement MUST be standing for some kind of attribute. This can be seen by comparing the examples below with (23c). In other words, it appears that the first complement must always be relatively more salient or definite than the second.

(25)

- a. *Rakyat negeri itu meN-jadi-kan pemuda raja
 People country the meN-become young-man the king
- b. *Rakyat negeri itu meN-jadi-kan pemuda raja itu
 People country the meN-become young-man king the

The elements of the metaphorical mapping for *-kan* are:

(26)

Source domain: Transfer (Recipient profiled) Target Domain: Causation

The initiating entity is the causer

The transferred entity is the effect

The recipient is the causee

Epistemic correspondences:

Source: The initiating entity usually intends for the transfer to take place

Target: The causer always acts volitionally

Source: The recipient is usually animate and can be affected by the transfer

Target: The causee is usually animate and can be affected by the effect

Notice that the epistemic correspondences for both *-kan* mappings (whether the transferred entity or the recipient is profiled) don't say anything about the causee being strongly affected in contrast to the *-i* causative. The point is that the *-kan* causative, unlike *-i*, is not restricted to fairly superficial effects.

9.2.5. *TER-* AND THE SUFFIXES: CONFLICTING VOLITIONALITY VALUES ?

We have seen that the suffixes *-i* and *-kan* have no problems co-occurring with either *meN-* or *di-*. This is expected since both the Source and Target domain uses of the suffixes involve a volitionally-acting Initiator. Volitionality is preserved in the metaphorical mapping so that despite the polysemous nature of the suffixes, all the various uses have an Initiator who is acting volitionally (cf. The Invariance Hypothesis in Lakoff 1990). In the Source domain, *-i* indicates self-propelled motion which is usually construed as volitional, and *-kan* indicates an entity that initiates a transfer process. This gets mapped as a property of the causer in the Target domain, who is then construed as acting volitionally. Because *meN-* and *di-* belong to the category where volitionality is unspecified, they have no problem co-occurring with either suffix.

Given the volitionality requirement of the suffixes, we might predict that they never co-occur with *ter-* since this would result in conflicting volitionality values. This appears to be correct when *ter-* participates in the Initiator Subject Construction, as shown below.

(27)

- a. *Ali ter-jual-kan saya kereta itu
 Ali ter-sell-kan 1SG car the

- b. *Ali ter-masuk-i rumah itu
 Ali ter-enter-i house the

But recall that there are two situations where the Initiator in a *ter-* construction need not be non-volitional. One is when the Initiator has been made an oblique participant via the

Initiator Oblique/Absent Construction. In this case the Initiator may, but need not, be non-volitional. We might then expect this construction to be able to take the suffixes. But in fact, this construction never takes any of the suffixes at all.

(28)

- a. *Raja itu ter-tawan-kan/-i oleh Orang Melaka
 Prince the ter-capture-kan/-i by People Malacca
 The prince was captured by the people of Malacca

- b. *Jeruk itu ter-kulit-kan/-i oleh adik
 Orange the ter-skin-kan/-i by younger brother
 The orange was peeled by younger brother

Why can't the above sentences take the suffixes even though we know that the Initiator, as an oblique, need no longer be non-volitional ? This may be because one of the motivations for the use of the Initiator Oblique/Absent Construction was precisely to remove an Initiator whose volitionality value would otherwise be in conflict with the volitionality requirement of the *ter-* prefix. Since the suffixes require a volitional Initiator, this may tend to foreground the volitionality of an entity which the construction is intended to background in the first place.

The other situation is when the negative marker *tidak* is present since the combination of *tidak* and *ter-* gives rise to a specific construction where the Initiator wants to perform an action but simply 'lacks the capacity' to do so. In this case, because the Initiator is already a volitional entity, there is no need to make it an oblique participant. Of course, if the Initiator is now made an oblique participant, there is a sense in which the clash in volitionality values has been 'twice removed'. We therefore would expect 'lack of

capacity' *ter-* to co-occur with the suffixes in BOTH the Initiator Subject Construction and the Initiator Oblique/Absent Construction. Unfortunately, though we do find 'lack of capacity' *ter-* co-occurring with either suffix, it is only in the Initiator Oblique/Absent Construction; the Initiator is never allowed to be the subject. Also, we find that there is strong preference for *-kan* over *-i* so that for some speakers, *-kan* is the only possible choice. This can be seen in (29) which involves the Initiator Oblique/Absent Construction.

(29)

- a. Jeruk itu tak ter-kulit-i oleh adik
Orange the NEG ter-skin-i by younger brother
The orange cannot be peeled by younger brother
- b. Jeruk itu tak ter-kulit-kan oleh adik
Orange the NEG ter-skin-kan by younger brother
The orange cannot be peeled by younger brother

(Notice that (29) differs from (28b) in having the 'lack of capacity' reading.) (29a) is taken from Tampubolon (1983:129ff), who obviously finds it acceptable. However, it is rejected by my informants who allow only *-kan* to be used. Also, both the sentences in (29) have the Initiator in the oblique. The sentences are unacceptable if the Initiator is the subject, as shown in (30).

- (30) *Adik tidak ter-kulit-kan/-i jeruk itu
Younger brother NEG ter-skin-kan/-i orange the
Younger brother is unable to peel the orange

Thus, even if we focus on the ‘lack of capacity’ *ter-*, we are still left with the following questions.

(i) Why is *-i* less preferred than *-kan* ?

(ii) Why can’t the Initiator be the subject ?

I will deal with these questions below, starting with the choice of *-kan* over *-i*. We will see that the answers to these questions all stem from a simple fact: the ‘lack of capacity’ *ter-* is irrealis, and consequently quite low in transitivity.

9.2.5.1. WHY IS *-I* LESS PREFERRED THAN *-KAN* ?

Dardjowidjojo (1983:223) reports that the number of forms where *ter-* and *-i* co-occur is quite small when compared to the forms where *ter-* and *-kan* co-occur. Some examples, taken from Tampubolon (1983:129ff), are shown below in (31). Though (31b) doesn’t have the negative marker, it is still interpreted in terms of the Initiator’s capacity. As mentioned in Chapter 6, this is because for some speakers, due to a process of pragmatic back-formation, *ter-* can indicate ‘capacity’ as well as ‘lack of capacity’. Not all speakers have conventionalized this back-formation so that in Haji Omar and Subbiah (1985:95), we find the statement that when *ter-* combines with the suffix *-kan*, the negative marker is always present (in their case, it appears that *-i* is not a possible option). What is important thing here, though, is that the interpretation of the sentences is always related to the capacity of the Initiator.

(31)

- a. Jeruk itu tak ter-kulit-i oleh adik
Orange the NEG ter-skin-i by younger brother
The orange cannot be peeled by younger brother
- b. Kain itu ter-basah-i oleh² Tuti
Cloth the ter-wet-i by Tuti
The cloth can be wet by Tuti

However, my informants find these examples in (31) unacceptable. And Haji Omar and Subbiah make no mention of any co-occurrence between *ter-* and *-i*. They do, however, mention that *ter-* and *-kan* can co-occur (1985:95). And indeed, the following examples are all acceptable to my informants.

(32)

- a. Buah kemiri itu ter-pecah-kan oleh Toni
Fruit candlenut the ter-break-kan by Toni
The candlenut can be broken by Toni
**The candlenut was broken by Toni*
- b. Daging itu tak ter-lembut-kan
Meat the NEG ter-soft-kan
The meat cannot be tenderized
**The meat was not tenderized*

²Tampubolon's own example does not include the preposition *oleh*. Recall from the discussion in Chapter 4 that for him, the preposition is optional under the 'capacity' reading of *ter-*.

- c. Hal itu tidak ter-kata-kan oleh Ahmad
 Matter the NEG ter-speak-kan by Ahmad
The matter could not be voiced by Ahmad
**The matter was not voiced by Ahmad*

Let us now ask why, between *-kan* and *-i*, the former should co-occur more freely. We already noted that *-kan* is the less restricted causative in that it does not really specify the nature of the effect on the causee whereas *-i* is used only when the effect is relatively superficial or ‘surfacy’. We already saw evidence of this in our earlier discussion.

We now observe, from the glosses for (31-32), that the examples must relate to the capacity of the Initiator. That is, the constructions all describe the ability or inability of an Initiator to perform an action, rather than any specific event. For example, (32a) must be glossed as ‘The candlenut can be broken by Toni’. We already saw why a gloss like ‘The candlenut was broken by Toni’ is unacceptable, since the original motivation for the *ter*-Initiator Oblique/Absent Construction would have been to background a volitional Initiator in the first place.

The crucial point here is that given the ‘capacity’ or ‘lack of capacity’ reading, the constructions in (31-32) are all irrealis so that the event predicated involves an action which either did not occur, or which is presented as occurring in a ‘non-real (contingent) world’ (Hopper and Thompson 1980:252). Because the event did not occur, there is strictly speaking, only a potential rather than an actual effect. And without any clear indication that the effect is relatively superficial, the default causative *-kan* is more likely to be used. This, of course, does not rule out the use of *-i* (and it is obviously not intended to), but it means that for individual speakers, the guiding convention may have strengthened into a prohibition so that only the default causative, *-kan*, is acceptable. On the other hand, for

someone like Tampubolon, it appears that as long as one is relatively certain that the effect, despite its irrealis nature, is relatively superficial, the *-i* suffix is also allowable. Therefore, co-occurrences between *ter-* and *-kan* are more common than those between *ter-* and *-i*.

9.2.5.2. WHY CAN'T THE INITIATOR BE THE SUBJECT ?

Looking back at (31-32), we notice that all the examples involve an oblique Initiator. As shown below, the Initiator can never be the subject. (I omit examples involving *-i* since the presence of that suffix is completely unacceptable to my informants.)

(33)

- a. *Ahmad tidak ter-kata-kan hal itu
 Ahmad NEG ter-speak-kan matter the
 Ahmad is unable to voice the matter

- b. *Toni tidak ter-pecah-kan buah kemiri itu
 Toni NEG ter-break-kan fruit candlenut the
 Toni is unable to break the candlenut

To account for why the acceptable *ter-V-kan* sentences all involve the Initiator Oblique/Absent Construction, I suggest that there is another factor at work here: level of transitivity. Following Hopper and Thompson (1980:289), I suggest that an event that is coded in via the Initiator Oblique/Absent Construction is construed as being more highly transitive than if it had been coded via the Initiator Subject Construction. This is because the Initiator Oblique/Absent Construction serves to foreground the telicity of an event, as well as the effect of the event on a particular entity. This means that the difference between

the sentences in (33) and those in (32) is that the latter is construed as being more highly transitive than the former.

I now hypothesize that the suffix *-kan* has a particular restriction: It cannot code events that fall below a certain level of transitivity. (Possibly the same restriction holds for the suffix *-i* although I am unable to determine this since my informants do not use the suffix with *ter-* at all.) This restriction is the converse of the constraint for *ber-*, which we saw was unable to code events that went above a particular transitivity level. Let us now assume that when the Initiator is the subject, the event is construed as being too low on the transitivity scale to satisfy the suffixes, and that it is only by using the Initiator Oblique/Absent Construction that the transitivity level is sufficiently high.

Now, it may be objected that we have already seen the suffix *-kan* (and *-i*) being used in the Initiator Subject Construction, with the prefix *meN-*. This apparently falsifies the claim that having an Initiator as subject leads to an event that is construed as being too low on the transitivity scale to satisfy the suffix. However, recall that an important characteristic of the *ter-* constructions where the suffix is used is that they are all irrealis; they are all concerned with the Initiator's ability or inability to perform an action, not with an actual action. The *meN-* constructions, on the other hand, are realis. Irrealis events are lower in transitivity than realis events (Hopper and Thompson 1980) since they depart from the prototypical transitive event, which describes the actual rather than potential exertion of energy by an Initiator on an Endpoint. This, I claim, is what allows *-kan* to occur with an Initiator subject when the prefix is *meN-*, but only in the Initiator Oblique Construction when the prefix is *ter-*. And in fact, in the very next section, I hope to provide independent evidence for the assumption that *-kan* requires a minimal level of transitivity.

9.2.6. *BER-* AND THE SUFFIXES: CONFLICTING TRANSITIVITY LEVELS ?

Having looked at the conditions governing the co-occurrence of *ter-* and the suffixes, we now turn our attention to the relationship between *ber-* and the suffixes.

As far as I can tell, *ber-* and *-i* never co-occur. My informants seem to be quite adamant about this. This makes sense if we recall that despite being vol [+], *ber-* is a middle voice and thus events marked by *ber-* are restricted in their level of transitivity. Given that *-i* profiles either a location or causee as a direct object, and that these direct objects are fully referential, the result is that the events marked by *-i* are highly transitive. The inability of *ber-* to co-occur with *-i* then, is not due to conflicting volitionality values, but to conflicting transitivity levels.

We might expect the same thing in the case of *-kan*. That is, since *-kan* profiles either a recipient or a transferred object, and via a metaphor, can profile a causee as a direct object, this also results in a highly transitive event. Therefore, we would not expect *ber-* to co-occur with *-kan*. Again, this is largely true. However, it appears that *ber-* and *-kan* can co-occur just when *ber-* is used to indicate possession.

To understand why *-kan* is able to appear in the possession use of *ber-*, we first consider the possession construction in isolation. The examples in (34) show *ber-* as an indicator of possession, and the examples in (33) show that the possessed entity can optionally be specified by an attribute.

(34)

- a. Ali ber-kereta
 Ali ber-car
 Ali has a car

- b. Ali ber-senjata
 Ali ber-weapon
 Ali has a weapon

- c. Ali ber-isteri
 Ali ber-wife
 Ali has a wife

(35)

- a. Ali ber-kereta Honda
 Ali ber-car Honda
 Ali has a Honda

- b. Ali ber-senjata tombak
 Ali ber-weapon spear
 Ali has a spear

- c. Ali ber-isteri Cina
 Ali ber-wife Chinese
 Ali has a Chinese wife

We now consider what happens when *-kan* is present. What is interesting is that when the suffix is present, the specifying attribute is obligatory. (The difference between (35) and (36) appears to be one of emphasis.)

(36)

- a. Ali ber-kereta-kan Honda
 Ali ber-car-kan Honda
 Ali has a Honda

- b. Ali ber-senjata-kan tombak
 Ali ber-weapon-kan spear
 Ali has a spear

- c. Ali ber-isteri-kan Cina
 Ali ber-wife-kan Chinese
 Ali has a Chinese wife

As (37) shows, without the specifying attribute, the presence of *-kan* is unacceptable.

(37)

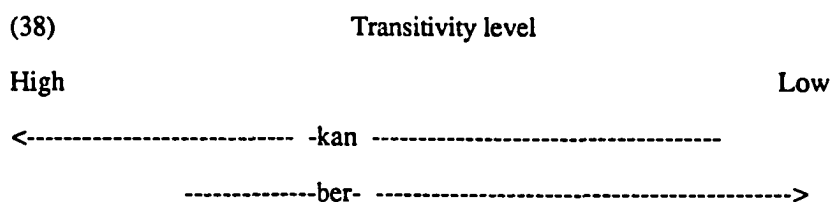
- a. *Ali ber-kereta-kan
 Ali ber-car-kan
 Ali has a car

- b. *Ali ber-senjata-kan
 Ali ber-weapon-kan
 Ali has a weapon

- c. *Ali ber-isteri-kan
Ali ber-wife-kan
Ali has a wife

The first thing to note is that there is a close connection between the semantic notions of recipient (*-kan*) and possession (*ber-*) since the recipient can be considered the possessor after the transfer has taken place. This indicates why in the possession cases, *-kan* is always present instead of *-i*

More crucially, notice that the presence of *-kan* is dependent on the presence of the specifying attribute. This dependency can be motivated by our earlier assumption that *-kan* requires that the events it codes contain a minimal level of transitivity. As mentioned, it is only when the specifying attribute is present that the possessed entity is individuated, that is, it becomes maximally distinct both from the other participant present (the possessor) as well as from its own background (Hopper and Thompson 1980:253). We now have two individuated participants instead of only one. This increases the overall transitivity level of the event sufficiently for the suffix to be used. Apparently, this does not increase the transitivity level to the point where it becomes unacceptable for the prefix *ber-*. We already know that *ber-* is restricted in the transitivity level of the events it can code, and it would seem that in the possession cases, the transitivity level falls within the range of both the prefix *ber-* and the suffix *-kan*. Schematically,



In the possession use of *ber-*, the event is stative or configurational rather than dynamic or processual. Recall that the prototypical transitive event is dynamic rather than stative since the transitive event ICM describes an exertion of energy by an Initiator on an Endpoint. This means that the transitive event ICM provides a point of reference which motivates treating possession *ber-* as being particularly low in transitivity. Both Hopper and Thompson (1980:252) and Rice (1987:145) have also suggested that the transitivity level of an event increases if the event is one of action (Hopper and Thompson) or force-dynamic (Rice), and decreases as the event is one of non-action or configurational. This means that even though *ber-* in general is restricted in the transitivity level of the events it can encode, if we compare 'possession' *ber-* with any of the other uses of *ber-*, the transitivity level involving 'possession' *ber-* is even lower than usual.

In a sense, this means that 'possession' *ber-* has more 'leeway' and can afford further increase in the transitivity level (of the possession event) before it hits the allowable limit or threshold. As pointed out by Rice (1987:146):

At what point our interpretation reaches some watershed and we construe the event as transitive is beyond prediction.... Rather, the determination takes place at a conceptual level. For linguistic description and analysis to be fully accurate, it must make reference to this level of organization, a level of subjective construal beyond the reach of formal grammatical categories and logical form.

This explains why even though we observed earlier that most of the uses of *ber-* were unable to have more than one referential participant present (recall that the direct object in the *ber-* version of the Initiator Subject Construction cannot be referential, and that in the *ber-* version of the Initiator Oblique/Absent Construction, the oblique Initiator cannot be present), in the case of the possession use, the possessed entity is able to be individuated

by a specifying attribute. Thus the increase in transitivity that results from having two highly individuated entities in the possession *ber-* is offset by its static or configurational nature.

9.2.7. THE NOMINALIZING SUFFIX *-AN*

We now come to the final suffix, the nominalizer *-an*. This is a suffix that co-occurs only with *ber-*, and never with any other prefix. Here are some examples of the suffix being used by itself. The suffix serves to derive nouns from verbs, adjectives, as well as other nouns.

(39)

a.	makan	'eat'
	makan-an	'food'
b.	lebih	'more'
	lebih-an	'excess, surplus'
c.	bintang	'star'
	bintang-an	'constellation'

When *ber-* is used with the suffix, we get stative predicates.

(40)

a.	Kami sudah lama	ber-kenal-an
	1PL	already long time ber-recognise-an
	<i>We have known each other for a long time</i>	

- b. Mereka tetap ber-kasih-an
3PL still ber-love-an
They still love each other

- c. Hal itu ber-hubung-an dengan masalah disiplin di sekolah
Matter the ber-connect-an with problem discipline LOC school
The matter is related to the problem of school discipline

- d. Rumah saya ber-dekat-an dengan balai polis
House 1SG ber-near-an with station police
My house is near a police station

- e. Kelelawar ber-gantung-an di dahah itu
Bats ber-hang-an LOC branch the
Bats are hanging from the branch

To understand why *-an* only co-occurs with *ber-*, and not with the other prefixes, I make two assumptions. One is that the particular use of *ber-* that co-occurs with *-an* is possession *ber-*. Recall that this is the only use of *ber-* that takes a nominal qua nominal. Via the metaphor PROPERTIES ARE POSSESSIONS, we get abstract states being treated as possessions. The other assumption is that nominals derived by *-an* suffixation cannot be converted in verbs. In other words, *-an* nominals cannot be conceptualized as activities via a metonymy. Since the other prefixes only take nominals if the nominals are metonymically standing for various activities, this means that the other prefixes will not be able to co-occur with *-an*.

Because the result of *-an* suffixation is a stative predicate, this serves to lower the overall transitivity of the event. An interesting consequence is that this allows *ber-* to be used with verbs that would otherwise be coding events that are too highly transitive. For example, Tampubolon (1983:119-121) notes that *ber-* is used in certain reciprocal constructions, such as those indicating naturally reciprocal events (41), and not others (42). (Recall that a naturally reciprocal event has a low degree of event elaboration since each participant is necessarily both Initiator and Endpoint. This leads to an overall lower transitivity level since there is no asymmetrical transfer of energy from one participant to another, which would be the case if the Initiator and Endpoint roles were filled by distinct participants.)

(41)

- a. Ali dan Ahmad ber-salam-an
 Ali and Ahmad ber-greet-an
 Ali and Ahmad greeted each other

- b. Toni dan Tuti ber-cium-an
 Toni and Tuti ber-kiss-an
 Toni and Tuti kissed each other

(42)

- a. Mereka ber-temu
 3PL ber-meet
 They met (each other)

- b. Kedua anak laki-laki itu ber-gumul
 Both child male-male the ber-wrestle
 The two boys wrestled (each other)

Notice that the examples in (42) are naturally reciprocal events while those in (41) are not. For example, meeting is a necessarily reciprocal act while greeting need not be since a person's greeting need not be acknowledged at all. Therefore, the sentences in (41) are unacceptable without the suffix, as shown in (43).

(43)

- a. *Ali dan Ahmad ber-salam
 Ali and Ahmad ber-greet
 Ali and Ahmad greeted each other

- b. *Toni dan Tuti ber-cium³
 Toni and Tuti ber-kiss
 Toni and Tuti kissed each other

Further evidence that the events in (41) are not naturally reciprocal comes from (44) where, without the presence of the suffix, the prefix is *meN-* rather than *ber-*.

(44)

- a. Ali meN-salam Ahmad
 Ali meN-greet Ahmad
 Ali greeted Ahmad

³While all my informants found (41a) unacceptable, there was slight variation in the case of (41b). All agreed that (41b) was much better with the suffix present, but some were willing to accept the unsuffixed version as well. It is possible that for these individuals, kissing is treated as naturally reciprocal (cf. the English examples in Chapter 4.)

- b. Toni meN-cium Tuti
 Toni meN-kiss Tuti
 Toni kissed Tuti

Thus, it seems clear that the presence of the suffix *-an* is needed with the examples in (41) in order to lower the overall transitivity level of the events, which then allows the *ber-* prefix to be present.

9.2.8. SUMMARY

In this chapter, I have discussed the ways in which the verbal prefixes interact with three suffixes, *-i*, *-kan*, and *-an*. I showed that an account of the observed patterns of interaction had to appeal to both volitionality values and transitivity levels. The most basic factor was that there be no conflicting volitionality values. However, once the conflict had been removed, as in the cases where *ter-* was treated as predicating the ability or inability of the Initiator to perform an action, the nature of the prefix-suffix combinations showed a great deal of sensitivity to transitivity levels. This supports the claims of Hopper and Thompson 1980 that transitivity is a gradient, rather than a discrete, phenomenon. And in particular, it supports Rice's 1987 work that ultimately, transitivity is construal-based.

Speakers seem to associate different events with varying levels of transitivity, and this constrains the distribution of the various affixes. For example, we saw that *ber-* cannot appear when the transitivity levels of the events become too high, while *-i* and *-kan* cannot appear when the transitivity levels are too low. As Rice notes, at what point, the transitivity level is judged to be appropriate or inappropriate for a particular morpheme 'cannot reliably be read off the meaning of the verb or its arguments' (1987:255) since transitivity is 'bound up in the interpretation of both the predicate (the verb) and the

predication (the sentence as a whole)' (1987:256). Furthermore, judgements concerning the particular level of transitivity associated with a given event are made with reference to a transitive event ICM, which represents the prototype. Events that deviate from the transitive event ICM in various ways (eg. whether the participants are individuated, whether the event is stative or dynamic, realis or irrealis) are construed as having varying degrees of transitivity.

To summarize, I have hypothesized that the Malay affixes have transitivity restrictions. This hypothesis is motivated by multiple aspects of their behaviour. For example, *ber-* tends to appear in constructions where only a single individuated participant can be present. Where more than one individuated participant is present, the *ber-* construction is stative in nature. These properties are consistent with the hypothesis that *ber-* is restricted to coding events which are low in transitivity. Likewise, *-kan* appears to require a minimal transitivity level so that if the construction is irrealis (as with 'capacity' *ter-*), the suffix can only appear with the Initiator Oblique/Absent Construction. No such restriction holds if the construction is realis. And where the construction is stative, at least two individuated participants must be present. The hypothesis that the Malay affixes have transitivity restrictions therefore provides an important generalization by bringing together these multiple aspects of the behaviour of the affixes. We therefore have a single economical explanation proposed to account for them.

In contrast, it is not clear how a theory of grammar that rejects treating transitivity as a construal phenomenon based on a prototype (such as the Principles and Parameters framework) can account for the prefix-suffix combinations. For example, what feature should be posited for *ber-* to account for the fact that it cannot take individuated direct objects, and also that the oblique Initiator must be absent? And why is it that the possessed entity in the *ber-* possession construction is allowed to be individuated? Should

a single feature be used to deal with these cases or three separate features ? Supposing a single feature were posited -- let us call this feature 'lite' -- what exactly is the conceptual content of 'lite' ? And it doesn't help to posit three separate features instead ('lite', 'light', and 'lait' ?) since we still need to say exactly what these features mean, and more importantly, we now need to address how these features are related to each other (the issue of polysemy).

Likewise, in the case of *-kan*, how does one account for the fact that the suffix can appear in the *ber-* possession construction only if both participants are individuated, and co-occur with *ter-* only if the construction takes the form of the Initiator Oblique/Absent ? Again, how many features are needed to account for the behaviour of *-kan*, and what features would these be ?

Notice that the problem goes beyond trying to decide what and how many features should be posited for an individual affix. For example, we also need to say why *-kan* can co-occur with *meN-*, but not *ter-*, in the Initiator Subject Construction. Obviously, it will not do to simply posit some feature(s) that make the *-kan* and *ter-* incompatible with each other since we also know that *-kan* can co-occur with *ter-* if the construction is in the form of the Initiator Oblique/Absent. This means that then whatever feature is claimed for *-kan*, we need to say why this feature restricts *-kan* to the Initiator Oblique/Absent Construction when the prefix is 'capacity' *ter-*, and not otherwise. We can of course go on multiplying features and producing various rules that govern feature interaction, but then we will have lost any hope of capturing kind of generalization.

It therefore seems that the only insightful way to account for the data is to admit that reference must be made to prototypes, and that transitivity in particular, can only be understood with reference to an ICM of transitive events. To open this door, however, is

to let processes of general cognition into the grammar to the point where it seems impossible to isolate any phenomena that could serve as evidence for an autonomous language faculty. The prefix-suffix combinations in Malay therefore pose a particularly difficult problem for claims of a self-contained module of grammar.

CHAPTER 10

IDIOMATIC PREFIX-STEM COMPOSITES

10.1. INTRODUCTION

In the last few chapters, I looked at cases where various parts of the prefix-stem composite turned out to have properties which were not predictable from the semantics of the stem and that of the prefix (given its place in the verbal paradigm). I focused on the properties of the prefix that lie outside the verbal paradigm (Chapter 7), properties of the converted stem (Chapter 8), and properties of the suffixed constructions (Chapter 9).

In this chapter, I focus on cases where it is the entire prefix-stem composite that appears to have rather idiomatic meanings. As far as I can tell, the data in this chapter have never been discussed in the literature. This is not surprising since the term ‘idiom’ is usually used as a cover for any part of the language that is (presumed to be) unstructured and idiosyncratic. The implication then is that idioms do not merit any kind of serious investigation. However, as I will show below, there is structure and systematicity in idioms, and this actually reflects a coherent conceptual organization that can be discerned provided we are willing to make use of general cognitive mechanisms such as frames, metaphors, and metonymies.

It is important to realize that I will be looking at idioms where the prefix is itself part of the idiom, not just the stem. My goal will be to see to what extent these idiomatic meanings

can be motivated by various metaphors and metonymies. I will also be interested to see if there is any pattern of distribution that characterizes the presence/absence of the prefixes in these idiomatic constructions. For example, by and large, most of the idiomatic prefix+stem composites involve either *meN-* or *ber-*. *Di-* seems to be completely absent, and *ter-* is very rare. Towards the end of the chapter, I will explore some possibilities that may account for this distribution. I will suggest that the most plausible account lies in assuming that idioms normally code situations and activities that involve human protagonists. Because of this, their morphosyntax is based on highly schematic actional frames. The nature of these frames makes it unlikely that the prefixes *di-* and *ter-* will be part of the idioms.

The idioms I will be considering fall into four arbitrarily selected domains of experience -- I will look at idioms for talking about motion, anger, death, and birth. The main reason why these idioms were chosen is that these seem to be quite well-known and commonly used.

10.2. MOTION

We already noted that *ber-* can be used with motion verbs. Some earlier examples are repeated below.

(1)

- a. Ali ber-lari ke sekolah
 Ali ber-run to school
 Ali is running to school

- b. Ali ber-jalan ke sekolah
 Ali ber-walk to school
 Ali is walking to school

It is therefore probably not surprising that the idioms for indicating motion also involve the prefix *ber-*. In (2a) the stem is a verb *tolak* ‘to push’ , while in (2b), the stem is a verb *angkat* ‘to lift’. Both are used to indicate departure.

(2)

- a. Dia akan ber-tolak petang ini
 3SG will ber-push afternoon this
 S/he will depart this afternoon
- b. Mereka sudah ber-angkat ke Mekah
 3PL already ber-lift to Mecca
 They have already left for Mecca

This idiomatic meaning occurs only when in conjunction with the prefix *ber-*. That is, it is the entire prefix+stem composite that bears the idiomatic meaning. As shown below, without *ber-*, the meanings of the verbs are more literal.

(3)

- a. Orang-orang kampung datang meN-tolak motokar saya
 People village come meN-push car 1SG
 The villagers came to push my car

- b. Seorang murid meN-angkat tangan-nya
One-CL student meN-lift hand-3
A student raised his hand

We are faced with the question, why would the constructions *ber-tolak* ‘ber-push’ and *ber-angkat* ‘ber-lift’ be used to indicate departure? I will suggest that despite the differences between the two idioms, both are cases involving a frame metonymy where the initial point of an act of departure comes to be used metonymically for the entire frame.

Let us deal first with *ber-tolak* ‘ber-push’. A clue to what is going on comes from the English idiom ‘let’s push/shove off’ to also indicate departure. Pam Morgan (p.c.) has suggested that the source for the English idiom may have been a nautical use in that the action referred to the pushing or shoving off of a boat at the beginning of a journey. And indeed, the same motivation appears to have been the case for *ber-tolak* ‘ber-push’. Coope suggests that *ber-tolak* means ‘to start out, commence journey’ probably because ‘in the old days practically all journeys had to be by boat’ (1976:294). If this is correct, then we have a frame metonymy where initial point of the frame is used to stand for the entire travel frame. The motivation for the prefix being *ber-* rather than some other prefix comes from the fact that the person doing the pushing is also the person who is departing, giving the action a sense of ‘self-benefaction’. In other words, the Initiator and Endpoint of the action are construed as being essentially the same participant. As we saw in Chapter 5, this fits Kemmer’s definition of a middle (see also the discussion in Kemmer 1993:78ff).

We now consider the construction *ber-angkat* ‘ber-lift’. Coope (1976:10) suggests that this is used in cases where the departing entity is one of royalty. This is echoed by Suryadinata (1991:268) who notes that in Bahasa Malaysia, *ber-angkat* is ‘often used to refer to the departure of a king’ while in Bahasa Indonesia, it is more generally used for any act of

departure. This is obviously not a hard and fast dialectal difference. For example, Liaw (1988) is a pedagogical grammar of the variety spoken in Malaysia and Singapore, rather than Indonesia, and he appears to have no problems using *ber-angkat* for departing entities who are not necessarily members of royalty. *Ber-angkat* then appears to be undergoing/have undergone a process of generalization where instead of referring specifically to the departure of royalty, it can refer to anybody's departure. The following is one of Liaw's examples (1988:216).

- (4) Rombongan itu akan ber-angkat ke Pulau Pinang
 Group the will ber-lift to Penang
The group will depart for Penang

What is of interest to us is that if *ber-angkat* was originally used to indicate the departure of a king, it may provide us with the motivation for the idiom. It is possible that in the past, a king travelled in a litter that was carried about by a number of servants. The beginning point of the departure would then have been marked by the lifting of the carriage, which would obviously have to be initiated at the king's command. Thus, for all intents and purposes, it is the king himself who initiates the lifting because he wishes to depart. As with *ber-tolak*, this involves an act of self-benefaction. If this motivation is correct, this is yet another case of frame metonymy; both *ber-tolak* 'ber-push' and *ber-angkat* 'ber-lift' involve using the beginning point of the travel frame to evoke the entire scenario.

Similar phenomena have already been noted in Ojibwa (Rhodes 1977, discussed in Lakoff 1987:78) where the act of getting into a canoe or car (the 'embarcation point') metonymically evokes the entire scenario of travel. Thus, speakers who are asked how they got to a party usually give answers like 'I got into a car' or 'I stepped into a canoe'. As pointed out by Lakoff (1987:79), English also has similar cases, as in 'I hopped on a bus'.

10.3. ANGER

Lakoff (1987:380ff) observes that anger is frequently conceptualized via metaphors involving heat and pressure. The general metaphor that he proposes is ANGER IS HEAT. This metaphor inherits from an even more general conceptualization of emotions as fluids contained in the body so that the application of ANGER IS HEAT to fluids gives us ANGER IS THE HEAT OF A FLUID IN A CONTAINER. The metaphorical mapping (adapted from Lakoff 1987:384-388) is summarized in (5).

(5)

Source Domain: Heat of fluid in a container Target: Anger

The body is the container

Anger is heat in a contained fluid

Epistemic correspondences:

Source: The effect of intense fluid heat is container heat, internal pressure, and agitation

Target: The effect of intense anger is body heat, internal pressure, and agitation

Source: When the fluid is heated past a certain limit, pressure increases to the point at which the container explodes

Target: When anger increases past a certain limit, pressure increases to the point at which the person loses control

Malay also appears to make use of heat and pressure to talk about anger. The most common Malay word is *marah*, which simply means 'angry'. The idiomatic constructions, however, capture different aspects of the anger metaphor.

(6)

- a. Ali ber-gelorah setelah di-hina
 Ali ber-seethe after di-insult
 Ali was seething after being insulted
- b. Ali meN-radang setelah di-hina
 Ali meN-flare up after di-insult
 Ali flared up after being insulted
- c. Ali meN-cetus setelah di-hina
 Ali meN-explode after di-insult
 Ali exploded after being insulted

In (6a), the verb *gelorah* ‘to seethe’ is used to present anger as a boiling fluid, thus focusing on the presence of internal pressure. And in (6b-c), *radang* ‘to flare up’ and *cetus* ‘to explode’ are used to present anger as resulting from a loss of control; the internal pressure is too great and the anger can no longer be contained.

I have not been able to find any examples of *gelorah* ‘to seethe’ being used outside the anger metaphor. I assume that the original meaning of *gelorah* is ‘to seethe’, and that synchronically, it has lost any non-metaphorical associations and is only used to talk about anger. Therefore, the presence of the prefix may be redundant.

In the case of *radang* ‘to flare up’, however, when used without the prefix, it seems to act as a nominal modifier to indicate inflammation of various organs, eg. *radang paru-paru* ‘inflammation of the lungs’ or *radang usus buntu* ‘appendicitis’. Other examples that the

ANGER IS HEAT metaphor is a fairly rich conceptual mapping in Malay comes from various phrases that are used to also talk about anger.

(7)

- a. Ali panas hati setelah meN-dengar kata-kata yang tioak sopan itu
 Ali hot heart after meN-hear word-word REL NEG respect the
 Ali became angry after listening to those insulting words

- b. Ali naik darah meN-terima laporan itu
 Ali rise blood meN-receive report the
 Ali got angry upon receiving the report

As (7) shows, anger is sometimes described as *panas hati* ‘hot heart’, or *naik darah* ‘rise blood’. The first obviously involves to the notion of heat, while the second involves the presence of both heat and pressure.

In the case of *cetus* ‘to explode’, when the prefix is absent, we get the following examples which clearly indicate its Source domain use. In (8a), the nominalizing suffix *-an* is present, giving us ‘explosion’. And in (9b), *api* ‘fire’ is the object of *cetus*, giving us ‘to set off a blast’.

(8)

- a. *cetus-an*
 explode-NOM
 ‘explosion’

- b. *cetus api*
 explode fire
 'to set off a blast'

Note that all the prefixes used in the anger idioms are either *meN-* or *ber-*. To account for why these specific prefixes should be present, let us first remember that it is not always possible to predict which stem will take which prefix. For example, we saw earlier that both *tangis* 'to cry' and *kelamun* 'to day-dream' take *meN-* even though their lack of volitionality might lead us to expect *ter-* instead. What is important is that because *meN-* is unspecified for volitionality, there is no conflict in volitionality values. This means that in most cases, the presence of *meN-* simply indicates the unmarked choice, as with *radang* 'to flare up' or *cetus* 'to explode'. In the case of *gelorah*, seething implies volitionality so that *ter-* is ruled out. This leaves either *ber-* or *meN-* as possible choices, with the former being used.

10.4. DEATH

In Lakoff and Turner (1989), it is noted that death is often metaphorically understood in terms of departure. This DEATH IS DEPARTURE metaphor is also found in Malay, as shown by the saying below (Brown 1989:50).

- (9) *Kubur kata mari, rumah kata nanti*
 Grave say come, house say wait
 The grave bids him come, the home bids him tarry

More to our interest is that the construction *ber-pulang* 'ber-return' is used to metaphorically indicate death.

- (10) Ali sudah ber-pulang tahun lepas
Ali already ber-return year last
Ali died last year

The specific verb *pulang* 'to return' is used to evoke the idea that in death, a person returns to God. This is made explicit in (11).

- (11) Ali sudah ber-pulang ke Rahmatullah
Ali already ber-return to Almighty
Ali has died (lit. returned to the Almighty)

Without the prefix *ber-*, *pulang* reverts to its Source domain use, as in (12).

- (12) Dia akan pulang
3SG will return
She will return

Malay has yet another idiomatic prefix+stem composite for indicating death. This is the construction *meN-tinggal* 'meN-remain'.

- (13) Ali sudah meN-tinggal
Ali already meN-remain
Ali has died

With *ber-pulang* 'ber-return', the person who dies is the one who moves away. However, if we look at *meN-tinggal* 'to remain', it would appear that the person who dies is the one who is motionless (who remains behind), while the living move on. Again, we can see

from (14) that it is specifically the construction *meN-tinggal* that indicates death. As (14) shows, when the construction is altered either by having a different prefix (14a) or by the addition of the causative suffix *-kan* (14a), only the Source domain meaning is possible. Crucially, (14b) never means ‘to kill’.

(14)

- a. Dalam perlumbaan itu Rosnah ter-tinggal di belakang
 In race the Rosnah ter-remain LOC back
 In the race, Rosnah got left behind

- b. Dia meN-tinggal-kan anak lelaki-nya di rumah
 3SG meN-remain-kan child male-3 LOC house
 S/he left her/his son at home
 **S/he killed her/his son at home*

If the idiomatic meaning for *meN-tinggal* is motivated by a metaphor, we would appear to have a different metaphor for dying than in the case of *ber-pulang*: Both metaphors involve motion, but *ber-pulang* maps the moving entity onto the dying while *meN-tinggal* appears to map the moving entity onto the living so that the living are conceptualized as the departed. However, I hesitate to posit a metaphor in the case of *meN-tinggal* because I know of no other languages which conceptualize death in terms of the departure of the living. This would be a very odd mapping because the experiential basis for death is that it is the dying entity who undergoes a change of state, not the living. Hence, there is no experiential motivation for treating *meN-tinggal* as having a mapping where the living are doing the moving or departing.

A second and more plausible possibility, involving metonymy instead, is raised by another expression for death which also involves the form *tinggal*. Coope (1976:51) gives the phrase *tinggal nadi sahaja* 'only the heartbeat remains' as an idiom for being near death -- only the heartbeat remains, everything else (the soul ? the spirit ?) is already gone or has departed. This would be consistent with the idea that the person who dies is the one who departs, and it does not require the postulation of a metaphor where it is the living who depart. It is possible that beginning with a construction like (15a), we get (15b) via a shortening of the expression (this is itself a metonymic process PART FOR WHOLE). Via a further metonymy NEAR DEATH FOR DEATH, we then get an example like (15c) where just the construction *meN-tinggal* alone is now used to indicate death.

(15)

- a. Ali meN-tinggal nadi sahaja
 Ali meN-remain heartbeat only
 Ali is near death (lit. All that remains of Ali is his heartbeat/Ali leaves
 behind only his heartbeat)

- b. Ali meN-tinggal
 Ali meN-remain
 Ali is near death

- c. Ali meN-tinggal
 Ali meN-remain
 Ali is dead

Finally, as for the choice of the prefixes, *pulang*¹ is a motion verb, and we know that motion verbs usually take either *ber-* or *meN-*. In the case of *tinggal*, if the idiom *meN-tinggal* did develop via the metonymies in (15), *ber-* would not have been appropriate since there is a referential direct object present, leading to a conflict with the transitivity level of an event that *ber-* can code. And the use of *ter-* would have given the rather odd meaning that Ali unintentionally left his heartbeat behind.

10.5. PREGNANCY AND BIRTH

The following are some idioms used with regard to pregnancy and birth.

(16)

- a. Isteri-nya meN-kandung lagi
 Wife-3 meN-contain again
His wife is pregnant again (lit. His wife contains (something) again)

- b. Badan-nya sudah ber-isi
 Body-3 already ber-contents
She is pregnant (lit. She has/possesses contents)

- c. Isteri-nya sudah meN-lahir-kan
 Wife-3 already meN-external-kan
His wife has given birth (lit. His wife has externalized something)

¹In the case of *ber-pulang*, the choice of *ber-* is probably motivated by the sense of reciprocity that *pulang* 'to return' seems to convey.

Note that the examples in (16a-b) focus on the pregnancy itself, while (16c) focuses on the actual birth. Since a pregnant woman's body does literally contain the baby, the idioms in (16) appear not to be metaphorical. Rather, they seem to involve a metonymy where the relation of containment is used to stand for the entire pregnancy frame. Because (16b) treats the relationship between the mother (container) and the baby (content) in terms of possession, *ber-* is used since we know that it can indicate possession.

The examples in (17) show the uses of the stems in (15) outside of the pregnancy frame.

(17)

- a. Beg itu meN-kandung wang
 Bag the meN-contain money
 The bag contains money

- b. Botol itu ber-isi air
 Bottle the ber-contents water
 The bottle has water in it

- c. Ia baik pada lahir-nya
 3SG good on external-3
 S/he only appears to be good

There is another expression for childbirth which is shown in (18a). As we can see from (18b), a stem which means 'to change (clothes)' is used to idiomatically indicate childbirth. The presence of the prefix *ber-* is obviously motivated by the fact that *ber-* is normally used with verbs of grooming.

(18)

a. Isteri-nya sudah ber-salin

Wife-3 already ber-change (clothes)

His wife has given birth

b. Sebelum pergi ke pesta, ia mahu ber-salin dahulu

Before go to party, 3SG want ber-change (clothes) first

Before going to the party, s/he wants to change clothes first

In the Malay custom, a woman who has just given birth is usually tended to by another woman whose responsibility is to ensure that the mother gets back her strength, energy, and figure. This is referred to as a period of confinement. During this period, an important part of the treatment involves making the mother wear a very large and tight piece of clothing to help her regain her figure. Thus, the change of clothing is specialized within the confinement frame to refer to the wearing of this particular piece of 'post-natal apparel', and comes to metonymically indicate that the wearer has already given birth. The converse, of course, can be found in the more familiar idea of 'maternity wear' which indicates that the wearer is pregnant, and not that she has already given birth.

10.6. WHAT ABOUT *DI-* AND *TER-* ?

So far all the idiomatic constructions have involved either *meN-* or *ber-*. These are summarized below.

(19)

MOTION

ber-tolak 'to depart'

ber-angkat 'to depart'

ANGER

ber-gelorah 'to seethe (in anger)'

meN-radang 'to flare up (in anger)'

meN-cetus 'to explode/lose one's temper'

DEATH

meN-tinggal 'to die'

ber-pulang 'to die'

PREGNANCY AND BIRTH

meN-kandung 'to be pregnant'

ber-isi 'to be pregnant'

meN-lahir-kan 'to give birth'

ber-salin 'to have given birth'

We have yet to encounter any examples involving *di-* or *ter-*. Why should this be so ?

One possibility, of course, is that the idiomatic meanings we have looked at tend to be construed as involving a single participant. This tendency could be due to the structure of the Target, whether metonymic or metaphorical. Motion, anger, and death are typically coded with monovalent stems. This might explain why the English expressions 'to make

the scene' and 'to kick the bucket' are not passivizable idioms. The former refers to motion ('arrival') while the latter refers to death.

Even pregnancy and birth, which might be said to involve two entities and are thus potentially codable by divalent stems, appear to be actually conceptualized as involving only a single entity. The focus of the conceptualization is on the condition of the mother throughout. Thus, even a stem like *meN-lahir-kan* 'to externalize' becomes monovalent when used idiomatically, despite the fact that it contains the causative suffix *-kan*. All this points to an override in that the conceptual structure of the Target ultimately dictates the morphosyntactic nature of the idiomatic construction.

This hypothesis, however, only accounts for the absence of *di-*, but not *ter-* since *ter-* can easily take monovalent stems. To deal with the absence of *ter-*, we might point to the fact that motion, pregnancy, and birth), involve entities that are either volitional or at least not obviously non-volitional. For example, we have already seen that motion is prototypically a volitional action. And we might want to claim that pregnancy and birth are usually welcome events, and are thus unlikely to take *ter-*. However, in the case of anger, especially when the idiom focuses on the loss of control, the condition seems particularly suited for *ter-* prefixation. Yet the prefix is absent.

An implication of this hypothesis is that the absence of idioms involving *di-* or *ter-* from our admittedly small sample is only incidental. If we were to widen our search to include more idioms in a greater variety of domains, we should find examples of *di-* and *ter-* idioms.²

²Recall that I am only talking about cases where the prefix itself forms part of the idiomatic construction. Thus, if only the stem were idiomatic, and retained its idiomatic sense even as the prefix changes, this would not be an example of an idiomatic prefix+stem construction. For example, we saw in Chapter 4 that *ter-kejut* is used to mean 'be startled'. Apparently, the stem *kejut* literally means 'to awaken' (Macmillan's dictionary 1976:128). This idiom seems to make use of an image metaphor where the image of a person waking up suddenly (possibly due to a loud noise) is mapped onto the image of a person being startled.

In anticipation of further evidence, I suggest a second, stronger hypothesis: that the absence of *di-* and *ter-* is not incidental, but motivated by what it means for a construction to be an idiom. Nunberg et al. (1994) have suggested that part of the explanation for the properties of idioms should come from their uses as proverbs. They argue that a 'proverbial expression invokes a concrete situation ... as the metaphorical model for a recurrent, culturally significant situation involving abstract relations or entities...' (1994:530). A similar point is made in Lakoff and Turner (1989:162) who suggest that the understanding of proverbs involves a metaphor **GENERIC IS SPECIFIC**. Generic-level information is extracted from the culturally-specific details of an idiom or proverb, and constitutes a generic-level schema. The result is 'a variable template that can be filled in many ways' (1989:164). Implicit in all this is the assumption that idioms are normally used for talking about human activities and situations.

Modifying these statements somewhat, I would suggest that idioms reflect a variety of recurrent and culturally significant situations involving human protagonists, all of which are based on what I earlier referred to as actional frames (**X does something to Y**, **X gives something to Y**, **X moves to Y**, etc). These actional frames are naturally coded in the 'active' voice since they represent construals of events from their inception to their termination, rather than from the perspective of the Endpoint entity. Of course, 'passive' variants are possible, but this would then represent a marked option. A similar point is also made in Langacker (1991:298) who uses the term 'unmarked coding' to refer

However, as shown below, the stem can be used idiomatically with a different prefix so that the idiom proper does not include the prefix *ter-*.

- (1) Ali *ter-kejut*
 Ali *ter-awaken*
 Ali *startled*

- (2) Ali *meN-kejut-kan Siti*
 Ali *meN-awaken-kan Siti*
 Ali *startled Siti*

to cases where ‘an archetypal conception [my ‘actional frame’] is coded linguistically by a category taking that conception as its prototype.’ According to Langacker, the unmarked coding has a special cognitive status because it presents the ‘normal observation of a prototypical action: from an external vantage point, a viewer observes an energetic interaction between an agent and a patient that occurs within an inclusive setting and constitutes a single event.’

Langacker’s own discussion is restricted to the prototypical transitive event. But if we expand the family of conceptual archetypes include a variety of basic actional frames, all motivated by salient and recurrent experiences such as moving from one place to another, as well as acting on another entity, then Langacker’s own comments about unmarked coding also applies to actional frames. It may be that having idioms based on actional frames increase their memorability and effectiveness.

Given this hypothesis, the generic-level schemas or templates that Lakoff and Turner talk about are themselves not completely variable, but are based on these highly schematic actional frames. And precisely because of the nature of the frames, the idioms are unlikely to end up with *di-* as a part of the construction since *di-* only participates in the Initiator Oblique Construction, and thus presents the event from the terminal viewpoint. Notice also that these actional frames typically involve an entity who is acting volitionally. This would then also account for why *ter-* is rarely used as part of an idiom. From this hypothesis it follows that the absence of idioms involving *di-* and *ter-* is not accidental, but motivated by the properties of the actional frames. By assuming that a general property of idioms is that they are based on these actional frames, we have a single explanation for the absence of *di-* and *ter-*, and the presence instead of *meN-* and *ber-*.

In the case of *di-*, even if we were to come across such examples of an idiomatic stem, the idiom itself would then probably be confined to the stem so that the prefix *di-* would probably not be considered a part of the idiom. This would differ from the examples we have discussed so far where the prefixes generally appear to constitute part of the idiom. For the prefix *di-* to constitute a part of an idiom, it would mean that the idiom was inherently passive. As a general tendency, this seems unlikely.

In the case of *ter-*, an idiom which does include the prefix *ter-* is *ter-masuk*, which is used to indicate inclusion. The stem *masuk* is a motion verb meaning 'to enter'.

(21)

- a. Berita itu ter-masuk harga barang-barang
 News the ter-enter price thing-thing
 The news included the prices of things

- b. Harga-nya \$7.00, ter-masuk belanja pos
 Price-3 \$7.00, ter-enter cost postage
 The price is \$7.00, including postage costs

Note, though, that this tends to be used with inanimate entities so that non-volitionality is no longer relevant. In more general terms, the idioms in (21) are able to depart from the actional frames since they do not involve a human protagonist. The choice of *ter-* in (21) may actually have been motivated by its close association with perfectivity so that the construction *ter-masuk* indicates a resulting state, rather than a process. That is, one could never use *ter-masuk* to actually refer to an act of inclusion.

(22) *Ali ter-masuk belanja pos

Ali ter-enter cost postage

Ali included the cost of the postage (eg. in his estimation of expenses)

10.7. SUMMARY

Idioms are often excluded from linguistic analysis on the grounds that they are either mere historical relics or reflections of socio-cultural 'idiosyncracies'. In any case, it is assumed that they have nothing useful to tell us about grammar. However, as this chapter has shown, idioms exhibit a great deal of systematicity provided they are approached with the right kind of analytical framework, one that recognizes the pervasiveness of general cognitive processes within the grammar.

We examined a number of idiomatic constructions consisting of the verbal prefixes and a stem (as well as the occasional suffix). The majority of these constructions involve either *ber-* or *meN-* rather than *ter-* or *di-*. The two main points that I have argued for are: (i) individual idioms can be motivated by appealing to specific metaphors and metonymies, and (ii) idioms in general can be understood by making use of actional frames involving human protagonists. This has allowed us to understand the properties of individual idioms within specific domains of experience. It has also allowed us to account for the observation that the prefixes present in the idioms tend to be restricted to either *meN-* or *ber-*.

CHAPTER 11

CONCLUDING REMARKS

11.1. INTRODUCTION

In this final chapter, I touch on what my analysis has to say about the claim that the Malay prefixes are voice markers, and on the Topicalization Construction that was briefly discussed in Chapter 7. I will suggest that both these issues are best viewed from a grammaticalization perspective. I end by summarizing some of the general implications of the present work.

11.2. THE VOICE/FOCUS DEBATE

A number of scholars have insisted on treating the verbal prefixes, especially *meN-* and *di-*, as voice markers (eg. Alsagoff 1992; Chung 1976a; Muller-Gotama 1994). Yet, as mentioned earlier, others have insisted that this approach mistakenly downplays the semantic/pragmatic nature of the prefixes. The opposition to the voice characterization takes on a variety of forms so that terms such as ‘focus’ (Thomas 1980), ‘orientation’ (Prentice 1992), and ‘trigger’ (Cumming 1991) have been used. In what follows, I will, as a matter of convenience, simply refer to this debate over voice as the ‘voice/focus’ debate.

As a point of departure for our discussion of the voice/focus debate, consider once again, the system of verbal prefixation attributed to Benjamin (repeated from Chapter 2).

- (1) *meN-* 'active (transitive) voice or actor-focus'
- ber-* 'active (intransitive)' or 'middle voice'
- di-* 'passive (transitive) voice or patient-focus'
- ter-* 'perfected act or realized condition'

Notice that ONLY *meN-* and *di-* are given focus characterizations by Benjamin. And in fact, it would be safe to say that most of the debate over voice/focus has centered on *meN-* and *di-*, rather than *ber-* and *ter-*.

Of course, this concentration on *meN-* and *di-*, rather than on *ber-* and *ter-*, is not an accident. We have seen that *meN-* and *di-* are the least polysemous of the prefixes. They are thus more amenable to being given a single label (eg. actor-focus, active voice) than the others. However, problems arise for both sides of the debate once we expand the scope of the discussion.

For example, while voice proponents can resort to simply treating *ber-* as an indicator of middle voice (syntactically defined), focus proponents have not attempted to say what kind of focus marker *ber-* is. This is because the usual inventory of semantic roles does not include anything like a reflexive or reciprocal entity. Also, we have seen that the subject of a *ber-* construction can be either an Initiator or an Endpoint. This kind of polysemy is problematic for those who would seek a single focus label. Because of this, the *ber-* prefix is an embarrassment for the focus proponents. (These are, of course, manifestations of a more general theoretical problem -- should multiple semantic roles be mapped onto a single

syntactic slot, or should each syntactic slot be uniquely associated with a single semantic role ? See Dowty 1991 for a recent discussion of the issue.)

But the focus proponents find a slight advantage in the case of the verbal suffixes *-i* and *-kan*. We noted that *-i* makes a location a core argument, and *-kan* can make either the transferred entity or the recipient core arguments. This allows the focus proponents to extend the rubric of their focus system to include the suffixes (eg. Thomas 1980). Unfortunately though, the polysemy of the suffixes is still often ignored. For example, Thomas (1980:67) claims that *-kan* marks instrument focus, and *-i* marks referent focus (it is not clear what the term 'referent focus' actually means). The voice proponents, obviously, have nothing to say about the suffixes.

Note, though, that when it comes to the prefix *ter-*, both sides are faced with a dilemma. We already saw in Chapter 3 the problems raised by *ter-* for a voice system. For the focus system proponents, *ter-* is also problematic. For example, we know that both a *ter-* subject and a *meN-* subject can be an Initiator. The difference is that the former must be non-volitional. This means that treating *ter-* as an Initiator focus marker, say, is insufficient. The issue of volitionality therefore needs to be addressed. One could, of course, simply treat *ter-* as marking a non-volitional Initiator. However, this becomes unsatisfactory once we notice that a *ter-* subject can also be an Endpoint. And the difference between this *ter-* subject and a *di-* subject is that the former is necessarily non-volitional. At this point, the claim that *ter-* is a primarily a focus marker is weakened by the observation that while the semantic roles may vary (Initiator or Endpoint), the non-volitionality is much more consistent.

Having said all this, I do think that the focus proponents are right in wanting to include the verbal suffixes as part of the focus system. To do this in the context of the present work, we would now have the following situation.

- (2) Verbal prefixes: Initiator-Endpoint is Subject (*meN-*, *ter-*, *ber-*)
 Initiator is Subject (*meN-*, *ter-*, *ber-*)
 Initiator is Oblique/Absent (*di-*, *ter-*, *ber-*)
- Verbal suffixes: Final Location (*-i*)
 Transferred entity (*-kan*)
 Recipient (*-kan*)
 Causee (*-i*, *-kan*)

The situation in (2) shows a nice iconic division of labor between the prefixes and suffixes: the semantic roles involving the prefixes are all defined in terms of the initiating entity, while the semantic roles involving the suffixes are all defined in terms of entities that are located towards the end of the action chain. Notice also that only the prefixes have the grammatical relations of the semantic roles specified; the suffixes do not. This will turn out to be relevant in the next section.

What this discussion shows is that considerations of analytical coverage favor the focus side of the debate. But to simply end our discussion here would be unfair since there is no attempt to consider the debate in more diachronic terms. It is possible that as the specific semantic role associated with a marker is generalized to include a heterogeneous collection of roles, the marker becomes increasingly grammaticalized so that it is treated more as a marker of a grammatical relation than a semantic role (see Bybee 1985; Kibrik 1985 for general discussions along these lines). This diachronic viewpoint obviously lends the

voice/focus debate a different perspective. No longer are we required to be reductionistic¹ and simply choose one side over another; instead we can ask which of the various affixes are most likely to become more grammaticalized. The most likely candidates, to my mind, are the prefixes *meN-* and *di-*.² This is because, unlike *ber-* and *ter-*, or the verbal suffixes, they are the least semantically restricted of the affixes, lacking volitionality specifications as well as associations with particular semantic domains such as grooming or change in posture.

To end, two points need to be borne in mind. First, the focus/voice debate is more profitably viewed diachronically as a continuum of grammaticalization. This allows us to ask which affixes are likely to display more voice-related properties, and which are likely to retain more focus-related properties. Second, even allowing for this possibility of grammaticalization, it is unlikely that the volitionality contrast would be lost. This is why I consider it an advantage of my analysis that it is basically neutral with regard to this debate. It is important to note that across the volitionality categories, there may be variation in the transitivity level of the events that a prefix can code. And within each category, some prefixes may be more likely than others to grammaticalize from focus to voice markers, but the volitionality distinctions will, in all probability, remain stable.

11.3. THE TOPICALIZATION CONSTRUCTION

Shown below are some examples of the Topicalization Construction. Notice that the verb is never prefixed, though it can be suffixed (3b).

¹I thank Jim Matisoff for this 'timely' reminder.

²In fact, Becker and Wirasno (1980) suggest that this has already happened.

(3)

- a. Buku itu Ali baca
 Book the Ali read
 The book Ali read

- b. Siti Ali beri-kan buku itu
 Siti Ali give-kan book the
 (To) Siti, Ali gave the book

As (4) shows, the presence of the prefix is unacceptable.

- (4) Buku itu Ali *meN-/*di-baca
 Book the Ali read
 The book Ali read

- b. Siti Ali *meN-/*di-beri-kan buku itu
 Siti Ali give-kan book the
 (To) Siti, Ali gave the book

Another interesting issue is that the preposed constituent tends to exhibit properties that are normally attributed to the grammatical subject (Chung 1976a).³ To facilitate discussion, I will, from now on, refer to the preposed constituent as the Endpoint⁴ and the NP that

³Chung actually calls this a 'passive' construction because, to use her terminology, the underlying direct object now displays the properties of a derived subject.

⁴It is not clear at this point whether the preposed constituent is better described as an Endpoint or a Non-Initiator. I assume the former for convenience. Nothing in the discussion crucially hangs on this assumption.

follows it as the Initiator. The fact that no prefix is allowed in this construction, and the fact that the Endpoint displays subject-like properties, raises two questions:

- (i) Is the verb really unprefixated or is there a zero-prefix ?
- (ii) What kinds of grammatical relations should we assign to the constituents ? For example, if the Endpoint is a subject, what kind of grammatical relation should the Initiator bear ?

Aside from Chung's work, another major study of this construction can be found in Alsagoff 1992. There is some dialectal variation between Chung's and Alsagoff's data. I will not go into any details here, but the table below summarizes the properties of the Endpoint and Initiator, according to Chung and Alsagoff.

(5) **Summary of dialectal differences:**

Syntactic properties of Endpoint	Chung	Alsagoff
can be Relativized	Yes	Yes
can undergo Raising	Yes	No
can undergo Equi	Yes	No
can be Antecedent for Reflexive	Does not say	Yes
Syntactic properties of Initiator	Chung	Alsagoff
can be Relativized	No	No
can undergo Raising	No	No
can undergo Equi	No	No
can be Antecedent for Reflexive	Does not say	Yes
Also: Initiator must be pronoun or clitic	Yes	No

Notice that for Chung, the Endpoint displays a large number of properties that are often associated with the subject: it undergoes Relativization, Raising, and Equi. On the other hand, the Initiator does not have any of these properties. Assuming that these tests really target the subject (an assumption that is questioned by Alsagoff), Chung understandably concludes that in the Topicalization Construction, the Endpoint really is the subject. Because Chung is also working within the framework of Relational Grammar, she is required, under the Relational Annihilation Law (1976a:86), to assume that the Initiator is a chomeur. Part of the support for the chomeur status of the Initiator comes from Chung's claim that it must either be a pronoun or a clitic; it can never be a full NP. The problem for Chung, as she is well aware, is that the Initiator, unlike a prototypical chomeur, cannot be deleted. It can also act as a controller of Equi (1976a:90). These are properties that one would normally associate with a core argument rather than one which has been 'demoted'.

To summarize Chung's analysis, Chung is concerned to show that the Endpoint is a subject and the Initiator is a chomeur. She claims that the construction is a special kind of passive. While Chung acknowledges that the construction seems to involve a form of topicalization, this does not play any significant role in her analysis. She also does not address the question of whether or not a zero-prefix might be present in the construction.

We now consider Alsagoff's approach to the construction. Working within the framework of Lexical Functional Grammar, Alsagoff suggests that the construction actually involves a zero prefix. Alsagoff is required to posit a zero-prefix because she assumes that the Malay prefixes subcategorize for various grammatical functions such as TOP (topic), SUBJ (subject), and OBJ (object). The prefixes *meN-* and *di-*, she claims, are characterized by a functional equation that requires their topics to be subjects (TOP = SUBJ). In the Topicalization Construction, then, there must be a zero-prefix whose functional equation prevents the topic from being the subject. Instead, the zero-prefix requires that its topic be

an object (TOP = OBJ) (1992:123). This means that contrary to Chung, Alsagoff assigns very different grammatical relations to the Endpoint and the Initiator. For Alsagoff, the Endpoint is an object, and the Initiator is the subject. To account for the fact that the Endpoint, and not the Initiator, is the one which undergoes Relativization, Alsagoff makes the additional assumption that it is topic, and not subject, which is the relevant notion for Relativization.

Alsagoff goes on to account for the dialectal differences between her data and Chung's in the following way: In Chung's dialect, the controllee need only be a topic. In Alsagoff's dialect, on the other, the controllee must be both a subject as well as a topic. From this difference, the syntactic properties in (5) follow. In both dialects, according to Alsagoff, the Endpoint is the topic as well as the object. Since Chung's dialect only requires that the controllee be a topic, the Endpoint is able to undergo Raising and Equi. But since Alsagoff's dialect requires that the controllee be both topic and subject, and since no constituent bears both topic and subject status simultaneously, neither the Endpoint nor the Initiator can undergo Raising or Equi. To account for the Reflexivization facts, Alsagoff assumes that either the topic or the subject can serve as an antecedent.

Alsagoff's analysis has the merit of recognizing that the construction actually is a kind of topicalization, something which was missing from Chung's analysis. However, while Alsagoff's analysis works, it leaves unanswered some important questions. First, is there really a zero prefix present? According to Bybee et al. 1994, the development of a morpheme may have the effect of endowing certain meaning in another paradigmatically contrasting morpheme or, in the absence of a morpheme, a zero morpheme (1994:294). Thus, Bybee et al claim that a zero morpheme arises as the result of the development of an overt gram in the same semantic domain. The absence of an overt marker in a particular semantic domain allows the hearer to infer from context the intended interpretation or to

infer a default interpretation if the context is vague. When the overt morpheme is obligatory, the default sense is conventionalized as a zero morpheme (1994:151).

We can therefore ask of Alsagoff's analysis, what is this common semantic domain that would motivate the zero morpheme ? In fact, I suggest that since the construction involves a marked constituent order, this already serves as an overt signal that the conditions which would normally lead one to expect the prefixes to be present no longer hold. Therefore, there would be little reason to expect a zero morpheme to develop. I will say more about this below.

Another problem with Alsagoff's analysis is that it seems to imply that having TOP=OBJ is not uncommon. However, a number of studies have shown that a topic tends to grammaticalize into a subject (Givon 1976; Li and Thompson 1976; Shibatani 1991). This raises the possibility that a situation where TOP=OBJ (if it indeed exists) is unstable. And in fact this brings us back to the generalization of Chung's paper: that these are really subject properties. Put into a diachronic perspective, we may say that the syntactic tests used by Chung and Alsagoff indicate the degree of grammaticalization of topic into a subject.

Finally, we noted that one of the dialectal differences between Chung and Alsagoff is that for Chung, the Initiator must be either a pronoun or a clitic. Alsagoff's dialect has no such restriction. It would be nice if we could account for this. Under Alsagoff's analysis, however, this difference would be unmotivated.

I wish to now suggest that it is unlikely that a zero-prefix would be present in the Topicalization Construction. I say unlikely rather than impossible because there is nothing that would absolutely rule out the development of a zero morpheme. However, I will show

that, unlike Alsagoff, we are not under any theoretical imperative to posit a zero morpheme. In fact, it is possible to make minor modifications to my analysis of the prefixes so as to account for their absence in the Topicalization Construction.

Suppose we accept the most straightforward explanation for what is going on in the Topicalization Construction: that the Endpoint, because of its topicality, is grammaticalizing into a subject. At the same time, the Initiator is being treated less like a subject. I have also argued that the verbal prefixes are realizations of a schema which encodes both volitionality values as well as the three main construction types: the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction. I summarize the situation below.

(6) Conditions under which a verbal prefix appears:

Initiator-Endpoint is Subject

or

Initiator is Subject

or

Initiator is Oblique/Absent

Conditions in the Topicalization Construction:

Endpoint is Subject

and

Initiator is Core (therefore, not Oblique/Absent)

As mentioned in the previous section, there is a generalization that the prefixes are all oriented towards the initiating entity. Thus, we can assume that the prefixes are licensed to

appear if the Initiator is either the subject or an oblique. But in the Topicalization Construction, the Initiator is no longer the subject. So, the first condition does not hold.

Is the Initiator an oblique ? No, as both Chung and Alsagoff point out, the Initiator still displays the properties of a core argument. Thus, the second condition does not hold either. This means that the Topicalization Construction has none of the conditions that would license the appearance of a prefix. Note that this also makes it unlikely that the speakers of the language would be motivated to analyse the construction as involving a zero morpheme.

We can also attempt to place the dialects of Chung and Alsagoff on a scale of grammaticalization. Since the Endpoint in Chung's dialect manifests a larger number of syntactic properties than the Endpoint in Alsagoff's dialect, we can assume that the Endpoint in Chung's dialect has become much more grammaticalized. We can even suggest a hypothesis to motivate why in Chung's dialect, the Initiator must be either a pronoun or a clitic. As the Endpoint becomes more subject-like, the fact that the Initiator is still present as a core argument would lead to a potential conflict in identifying the subject (since there is a strong universal tendency to treat Initiators as subjects unless 'demoted'.) I assume that the restriction of the Initiator to a pronoun or clitic represents a strategy for resolving the conflict so that the Endpoint can be unambiguously identified as the subject.

We might even go further and suggest that in time to come, the pronominalized or cliticized Initiator may even become optional and thus, occasionally absent. With the Initiator absent, the construction would then have the following form.

(7) Endpoint (= Subj) VERB

Notice that we would now be back to the unmarked constituent order. At this point, given Bybee et al.'s comments about the development of a zero morpheme, we might then say that the conditions are ripe for a zero morpheme to come about since the construction in (7) would look very much like a 'passive', thereby vindicating Chung's claim that the construction actually represents a kind of passive. In fact, we might even say that Alsagoff is not wrong to posit a zero morpheme; the only problem is that her zero morpheme was posited too early in the developmental history of the construction. However, there is another possibility to consider. Since the construction in (7) resembles a passive, instead of treating it as having a zero morpheme, speakers might simply introduce an already available passive marker, the prefix *di-*. I assume that *ber-* and *ter-* are less likely to be introduced (even though they can participate in passive constructions) because they are associated with specific volitionality values. The semantics of the Topicalization Construction, as far as I can tell, carry no overt volitionality specifications. This makes *di-* a more likely candidate than *ber-* or *ter-*.

Notice also from (2) that while the verbal prefixes specify the grammatical relations that the Initiator must appear in, the verbal suffixes have no such restriction. The suffixes encode only the semantic roles but not the grammatical relations. Of course, this is what we want since we need to allow for sentences like (8) where a suffix appears in the Topicalization Construction.

- (8) Siti Ali beri-kan buku itu
 Siti Ali give-kan book the
 (To) Siti Ali gave the book

Precisely because the suffixes do not specify the grammatical relations of their semantic roles, they are free to appear in the Topicalization Construction, where the semantic role encoded by a particular suffix now appears as a subject.

11.4. THE GENERATIVISTIC FALLACY

I want to now consider in more detail how the generativist's claim of a self-contained module of grammar can still be maintained in the face of the data presented in this study.

There appear to be two options:

- (i) Either accept the challenge of dealing with the full range of data, in which case some devices must be introduced to deal with (a) the morphosyntactic effects that I have accounted for in terms of transitivity levels, and (b) the polysemy of the various affixes, or
- (ii) find some justification for excluding parts of the data from analytical consideration (that is, restrict the scope of the analysis) so that only what remains is that subset of the data which is least problematic for the claim of an autonomous grammar. Under this option, I assume that the least problematic data will be that which I have argued to be the least polysemous and most grammaticalized (syntacticized), that is, sentences involving *meN-* and *di-*.

As we will see, neither of these options is feasible. Consider the first option. I asked at the end of Chapter 9 what kinds of features one could posit to deal with the varying morphosyntactic effects that a particular affix seems to display. I showed that arbitrarily introducing different features to account for each effect simply begs the question of what these features really are. It further obscures the fact that the various morphosyntactic

effects associated with a particular affix (such as *ber-* not allowing the direct object to take a determiner, but allowing two individuated participants in a possession (stative) construction) can all be given a unified treatment provided we are willing to appeal to a transitive event prototype. Under the features approach, this unity is lost especially if the features are claimed to be primitives. And if they are not primitives, the question arises as to the relationships among the features.

This brings us to the more general problem of polysemy. I have shown that polysemy can be understood to result from inferences involving general cognitive processes such as metaphor, metonymy, and prototype categorization. If features are adopted, the problem still remains as to how they are related especially if we wish to be able to distinguish polysemy from homonymy. I simply do not see how this can be done without bringing in general inferential processes. And of course, to do so would undermine any claims of a self-contained module of grammar.

So, let us consider the second option instead. On what grounds can we justify concentrating on *meN-* and *di-*, and ignoring the rest of the data ? Looking at the literature, one finds various pairs of terms being batted around, all of which are supposed to distinguish between what is directly reflective of the language faculty and what has been contaminated by a 'wide range of interfering factors' (Chomsky 1993:1). I mention two such pairs, 'competence' vs. 'performance' and 'core' vs. 'periphery'. Taking the first pair, Chomsky (1980:59) describes 'competence' as

the cognitive state that encompasses all those aspects of form and meaning and their relation, including underlying structures that enter into that relation, which are properly assigned to the specific subsystem of the human mind that relates

representations of form and meaning. A bit misleadingly perhaps, I will continue to call this subsystem 'the language faculty'.

On the other hand, 'performance' includes many different factors such errors, false starts, memory structure, mode of organizing experience, and perceptual mechanisms (Chomsky 1965, 1980). Now, I certainly don't dispute the need to abstract out things like errors, false starts, belches, and hiccups. But it is not clear that processes such as perceptual mechanisms and the mode of organizing experience can be profitably left out of the study of language. In any case, it is important to realize that the distinction presupposes rather than demonstrates the isolability of an language faculty. More problematically, the heterogeneous collection of phenomena that are classified as 'performance' raises the suspicion that what we really have is a residual category: 'Competence' vs. 'whatever is not competence'.

The problem is (perhaps) less severe with the distinction between 'core' and 'periphery'. Chomsky (1978:12ff) describes the 'core' as having 'structures and rules of great simplicity', while the 'periphery' contains marked exceptions which result from specific experiences (Chomsky 1986:147). The 'periphery' supposedly includes, among other things, irregular morphology, rules of a more complex nature, and idioms. For the sake of argument, let us assume that the distinction is valid. Let us further assume that the problem of polysemy would involve 'rules of a more complex nature'. Among the various affixes we have discussed, we notice that only *meN-* and *di-* seem to lack any kind of polysemy. At this point, it is no longer of any theoretical interest why the prefixes should display varying degrees of polysemy, it is simply a brute fact that *meN-* and *di-*, by virtue of their lack of polysemy, are likelier candidates for the 'core' than *ber-* and *ter-*.

Given this, the analyst can proceed to treat *meN-* and *di-* as active and passive voice markers. The specific details of the analysis will, of course, depend on the individual analyst. For example, Jaeggli (1986) proposes that the passive morphology ‘absorbs’ the external theta role (in this case, the agent) while a more recent proposal by Marantz (1995) also invokes a derivational principle called Greed which states that movement is allowed only if it satisfies the needs of the moving constituent.

Notice that this analysis, which treats *meN-* and *di-* purely in terms of voice, is deficient in two ways (actually four ways, if we decide that the issue of relative degrees of polysemy cannot be justifiably ignored, and if we recall the various problems raised in Chapter 2 concerning the mutual exclusivity of the prefixes):

- (i) It says nothing at all about the observation that *meN-* tends to lexicalize with a monovalent stem, that is, when it appears in the Initiator/Endpoint Subject Construction. This never happens when *meN-* appears with a multivalent stem. One could claim that this process of lexicalization is part of the periphery rather than the core, and consequently of no relevance. However, we already saw that the lexicalization process is fairly systematic because the other prefixes *ber-* and *ter-* also display the same tendency in exactly the same kind of construction only. But of course, this pattern and any generalization that might spring from it is no longer available since we have already excluded *ber-* and *ter-* from our analysis.
- (ii) The analysis also says nothing about the fact that *meN-* and *di-* belong to a category where volitionality is unspecified. As we have seen, the notion of volitionality is crucial to accounting for why the prefixes are mutually exclusive. It also accounts for the kinds of stems that the prefixes are or are not attached to. For example, there would be no account for the observation that *meN-* does not attach

to a large number of stems which describe non-volitional acts (such as *gelincir* 'slip' and *jatuh* 'fall'). But to bring in the notion of volitionality means bringing in the other prefixes *ber-* and *ter-* since *meN-* and *di-* form the Elsewhere category, and it is only by understanding the properties of *ber-* and *ter-* that we understand what stems they are semantically compatible with. The remaining stems then constitute what is available to *meN-* and *di-*.

This essentially opens up a Pandora's box of general cognition. After all, volitionality is certainly not a uniquely linguistic notion. And if we recognize *ber-* and *ter-* as volitionality markers, what other properties of the prefixes are we entitled to ignore ? Even if we insist that polysemy is irrelevant, the issue of transitivity remains, and this brings us right back to the first option and its attendant problems.

It is no accident that we appear to be caught in a vicious circle. What this demonstrates is that an arbitrary separation of grammar from general cognition gives rise to a series of problems and questions, which can ultimately be dealt with only by abandoning the separation in the first place. It also demonstrates that interesting and challenging questions that normally would not arise when one considers isolated parts of the language become unavoidable when a larger set of data is investigated.

I call this attempt to leave aside peripheral constructions under the belief that it is the 'core' that really matters 'The Generativistic Fallacy'. But as this discussion shows, the generativist assumption that 'idealizing away variation' can lead to insights concerning the grammar of a language is mistaken. On the contrary, it is by dealing head on with variation that we can come to better understand the 'core' cases.

Before closing this section, let me point out that my argument against an autonomous grammatical faculty does not simply rest on the problem of identifying what parts of the data actually belong the 'core' and what parts actually belong to the 'periphery'. This is a lower level problem which presumes the acceptance of such a distinction in the first place. The more crucial question is whether the separation of grammar from general cognition is a valid one at all. And what I have attempted to do in this study is to bring the empirical demands to bear directly on the issue of the feasibility of such a separation.

11.5. CONCLUSION

This study was prompted by the observation that if the question of an autonomous language faculty is to be decided empirically, it must be done by attempting to provide as complete as possible an analysis of the grammar of a single language. Under optimal circumstances, a complete analysis should include an investigation into the nominal as well as the verbal system. Of the two, however, it is the verbal system that has traditionally engendered the greatest amount of interest in the search for language-specific principles. This mitigates the fact that I have had very little to say about the Malay nominal system.

I began by noting that the standard assumption that the four verbal prefixes were equal and distinct members of a paradigmatic set was problematic. Most of the problems were brought to light by the fact that the prefix *ter-* did not fit comfortably into a paradigm that was presumed to be characterized by voice contrasts. Instead, *ter-* was found to be essentially a marker of non-volitionality. By taking the behaviour of *ter-* as the point of departure for our analysis, it was possible to group the four prefixes into three categories of contrasting volitionality values: vol [], vol [+], and vol [-]. Each category was found to contain the same three construction types: the Initiator-Endpoint Subject Construction, the Initiator Subject Construction, and the Initiator Oblique/Absent Construction. Thus, the

‘voice’ contrast that had been taken by Hassan and Benjamin to be the primary distinction among the prefixes turns out to be a secondary distinction, one that is internal to each volitionality category.

We also saw that, among the prefixes, *ber-* and *ter-* are highly polysemous, and a proper understanding of the prefixes therefore required that we take into account the various senses associated with the prefixes. This further required that we motivate the semantic links between related senses, or risk ending up with an unstructured list. But such motivation can only be provided if we are willing to acknowledge the importance of processes of inference to grammar. These inferences usually involved metaphors and metonymies which reflect our assumptions about the world around us. This could be seen in the ways in which the prefix+stem composites combined to form idioms which systematically reflected various aspects of the understanding of experiential domains such as anger and pregnancy/birth. Yet another indication of the role of inferencing came from the *tidak+ter-* construction, where the combination of a negative marker and a non-volitionality marker results in a specific construction which indicates a ‘lack of capacity’ on the part of the Initiator. The non-compositionality of the overall semantics cannot be straightforwardly dealt with, and unless an attempt is made to speculate on the kinds of inferences that motivated the resulting construction, we would be left with only a stipulation such as ‘When used in conjunction with *tidak*, *ter-* indicates that the Initiator is unable to perform the action, provided that the verb that *ter-* is attached to also happens to take a direct object.’ There would be no apparent reason why this should be the case.

Another issue brought to light by this study concerns the nature of transitivity. Beginning with the work of Hopper and Thompson (1980), and followed by Rice (1987), transitivity has moved away from being an extremely localized and syntactic feature of the verb, to being a more global property of an entire event, the construal of which is then manifested

by the way a clause is constructed. In the case of Malay, we found that while some affixes have an upper limit on the transitivity level of the event they describe (eg. *ber-*), other affixes (eg. *-kan*) have a lower limit so that the event they describe must have a minimal level of transitivity. Yet other affixes (eg. *meN-*) have no limits on transitivity levels at all. This scalar notion of transitivity played a crucial in accounting for a variety of morphosyntactic effects such as

- (i) the *ber-* version of the Initiator Subject Construction cannot take an individuated direct object,
- (ii) the *ber-* version of the Initiator Oblique/Absent Construction does not allow the Initiator to appear at all,
- (iii) *ber-* will attach to motion verbs that are at the basic-level or superordinate level; if the motion verb is too specific, this increases the transitivity of the event to a level that is incompatible with the restricted transitivity of *ber-*.
- (iv) the irrealis nature of the 'capacity/lack of capacity' *ter-* constructions makes it necessary that they be in the form of the Initiator Oblique/Absent Construction if the suffix *-kan* (and for some speakers, *-i*) is to appear, and
- (v) *ber-* and *-kan* can co-occur only in the 'possession' *ber-* construction, and specifically only if the possessed entity is individuated by the presence of a specifying attribute.

More interestingly, there is no way to associate a particular affix with an unambiguous and discrete level of transitivity. Nor can we predict that affixes that usually code highly

transitive events will never co-occur with affixes that usually code less transitive events. In the case of *ber-* and *-kan*, co-occurrence is possible if the event involved is configurational ('possession' *ber-*) rather than dynamic.

All this supports Rice's claim that, ultimately, transitivity is a matter of construal. We can point to various parameters along which transitivity levels change (as has been done by Hopper and Thompson, and Rice), but the actual ways in which these parameters interact are extremely subjective. There is a threshold beyond which the combination of these parameters are suddenly felt to be inappropriate for a particular affix, but at what point this threshold is reached is essentially unpredictable.

Thus, while the main focus of this work has been on the understanding of the properties of the verbal prefixes, it is clear such an understanding can only be gained by looking not just at the 'central' cases of the prefix+stem composites, but also at the cases which require more motivation. These include idiomatic prefix-stem composites, the interaction between the prefixes and suffixes, converted stems, and the non-verbal properties of the prefixes (ie. those properties that lie outside the verbal paradigm). We have seen some of the problems encountered by a more syntactic voice-oriented approach. Previous works like Hassan 1974 and Benjamin 1993 acknowledged the importance of volitionality and transitivity, but were hindered by the (unchallenged) assumption that the basic organization of the verbal paradigm was in terms of voice. In contrast, the analysis presented here has been essentially semantic in orientation, showing that volitionality is the main organizing feature of the verbal paradigm, and that extensions from the paradigm can be motivated by inferences involving processes of general cognition.

BIBLIOGRAPHY

- Adelaar, Karl Alexander. 1992. *Proto-Malayic: The reconstruction of its phonology and parts of its lexicon and morphology*. Canberra: Pacific Linguistics C 119.
- Aichele, W. 1942-43. Die altmalaiische Literatursprache und ihr Einfluss auf das Altjavanische. *Zeitschrift für Eingeborenen -- Sprachen* 33.
- Alsagoff, Lubna. 1992. *Topic in Malay: The other subject*. Doctoral dissertation, Stanford University .
- Alsina, Alex. 1992. On the argument structure of causatives. *Linguistic Inquiry* 23:517-555.
- Anceaux, J. C. 1965. Towards a typological reconstruction of the verbal system in Proto-Austronesian. *Papers from the Third International Conference on Austronesian linguistics*, eds. Amran Halim, Lois Carrington, and S. A. Wurm, vol 2, 101-110. Canberra: Pacific Linguistics C 75.
- Anderson, Stephen R. 1988. Morphological change. *Linguistics: The Cambridge Survey, vol 1: Linguistic theory: Foundations*, ed. Frederick J. Newmeyer, 146-191. Cambridge: Cambridge University Press.
- Anderson, Stephen R. 1992. *A-Morphous morphology*. Cambridge: Cambridge University Press.
- Aronoff, Mark. 1976. *Word formation in generative grammar*. Cambridge, Mass: MIT Press.

- Bakar, Hamid A. 1979. *Peristiwa-peristiwa dari Hikayat Hang Tuah*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Baker Mark C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Becker, Alton L. and Umar Wirasno. 1980. On the nature of syntactic change in Bahasa Indonesia. *Papers from the Second Eastern Conference on Austronesian languages*, ed. Paz Buenaventura Naylor, 95-102. Center for South and Southeast Asian Studies: University of Michigan.
- Benjamin, Geoffrey. 1993. Grammar and polity: The cultural and political background to Standard Malay. *The role of theory in language description*, ed. William A. Foley, 341-392. New York: Mouton de Gruyter.
- Bowerman, Melissa. 1982. Reorganizational processes in lexical and syntactic development. *Language acquisition: The state of the art*, eds. E. Wanner and L. R. Gleitman. New York: Cambridge University Press.
- Bowerman, Melissa. 1989. Learning a semantic system: What role do cognitive predispositions play ? *The teachability of language*, eds. M. L. Rice and R. L. Schiefelnsen. Baltimore: P. H. Brookes.
- Bresnan, Joan. 1982. *The mental representation of grammatical relations*. Cambridge, Mass: MIT Press.
- Brown, C. C. 1951. *Malay sayings*. Singapore: Graham Brash.
- Brugman, Claudia. 1989. *The story of 'over': Polysemy, semantics, and the structure of the lexicon*. New York: Garland.
- Bybee, Joan. 1985. *Morphology: A study of the relation between meaning and form*. Amsterdam: John Benjamins.
- Bybee, Joan, Revere Perkins, and William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

- Casparis, J. G. de. 1956. Selected inscriptions from the 7th to the 9th century A. D. *Prasasti Indonesia II*. Bandung: Masa Baru.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1978. A theory of core grammar. *Glottol* 1:7-26.
- Chomsky, Noam. 1980. *Rules and representations*. New York: Columbia University Press.
- Chomsky, Noam. 1982. *The generative enterprise. A discussion with R. Huybregts and H. van Riemsdijk*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin and use*. New York: Praeger.
- Chomsky, Noam. 1993. *Language from an Internalist perspective*. Ms.
- Chomsky, Noam. 1994. A minimalist program for linguistic theory. *The view from Building 20: Essays in honor of Sylvain Bromberger*, eds. Kenneth Hale and Samuel Jay Keyser. Cambridge, Mass: MIT Press.
- Chomsky, Noam, and Howard Lasnik. 1991. Principles and parameters theory. *Syntax: An international handbook of contemporary research*, eds. J. Jacobs, A. von Stechow, W. Sternefeld, and T. Vennemann. Berlin: Mouton de Gruyter.
- Chomsky, Noam, and Sol Saporta. 1978. An interview with Noam Chomsky. *Linguistic Analysis* 4:301-19.
- Chung, Sandra. 1976a. On the subject of two passives in Indonesian. *Subject and topic*, ed. Charles N. Li, 57-98. New York: Academic Press.
- Chung, Sandra. 1976b. An object-creating rule in Bahasa Indonesia. *Linguistic Inquiry* 7.41-87.
- Clark, Eve V. 1978. Discovering what words can do. *Chicago Linguistic Society, Parasession on the lexicon*, 34-57.
- Clark, Eve V. 1993. *The lexicon in acquisition*. Cambridge: Cambridge University Press.

- Clark, Eve V., and Herbert Clark. 1978. When nouns surface as verbs. *Language* 55:767-811.
- Çoedès, G. 1930. Les inscriptions Malaises de Çrīvijaya. *Bulletin de l'École Française de l'Extrême Orient (Paris)* 30:29-80.
- Coleman, Linda, and Paul Kay. 1981. Prototype semantics: The English verb 'lie'. *Language* 57:26-44.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Comrie, Bernard. 1977. In defense of spontaneous demotion: The impersonal passive. *Syntax and Semantics, Vol 8: Grammatical relations*, eds. Peter Cole and Jerrold M. Sadock, 47-58. New York: Academic Press.
- Coope, A. E. 1976. *Macmillan's Malay-English dictionary*. Malaysia: Macmillan Education Limited.
- Croft, William. 1990. *Typology and universals*. Cambridge: Cambridge University Press.
- Croft, William. 1990. Possible verbs and the structure of events. *Meanings and prototypes: Studies on linguistic categorization*, ed. S. L. Tsohatzidis. London: Routledge.
- Croft, William. 1991. *Syntactic categories and grammatical relations: The cognitive organization of information*. Chicago: University of Chicago Press.
- Croft, William. 1994. Voice: Beyond control and affectedness. *Voice: Form and function*, eds. Barbara Fox and Paul J. Hopper. Amsterdam: John Benjamins, 89-117.
- Croft, William, Keith Denning, and Suzanne Kemmer, eds. 1990. *Studies in diachronic typology*. Amsterdam; John Benjamins.
- Cumming, Susanna. 1991. *Functional change: The case of Malay constituent order*. Berlin: Mouton de Gruyter.

- Dahl, Otto Christian. 1973. *Proto-Austronesian*. Lund: Scandinavian Institute of Asian Studies.
- Dahl, Otto Christian. 1986. Focus in Malagasy and Proto-Austronesian. *Papers from the Fourth International Conference on Austronesian linguistics*, eds. Paul Geraghty, Lois Carrington, and S. A. Wurm, 21-42.
- De Casparis, J. G. 1956. Selected inscriptions from the 7th to the 9th century A. D. *Prasasti Indonesia II*. Bandung: Masa Baru.
- DeLancey, Scott. 1982. Aspect, transitivity, and viewpoint. *Tense-aspect: Between semantics and pragmatics*, ed. Paul J. Hopper, 167-183. Amsterdam: John Benjamins.
- Delancey, Scott. 1981. An interpretation of split ergativity and related patterns. *Language* 57:626-657.
- Dixon, R. M. W. 1979. Ergativity. *Language* 55:59-138.
- Dixon, R. M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language* 67:547-619.
- DuBois, John A. 1985. Competing motivations. *Iconicity in syntax*, ed. John Haiman, 343-366. Amsterdam: John Benjamins.
- Durie, Mark. 1985. *A grammar of Acehnese: On the basis of a dialect of North Aceh*. Holland: Foris.
- Ellis, John M. 1993. *Language, thought, and logic*. Illinois: Northwestern University Press.
- Emanatian, Michelle. 1991. *Grammatical polysemy: The systematicity of multiple meanings in grammar*. Doctoral dissertation, University of California, Berkeley.
- Fauconnier, Gilles. 1985. *Mental spaces*. Cambridge, Mass: MIT Press.

- Ferrell, Raleigh J. 1983. Intent and volition in Paiwan and Tagalog verbs. *Papers from the Third International Conference on Austronesian Linguistics*, eds. Amran Halim, Lois Carrington, and S. A. Wurm.
- Fillmore, Charles J. 1975. An alternative to checklist theories of meaning. *Berkeley Linguistics Society* 1:123-131.
- Fillmore, Charles J. 1978. The organization of semantic information in the lexicon. *Chicago Linguistic Society, parasession on the lexicon*, 1-11.
- Fillmore, Charles J. 1985. Frames and the semantics of understanding. *Quaderni di Semantica* 6:222-253.
- Fillmore, Charles J., Paul Kay, and Mary Catherine O'Connor. 1988. Regularity and idiomaticity in grammatical constructions: The case of 'let alone'. *Language* 64:501-538.
- Foley, William A. and Robert D. Van Valin. 1977. On the organization of 'subject' properties in universal grammar. *Berkeley Linguistics Society* 3.
- Foley, William A. and Robert D. Van Valin. 1984. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Fox, Barbara, and Paul J. Hopper, eds. 1994. *Voice: Form and function*. Amsterdam: John Benjamins.
- Geniusene, Emma. 1987. *The typology of reflexives*. Berlin: Mouton de Gruyter.
- Gibbs, Raymond W Jr. 1994. *The poetics of mind: Figurative thought, language, and understanding*. Cambridge: Cambridge University Press.
- Givon, Talmy. 1982. Logic vs. pragmatics, with natural language as the referee: towards an empirically viable epistemology. *Journal of Pragmatics* 6:81-133.
- Goldberg, Adele E. 1992. *Argument structure constructions*. Doctoral dissertation, University of California, Berkeley.
- Goldberg, Adele E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

- Goldberg, Adele E. To appear. Jackendoff and construction-based grammar. *Cognitive Linguistics*.
- Gonda, Jan. 1971. The influence of Indian languages. *Current Trends in Linguistics*, ed. Thomas Sebeok, 8:955-968. The Hague: Mouton.
- Gonda, Jan. 1973. *Sanskrit in Indonesia*. New Delhi: International Academy of Indian Culture.
- Guilfoyle, Eithne, Henrietta Hung, and Lisa Travis. 1989. *SPEC of IP and SPEC of VP: Two subjects in Malayo-Polynesian languages*. McGill University ms. (Also in *Proceedings of the West Coast Conference on Formal Linguistics* 8).
- Haiman, John. 1980. The iconicity of grammar: Isomorphism and motivation. *Language* 52:382-397.
- Haiman, John. 1985. *Natural Syntax*. Cambridge: Cambridge University Press.
- Haji Omar, Asmah, and Rama Subbiah. 1985. *An introduction to Malay grammar*, 2nd ed. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Harris, Randy Allen. 1993. *The linguistics wars*. Oxford: Oxford University Press.
- Hart, H. L. A. 1961. *The concept of law*. Oxford: Oxford University Press.
- Hassan, Abdullah. 1974. *The morphology of Malay*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Heider, Eleanor. 1971. 'Focal' color areas and the development of color names. *Developmental Psychology* 4:447-455.
- Heine, Bernd, Ulrike Claudi, and Friederike Hunnemeyer. 1991. *Grammaticalization: A conceptual framework*. Chicago: University of Chicago Press.
- Hopper, Paul J. 1979. Some discourse sources of ergativity. *Working papers in linguistics* 11.2. Honolulu: University of Hawaii.
- Hopper, Paul J. 1987. Emergent Grammar. *Berkeley Linguistics Society* 13:139-57.
- Hopper, Paul J. 1979. Aspect and foregrounding in discourse. *Syntax and semantics Vol 12: Discourse and syntax*, ed. Talmy Givon, 213-241.

- Hopper, Paul J. 1988. How ergative is Malay ? *Studies in Austronesian linguistics*, ed. Richard McGinn, 441-454. Monographs in International Studies Southeast Asia Series No. 76. Athens: Ohio University Center for International Studies.
- Hopper, Paul J., and Elizabeth Closs Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.
- Hopper, Paul J., and Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56:251-299.
- Hopper, Paul J., and Sandra A. Thompson. 1984. The discourse basis for lexical categories in universal grammar. *Language* 60:465-498.
- Jackendoff, Ray. 1988. Conceptual semantics. *Meaning and mental representations*, eds. Umberto Eco, Marco Santambrogio, and Patrizia Violi, 81-97. Bloomington: Indiana University Press.
- Jackendoff, Ray. 1990. *Semantic structures*. Cambridge, Mass: MIT Press.
- Jackendoff, Ray, and David Aaron. 1991. Review of G. Lakoff and M. Turner, *More than cool reason: A field guide to poetic metaphor*. *Language* 67:320-338.
- Jaeggli, O. 1986. *Passive*. *Linguistic Inquiry* 17:587-633.
- Jespersen, Otto. 1924. *The philosophy of grammar*. Chicago: University of Chicago Press.
- Johnson, Mark. 1987. *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
- Kana, Marit. 1983. The syntax and semantics of verbal prefixes in Bahasa Indonesia. *Papers from the Third International Conference on Austronesian linguistics*, eds. Amran Halim, Lois Carrington, and S. A. Wurm. Canberra: Pacific Linguistics Series C.
- Kay, Paul. 1983. Linguistic competence and folk theories of language: Two English hedges. *Berkeley Linguistics Society* 9:128-137.

- Keenan, Edward. 1976. Some universals of passives in universal grammar. *Chicago Linguistic Society* 11:340-352.
- Kemmer, Suzanne. 1993. *The middle voice*. Amsterdam: John Benjamins.
- Kemmer, Suzanne. 1994. Middle voice, transitivity, and the elaboration of events. *Voice: Form and function*, eds. Barbara Fox and Paul J. Hopper. Amsterdam: John Benjamins, 179-230.
- Kemmer, Suzanne, and Arie Verhagen. 1994. The grammar of causatives and the conceptual structure of events. *Cognitive Linguistics* 5:115-156.
- Kibrik, A. E. 1985. Toward a typology of ergativity. *Grammar inside and outside the clause*, eds. Johanna Nichols and Anthony Woodbury, 268-323. Cambridge: Cambridge University Press.
- Klaiaman, M. H. 1991. *Grammatical voice*. Cambridge: Cambridge University Press.
- Lakoff, George. 1977. Linguistic gestalts. *Chicago Linguistic Society* 13:236-287.
- Lakoff, George. 1980. Getting the whole picture: The role of mental images in semantics and pragmatics. *Berkeley Linguistics Society* 6:191-195.
- Lakoff, George. 1987. *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.
- Lakoff, George. 1988. Conceptual semantics. *Meaning and mental representations*, eds. Umberto Eco, Marco Santambrogio, and Patrizia Violi, 119-154. Bloomington: Indiana University Press.
- Lakoff, George. 1990. The Invariance Hypothesis. *Cognitive Linguistics* 1:39-74.
- Lakoff, George. 1991. *Comments on Jackendoff and Aaron*. University of California, Berkeley, ms.
- Lakoff, George. 1993. The contemporary theory of metaphor. *Metaphor and thought*, 2nd ed, ed. Andrew Ortony, 202-251. Cambridge: Cambridge University Press.
- Lakoff, George, and Mark Johnson. 1980. *Metaphors we live by*. Chicago: University of Chicago Press.

- Lakoff, George, and Mark Turner. 1989. *More than cool reason: A field guide to poetic metaphor*. Chicago: University of Chicago Press.
- Langacker, Ronald. 1977. Syntactic reanalysis. *Mechanisms of syntactic change*, ed. Charles N. Li, 57-139. Austin: University of Texas Press.
- Langacker, Ronald. 1987. *Foundations of cognitive grammar. Vol 1: Theoretical prerequisites*. Stanford: Stanford University Press.
- Langacker, Ronald. 1991a. *Foundations of cognitive grammar. Vol 2: Descriptive application*. Stanford: Stanford University Press.
- Langacker, Ronald. 1991b. *Concept, image, and symbol*. Berlin: Mouton de Gruyter.
- Langacker, Ronald, and Pamela Munro. 1975. Passives and their meaning. *Language* 51:789-830.
- Lepschy, Giulio. 1992. *Early structuralism*. Vol 2: International encyclopedia of linguistics, ed. William Bright. Oxford: Oxford University Press.
- Levin, Beth. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago: University of Chicago Press.
- Levin, Beth, and Steven Pinker, eds. 1991. *Lexical and conceptual semantics*. Cambridge, Mass. and Oxford: Blackwell.
- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, Mass: MIT Press.
- Li, Charles, ed. 1975. *Word order and word order change*. Austin: University of Texas Press.
- Li, Charles, ed. 1976. *Subject and topic*. New York: Academic Press.
- Li, Charles, ed. 1977. *Mechanisms of syntactic change*. Austin: University of Texas Press.
- Liaw, Yock Fang. 1988. *Standard Malay made simple*. Singapore: Times Books International.

- Lichtenberk, Frantisek. 1991. Semantic change and heterosemy in grammaticalization. *Language* 67:475-509.
- Lieber, Rochelle. 1992. *Deconstructing morphology: Word formation in syntactic theory*. Chicago: University of Chicago Press.
- Lightfoot, David. 1979. *Principles of diachronic syntax*. Cambridge: Cambridge University Press.
- Lightfoot, David. 1991. *How to set parameters: Arguments from language change*. Cambridge, Mass: MIT Press.
- Lightfoot, David, and Norbert Hornstein, eds. 1994. *Verb movement*. Cambridge: Cambridge University Press.
- Macdonald, Ross. 1976. *Indonesian reference grammar*. Washington DC: Georgetown University Press.
- Macdonald, Ross, and S. Darjowidjojo. 1967. *A student's reference grammar of Modern Formal Indonesian*. Washington DC: Georgetown University Press.
- Marantz, Alec. 1995. *The minimalist program*. MIT ms.
- McCarthy, John, and Alan Prince. 1993. *Prosodic morphology I*. University of Massachusetts and Rutgers University, ms.
- Menn, Lisa, and Brian MacWhinney. 1984. The repeated morph constraint. *Language* 60:519-541.
- Mervis, Carol Y., and Eleanor Rosch. 1981. Categorization of natural objects. *Annual Review of Psychology* 32:89-115.
- Michotte, A. 1954. *La perception de la causalite*, 2nd ed. Louvain: Publications Universitaires de Louvain.
- Mithun, Marianne. 1991. Active/agentive case marking and its motivations. *Language* 67:510-546.
- Muller-Gotama, Franz. 1994. *Grammatical relations: A cross-linguistic perspective on their syntax and semantics*. Berlin: Mouton de Gruyter.

- Nunberg, Geoffrey, Ivan A. Sag, and Thomas Wasow. 1994. Idioms. *Language* 70:491-538.
- Piattelli-Palmarini, Massimo, ed. 1979. *Language and learning: The debate between Jean Piaget and Noam Chomsky*. Cambridge, Mass: Harvard University Press.
- Pederson, Eric William. 1991. *Subtle semantics: Universals in the polysemy of reflexive and causative constructions*. Doctoral dissertation, University of California, Berkeley.
- Perlmutter, David. 1978. Impersonal passives and the unaccusative hypothesis. *Berkeley Linguistics Society* 4:157-89.
- Perlmutter, David, and Paul Postal. 1977. Toward a universal characterization of passivization. *Berkeley Linguistics Society* 3:394-417.
- Peterson, David. 1994. Multiple exponence and morphosyntactic redundancy. *WCCFL* 12:83-100.
- Pinker, Steven. 1989. *Learnability and cognition: The acquisition of argument structure*. Cambridge, Mass: MIT Press.
- Pollard, Carl J., and Ivan A. Sag. 1994. *Head-driven phrase structure grammar*. Chicago and Stanford, CA: University of Chicago Press and Center for the Study of Language and Information Publications.
- Pollock, J. Y. 1989. Verb movement, UG and the structure of IP. *Linguistic Inquiry* 20:365-424.
- Poser, William J. 1992. Blocking of phrasal constructions by lexical items. *Lexical matters*, eds. Ivan A. Sag and Anna Szabolcsi, 111-130. Stanford: Center for the study of language and information.
- Prentice, D. J. 1987. Malay (Indonesian and Malaysian). *The world's major languages*, ed. Bernard Comrie. Oxford: Oxford University Press.
- Prentice, D. J. 1992. Malay and Indonesian. *International encyclopedia of linguistics*, vol 2, ed. William Bright, 374-380. Oxford: Oxford University Press.

- Prince, Alan, and Paul Smolensky. 1993. *Optimality theory*. Rutgers University and University of Colorado at Boulder, ms.
- Rice, Sally. 1987. *Towards a cognitive model of transitivity*. Doctoral dissertation, University of California, San Diego.
- Rhodes, Richard. 1977. Semantics in a relational grammar. *Chicago Linguistic Society* 13:503-513.
- Rosch, Eleanor. 1973. Natural categories. *Cognitive Psychology* 4:328-350.
- Rosch, Eleanor. 1975. Cognitive representations of semantic categories. *Journal of Experimental Psychology: General* 104:192-233.
- Rosch, Eleanor, and Carolyn Mervis. 1975. Family resemblances: Studies in the internal structure of categories. *Cognitive Psychology* 7:573-605.
- Rosch, Eleanor, Carolyn Mervis, Wayne Gray, David Johnson, and Penny Boyes-Braem. 1976. Basic objects in natural categories. *Cognitive Psychology* 8:382-439.
- Salim, Agus, Alexander K. Oglobin, and Vladimir P. Nedjalkov. 1988. Resultative, passive and neutral verbs in Indonesian. *Typology of resultative constructions*, ed. Vladimir P. Nedjalkov, 307-326. Amsterdam: John Benjamins.
- Saussure, Ferdinand de. 1916. *Cours de linguistique generale*. Paris: Payet, 1973. Translated by W. Baskin. New York: McGraw Hill, 1976.
- Schachter, Paul, and Fe T. Otnes. 1972. *Tagalog reference grammar*. Berkeley: University of California Press.
- Schachter, Paul. 1976. The subject in Phillipine languages: Topic, actor-topic, or none of the above. *Subject and topic*, ed. Charles N. Li. New York: Academic Press.
- Shellabear, W. G. 1967. *Sejarah Melayu*. Kuala Lumpur: Oxford University Press.
- Shibatani, Masayoshi. 1985. Passives and related constructions. *Language* 61:821-848.
- Shibatani, Masayoshi, ed. 1988. *Passive and voice*. Amsterdam: John Benjamins.

- Slobin, Dan. 1985. Crosslinguistic evidence for the language-making capacity. *A crosslinguistic study of language acquisition*, vol 2, ed. Dan Slobin. Hillsdale, N. J.: Lawrence Erlbaum.
- Starosta, Stanley. 1986. Focus as recentralization. *Papers from the Fourth International Conference on Austronesian linguistics*, eds. Paul Geraghty, Lois Carrington, and S. A. Wurm, 73-95.
- Stemberger, Joseph Paul. 1981. Morphological haplology. *Language* 57:791-817.
- Suryadinata, Leo. 1991. *Comparative dictionary of Malay-Indonesian synonyms*. Singapore: Times Books International.
- Sweetser, Eve E. 1980. *Tagalog subjecthood revisited*. MA thesis, University of California, Berkeley.
- Sweetser, Eve E. 1986. Polysemy vs abstraction: Mutually exclusive or complementary. *Berkeley Linguistics Society* 12:528-538.
- Sweetser, Eve E. 1987a. The definition of 'lie': An examination of the folk theories underlying a semantic prototype. *Cultural models in language and thought*, eds. Dorothy Holland and Naomi Quinn, 43-66. Cambridge: Cambridge University Press.
- Sweetser, Eve E. 1987b. Metaphorical models of thought and speech: A comparison of historical directions and metaphorical mappings in the two domains. *Berkeley Linguistics Society* 13:446-459.
- Sweetser, Eve E. 1988. Grammaticalization and semantic bleaching. *Berkeley Linguistics Society* 14:389-405.
- Sweetser, Eve E. 1990. *From etymology to pragmatics: Metaphorical and Cultural aspects of semantic structure*. Cambridge: Cambridge University Press.
- Talmy, Leonard. 1975. Semantics and syntax of motion. *Syntax and Semantics*, vol 4, ed. John Kimball, 181-238. New York: Academic Press.

- Talmy, Leonard. 1976. Semantic causative types. *Syntax and Semantics*, vol 6, ed. Masayoshi Shibatani, 43-116. New York: Academic Press.
- Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. *Language typology and syntactic description*, vol 3, ed. Timothy Shopen. Cambridge: Cambridge University Press.
- Tampubolon, D. P. 1983. *Verbal affixations in Indonesian: A semantic exploration*. Pacific Linguistics, D-48.
- Taub, Sarah. 1994. *Event structure metaphors and grammaticalization: Preliminary data from Uighur auxiliary verbs*. Handout of paper presented at the Berkeley-Stanford Grammaticalization Weekend.
- Taylor, John R. 1989. *Linguistic categorization: Prototypes in linguistic theory*. Oxford: Oxford Clarendon Press.
- Teeuw, A. 1959. The history of the Malay language: A preliminary survey. *Bijdragen Tot de Taal-, Land-, En Volkenkunde*, 115:138-156.
- Teeuw, A., assisted by H. W. Emanuels. 1961. *A critical survey of studies on Malay and Bahasa Indonesia*. The Hague: Nijhoff.
- Thomas, Michael. 1980. Verb affixes and focus in Bahasa Indonesia. *Papers from the Second Eastern Conference on Austronesian linguistics*, ed. Paz Buenaventura Naylor. Ann Arbor: Michigan papers on South and Southeast Asia no. 15.
- Traugott, Elizabeth C. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 65:31-55.
- Traugott, Elizabeth C. 1990. From less to more situated in language: The unidirectionality of semantic change. *Papers from the Fifth International Conference on English Historical Linguistics*, eds. Sylvia Adamson, Vivien Law, Nigel Vincent, and Susan Wright, 496-517. Amsterdam: John Benjamins.

- Traugott, Elizabeth C., and Ekkehard König. 1991. The semantics-pragmatics of grammaticalization revisited. *Approaches to grammaticalization 1*, eds. Elizabeth C. Traugott and Bernd Heine, 189-218. Amsterdam: John Benjamins.
- Van Marle, Jaap. 1985. *On the paradigmatic dimension of morphological creativity*. Holland: Foris.
- Van Oosten, Jeanne. 1986. *The nature of subjects, topics and agents: A cognitive explanation*. Bloomington: Indiana University Linguistics Club.
- Van Riemsdijk, Henk, and Edwin Williams. 1986. *Introduction to the theory of grammar*. Cambridge, Mass: MIT Press.
- Van Valin, Robert D., Jr. 1990. Semantic parameters of split intransitivity. *Language* 66:221-260.
- Verhaar, John. 1988. Syntactic ergativity in contemporary Indonesian. *Studies in Austronesian linguistics*, ed. Richard McGinn, 347-384. Monographs in International Studies Southeast Asia Series No. 76. Athens: Ohio University Center for International Studies.
- Webelhuth, Gert. 1995. *X-Bar Theory and Case Theory*. Government and Binding Theory and the Minimalist Program, ed. Gert Webelhuth, 15-95. UK: Blackwell.
- Wee, Lionel. 1994. The semantic development of *ter-*. *Berkeley Linguistics Society* 20, to appear.
- Winstedt, Richard O. 1927. *Malay Grammar*, 2nd ed. Oxford: Clarendon Press.
- Winstedt, Richard O. 1961. *A history of Classical Malay literature*. Kuala Lumpur: Oxford University Press.
- Wittgenstein, Ludwig. 1953. *Philosophical investigations*. New York: Macmillan.
- Wouk, Fay. 1980. The *ter-* prefix in Indonesian: A semantic analysis. *Papers from the Second Eastern Conference on Austronesian languages*, ed. Paz Buenaventura Naylor, 81-88. Center for South and Southeast Asian Studies: University of Michigan.

- Wouk, Fay. 1986. Transitivity in Proto-Malayo-Polynesian and Proto-Austronesian.
Papers from the Fourth International Conference on Austronesian Linguistics,
eds. Paul Geraghty, Lois Carrington, and S. A. Wurm.
- Zec, Draga. 1985. Objects in Serbo-Croatian. *Berkeley Linguistics Society* 11:358-371.