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Palauan causatives and passives: An incorporation analysis

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PALAUAN CAUSATIVES AND PASSIVES:

AN INCORPORATION ANALYSIS

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By

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We certify that we have read this dissertation and that, in our opinion, it is satisfactory in scope and quality as a dissertation for the degree of Doctor of Philosophy in Linguistics.

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I realize that studies like this depend to a significant degree on work that has gone before. In this case, work on the Palauan language done by others contributed much to my own understanding of the complexities of

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ABSTRACT

The central purpose of this dissertation is to demonstrate how complex morphological phenomena in Palauan causativization and passivization are accounted for within Baker (1988) and Baker, Johnson, and Roberts' (1989) incorporation analysis. In this analysis, the complex verb morphology and associated grammatical function changing processes are natural consequences of well known principles of Universal Grammar, within a Government and Binding framework.

Within this analysis, Palauan causative verbs have underlying biclausal structures, occurring in D-structure as two verbs in two separate clauses. Via Move α, the verb in the embedded clause moves up to adjoin to the bound causative verb in the matrix clause. Next, the study shows that Palauan conforms to J. Gibson's (1980) Causative Rule II type, in which the underlying subject behaves like a direct object in surface structure. The position of the lower clause subject follows from head movement.

Next, the study examines one of two passivization structures which I have termed the 'pre-passive.' Again, within Baker's incorporation analysis, the passive morpheme, in the form of a pronoun which is prefixed to the passive verb, is generated as an argument in Infl. This argument receives the external theta role from the verb. This approach provides an alternative to the theta role absorption or suppression necessary in other analyses of this construction.

In addition, the study showed that the passive morpheme as an external argument of the verb was supported by evidence in the form of implicit argument effects. In this case, the passive morpheme was shown to provide the necessary antecedent for reflexives in lower clauses.

Finally, the process of Case assignment to the passive morpheme and the subject was examined and shown to be a result of a parameterized Case assigning process for Palauan.

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LIST OF ABBREVIATIONS AND SYMBOLS

*	ungrammatical
1	1st person
2	2nd person
3	3rd person
<...>	thematic role
?	questionable
=	equational
A	Adjective
AP	Adjective Phrase
ag	agent
AGR	agreement
ASP	aspect
ben	benefactive
C	COMP
CP	COMP Phrase
CAUS	causative
COMP	complementizer
DEF	definite
DL	delimiter
DS	D-structure
ECP	Empty Category Principle
e	empty category
EMPH	emphatic
ERG	ergative
EXT	external
FUT	future
EXCL	exclusive
G 1, 2...	Georgopoulos' position
go	goal
HUM	human
HYP	hypothetical
I	Infl
INT	internal
IP	Infl Phrase
IMP	imperfective aspect
INCL	inclusive
LF	logical form
LNK	linker
Loc	locative
N	Noun
NEG	negation
NOM	Nominative
<NOM>	Nominative Case
NP	Noun Phrase
PERF	perfective aspect
OBJ	object or Objective
<OBJ>	Objective Case
OBL	Oblique
<OBL>	Oblique Case
P	Preposition
PF	phonological form
PASS	passive
PERF	perfective aspect
PL	plural
POSS	possessive
PP	Prepositional Phrase
PRES	present
PST	past
RECIP	reciprocal
SG	singular
SG/PL	singular and/or plural
SP	specific
SS	S-Structure
STV	stative
SUBJ	Subject
t	trace
th	theme
TNS	tense
TRANS	transitive
UG	Universal Grammar
UTAH	Uniform Theta Assignment Hypothesis
V	Verb
VCLS	voiceless
VD	voiced
VM	verb marker
VP	Verb Phrase
X'	X-Bar

Chapter 1: Introduction

1.1 Introduction to the Study

Palauan, a Western Austronesian language spoken in the extreme western end of Micronesia, is rich in morphological complexity. In her 1972 dissertation, Wilson described in detail extensive morphophonemic processes that tended to obscure much of the structure of this morphology. Her study initiated the investigation of this rich system of morphemes and how they combined into complex words, which had obvious syntactic origins. Much was left to be done, however, to explain how the morphological forms were incorporated into syntactic structures and how they combined to form these complex forms.

This study seeks to account for various morphologically complex forms in Palauan by positing a system of interactions between morphological and syntactic rules. Briefly, in this system, morphemes are first inserted into syntactic positions in an "underlying" level of structure and then move to their ultimate landing sites in accordance with principles of Universal Grammar (UG), with parameters set for Palauan. The central thesis of this dissertation is that morphemes generated in one position in syntactic structure can move to appropriate landing sites in the same way that independent words move in languages which display less morphological complexity. Because of the complex morphology in Palauan, this is an important aspect of the language. In addition, the examples from Palauan morphology and syntax will provide important confirmation for an analysis of complex verb morphology (Baker's Verb Incorporation Theory 1988) that was developed using data from other languages. Baker (30)

makes this point explicitly when he states: "when studying a phenomenon of this type, I sometimes use evidence from one language to establish conclusions which are then used in another, unrelated language. This type of reasoning ... is valid if one accepts the existence of UG ... then all humans share common cognitive structures, and these structures determine the shape of all their particular languages."

The central focus of this study will be on two structure types, which I label 'morphological Causatives' and 'Pre-Passives.' (The term 'Pre-Passive' is used for purposes which will become clear in Chapter 5.) Morphological causative structures in Palauan contain single complex verbs that mean something like, 'cause to do something'. (1) is an example of a Palauan causative sentence with complex verb morphology. (DL is a delimiter of NPs and VPs.)

(1) Morphological Causative

A Rachel a omek-bail er a ngelek-el.

DL Rachel DL CAUS -clothe SP DL child-her

' Rachel is making her child get dressed.'

In this structure, which is typical of Palauan morphological causatives in general, the causative verb *omek-* CAUS and the verb *bail* 'clothe' combine to form a pattern that resembles a regular transitive verb followed by a direct object. As we shall see in Chapter 4, the structure is somewhat different from what the surface form would indicate.

Sentence (2) provides an example of a Palauan pre-passive construction.

(2) Pre-Passive

A kukau a lo - nga er ngii a mechas.

DL taro DL pass-eat sp 3sg DL woman

'The taro is being eaten by the woman.'

In the Pre-Passive, the 'logical' or underlying object (*ḳuḳau* 'taro') occupies subject position while the 'logical' underlying subject (*mechas* 'woman') follows the verb. The verb is marked with a passive morpheme *lo-* whose precise status and role in the formation of the pre-passive will be one of my major concerns.

1.2 The Plan of the Dissertation

In Chapter 2, I present an overview of Palauan grammar, giving particular attention to the morphology of those verb forms which play a direct role in the constructions under study, primarily causative, and passive constructions.

Chapter 3 is an introduction to the Government and Binding Framework, with emphasis on those aspects of the model that will be needed in the incorporation analysis of causatives and passives.

In Chapter 4, I analyze morphological causative verbs, using the incorporation analysis of Baker (1988) and Baker, Johnson, and Roberts (1989). I argue that Palauan causatives are actually biclausal despite the appearance of having a single complex verb. These Palauan structures provide a good test of the incorporation analysis.

Chapter 5 deals with the pre-passive construction exemplified above. Here, I argue that the passive morpheme prefixed to the verb, is actually a nominal argument that comes to be attached to the verb following incorporation, consistent with Baker's theory. Other constructions using the passive morphology, in particular relativization, are considered in some detail. I will argue that a second passive pattern found in Palauan may in fact be a more 'basic' instance of this structure type than is the pre-passive.

Finally, in Chapter 6, I summarize the main findings of this study, confirming that the Incorporation analysis utilized by Baker (1988) is a particularly useful framework in which to study the interaction between syntactic and morphological processes in Palauan . Finally, I outline areas of Palauan syntax that have emerged from this study where further study would be fruitful.

Chapter 2: The Palauan Language

2.1 Information Sources for this Sketch

The information in this brief description of Palauan grammar is based primarily on Wilson (1972), Josephs (1975), and Georgopoulos (1985) as well as my own field notes. Many of our examples come from several Palauan writing projects done in connection with the Bilingual Education Project for Micronesia (BEPM) and the Pacific Area Languages Materials Project (PALM) at the University of Hawai'i from 1974-1983[1]. My own field notes, begun in a field methods class taught at the University of Hawai'i at Manoa by Lewis Josephs, and continuing to the present with the assistance of many Palauan speakers, provide considerable material. My field notes reflect many sessions with Masa-Aki Emesiochl, Masaharu Tmodrang, Jelina Renguul, Ruth Truce, Marcelina Ngiraomelau, Keringelianged Tellei and Basilia Ringang.

2.2 Palauan and the Palauans

Palauan is the major indigenous language spoken in the new Republic of Palau (*Belau* in the Palauan language), the other indigenous language being a Trukic language spoken in the small islands of Tobi, Sonsorol, and Merir to the south of the main cluster of islands (Angaur, Peleliu, Koror, and Babeldaob). The Palauan archipelago is located approximately 1,800 miles south of Kyushuu in Japan and 4,800 miles west-southwest of Hawaii, but perhaps more importantly from a comparative perspective, it is only 500 miles due east of Mindanao in the Philippines

and 500 miles northeast of Halmahera in eastern Indonesia. The main islands where Palauan dominates stretch from Kayangel atoll in the north to the raised coraline island of Angaur in the south, 85 miles as the new commuter plane flies.

The first contact with Europeans was in the 1500s, but contact with other islands in the Pacific predated that contact. For example, Palau was the site of the famous Yapese stone money mines. In addition, older Palauans tell stories of at least two pre-European contact waves of migration from the south, presumably from New Guinea or other islands in the vicinity. In addition to its Austronesian connections, the Palauan lexicon has been influenced by succeeding colonial administrations, beginning with the Spanish from the 1600s to the late 1800s, when the Germans assumed colonial control. In 1914, at the beginning of World War I, Japan took control from Germany, and then began full-scale colonization of the islands including immigration by Japanese nationals. This was done under a League of Nations Mandate. By 1938, Japanese citizens outnumbered Palauans in Palau by four to one. In the latter stages of World War II, following the bloody fighting on Pelelieu and Angaur, the Americans took control of the islands. Then from the end of World War II until the present, the United States has administered the islands under a United Nations Trusteeship called the Trust Territory of the Pacific Islands. After Palau declared itself a republic in 1981, the U.S. control decreased dramatically, although, pending the conclusion of a compact of association with the United States, Palau remains technically under the U.N. Trusteeship.

The language, happily, has maintained itself remarkably well in light of the history of domination by foreign powers. At the same time, it is easy to see the various colonial influences in many loan words: *iklesia* 'church' (Spanish), *mak* 'fifty cents' (German monetary unit), *iakiu* 'baseball' (Japanese), and *obis* 'office' (English).

Palauan is primarily a spoken language, with development of a standard orthography being a rather recent development. Since the late 1970s, written Palauan has enjoyed increased use, especially in churches, which have found very useful a Palauan version of the *New Testament (Beches el Testament)* and in books developed for use in the public school system, many of them developed at the University of Hawai'i. In time a written style will probably emerge, which will no doubt affect the language usage of younger Palauans. To the extent that the language continues to be used as a medium of instruction, it will probably thrive. However, from time-to-time there are efforts to displace the language by the use of English school textbooks and materials. Perhaps more powerful attacks on the language will come in the form of American television programs, which have become very popular recently.

From the all-time low of about 5,000 speakers of Palauan in 1938, there are now perhaps 18,000. In addition, large numbers of Palauans live in Guam, where the Chamorro and English languages dominate. It is impossible to say how many of Guam's Palauans are actually native speakers of the language since many are third generation residents of Guam and thus may be native English speakers. The best estimates I have heard are about 3,000 - 4,000. Of the other languages spoken in Palau, the indigenous Trukic languages of the southern islands -- Sonsorolese,

Puloanian, and Tobian have only a few hundred speakers, most of them also fluent in Palauan.

Palauan is a part of the extensive Austronesian family of languages, although its position within the family is problematical. Palau's closest geographical neighbors speak a variety of nuclear Micronesian languages, including Trukese, Sonsorolese and Puloanian, Woleaian, Ponapean, Kosraean, Marshallese, and Kiribatese. But Palauan is not a nuclear Micronesian language. Bender (1971) includes Palauan, with Chamorro and Yapese, in the Western Austronesian language grouping. Palauan is said to be more closely related to Philippine and Indonesian languages than to any other group. But too little is known at the present to reach any sound conclusions. When more is known about some of the languages of eastern Indonesia, perhaps that part of the mystery will become clearer. Douglas Osborne (1966), an archaeologist who has done survey work in Palau, has claimed that it is likely that there was significant movement to Palau from the southwest, the Celebes-Halmahera area of eastern Indonesia. His position is supported by the numerous recorded castaways from that region on Palau's shores. McKnight's work on local ocean currents from the southwest also supports this possibility.

2.3 Review of Earlier Palauan Studies

There were many early attempts to describe Palauan, and these range from short word lists with glosses to more ambitious attempts at language description. Thus, in George Keat's 1792 account of Captain Henry Wilson's shipwreck in the islands in 1783 (pages 246-254), he includes a list of 236 important Palauan words and phrases, a very early

attempt to describe even part of this language. Tetens, in his 1888 account of life in Yap and Palau also included translations of several words and phrases, but the earliest substantial description of the language is thought to be that of Walleser (1911) *Grammatik der Palausprache*, which was part of the work of the Roman Catholic mission in Palau during German occupation. Although there was some notable anthropological work during the period of Japanese colonization (1914-1944) (Hijikata, 1941, Matsumura, 1918), the next substantial work on the language was the *Grammar of the Language of Palau* (Capell, 1949), written as part of a U.S. government-sponsored project, the Coordinated Investigation of Micronesian Anthropology (CIMA). Matthews (1949-50) provided a brief, fairly traditional account of the language. Other studies contained word lists of various types, such as kinship and fishing terms in works by three anthropologists, Robert McKnight (1960 and 1968), Roland Force (1959, 1960, 1961, and 1972), and Homer Barnett (1949, 1953, 1960).

Fr. Edwin McManus worked intensively on the language, ultimately producing his *Palauan Dictionary* of 1964 (mimeographed version), around which Lewis Josephs' Palauan Dictionary of 1977 was built . The dictionary was more than an extensive alphabetized word-list, since it contained a short description of the major aspects of the language, using the style of Latin grammar, reflecting Fr. McManus's classical Jesuit education. At about the same time, Carlson's M.A. thesis on Palauan Phonology, and his *Lessons in Palauan* (1967) were produced, the latter for use by the Peace Corps. A doctoral dissertation by Sr. Marie Jo-Ann Flora (1969) provided a further description of Palauan morphology and phonology.

The next substantial effort to describe Palauan was part of the PALI Project at the University of Hawaii in the early and mid 70s, the result of which was Josephs' *Palauan Dictionary* (1977), mentioned above, and his *Palauan Reference Grammar* (1975). This reference grammar was part of a project to produce reference materials for use by indigenous educators in promoting vernacular literacy and to stem the loss of languages, a very real concern at that time. Josephs' grammar is very comprehensive and rich in examples. Growing out of this same effort was the work on Palauan phonology, verb morphology and basic sentence structure by Helen Wilson (1972). Much of Josephs' work on verb morphology and the work on standardizing the orthography was based on Wilson's study.

2.4 The Sketch

Since the principal focus of this study is the interaction of morphological and syntactic constraints in Palauan, we will describe these two aspects in some detail. Palauan morphology is comparatively complex and does the work that syntax accomplishes in many other languages. There is, in addition, some complexity in the phonological system, often making many of the resulting forms somewhat opaque to the reader. We will begin with a description of the phonological inventory and the orthography used (2.4.1). Second, a short description of basic sentence construction will be offered, covering basic word order, question formation, equative sentences, and the problematic particle *a* (2.4.2). Following the basics of sentence formation will be a description of verb phrases and the range of morphological changes that verbs may undergo (2.4.3). Finally, noun phrases and the morphology related to them will be outlined,

including the many sets of pronominals that figure prominently in the language (2.4.4).

2.4.1 Phonology

Palauan has a relatively small inventory of phonemes with some interesting allophonic variation. The consonant phonemes follow.

	Points of Articulation				
Manner of Articulation	**bilabial**	**dental**	**alveolar**	**velar**	**glottal**
Vcls stops		t		k	ʔ
Vd Stops	b	d			
Fricative			s		
Nasals	m			ŋ	
Liquids			r,l		

In Palauan orthography, the consonant phonemes are spelled fairly consistently as they occur in the phoneme chart ,with two exceptions: /ŋ/, which is spelled *ng* and /ʔ/, which is spelled *ch*.

Major allophonic variation can be found in the stop series. /b/ can be either voiced or voiceless depending on the environment. The voiceless allophone [p] occurs before and after other consonants and in word final position. [b] occurs elsewhere. /t/ is optionally aspirated at the ends of words and unaspirated elsewhere. /d/ may be either a voiced or voiceless fricative or a voiced stop. Word-initially before a vowel, /d/ is voiced, and before a consonant it is voiceless. In these environments, the manner of

articulation varies between a fricative and a stop. Intervocalically, /d/ is pronounced as a voiced fricative [ð]. The velar stop /k/ is aspirated at the ends of words, unaspirated at the beginnings of words, and voiced [g] between vowels. Glottal stop is phonemic and is spelled *ch*. Older Palauans reported to Fr. McManus (personal communication) when he was doing his first dictionary, that *ch* was once pronounced with some friction, much as in German *ach*. /s/ is pronounced with the tongue somewhat more retracted than English /s/, but in front of English /ʃ/. The velar nasal /ŋ/, spelled *ng* is always voiced, except in a few expletives when it becomes voiceless. Palauan /ŋ/ becomes a dental nasal when it precedes dental and alveolar consonants. In the Palauan spelling system, both *l* and *r* may be doubled. /r/ is a tapped liquid and /l/ is a lateral. When *r* is doubled, it is trilled, and when *l* is doubled it becomes long.

The Palauan vowel phoneme inventory consists of five vowels: /i/, /e/, /a/, /o/, and /u/. All vowels except for /a/ may appear long, spelled as doubled vowels. In addition, Palauan has two glides /y/ and /w/, spelled as a sequence of two vowels beginning with *u* or *o* in the case of /w/ and *i* in the case of /y/.

The choice of how to spell Palauan examples in this work is not a trivial one, although the actual spelling rules rarely come into play, since this is a syntactic study. We have chosen to present all the Palauan data in an orthography agreed upon by a committee made up of linguists and leaders of the Palauan community in 1972 after extensive meetings and discussions about the system. The conventions were specified in "Palauan Orthography: A Final Report on the Decisions of the Palau Orthography Committee." Some of the spelling conventions may look strange or

unfamiliar to linguists, but to a native speaker of Palauan, they will be familiar. At the same time, the divergence from what one might expect is slight, limited to spelling single phonemes with two symbols and assigning uncommon values to other letters.

The rationale for following the orthographic conventions of Palauan speakers should be obvious. It is what the Palauans themselves use when they write Palauan sentences and will therefore make this study more accessible to those Palauans who may study their language.[2] Other spelling conventions bearing on this study have to do with word division and involve disputes among native speakers of Palauan. Most of these disputes involve a very few, high frequency, words. Where these conventions affect the study, they will be explained. Two examples illustrate the nature of the problem. [ma] 'and' is spelled as the sequence *me a*. Many Palauan writers continue to spell this sequence as *ma*. Similarly, the oblique marker [ra] is spelled as the sequence *er a*. The reasons for these word breaks should become clear in the body of the study as they relate directly to the exposition of the study itself.

2.4.2 Basic Palauan Sentence Structure

Basic word order in Palauan remains controversial, the two main claims being that it is SVO or VOS. The controversy rests on the interpretation of the initial referential NPs as either subjects or topics, and on whether initial pronominals are subject pronominals or agreement markers. Wilson (1972) and Josephs (1975) maintain that the basic word order is subject-initial, while Waters (1979) and Georgopoulos (1985) claim

the language is verb-initial. The following pairs of sentences in (1) and (2) show how both interpretations are possible.

(1) a. *A re - ngelek - ek a m - il - suub er a skuul.*
DL PL - child - 1SG DL VM-PST-study P DL skuul
'My children were studying at school.'

b. *Te m - il - suub er a skuul a re-ngelek - ek.*
3PL VM-PST-study P DL school DL PL-child-1SG
'They were studying, my children.'

(2) a. *A Ruth a meruul a kall.*
DL Ruth DL making DL food
'Ruth is making food.'

b. *Ng meruul a kall a Ruth.*
3SG making DL food DL Ruth
'She is making food, Ruth.'

Table 1 lists the major distinctions between the two analyses of these typical sentences. The table illustrates how each analysis interprets the important lexical items in sentences (1) and (2) above. The analysis in this dissertation supports the SVO analysis.

Table 1: Distinctions Between Analyses 1 and 2

Analysis 1: Preverbal NP = Subject SVO	Analysis 2: Preverbal NP = Topic VOS
Sentence (1a)	
a = NP, VP delimiter	*a* = NP marker
rengelekek = subject	*rengelekek* = topic
m- = verb marker	*m-* = realis marker
Sentence (1b)	
Te = subject pronoun	*Te* = agreement marker
m- = verb marker	*m-* = realis marker
rengelekek = postposed NP	*rengelekek* = subject
Sentence (2a)	
a = NP, VP delimiter	*a* = NP marker
Ruth = subject	*Ruth* = Topic (null subject ngii)
me- = verb marker	*me-* = realis marker
Sentence (2b)	
ng = subject pronoun	*ng* = agreement marker
me- = verb marker	*me-* = realis marker
Ruth = postposed NP	*Ruth* = subject

Typical declarative sentences have the form of these sentences above. Thus in sentence (2b) above, the full noun *Ruth* is seen as an "afterthought", as if the speaker belatedly adds the NP specifying of the identity of the initial pronominal. We shall see how verb phrases and noun phrases are further specified in the sections below.

Yes-no questions in Palauan may be formed in one of two ways. First, a simple declarative sentence may be converted into a question by the simple addition of rising intonation. Thus, sentence (3) may be a question or a statement.

(3) a. *Ke mo er a bl-im.*
2SG go P DL house-2SG
'You are going home.'

b. *Ke mo er a bl-im?*
2SG go P DL house-2SG
'Are you going home?'

If the subject of the sentence is a specific noun phrase, as in (4), there are two other ways to form the yes-no question. First, we may replace the specific noun phrase with the corresponding subject pronoun and move the noun phrase to the end of the clause, as in (5). Alternatively, we may leave the specific noun phrase in initial position, followed by a coreferential subject pronominal and the rest of the sentence, as in (6).

(4) *A John a mla mo er a skuul?*
DL John DL just now go P DL school
'Has John just left for school?'

(5) *Ng mla mo er a skuul a John?*
3SG just now go P DL school DL John
'Has John just left for school?'

(6) *A John ng mla mo er a skuul?*
DL John he just now go P DL school
'Has John just left for school?'

Wh questions are formed with such forms as *techa* 'who', *ngara* 'what', *tela* 'how much/how many', and *ker* 'where.' Such questions are actually equational sentences:

(7) a. *[Ng techa] =[a me er a mubi]?*
3SG who DL coming P DL movie
'Who is coming to the movie?'

In (7) *ng techa* 'it who' acts as one major constituent and the predicate acts as the other. The order of the two constituents is reversible, as in (8): (*ng* in *techang* occurs sentence-finally in words ending with *a*. It is a phonetic phenomenon.)

(8) *[A me er a mubi] = [ng techang]?*

DL coming P DL movie it who

'Who is coming to the movie?'

Other questions may be formed with the question words in the position that is occupied by non-question words bearing the same grammatical relations, as in (9):

(9) a. *Aika a ngarang?*

that DL what

'What's that?'

b. *Ke mo er ker?*

you going P where

'Where are you going?'

We now turn to the morphology of nouns and verbs, where much of our interest lies in this study.

Much of the complexity in the language is due to the various affixes that may attach to Palauan verbal and nominal heads. The verbs may contain prefixes, infixes, and suffixes. Wilson (1972) contains a very extensive discussion of these various affixes, as well as the complex morphophonemics they trigger. Much of the discussion is based on Wilson's original work.

2.4.3 Verb Morphology

Verb morphology is a very complex aspect of Palauan that makes it a natural testing ground for theories attempting to explain the interaction between morphology and syntax. In this sketch we describe only the most basic aspects of verbs and verb phrases. We will go into greater detail in the chapters that examine the interface between their morphology and syntax. We begin our description of verb phrases by examining the inflectional and derivational affixes and how they attach to the verb stems. Next we examine the various classifications of verbs. Finally, we describe how verb phrases are placed in syntactic structures. It is at this point that we meet with the major points of the present study.

2.4.3.1 The Verb Marker

We look first at the basic building blocks in verbs, the verb marker (VM) and the verb stem. The majority of verb forms in Palauan consist of a verb marker, usually realized as *me-* , followed by the verb stem, as in *me-suub*, 'to study.' This verb marker may also assume different phonetic shapes, often *o-* , as in *o-siik*, 'to look for.' Although in a majority of cases, the VM is prefixed to the verb stem, in some cases it metathesizes with the first consonant of the stem, as in *s-m-echer*, to be sick.' Compare this form with *secher*, the noun for 'sickness.' Many state verbs are formed by prefixing the VM to the related noun. For example, the VM *me-* may be added to the noun *saul*, 'tiredness' to derive the state verb *me-saul* 'to be tired.' There are also a number of state verbs that have no verb marker. These are single morpheme verbs such as *ungil* 'good', *dibus* 'absent', and *songerenger* 'hungry.'

2.4.3.2 Aspect in Verbs

The next distinction in verbs has to do with marking aspect: perfective or imperfective. Although the two aspects are marked in very different ways, they are both marked by affixation. Imperfective aspect, which usually has a progressive meaning, can apply to both transitive and intransitive action verbs and is marked by an infixed nasal or liquid which replaces the first consonant of the verb stem. An example of how this works with a simple present tense verb is *me-l-ekoi* 'talking'. To demonstrate how this aspect marker works, (10) shows a series of verbs that undergo this process.

(10)

VM	imp	stem		Imp form	
me-	***-l-***	***tekoi***	becomes	***melekoi***	'talk'
me-	***-l-***	***ngim***	becomes	***melim***	'drink'
me-	***-ng-***	***kiis***	becomes	***megiis***	'dig'
me-	***-ng-***	***chas***	becomes	***mengas***	'paint'
o-	***-m-***	***boes***	becomes	***omoes***	'shoot'

Unlike the imperfective verbs, perfective verbs may only be transitive and involve two morphological changes. First, the VM "moves" to a position immediately following the first consonant of the stem, then the verb is marked with an object pronoun suffix. Thus, in the perfective verbs, the verb marker assumes the form *-m-*, *-u-*, or *-o-*. There is also a set of object pronoun suffixes that will be displayed in section 2.4.3, along with other sets of pronominals. However, we can see the basic manner in which perfective and imperfective verbs are created in (11).

(11) a. *s -o- seb- -ii-* 'burn it completely' (perfective form)
burn-VM- burn -3SG

b. *me -l- eseb* 'burning' (imperfective form)
VM-IMP-burn

c. *k -o- l- ii-* 'eat it all' (perfective form)
eat-VM-eat -3SG

d. *me-ng-a* 'eating' (imperfective form)
VM-IMP-eat (k ⟶ nasal in imperfective)

2.4.3.3 Past Tense Infix

The past tense marking infix is the next piece of verb morphology that we will examine. Palauan has two ways of marking past tense, depending on whether the verb is a state or action verb. State verbs are marked by an independent past tense morpheme, while action verbs are marked by the infix *-(i)l-*. Because of some morphophonemic alternation, this infix surfaces in a variety of forms, but the basic form remains the same. The past tense infix immediately follows the first consonant of the verb marker when it is *me-*. Thus *menga* 'eating' becomes *m-il-enga* 'ate'. As we saw above, the shape of the VM on some verbs is *o-* instead of *me-*. When the past tense infix *-l-* follows the VM *o-*, the *o-* becomes *u-*. Thus, *o-siik*, 'look for' becomes *u-l-siik* 'looked for.' This same past tense infix occurs in the same place in more complex verb forms. Thus in the causative verbs, the past tense infix immediately follows the VM of the derived verb as in (12).

(12) a. *o - mek - dechor*

VM-CAUS - stand

'make stand'

b. *u -le - mek - dechor*

VM -PST-CAUS - stand

'made stand'

Of course there are many other variations on the shape of the infixed past tense morpheme, but the basic pattern remains the same. One form of the past tense marker surfaces often with the hypothetical verb in passive sentences, and therefore requires extra attention.

2.4.3.4 Hypothetical Verb Forms

'Hypothetical' verbs are formed by replacing the initial VM with a set of bound pronominals that match the person and number of the coreferential agent of a transitive clause or the agent or theme of an intransitive one. I use the term 'hypothetical' without implying any theoretical claims, but just to be consistent with Josephs' (1975) *Palauan Reference Grammar*. In many contexts, these verb forms are used where no hypothetical meaning exists.[3] In order to form the past tense of such verbs, the infix *-l-* immediately follows the hypothetical pronominal, as in (13):

(13) *a. lo - ngelebed* (hypothetical imperfective verb)

3SG -hitting

'is being hit'

b. *lu - le- lengebed* (hypothetical imperfective past verb)

3SG-PST-hitting

'was being hit'

2.4.4 Causative Verbs

Palauan verbs may be prefixed by a number of derivational morphemes. The most important for this study is the causative morpheme. Generally, Palauan causative verbs show significant variation in the shape of the causative prefix, but they typically consist of a causative prefix attached to the verb stem. The causative morpheme is preceded by the *o-* form of the verb marker and then, through some complicated morphophonemics, surfaces as one of several variants: *omek-, ome-, ole-, ol-*, and *or-*. The variation in the form of the causative morpheme is not simply a phonetic difference, because there is a small number of verbs that can take two different forms of the causative, with associated changes in meaning.

When intransitive action or state verbs are incorporated into the causative, the verbs become transitive, taking on all the characteristics of a transitive verb. These formerly intransitive verbs can have imperfective, perfective, irrealis, and ergative forms. Because perfective verb forms are indicated by an incorporated object pronominal, this is the best evidence that causatives are actually transitive. Sentences (14) through (17) illustrate the possible forms of the resulting causative verbs.

(14) *A re-ngalek a o - **mek**-ikiongel er a ulaol.* (imperfective)

DL PL-child DL VM-CAUS-dirty P DL floor

'The children are making the floor dirty.'

(15) *A Markus a **mek** - dekt - ii a Tobed.* (perfective)

DL Markus DL CAUS-frighten-3SG DL Tobed
PERF

'Markus is frightening (a lot) Tobed.'

(16) *A kekerei el ngalek a **mo-kiis.*** (ergative passive)

DL small COMP child DL CAUS-awake

'The little child was awakened.' (*by-someone / thing* is assumed.)

(17) *A ku- **k**- el - ii a ngelek-ek e ng mo mechiuaiu.* (hypothetical)

DL 1SG-CAUS-eat-3SG DL child-1SG then 3SG go sleep
HYP PERF

'If I feed my child, then he will go to sleep.'

Once the verb is in the causative form, it follows the normal patterns of transitive verbs as we will see in more detail in chapter 4. The morphemes in boldface are the causative morphemes.

In addition to this rather limited set of causative forms, Palauan may form causatives from underlying transitive action verbs and underlying intransitive state verbs. The intransitive state verbs are the simplest, the causative being formed by attaching the causative morpheme *omek-* to the stem of the intransitive state verb. Differences found in the forms of the causative verbs depend on whether the state verb is simple or derived. The simple stems (without the verb marker *me-*) have the causative *omek-* as

prefix, while the derived stems with a verb marker lose that verb marker before the causative is attached. An understanding of the process is important in order to recognize the forms as causative. Pairs of stative causative verbs follow:

(18)

Causative V		Related Stative V	
omekdechor	'cause to stand'	***dechor***	'stand'
omekungil	'make good'	***ungil***	'good'
omekdirt	'make dry'	***medirt***	'dry'
omekringel	'cause to hurt'	***meringel***	'hurt'

2.4.5 Reciprocal and Abilitative Verbs

Two classes of verbs are superficially similar to causatives. Like causatives, they appear to form semantically complex verbs. However, these verbs are not associated with the same changes in grammatical function that we will note for causatives in Chapter 4.

The first of these classes, reciprocal verbs, is formed by attaching the prefix *kai-* to the verb stem. The result is a complex verb combining the meaning of reciprocal action with the basic meaning of the verb stem. In this respect, reciprocal verbs resemble causatives. Sentences (19) and (20) illustrate the process:

(19) *A Andrew me a Yanangi a kai-ngeseu.*
DL Andrew and DL Yanangi DL RECIP-help
'Andrew and Yanangi are helping each other.'

(20) *A re-rubak a ka-kedereborb.*

DL PL-titled men DL RECIP-sitting around

'The titled men are sitting around with each other.'

The second class of verbs that superficially resembles causatives is what may be called "abilitative." The prefix *beke-* attaches to a verb, creating an intransitive state verb conveying that the subject is adept at doing whatever the verb states, or does it a lot, and other related meanings, all having some reference to the ability to perform the action represented by the verb. Thus, in sentence (21) and (22), the subject is said to be able to do what is mentioned in the verb to some extended degree.

(21) *A sechel-ik a beke-tekoi.*

DL friend-1SG POSS DL able-talk

'My friend is talkative.'

(22) *A Clint Eastwood a beke-taut.*

DL Clint Eastwood DL able-shooting

'Clint Eastwood is good at shooting.' (a good shot)

2.4.6 Stative Past Tense

Now consider the basic distinction between two major classes of verbs, stative and nonstative. This distinction is mirrored in the way they are marked for past tense. In stative verbs, the past tense is a separate morpheme *mle* that precedes the verb (23):

(23) *Ak* *mle* *smecher.*

1SG PST sick

'I was sick.'

Nonstative verbs form their past tense by using the forementioned infix, some variant of *-il-*, which occurs immediately after the verb marker *me-* or *o-*. Sentence (24) contrasts the present with the past in an imperfective verb.

(24) a. *A Markus* *a me-nga* *er* *a odoim.*

DL Markus DL VM-eat P DL meat

'Markus is eating the meat.'

b. *A Markus* *a* *m- il - enga* *er* *a odoim.*

DL Markus DL VM-PAST-eat P DL meat

'Markus was eating the meat.'

2.4.7 Negative Verb *Diak*

The verb *diak* inflects for past tense in an interesting way. It appears to have a stative-like meaning and its past tense morpheme looks very much like the stative past tense *mle*. However, unlike other stative verbs, which are made past tense by a preceding *mle*, *diak* takes *-ml-* as an infix, as if it were a non stative verb. Sentence (25) contrasts the present with the past tense of *diak*.

(25) a. *A Ruth a diak lo-nguiu er a babier*

DL Ruth DL NEG 3-reading P DL letter

'Ruth is not reading the letter.'

b. *A Ruth a di -ml- ak lo-nguiu er a babier.*

DL Ruth DL NEG-pst- 3-reading P DL letter

'Ruth wasn't reading the letter.'

2.4.8 Nominal Predicates

At least one Palauan word, a real curiosity, appears to be both a verb and a noun at the same time. The word *obengkel* 'be with' inflects for past tense, just as a non stative verb would, but at the same time has a possessive suffix just as other possessed nouns do. Although there may be other such forms, this is the only example we have been able to uncover so far. Sentences in (26) show the possibilities:

(26) a. *A Baslisa a obengk-el er a skuul.*

DL Baslisa DL with - 3SG P DL school

'Baslisa is with him/her at school.'

b. *A Baslisa a u -le- bengk -el a Rebecca er a elii.*

DL Baslisa DL VM-PST-with 3SG POSS DL Rebecca P DL yesterday

'Baslisa was with Rebecca yesterday.'

c. *A Baslisa a u -le- bengk - ek er a elii.*

DL Baslisa DL VM- PST- with - $\frac{1SG}{POSS}$ P DL yesterday.

'Baslisa was with me yesterday.'

Nominal predicates require no supporting verb, as (27) demonstrates.

(27) *A John a sensei.*

DL John DL teacher

'John is a teacher.'

However, as (28) shows, the auxiliary *mle* ' is used to mark past tense in nominal predicates, just as it does with stative verbs.

(28) A John a mle sensei.

DL John DL PST teacher

'John was a teacher.'

2.4.9 The Verb and Noun Delimiter *a*

Waters (1979) and Georgopoulos (1985) have argued that *a* introduces noun phrases. However, this line of argument would force us to consider *a mo er a skuul* 'going to school' a noun phrase, when the phrase is clearly verbal in nature, even taking a past tense morpheme.

(29) *A John a mo er a bai.*

DL John DL go P DL meeting house

'John is going to the meeting house.'

(30) *A John a mlo er a bai.*

DL John DL went P DL meeting house

'John went to the meeting house.'

Whether or not *a* precedes noun phrases and verb phrases or only noun phrases is not crucial to the present study. Wilson (1972, 4) states, 'The particle *a* obligatorily introduces every phrase in slow speech.' Later , when Wilson (120) describes object NPs, she observes that *er a* introduces a specific object NP while *a* introduces a nonspecific object. In neither place does she assign any semantic content to the particle. Josephs (1975, 44-46, 67) simply states that the meaning cannot be determined and that the morpheme signals only that a noun phrase, a verb phrase, or relational (oblique) phrase is coming. I will refer to this word as a 'delimiter' (DL).

2.4.10 Verb Phrases

Besides the complexities of the verb itself that we have been describing in some detail, there are a number of other elements that can precede the verb, modifying it in various ways. One such preverbal particle is *mla*, which means roughly 'just now' or 'already'.

(31) *A Ruth a mla dibus.*

DL Ruth DL just now absent

'Ruth is just now absent.'

Other such elements include *di* , 'just', and *kmal* 'very'.

(32) *A Ruth a di mle dibus.*

DL Ruth DL just PST absent

'Ruth was just absent.'

(33) *A bl-ik a kmal mle ungil.*

DL house-1SG POSS DL very PST good

'My house was very good.'

(34) *Ng so-am a bobai? Ng kmal diak!*

3SG liking-2SG POSS DL papaya. 3SG very neg

'Do you like papaya?' 'Absolutely not!'

Transitive verbs may include a clitic object pronoun just in case the verb is in the perfective aspect. In that case, the pronominal takes the form of a suffix that agrees in number and person with the object NP, which may also follow, as we see in (35).

(35) *A John a chillebed-ii$_i$ a bilis$_i$*

DL John DL hit - 3SG DL dog

'John hit the dog (a lot).'

(36) *A John a chillebed -ii.*

DL John DL hit -3SG

'John hit it (a lot)'

As (36) shows, the full object noun phrase need not co-occur with the object pronominal.

Finally, the verb phrase may contain an embedded clause, the complement of certain verbs. The embedded clause is signalled by the word *el*.

(37) *A John a dachelbai el meluches a babier.*
DL John DL skilled LNK writing DL letter
'John is skilled at writing letters.'

This "linker" also has many other functions, one of which is shown in (38), where it links an adjective to a noun.

(38) *Ak omes a klebokel el mlai*
I see DL beautiful LNK car
'I see a beautiful car.'

2.4.11 Noun Phrases

Noun phrases in Palauan may be as short as a single pronominal, *ngak* 'I' or maybe a morphologically complex noun followed by a relative clause. Palauan noun phrases may be interpreted as plural or singular, but the pluralizing prefix *re-* applies only to the head noun of noun phrases referring to human or human-like entities. So the plural form of *chad* 'person' is *rechad* 'people'. Nonhuman noun phrases are not marked for number.

In addition to this plural prefix, most Palauan nouns inflect for possession, using four sets of possessive suffixes. Other Palauan nouns cannot be inflected in this way. For these nouns, possession is indicated by means of a possessive phrase introduced by ***er***. The four types of possessive suffixes are illustrated in (39):

(39) Possessor Suffixes

Possessor Suffix	*e* set	*i* set	*u* set	*a* set
	ilumel 'drink'	***blai*** 'house'	***chosib*** 'pick'	***char*** 'price'
1st pers. SG	***imelek***	***blik***	***chosbuk***	***cherak***
2nd pers. SG	***imelem***	***blim***	***chosbum***	***cheram***
3rd pers. SG	***imelel***	***blil***	***chosbul***	***cheral***
1st pers. PL (INCL)	***imeled***	***blid***	***chosbud***	***cherad***
1st pers. PL (EXCL)	***imelam***	***blimam***	***chosbemam***	***cheremam***
2nd pers. PL	***imeliu***	***blimiu***	***chosbemiu***	***cheremiu***
3rd pers. PL	***imelir***	***blirir***	***chosberir***	***cherrir***

The examples in (40) below are representative of the large number of nouns that do not take these possessive suffixes:

(40) a. *delmerab er a merredel* 'chief's room'
room of DL chief

b. *udoud er a Beluul Chab* 'Yapese money'

money from/of DL Yap

c. *chad er a chei* 'fisherman'

person of DL fishing

d. *olik er ngak* 'my fruit bat'

fruit bat of me (mine)

As we can see, the nouns are followed by a modifier phrase which specifies the "possessor" of the noun. It is not altogether clear why some nouns inflect for possession and others do not . Borrowed words do not usually take the possessor suffix but, as we can see in *delmerab er a merredel*, many native Palauan nouns do not either. It could very well be that the suffixes are no longer productive for new terms in the language.

Of course, nouns that do take possessor suffixes may also take an additional referring noun phrase to specify the possessor, as in (41):

(41) *imel - el a John*

drink-3 SG POSS DL John

'John's drink'

There is an interesting class of nouns that requires obligatory possessive suffixes and has verb-like meanings, although they exhibit no verbal morphology. They occur in what look like impersonal constructions,

meaning something like, 'It is my liking, papaya.' Examples of these nouns may be seen in (42) through (45).

(42) *Ng so-ak a bobai.*

3SG like-1SG POSS DL papaya (It is my liking, Papaya.)

'I like papaya.'

(43) *Ng chet-il a bobai.*

3SG dislike- 3SG POSS DL papaya.

'She dislikes papaya.'

(44) *Ng sebech-el el mo er a skuul?*

3SG able 1SG POSS LNK go P DL school

'Is he able to go to school?'

(45) *Ng kir - em el me er a klukuk?*

3SG have to-2SG POSS LNK come P DL tomorrow

'Do you have to come tomorrow?'

In addition to the possessives, Palauan has several other sets of pronominals: independent pronouns, subject pronominals, object pronominal suffixes, and agent pronominal prefixes that operate in Palauan passives and other constructions.

A set of independent pronouns, which Josephs (1975) calls *emphatic* pronouns are used as subject pronouns, object pronouns, and oblique pronouns. A second set of pronominals consists of forms called subject

pronominals by Josephs (1975), but agreement forms by Georgopoulos (1985). A third set consists of object pronominal verb suffixes, which surface on perfective verbs. (See section 2.2.9.) The three sets are shown in (46). A fourth set, the hypotheticals, will be discussed later.

(46)

	Emphatic	Subject or Agreement	Object
1st pers. SG	***ngak***	***ak***	***-ak***
2nd pers. SG	***kau***	***ke***	***-au***
3rd pers. SG (nonhuman PL also)	***ngii***	***ng***	***-ii***
1st pers. PL INCL	***kid***	***kede***	***-id***
1st pers. PL EXCL	***kemam***	***aki***	***-emam***
2nd pers. PL	***kemiu***	***kom***	***-emiu***
3rd pers. PL (humans only)	***tir***	***te***	***-terir***

The following sentences illustrate some contrasting environments in which these forms are used:

(47) *Ngak a mo er a ospitar.*
1 SG DL going P DL hospital
'I am going to the hospital.'

This sentence might be uttered in answer to the question, "Is Markus going to the hospital?" The speaker might first answer "No" and then use the

emphatic form of the pronoun *ngak* 'I' to indicate that the answer is something not expected, or at least something emphasized.

(48) *Ng Markus a mo er a ospitar?*

3 Markus DL go to DL hospital

'Is it Markus going to the hospital?'

(49) *Ng diak. Ngak a mo er a ospitar.*

3 NEG 1 SG DL go to DL hospital

'No. I am going to the hospital.'

This emphatic pronoun contrasts with the regular subject pronominal, shown in (50).

(50) *Ak mo er a ospitar.*

1 SG going P DL hospital

'I'm going to the hospital.'

This sentence could be an answer to the simple question, *Ke mo er ker?* 'Where are you going?' The new information would be the destination, not the traveller, unlike the previous example.

In sentence (51) we see the emphatic pronoun used as the object of a verb. In subject position, either the subject pronouns or the emphatic pronouns may occur. However, in the object position, only the emphatic forms may occur. If the verb is perfective, there is an object agreement form suffixed to the verb. If this object agreement marker occurs, the emphatic form of the pronoun may not occur.

(51) a. *Ak milenglebed er kau er a class.*

1SG hit P 2SG P DL class
EMPH

'I hit you in the class.'

b. *Ak chillebed-au(*er kau) er a class*

I hit-you P 2SG P DL class
EMPH

'I hit you (a lot) in class.'

Where a nonsubject NP is relativized, this emphatic pronoun may surface as a pronoun coreferent with the relativized NP, and following the hypothetical form of the verb. A fuller discussion of this construction appears in Chapter 5, where nonsubject relative clauses are examined. Briefly, in sentence (52) we find the emphatic form of the third person singular pronoun in the original position of the relativized NP.

(52) *A mlai* $_i$ *el moruul er ngii* $_i$ *a kmal klebokel.*

DL canoe LNK making P 3SG DL very beautiful

'The canoe that you are making is very beautiful.'

Perfective verbs in Palauan are usually suffixed by the third set of pronouns when the meaning is something like 'completely' or 'to a great degree.' A full noun that agrees with the pronominal suffix may also immediately follow. Sentence (53) illustrates these pronominals.

(53) a. *A sensei a chillebed-ii a ngalek er a skuul.*

DL teacher DL hit -3SG PERF DL child P DL school

'The teacher hit (very hard or a lot) the student.'

b. *A sensei a chillebed - ii.*

DL teacher DL hit - 3SG PERF

'The teacher hit him/her.'

One other set of pronominals in Palauan is important to the major points of this study, in particular to our discussion of passives and nonsubject relatives. These pronominals have been called 'hypothetical' (Josephs 1975, Greenberg, Hall, and Beyene 1969) and 'irrealis' (Georgopoulos 1985 and Waters 1979), since they have a hypothetical or irrealis meaning in some structures. Sentence (54) illustrates an unreal or hypothetical use of the form:

(54) *A do - lim a rrom e kede mo chetelaol.*

DL 1PL/EXC-drink DL liquor then we become drunk.

'If we drink liquor, then we will be drunk.'

However, the hypothetical form of the verb may also be used to describe very real situations, as (55) illustrates.

(55) *Ngara el buk a lo-nguiu er a skuul?*

what LNK book DL 3SG-reading P DL school

'What book are you reading at school?'

We will refer to the morphemes that occur with the hypothetical verb forms as hypothetical pronominals. Because they play an significant part in chapter 5, we will simply illustrate their use briefly and leave the more complete description until later. Typical structures showing the hypothetical pronouns follow.

(56) *A ku- suub e ak mo pass er a skeng.*

DL 1SG-study then 1SG FUT PASS P DL test
HYP

'If I study, then I will pass the test.'

(57) *A chomo -lim a biang e ke mo chetelaol.*

DL 2 - drink DL beer then 2SG will get drunk.
HYP

'If you drink beer, then you will get drunk.'

The set of hypothetical pronominals exhibits some phonological variation (Wilson 1972). In the case of second and third person hypothetical pronouns, there is no distinction between singular and plural at all. (58) shows the most frequent set of pronominals attached to the verb *omes* 'see' along with the phonological variants of each form. In all cases, the hypothetical pronominal represents the agent of the clause.

(58)	**hyp+*omes***	'see'	**variant forms**
	ku-mes	1st. SG see	***ku-, ke-, k-***
	chomo-omes [4]	2nd. PL/SG see	***chomo-, mo-, chomu-, mu-, cho-, chome-, m-***
	lo-omes	3rd. PL/SG see	***lo-, lu-, le-, l-***
	do-omes	1st. PL INCL see	***do-, du-, de-***
	kimo-omes	1st. PL EXCL see	***kimo-, kimu-, ki-***

But these pronominal forms also occur in other syntactic structures, including passives, nonsubject relatives, and following the negative verb *diak*. The last fits nicely with the hypothetical or irrealis notion.

(59) Passives:

A biska a lo-bilsa a chad er a chei.

DL spear DL 3-give HYP DL person P DL fishing

'A spear was given to the fisherman.'

(60) Non-subject relative:

A bilas $_i$ el mo-ruul er ngii $_i$ a kmal ungil.

DL boat LNK 2-making HYP P 3SG DL very good

'The boat you are making is very good.'

(61) With the negative verb *diak*:

A Markus a diak le-bo er a iklesia.

DL Markus DL not 3-go HYP P DL church

'Markus is not going to church.'

This brief outline of the major structures of Palauan will serve to introduce the most important properties that relate to the rest of this study. As these aspects of the structure come into play during the analysis of causativization and passivization, I will provide the necessary detail about the structures in question.

Chapter 2 Notes:

1. Both the Bilingual Education Project for Micronesia (BEPM) and the Pacific Area Languages Materials (PALM) Project were joint efforts, funded first by the Trust Territory and later the U.S. Department of Education, Office of Bilingual Education and Minority Languages Affairs (OBEMLA). Both projects were organized under the University of Hawai'i's Social Science Research Institute (SSRI), headed then and now by Dr. Donald M. Topping. I coordinated the BEPM from 1974-76 and the PALM Project from 1977 - 1983. Copies of all materials developed by the PALM project were sent to Hamilton Library at the University of Hawaii.

2. I wish to be consistent with the spelling conventions adopted by the Belau Department of Education. This is part of an ongoing effort to encourage literacy in the Palauan language. Continuing uncertainty over spelling has hampered such efforts. Deviating from the system used by the local writers, however justified, may exacerbate this problem.

3. So-called 'hypothetical' verb forms are also referred to as 'irrealis' by Waters (1979) and Georgopoulos (1985). The name 'irrealis' is no more or no less descriptive a term than "hypothetical."

4. The last four forms of the hypothetical pronoun with *-omes* do not reflect the standard orthography here. Morphophonemic processes simplify the double vowels to one.

Chapter 3: The Government and Binding Framework

3.1 Introduction to the Framework

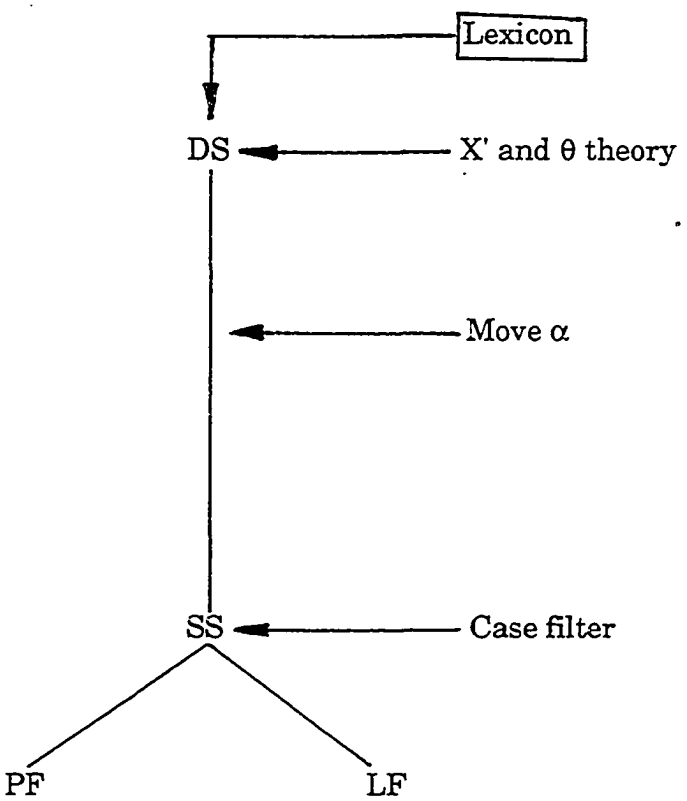
In this chapter, I describe the general framework in which the present study is carried out, the Government and Binding (GB) model. For this purpose, I have based the greater part of the description on Baker (1988) and Chomsky and Lasnik (1991).

In their recent survey article of the model, Chomsky and Lasnik (1991) describe what has come to be called the Government and Binding model of grammar. They suggest that this terminology is "misleading," preferring the more descriptive term "Principles and Parameters Theory." However, for my purposes in this study, I will use the more familiar "Government and Binding."

The GB model of grammar can be represented as an inverted Y (1), consisting of a Lexicon, which feeds into D-structure, followed by the movement rule, Move α, which applies to produce S-structure. S-structure is then interpreted in the PF (phonetic form) component and the LF (logical form) component.

For purposes of this study I will be concerned only with the Lexicon and two levels of structure, D-structure and S-structure.

(1) The GB Model



First, I examine the relevant parts of Universal Grammar (UG), the inborn system that specifies the necessary properties of human language.

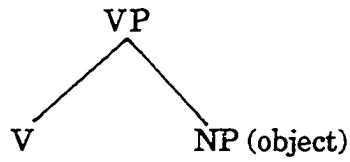
UG consists of two kinds of principles: absolute requirements, which every language must obey, and parameterized principles, which provide a small set of options that each language sets for itself. Some of these parameters are binary while others are multivalued. An example of an absolute requirement is seen in (2).

(2) *He_i stole Zorro's$_i$ sword.*

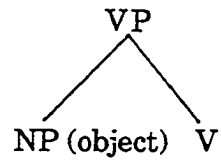
In no known language can the subject pronoun *He* refer to *Zorro's* in structures such as (2), rather, *he* can only refer to another person.

The order of the verb and its direct object is an example of a parameter, whose precise value is set by each language. Thus, in English, the verb precedes the object NP, but in Japanese the order is reversed.

(3) a. English Order



b. Japanese Order



(4) a. *Dennis kicked Owen*

Dennis ga Owen o butta.
Dennis SUBJ Owen OBJ kicked

UG with all its parameters set is the *core grammar*. This makes up an important part of any given language, the part which is predictable from the application of a discrete number of principles and their settings for that language. Another part, which will not concern us here in any direct way, is the *periphery*. The peripheral properties of any given language are idiosyncratic, independent of the UG, resulting from historical accidents, language contact, or unexplained innovation in general. These aspects of language can include, for example, irregular verbs or nouns, or borrowings from other languages. Naturally we must seek these

idiosyncratic properties in order to factor them out of any search for the deeper principles of human language and their parameters.

The principles that determine the properties of well-formed sentences are based on several important notions, or concepts. I introduce these notions and principles here in order to illustrate, in a general way, how the system of principles and notions fit together. As each subsystem of the model is applied to particular structures, it will be further specified.

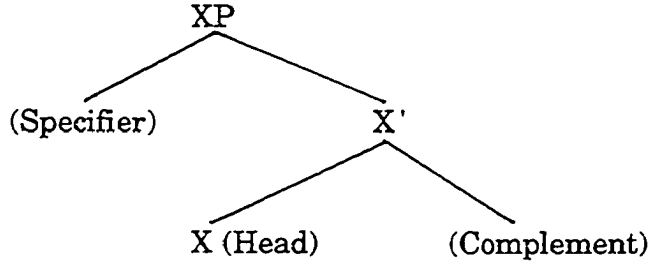
3.2 X-Bar Theory

The syntactic configurations of language must comply with the X-bar theory, which includes both the inventory of syntactic categories in (4a) and the template for phrase structure in (4b).

(4) a. Word-level syntactic categories

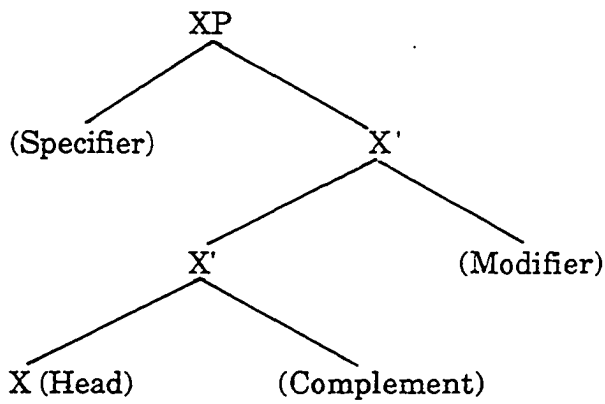
Lexical categories	Functional categories
Noun (N)	Determiner (Det)
Verb (V)	Inflection (I)
Adjective (A)	Complementizer (C)
Preposition (P)	

(4) b. X-bar Schema



Where modifiers occur, they are attached as sisters of X', as depicted in (5).

(5)

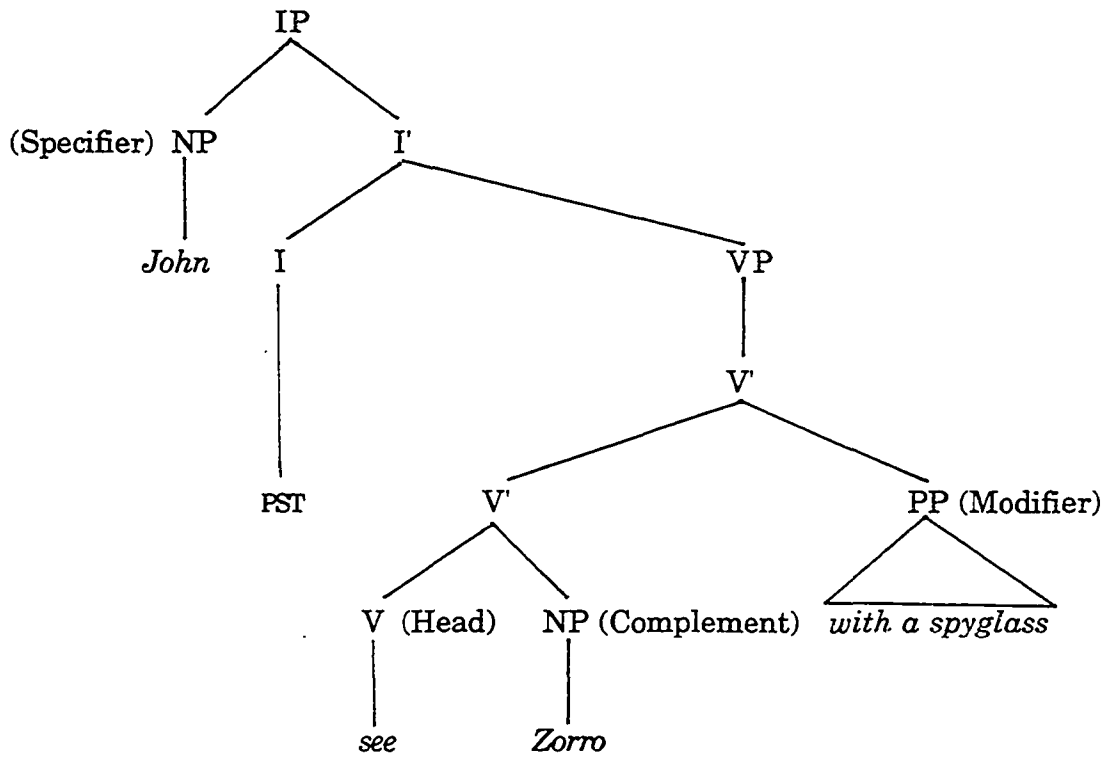


Modifiers differ from complements generally by not being closely related to the lexical head. Complements, on the other hand, are selected by lexical items. Thus, transitive verbs require an NP complement of a certain type. What is clear, is that the modifier is not a sister of the head, since heads do not subcategorize for modifiers, only complements.

The simple declarative English sentence (6), depicted in D-structure (7), conforms to the X-bar schema. Notice that what traditionally is labelled as S (for 'Sentence') is treated here as IP (for 'Inflectional Phrase'), with the head ('Inflection') corresponding to the tense marker.

(6) *John saw Zorro with a spyglass.*

(7) D-structure



3.3 Theta Theory

Theta theory has to do with how thematic roles are assigned by lexical items to NPs in D-structure. Thematic roles are the parts that referents of NPs play in the situations that are described in sentences. Thus, in (8a) the NP *Robert's* role is to play, while the NP *tuba's* role is to get played. The verb *played* assigns two roles, an agent and a theme.

(8) a. *Robert played the tuba.*

<agent> <theme>

b. *The tuba was played by Robert.*

<theme> <agent>

The number and kind of thematic roles assigned is a function of the lexical properties of the theta role assigner. The principal theta roles are assigned in accordance with the following conventions:

(9) Theta Role Assignment

The theme role is assigned by a V to its complement.

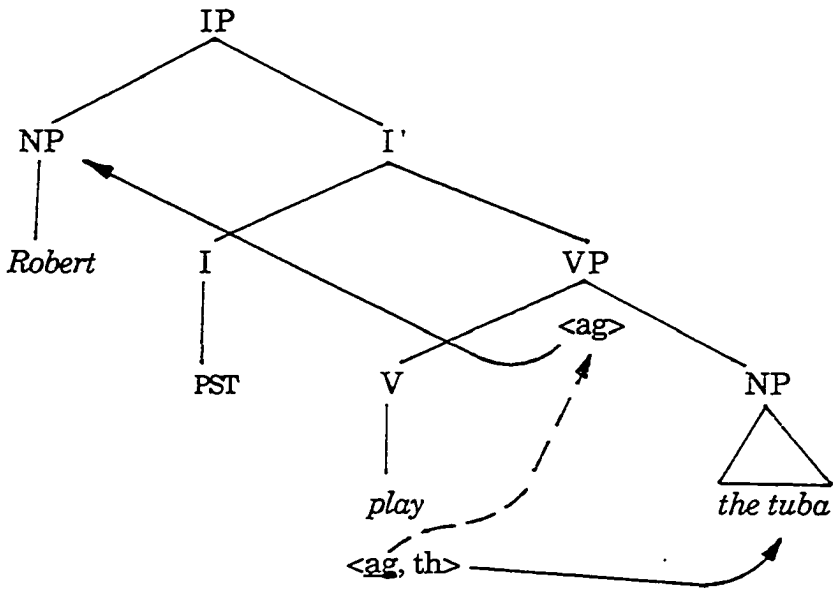
The agent role is assigned by a V to its subject.

The locative, source, and goal roles are assigned by a semantically appropriate P to its complement.

The possessor role is assigned by an N to its specifier.

The D-structure in (10) illustrates how the theta roles are assigned in sentence (8a).

(10)



The agent role "percolates" up to the VP and is assigned to the NP in subject position *Robert*, while the verb assigns the theme role to its NP complement *the tuba*.

Each well formed D-structure must satisfy the Theta Criterion.

(11) Theta Criterion

Every referring NP must be assigned a theta role, and every theta role must be assigned to a referring NP.

In short, the Theta Criterion requires that each referring NP must receive a theta role and that every theta role must be assigned to a referring NP. The application of the Theta Criterion will rule out sentences in (12).

(12) a. **The spy defected the country.*

<ag>

b. **The authorities detained.*

<ag, th>

In (12a) the verb *defected* has only one theta role to assign, the agent role, although there are two referring NPs that require theta roles. Therefore this sentence runs afoul of the first part of the Theta Criterion. (12b) has the opposite problem, there is one too many theta roles to assign. Since there is no referring NP to receive the theme role, this sentence does not obey the second part of the Theta Criterion. Therefore, theta theory allows

us to account for the ungrammaticality of sentences placed in the wrong structure.

Theta theory interacts in an important way with the Uniformity of Theta Assignment Hypothesis (UTAH) (13).

(13) Uniform Theta Assignment Hypothesis

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

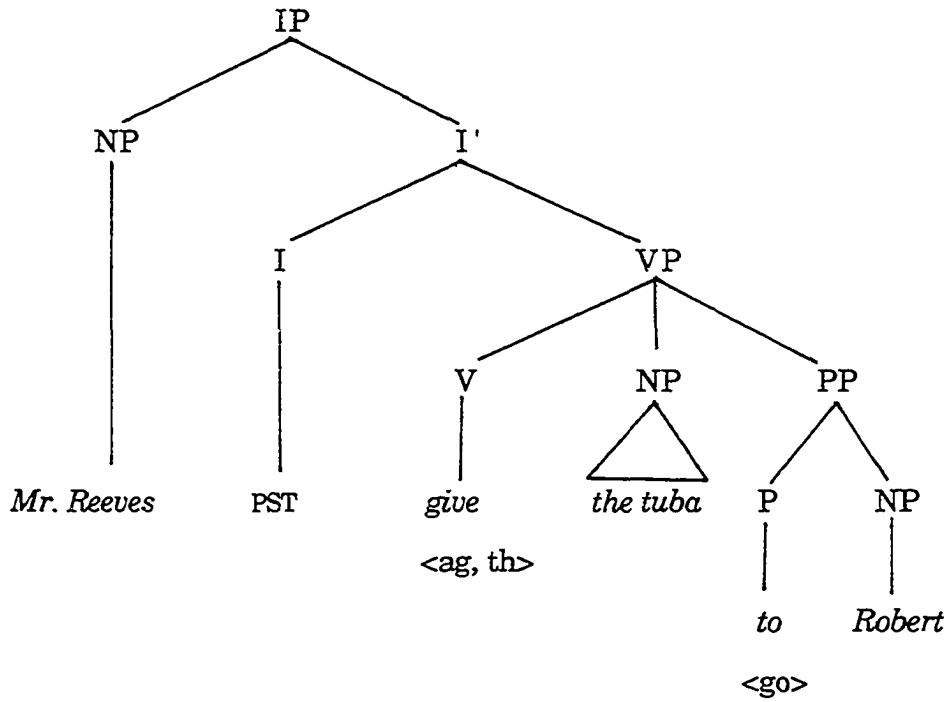
Thus when two sentences have identical thematic relationships they will have a similar D-structure. An example of how the UTAH works can be seen in the pair of sentences (14).

(14) a. *Mr. Reeves gave the tuba to Robert.*

b. *Mr Reeves gave Robert the tuba.*

In each sentence, the NPs receive the same theta roles: *Robert* receives the thematic role of goal, while *tuba* receives the theme role, and *Mr. Reeves* bears the agent role. The corresponding D-structure can be depicted as in (15).[1]

(15) D-structure for (14a) and (14b)



3.4 Case Assignment

The last constraint to be mentioned here is the Case filter which requires that every overt NP in S-structure must receive abstract Case.

(16) The Case filter

Every overt NP must have Case.

In sentence (17) there are three overt NPs which must have Case, *olik* 'fruit bat' (Nominative), *bobai* 'papaya'(Objective), and *uum* 'kitchen' (Oblique).

(17) *A olik a menga a bobai er a uum.*

DL fruit bat DL eating DL papaya P DL kitchen

'The fruitbat is eating papaya in the kitchen.'

(18) adapted from Sells (1985: 53-54) summarizes Case assignment discussed in this chapter.

(18) a. Case Assignment Summary

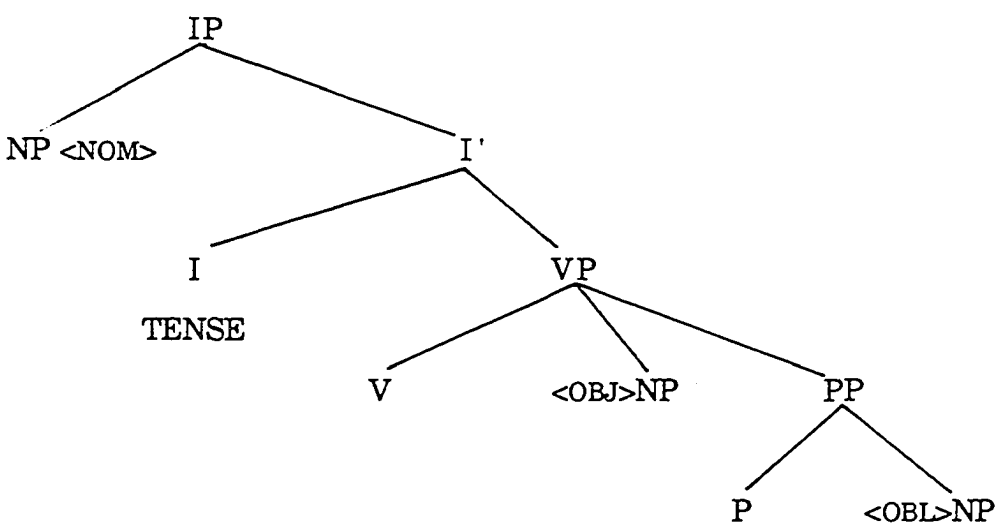
A tensed Infl assigns Nominative Case to the subject.

A verb assigns Objective Case to its complement NP.

Nouns and Adjectives do not assign Case.

Genitive Case is assigned in $[_{NP}$ __X].

(18) b. Case Assignment Outline



The Case filter works to exclude phrases like (19a), while allowing (19b) and (19c). Although all three depict a situation in which there is an action of destruction and something that gets destroyed, only the first does not pass the Case filter.

(19) a.	**destruction the farm*	no Case assigned
b.	*destroy the farm*	Objective Case assigned by V
c.	*destruction of the farm*	Oblique Case assigned by P *of*

In (19a), *destruction* is not a case assigner, so the NP *the farm* does not receive case. However, in (19b), the V *destroy* assigns Objective Case to its NP complement, while in (19c), the P *of* assigns Oblique Case to its complement. Thus, the ungrammaticality of (19a) is explained in a principled way as a Case filter violation.

The Case assigners and the way in which they assign Case will be developed in Chapters 4 and 5.

3.5 The Lexicon

The Lexicon, interacting with X-bar theory, Theta theory, the Projection Principle (below), and the UTAH constrain the basic configuration of D-structure and each subsequent level of structure in the derivation.

The Lexicon is the locus of idiosyncratic information about individual lexical items that form the basic building blocks of D-structure. The kind of information in the lexicon that is needed for this study consists of three

important notions: selectional restrictions, theta role assignment, and Case assignment. These and other types of information determine what structure a particular lexical item can be inserted into. A lexical entry for a Palauan transitive verb is illustrated in (19)

(19) *mengelebed,* 'hit' V: [__ NP]
theta roles: <agent, theme>
Case assignment: Objective

This lexical entry indicates that *mengelebed* 'hit' is a transitive verb that requires an NP complement. It assigns one theta role (agent) to the subject and one theta role (theme) to the direct object. It assigns objective Case to its NP complement.

Lexical items combine at D-structure in a manner compatible with other lexical items. Thus, the transitive verb *mesebek* 'kick' can combine with the NP complement er a *btuu* 'the ball', but not the PP complement [*el oba er a oles*] 'with a knife.' The selectional restriction requiring an NP complement would be enough to rule out such a combination in the D-structure.

3.6 The Projection Principle

(20) The Projection Principle

Properties of each lexical item must remain present at all levels of representation.

The Projection Principle assures that information contained in lexical entries is projected at all levels, D-structure, S-structure, Logical Form (LF), and Phonetic From (PF). Therefore, in the case of the Palauan transitive V *mengelebed* 'hit', the ability of this verb to assign an external agent role and an internal theme role must be retained in the structure throughout the derivation. This requirement will be particularly important when we discuss the biclausal nature of causatives in Chapter 4. To further illustrate how this principle works, the verb *take* requires a direct object complement, something that can be taken. Therefore, if the object moves, the information that it was the original verb complement will remain in the form of an empty category (trace), evidence, as it were, that the moved NP originally occupied that position. In (21), the *wh* word has been moved out of its original direct object position to the front of the clause, leaving a gap.

(21) *The detective guessed what the suspect stole* ____.

According to the Projection Principle, even though the *wh* word has moved, the information that it began in the direct object position, and received a theme role from the verb must be retained at all levels. Furthermore, the connection between the lexical material that moved and the gap must be represented in some way to show the relationship. GB uses coindexing for this purpose. The structure in (22) illustrates this process.

(22) *The detective guessed* [[$_{NP}$ *what*] $_i$ *the suspect stole* [*t*] $_i$]

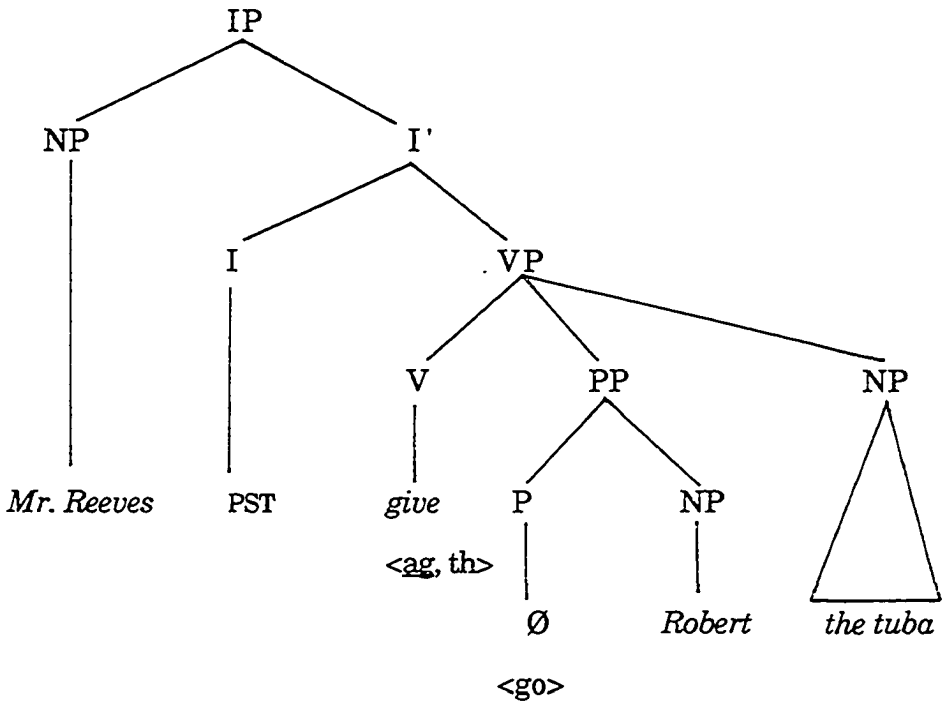
In this structure, the *wh* word was inserted in the NP position as object of the V *stole*. It receives its theta role, <theme>, and then moves to the NP position. A trace [*t*], indexed to the moved element *what* , remains where the gap was left.

In this chapter, I have outlined the basic framework in which the analysis of Palauan causativization and passivization is presented. The outline is intended to recognize the various syntactic modules as they are applied to specific structures. Other principles and constraints are introduced as they are needed along with further refinements of the ones I have sketched here.

Chapter 3 Notes

1. In Baker's system, the D-structure for (14b) is actually different in that the P is null and the PP is adjacent to the V. Crucially, however, the structural relationships among the various NPs remain the same: *Mr. Reeves* is still the subject, *the tuba* is still the direct object, and *Robert* is still the complement of a preposition.

D-structure for (14b)



Chapter 4: Causatives in Palauan

4.1 Introduction

In order to account for complex morphological forms whose component morphemes originate in positions that are different from their surface sites, Baker (1988) has developed a theory of incorporation, utilizing independently motivated rules of Universal Grammar to account for the phenomenon. In this theory, morphemes that are generated in one syntactic position in the deep structure of a sentence, then move to another position and join with a morpheme in that position. Special rules for such movement are not needed, since the changes may be explained using general rules and principles needed for other, simpler structures. Palauan causative constructions provide a useful grammatical phenomenon on which to test this theory. In this chapter, I will demonstrate how Baker's system of verb incorporation (147-228) is able to account for the facts of Palauan causatives, thus deriving support for the incorporation analysis from still another language.

This chapter is presented as follows: In Section 4.2, I discuss Baker's notion of verb incorporation. In Section 4.3, I review the facts of Palauan causatives as they relate to the two main types of structure Baker (162-166) proposes. In Section 4.4, I provide evidence from Palauan for the Empty Category Constraint (ECP) in morphological causatives. In section 4.5, I describe how the embedded verb of a causative construction moves in syntactic structure, and ascertain the route that it must take in order to avoid violating the ECP. In section 4.6, I examine the problem of Case assignment in Palauan causative structures. Section 4.7 provides evidence

for the biclausal structure of morphological causatives and, finally section 4.8 summarizes the chapter.

4.2 Causatives and Verb Incorporation

In Baker's view (1988: 147-228), morphological causatives (i.e. structures in which the causative morpheme is bound) are identical to full fledged biclausal constructions in their deep structures. That is, both types of causative structures have two verbs, each of which stands in the same relationship with its respective logical arguments. Examples of biclausal causatives from English and Chichewa (a Bantu language) illustrate this similarity. Compare the following English and Chichewa causative sentences in (1), (2), and (3):

(1) a. Romana **made** her child **eat** the taro.

b. Markus is **getting** the dog to **run away**.

(2) a. *Mtsikana ana-chit-**its**-a kuti mtsuku u-**gw**-e .*
girl AGR-do-**make**-ASP that waterpot AGR-**fall**-ASP
'The girl made the water pot fall.'

b. *Aphunzitsi athu ana-chit-**its**-a kuti mbuzi i-**dy**-e udzu.*
teachers our AGR-do-**make**-ASP that goats AGR-**eat**-ASP grass
'Our teachers made the goats eat the grass.'

(Baker 1988: 148)

Beginning with the English sentences in (1), it is clear that these causative constructions contain two clauses, each with its own separate verb. In (1a), in the main clause, the verb *make* provides the causative meaning and, in the embedded clause, the verb *eat* describes what the child, the referent of the embedded 'subject', is caused to do. Sentence (1b) also has a distinct verb form for each clause, with causative *get* in the main clause, and *run away* in the embedded clause.

As Baker points out, in Chichewa (148), speakers are able to express causative meanings using structures similar to those of English. In (2a) the two verbs ***-its-*** 'make' and ***-gw-*** 'fall' are clearly in separate clauses, while in (2b) ***-its-*** 'make' and ***-dy-*** 'eat' occur in two different clauses as well, just as they do in English.

However, unlike English, Chichewa is able to express the same meanings using another structure, one in which the two verbs appear to have merged.

(3) a. *Mtsikana anau-**gw-ets-a** mtsuko.*
girl AGR-**fall-made**-ASP waterpot
'The girl made the water pot fall.'

b. *Catherine ana-**kolol-ets-a** mwana wake chimanga.*
Catherine AGR-**harvest-made**-ASP child her corn
'Catherine made her child harvest corn.'

(Baker 1988:148)

(3a) appears to mean the same thing as (2a) However, while in (2a) each verb is located in its own separate clause, in (3a) the verbs *-gw-* and *-ets-* come together morphologically to form a single complex verb. The sentence thus takes on the look of a regular transitive sentence with a causative meaning. The resulting meaning, in somewhat fractured English, would be something like 'The girl made-fall the water pot.' As Baker puts it, '...the (resulting causative) verb forms in (3) "do the work" of two verbs....'

Looking at the basic meaning of the Chichewa examples in (2) and (3), note that the situation they represent is the same. Thus, in both examples the water pot falls and the girl causes it to fall. Since the thematic roles (causer, agent, theme, etc.) associated with the NPs in the morphological causative are identical to those associated with the corresponding NPs in the biclausal causative, the two sentences are 'thematic paraphrases' to use Baker's term. Thus, one would expect both sentences to have identical underlying structures. Indeed, the Uniformity of Theta Assignment Hypothesis (UTAH), requires us to posit identical D-structures for the two sentences.

(4) The Uniformity of Theta Assignment Hypothesis:
Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

Even if the two sentences do not share precisely the same meaning, their underlying structures must, at the very least, have verbs that stand in

identical relationships with their arguments. Baker proposes the structure in (5) for sentences (2a) and (3a), repeated here in shortened form for convenience (with S = IP).

(2) a. *Mtsikana ana-chit-**its**-a kuti mtsuku u-**gw**-e .*

girl AGR-do-**make**-ASP that waterpot AGR-**fall**-ASP

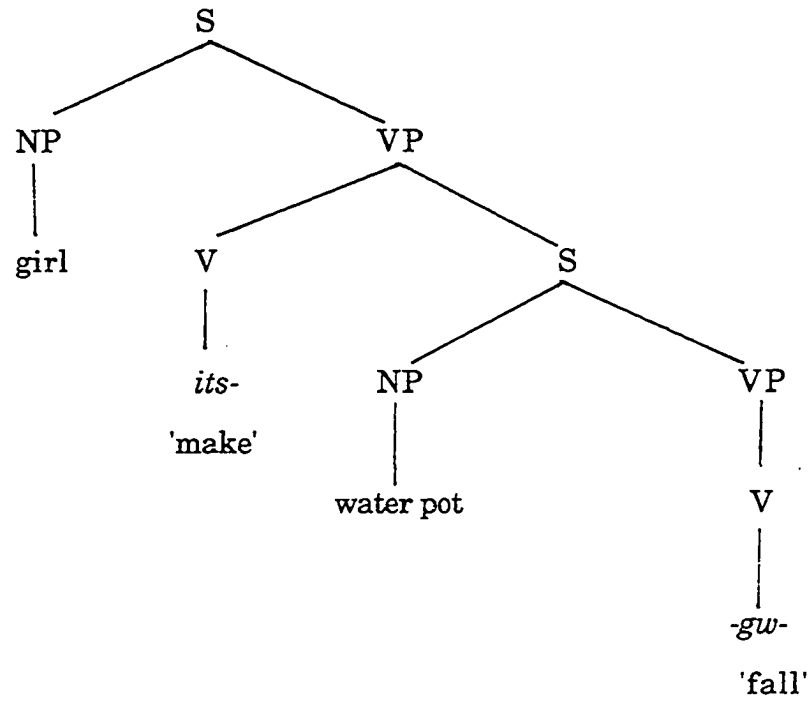
'The girl made the water pot fall.'

(3) a. *Mtsikana anau-**gw**-**ets**-a mtsuko.*

girl AGR-**fall**-**made**-ASP waterpot

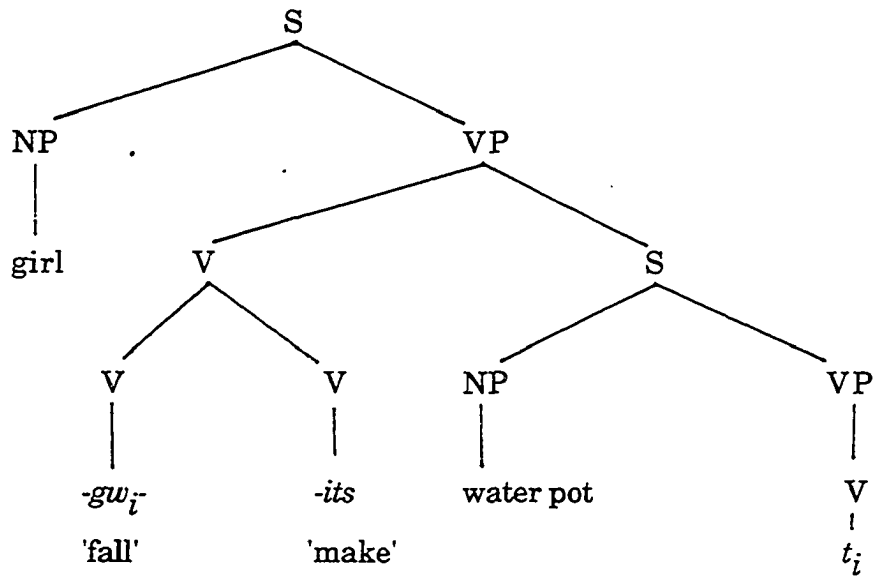
'The girl made the water pot fall.'

(5)



At a later stage of the sentence derivation, the two verb forms *-its-* 'make' and *-gw-* 'fall' combine into a single complex verb form. Baker then concludes that the resulting S-structure for (2a) and (3a) resembles (6):

(6)



As this S-structure shows, the verb *-gw-* 'fall' has moved up to be adjoined to the verb *-its* 'make' in the higher clause. Consistent with general practice, the original position of the moved verb is marked by a 'trace' (an empty category), which is coindexed with the verb in its new position.

The lexical entry for the causative verb in (2a), repeated here,is (7).

(2) a. *Mtsikana ana-chit-its-a kuti mtsuku u-gw-e .*
girl AGR-do-make-ASP that waterpot AGR-fall-ASP
'The girl made the water pot fall.'

(7) Lexical entry: *-its* 'cause': V [___IP]
theta role: <agent>
theta role: <theme>
affix: must attach to V

The lexical entry for *-its* 'cause' requires the argument agent to correspond to the causer (*mtsikana* 'girl') and the other argument <heme, which is a propositional complement, to correspond to the caused event. Because *-its* is an affix, there is an additional requirement, namely, that it must attach to a verb. This is a model lexical entry for other causative morphemes.

The lexical property of *-its* 'make', which specifies that it must attach to another verb, prohibits sentences with this verb in it from being well formed unless the attachment has taken place. Baker thus proposes a 'Stray Affix Filter', which rules out all unattached affixes. In the Chichewa example, there are two ways to satisfy this requirement. One way is for *-its* 'make' to attach to a sort of dummy verb *-chit-* 'do', as in (2a) and (2b), and the other is for the affix to attach to a verb from the lower clause, as in (3a) and (3b).

(2) *-its-* 'made' attached to dummy V
*Mtsikana ana-chit-**its**-a kuti mtsuku u-**gw**-e .*
girl AGR-do-**make**-ASP that waterpot AGR-**fall**-ASP
'The girl made the water pot fall.'

(3) *-ets-* 'made' attached to the embedded V

Mtsikana *anau-**gw**-**ets**-a* *mtsuko.*

girl AGR-**fall**-**made**-ASP waterpot

'The girl made the water pot fall.'

This range of possibilities for causative forms does not occur in all languages. As we have seen, in English, the causative verb and the embedded verb do not combine to form a single verb. In Chichewa, the causative morpheme must combine with another verb because it is always a bound morpheme. As we shall see shortly, Palauan also requires the combination of the causative morpheme with another verb. However, there is no *do*-support of the sort found in Chichewa; thus another verb must always come from the lower clause.

The major thrust of Baker's arguments for an incorporation analysis of morphological causatives is that the verb forms and grammatical function changes that result can be accounted for by appealing to well-motivated principles and movement rules in Universal Grammar.

Work on Chamorro causatives by J. Gibson (1980) demonstrates that languages differ from one another in the surface grammatical function borne by the arguments of the embedded verb in causative structures. She argues that there are at least two ways in which these NPs may behave, which she formulates as Causative Rule I and Causative Rule II. The distinction rests on which argument of the embedded verb has the surface behavior of a direct object and which has the surface behavior of an oblique NP.

In languages conforming to Causative Rule I, the underlying subject of the embedded clause behaves as the direct object if the embedded verb is intransitive, but as an oblique if the verb is transitive. The embedded object of a transitive verb, like the embedded subject of an intransitive verb, behaves as the direct object. The system is summarized in (8)[1]

(8) Causative Rule I

Grammatical Function in the embedded clause	**Apparent Grammatical Function after causativization**
Subject of transitive clause	Oblique /Indirect Object
Subject of intransitive clause	Direct Object
Object of transitive clause	Direct Object

Sentence (9) illustrates a causative formed from an intransitive verb in one dialect of Chichewa. (Chichewa examples from Baker 1988: 162)

(9) *Buluzi a-na-sek-ets-a ana.*
lizard SP-PAST-laugh-CAUS-ASP children
'The lizard made the children laugh.'

This sentence contains an embedded intransitive verb with an agent argument. Although it is the underlying subject of the intransitive clause, it appears post-verbally and thus apparently functions as the direct object in surface structure. The sentences in (10) provide evidence that this NP does in fact behave like a direct object.

(10) a. *Buluzi a-na-**wa**$_i$-sek-ets-a* ***ana**$_i$*

lizard SP-PAST-OP-laugh-CAUS-ASP children

'The lizard made the children laugh.'

b. *Ana a-na-sek-ets-**edw**-a (ndi buluzi).*

children SP-PAST-laugh-CAUS-**PASS**-ASP (by lizard)

'The children were made to laugh by the lizard.'

Object agreement may apply optionally in Chichewa, as it has in (10a). In this case the agreement marker *-wa-* is coindexed with the former underlying subject of the intransitive verb, which now occurs immediately after the verb. These two facts support the claim that the original intransitive subject behaves like the direct object of the complex causative verb. Sentence (10b) is a causative that has been passivized, as shown by the passive morpheme *-edw*. Significantly, the former subject of the embedded verb (*ana* 'children') now behaves like the subject of the matrix verb. Since passivization 'promotes' a direct object to subject, this shows that *ana* must operate like a direct object following causativization. Thus, two structures help confirm the hypothesis that the underlying subject of an embedded clause behaves like the direct object in an intransitive causative sentence. This supports the first part of Causative Rule I, namely that the underlying subject of the embedded clause has the properties of the direct object of the morphological causative verb.

By contrast, in causatives with embedded transitive verbs, it is the embedded object that has the properties of the direct object of the causative construction.

(11) a. *Anyani a-na-meny-ets-a ana kwa buluzi.*

baboons SP-PAST-hit-CAUS-ASP children to lizard

'The baboons made the lizard hit the children.'

b. *Kambuku a-ku-umb-its-a mtsuko kwa kadzidzi.*

leopard SP-PRES-mold-CAUS-ASP waterpot to owl

'The leopard is having the owl mold a waterpot.'

In (11a), *ana* 'children', the underlying direct object of the verb *meny* 'hit', occurs in the post-verbal position reserved for direct objects. In contrast, the subject of the embedded clause *buluzi* 'lizard' is marked by the preposition *kwa* and thus functions as an oblique NP.

Once more, we can test the status of the two NPs that follow the surface causative verbs by means of optional verb-object agreement and passivization. Sentence (12) shows that the NP *ana*, the underlying object of the embedded verb, is coindexed with the object-agreement marker *-wa-*.

(12) *Anyani a-na-**wa**$_i$-meny-ets-a **ana**$_i$ kwa buluzi.*

baboons SP-PAST-OP-hit-CAUS-ASP children to lizard

'The baboons made the lizard hit the children.'

Moreover, (13) shows that *ana* is also the NP that is promoted to subject following passivization. As noted above in (10b), this is typical behavior for a direct object.

(13) ***Ana*** *a-na-meny-ets-**edw**-a* *kwa buluzi (ndi anyani).*
children SP-PAST-hit-CAUS-PASS-ASP to lizard (by the baboons)
'The children were made to be hit by the lizard (by baboons).'

By contrast, the underlying subject of an embedded transitive verb cannot trigger object agreement on the matrix verb. Sentence (14), for example, is unaccceptable because the object-agreement morpheme *-zi* on the main verb agrees with *mbuzi* 'goats', the underlying subject of the transitive verb *meny* 'hit'.

(14) * *Anyani a-na-**zi**$_i$-meny-ets-a* *ana* *kwa **mbuzi**$_i$.*
baboons SP-PAST-OP-hit-CAUS-ASP children to goats.
'The baboons made the goats hit the children.'

Nor can the underlying subject of an embedded transitive verb be promoted to matrix subject via passivization. Sentence (15), for example, is unacceptable because the passive subject *buluzi* 'lizards' is the subject, not the object, of the underlying embedded verb *meny* 'hit'. Compare (15) with (13) and (11a).

(15) * *Buluzi a-na-meny-ets-edw-a* *ana* *(ndi anyani).*
lizard SP-PAST-hit CAUS-PASS-ASP children (by baboons)
'The lizard was made to hit the boys by the baboons.'

The pattern of morphological causative formation I have outlined was seen by many as the only option until J. Gibson's work on Chamorro

causatives demonstrated convincingly that there was a second possibility. In this second morphological causative configuration, the underlying subject of the embedded clause functions like the direct object of the morphological causative verb regardless of whether the embedded clause is transitive or intransitive. The object of the embedded transitive clause then behaves like a second object. The system is summarized in (16).

(16) Causative Rule II

Grammatical Function in the embedded clause	**Apparent Grammatical Function after causativization**
Subject of clause	Direct Object
Object of transitive clause	Second Object

Baker argues for this Causative Rule with examples from a second dialect of Chichewa. Thus, it follows that even dialects of a single language may differ in their patterns of grammatical function change. The causative sentences in (17) and (18), from Chichewa B dialect, have intransitive and transitive embedded verbs respectively.

(17) *Mphunzitsi a-na-lemb-ets-a* ***ana.***
teacher SP-PAST-write-CAUS-ASP children
'The teacher made the children write.'

(18) *Catherine a-na-kolol-ets-a* ***mwana wake chimanga.***

Catherine SP-PAST-harvest-CAUS-ASP child her corn

'Catherine made her child harvest the corn.'

In sentence (17), the underlying subject (*ana* 'children') of an embedded intransitive verb acts like the direct object of the causative verb in surface structure. Therefore *ana* 'children', the subject of the embedded verb *lemba* 'write', becomes the object of the causative verb. However, in this dialect of Chichewa, when the embedded verb is transitive, as in (18), its underlying subject does not become an oblique NP, but rather assumes the properties of the direct object. Thus the underlying subject of the embedded Verb *mwana* 'child' acts like the object of *kolol-ets* 'make harvest', and the underlying object of the embedded verb (*wake chimanga* 'her corn') then acts like a second object.

The claim that the embedded subject assumes the behavior of the surface direct object in intransitives is supported by the optional object agreement and passivization tests.

(19) a. *Mphunzitsi a-na-wa$_i$-lemb-ets-a* ***ana$_i$.***

teacher SP-PAST-OP-write-CAUS-ASP children

'The teacher made the children write.'

b. ***Ana*** *a-na-lelmb-ets-**edw**-a ndi mphunzisti.*

children SP-PAST-write-CAUS-PASS-ASP by teacher

'The children were made to write by the teacher.'

In (19a), the verbal affix-*wa-* agrees with *ana* 'children', confirming that this indeed behaves like the direct object. The fact that this same NP is promoted to subject of the passive construction in (19b) provides further support for the claim that it has direct object properties following causativization.

More crucial, however, is the evidence that Baker offers from Chichewa Dialect B in support of the claim that the subject of an embedded transitive verb behaves like the direct object following causativization and that the embedded object has the properties of a second object. In (20), for example, object agreement is triggered by *mwana* 'child', the underlying subject of the embedded transitive verb.

(20) *Catherine a-na-**mu**$_i$-kolol-ets-a **mwana**$_i$ wake chimanga.*

Catherine SP-PAST-OP-harvest-CAUS-ASP child her corn

'Catherine made her child harvest the corn.'

Furthermore, after causativization, the embedded subject of the complex causative verb can be promoted to subject of the matrix clause through passivization.

(21) ***Mnyamata** a-na-kolol-ets-**edw**-a chimanga ndi*

boy SP-PAST-harvest-CAUS-PASS-ASP corn by

Catherine.

Catherine

'The boy was made to harvest the corn by Catherine.'

In this sentence, *mnyamata* 'boy', the former embedded subject, behaves like a direct object in being promoted through passivization to subject position in the matrix clause.

Finally, Baker utilizes the object agreement and passivization tests in order to rule out the possibility that the underlying direct object of the embedded transitive verb (*kolol* 'harvest') behaves like the surface direct object. In sentence (22), the optional object agreement marker *-chi-* is coindexed with the NP (*wake chimanga* 'her corn'), the underlying direct object, instead of the immediately post-verbal NP (*mwana* 'child'), the underlying subject of the embedded verb.

(22) **Catherine a-na-**chi**$_i$-kolol-ets-a mwana wake*

Catherine SP-PAST-OP-harvest-CAUS-ASP child her

chimanga$_i$

corn

'Catherine made her child harvest the corn.'

The crucial fact is that this pattern of agreement renders the sentence ungrammatical, supporting the claim that the underlying object may not become the direct object in these causative constructions.

A second test concerns passivization of a causative sentence. In this case, the underlying direct object is promoted to subject position.

(23) **Chimanga a chi-na-kolol-ets-**edw**-a mwana wake ndi Catherine.*

corn SP-PAST-harvest-CAUS-PASS-ASP child her by Catherine

'The corn was made to be harvested by her child by Catherine.'

As expected, the result is unacceptable. Therefore, I conclude that the underlying object of the embedded transitive verb does not behave like the direct object of the causative verb.

It is clear, given these examples of Rule II patterning, that there must be some way to account for these distinctions in morphological causatives. Baker suggests (166) that it is necessary to seek independent differences between Causative Rule I and Causative Rule II languages, that may interact with his theory of incorporation, and thus account for these distinctions. He argues that the differences have to do with how the verb raises. I take up that problem in section 4.4. Tables 2 and 3 summarize the changes in grammatical relations associated with causative Rules I and II and the evidence for each cited in this section.

Table 2

Summary of Grammatical Relations Changes
Causative Rule I Languages

Grammatical Relations in the D-Structure	Apparent Grammatical Relations Following Causativization	Evidence: See sentences in ( )
Subject of embedded transitive V	Oblique or Indirect Object	Linear Order, Oblique in PP Sentences (10a), (10b) Passive Sentences (12), (13), & (14)
Subject of embedded intransitive V	Direct Object	Post Verbal Position Sentences (8a), (8b), & (8c) Object Agreement Sentence (9a) Passive Sentence (9b)
Object of embedded transitive V	Direct Object	Post Verbal Position Sentences (10a) & (10b) Object Agreement Sentence (11) Passive Sentence (12)

Table 3

Summary of Grammatical Relations Changes
Causative Rule II Languages

Grammatical Relations in the D-Structure	Apparent Grammatical Relations Following Causativization	Evidence: See sentences in ( )
Subject of embedded intransitive V	Direct Object	Linear Order Sentence (16), Object Agreement Sentence (18a) Passive Sentences (18b)
Subject of embedded transitive V	Direct Object	Linear Order Sentence (17) Object Agreement Sentence (19) Passive Sentence (20)
Object of embedded transitive V	Second Object/Oblique	No Object Agreement Sentences (21) No Passive Sentence (22) Linear Order Sentences (19) & (20) Dative Movement Sentences (26) & (27)

4.3 Palauan Causatives as Verb Incorporation

In this section I will consider Palauan causatives and will determine how Baker's verb incorporation theory explains the resulting complex verb morphology in the language. I will show that Palauan morphological causatives are examples of Causative Rule II, as is Chichewa B and at least two other Austronesian language, Chamorro (J. Gibson 1980) and Cebuano (Bell 1976).

In Wilson's (1972) work on Palauan causatives, she described in detail the various phonological forms of the two major causative affixes, */ole-/* and */omek-/*, and explained the complex morphophonemic derivations they undergo. In addition, she provided extensive information on the semantic distinctions between the two affixes and demonstrated their freedom of occurrence in several combinations with lower verbs. Although she did not describe the syntactic behavior of these complex verbs in any detail, she did anticipate Baker's incorporation analysis when she noted that 'The causative affixes normally serve as the surface manifestation of a higher verb CAUSE...' (Wilson: 156) While this analysis was not developed, it nevertheless suggests the general scheme needed for a verb incorporation analysis of Palauan causatives.

Palauan causative sentences assume two major forms. As in English, there is a causative predicate nominal *uchul* 'cause' that occurs as a free form. It assigns a theta role (agent) to its subject and a theta role (theme) to the propositional complement. Thus, *uchul* assigns roles to two arguments, including an IP (S) propositional complement. Its simplified lexical entry is (28).

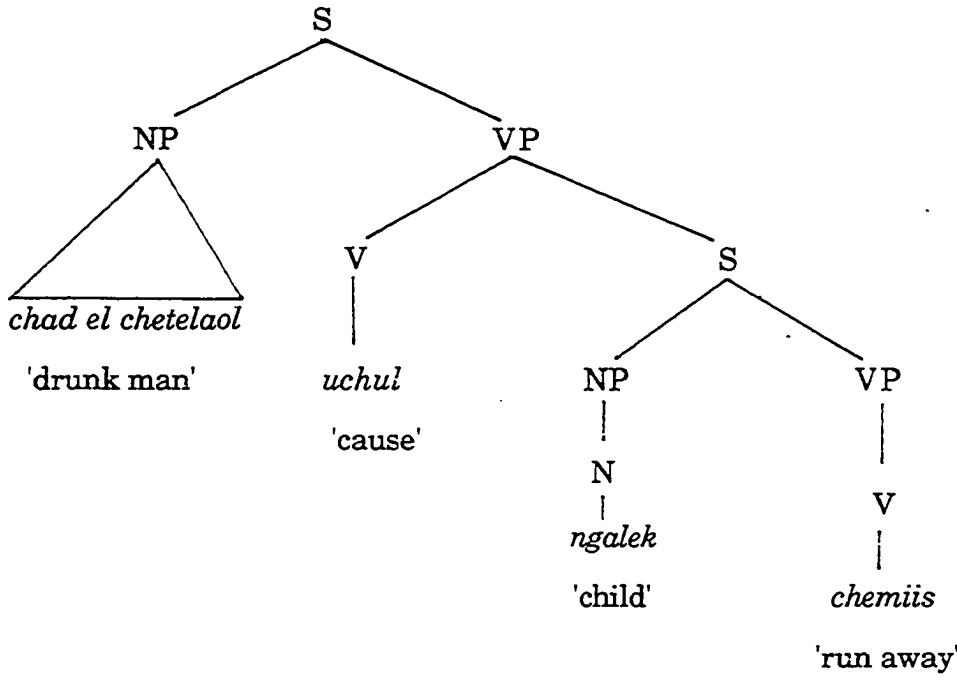
(28) Lexical entry: *uchul,* 'make' V: [__ IP]
theta role: <agent>
theta role: <theme>

In (29) I illustrate one such causative sentence containing *omuchel* 'make' and its propositional complement containing the embedded verb *chemiis* 'run away'.

(29) *A chad el a chetelaol a* ***uchul*** *a ngalek a* ***chemiis.*** [2]
DL man LNK DL drunk DL CAUS DL child DL run away
'The man who is drunk is making the child run away.'

In this type of causative construction, the causative verb is generated in the matrix clause, while the second verb is generated in the embedded intransitive clause and remains in that position. A simplified D-structure for this construction is shown in (30).[3]

(30)



Since no movement is required here, the S-structure will remain essentially unchanged. The construction in (30) establishes the fact that causatives consist of two clauses, with the causative predicate *uchul* in the matrix clause and the verb *chemiis* 'run away' in the embedded clause.

In addition to this causative construction, Palauan has a much more frequent causative construction, which uses a morphologically complex verb form consisting of a causative prefix *ole-* or *omek-* (in most cases) and a root verb that originates in a lower clause. The resulting sentence has the surface features of a single clause structure. However, I will demonstrate that it too is biclausal in D-structure. Because the Projection Principle requires that the configurational properties of D-structures be retained at all levels, the S-structure will also be biclausal, even though the surface forms appear otherwise. This is the construction that will concern us in this section.

There are two basic forms (and many phonological variants (Wilson: 156-175)) of the bound causative morphemes, *ole-* and *omek-*. These forms combine with the verb in the embedded clause and form a morphologically complex transitive verb. According to the analysis I propose, the lexical entries for these causative bound morphemes (31a) and (31b) look very much like the entry for *uchul*, the free form.

(31) a. *ole-*, 'cause' V: [__ IP]
theta role: <agent>
theta role: <theme>
affix: must attach to V

b. *omek-*, 'cause' V: [__ IP]
theta role: <agent>
theta role: <theme>
affix: must attach to V

According to these entries, each causative verb affix assigns a theta role <agent> to its subject as well as a <theme> theta role to the IP complement for which it is subcategorized. However, unlike the full form causative predicate *uchul*, the morphological causative verbs have an additional requirement. Since both are bound forms, they require another morpheme, a verb, to be attached.[4]

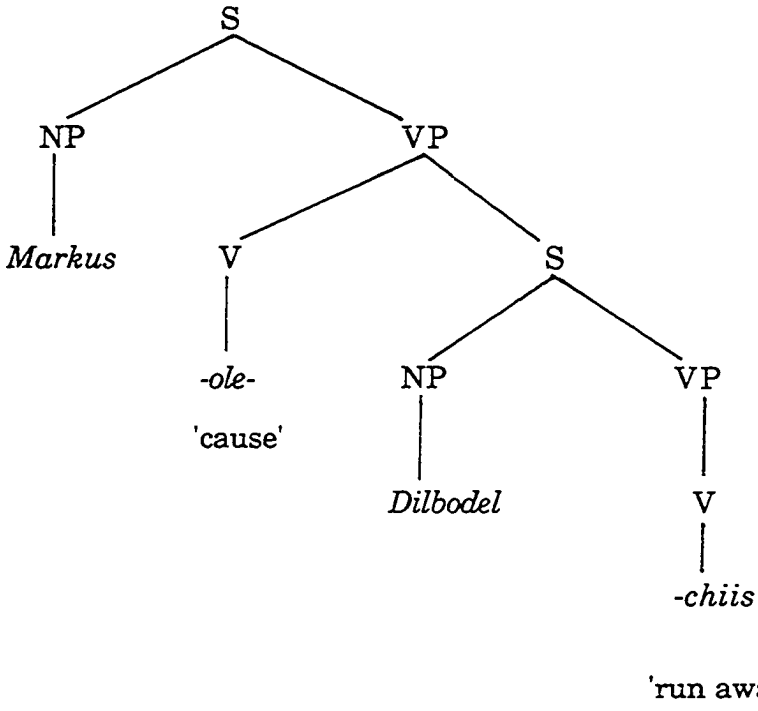
By comparing the theta roles assigned by free form causative verbs to the theta roles assigned by the bound morpheme verbs, we see that the two types of causative sentences are thematic paraphrases. That is, the

relationships between the verbs and their respective arguments are the same in both sentences.

What does the D-structure for morphological causatives look like? For an answer, I appeal to the UTAH, which states that if two structures share identical thematic relationships, the two must be represented by identical structural relationships at the level of D-structure. Therefore the morphological causatives should have the same D-structure as the free form causatives. Although the morphological causative morphemes do not appear to be phonologically related to the full form *uchul*, the meanings are certainly similar in the relevant respects. Therefore, I feel confident in proposing that the underlying D-structures for morphological causatives and free form causatives are essentially the same. Thus, the morphological causative in (32) will have the D-structure depicted in (33), which is identical in the relevant respects to the D-structure proposed above for the full-fledged biclausal causative in accordance with the UTAH.

(32) *A Markus a* ***ole-chiis*** *er a Dilbodel.*
DL Marcus DL CAUS-run away P DL Dilbodel
'Markus is making Dilbodel run away.'

(33)



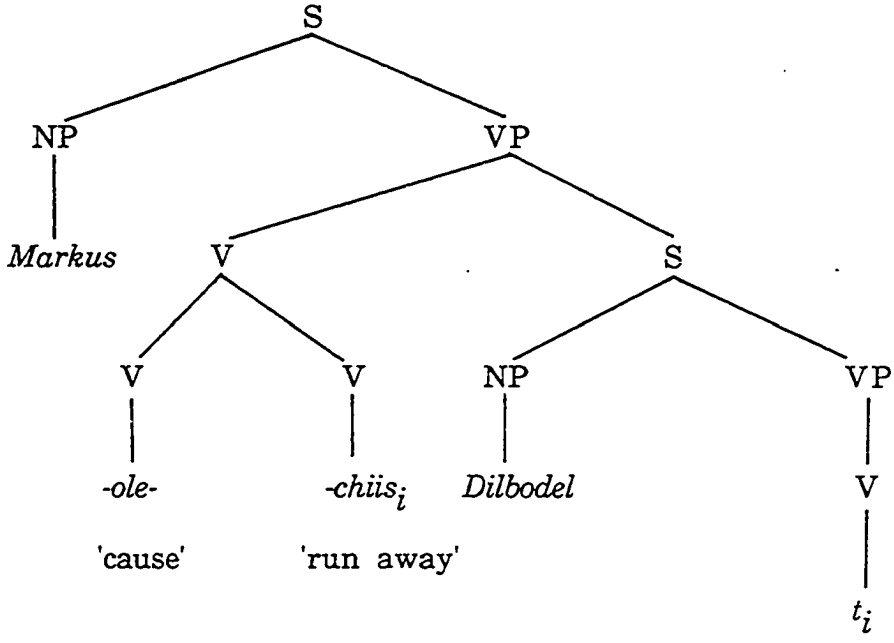
The underlying structure for (33) requires the two verbs to be in positions where they are able to assign their respective theta roles, namely in the same clauses as their arguments. Thus, in (32) the verb *-chiis* 'run away' assigns an <agent> theta role to its argument *Dilbodel*. In the same way, *ole-* assigns an <agent> theta role to its argument *Markus* in (33). If the verb *chiis* were not generated in the lower clause, there would be no theta role assigner for *Dilbodel* and the complex morphological causative verb would have two agent roles to assign, but with only one argument available for assignment. The result would be an ill-formed sentence.

Since the verb *-chiis* is generated in a separate clause from the causative verb *ole-* and we know that the two must merge, the question is how to bring them together. I argue that the Palauan morphological causatives are instances of Baker's verb incorporation.

Since the causative verbs in Palauan are affixes, they are marked in the lexicon for attachment to a verb. Therefore, they must be joined by the verb that is in the embedded proposition. As a result, the embedded verb moves up to the higher verb node and attaches by Chomsky adjunction to the causative verb. If the movement did not take place, the sentence would run afoul of the Stray Affix Filter and be rejected as ill formed.

The resulting surface structure is seen in (34), with a trace marking the position from which the lower verb is moved.

(34)



4.3.1 Palauan Causative Rule Types

Next, I consider the distinction between languages that conform to J. Gibson's Causative Rule I and those that conform to Causative Rule II. Which Rule type does Palauan represent? Since J. Gibson (1980) discovered

Rule II in her study of Chamorro, an Austronesian language of the Marianas Islands, and it applies also to another Austronesian language, Cebuano of the Philippines, we might expect that Palauan would also conform to this configuration since it too is Austronesian. The facts of Palauan support that position. I argue therefore, that Palauan is an example of a Rule II language. This position lends further support to J. Gibson's original claim that there are two essential types of causativization in human language. I restate the two causative rules (7) and (15) for convenience.

(7) **Causative Rule I**

Grammatical Function in the embedded clause	**Apparent Grammatical Function after causativization**
Subject of transitive clause	Oblique /Indirect Object
Subject of intransitive clause	Direct Object
Object of transitive clause	Direct Object

(15) **Causative Rule II**

Grammatical Function in the embedded clause	**Apparent Grammatical Function after causativization**
Subject of clause	Direct Object
Object of transitive clause	Second Object

If Palauan does conform to Rule II, we would expect to see the underlying subjects of both embedded transitive and intransitive verbs behave like the

direct objects of transitive morphological causative verbs. That is exactly what we find, as we see in the sentences of (35).

(35) a. *A re-ngalek a omek-ikiongel er a ulaol.*
DL PL-child DL CAUS-dirty SP DL floor
'The children are making the floor dirty.'

b. *A sensei a omek-dechor a re-ngalek er a skuul.*
DL teacher DL CAUS-stand DL PL-child POSS DL school
'The teacher is making the school children stand.'

c. *A Tudong a ome-ka er a babii er a budues*
DL Tudong DL CAUS-eat SP DL pig OBL DL copra
'Tudong is causing the pig to eat the copra.'

(35a) is a causative sentence in which the embedded clause contains an intransitive state verb *kikiongl* 'dirty'. In (35b) the embedded clause contains an intransitive action verb *dechor* 'stand'. Finally, in (35b) the embedded clause contains a transitive verb *ka* 'eat'.

In all three morphological causatives, I claim that the embedded subject displays the characteristics of the direct object of the morphological causative verb as predicted by Rule II. In the causative with the transitive embedded clause, I further claim that the embedded object has become an oblique, counter to the schema above.

In order to test the status of the NP that immediately follows the complex causative verb, I will examine two characteristics of ordinary direct objects in Palauan. The first is its typical linear position relative to

the transitive verb, and the second is its ability to trigger object agreement in the verb.

In ordinary Palauan transitive clauses, the direct object typically follows directly after the verb. If there are any other phrases in the clause, they follow the direct object. In sentence (37) the first NP following the transitive verb is the theme and since there is no other NP, it must be the direct object.

(37) *A John a menguiu a buk.*
DL John DL reading DL book
'John is reading a book.'

When a clause equivalent to the English dative (e.g. *to someone*), occurs post verbally, it will follow the direct object. Thus, in (38) the transitive verb *menguiu* 'reading' is followed by *babier* 'letter' and then by the phrase with which Palauan expresses an oblique goal.

(38) *A John a meluches a babier [el mo er a Mary].*
DL John DL writing DL letter LNK go P DL Mary.
'John is writing a book to Mary.'

If the embedded phrase is placed between the direct object *babier* 'letter' and the transitive verb *meluches* 'writing', the result is unacceptable.

(39) *A John a meluches [el mo er a Mary] a babier.*

DL John DL writing LINK go P DL Mary DL letter.

'John is writing [to Mary] a letter.'

Direct objects may also may cooccur with a temporal PP. However, when this happens, it is impossible to place the time phrase between the object and its verb, as we see in (40).

(40) a. Time phrase occurring after the direct object

A John a milluches a babier er a elii.

DL John DL was writing DL letter P DL yesterday

'John was writing a letter yesterday.'

b. Time phrase occurring between the verb and the direct object

**A John a milluches er a elii a babier.*

DL John DL was writing P DL yesterday DL letter

'John was writing [yesterday] a letter.'

Finally, we see that the locative phrases behave the same way. It is impossible to place the locative between the verb and its object.

(41) a. Locative phrase occurring after the direct object

A John a milluches a babier er ospitar.

DL John DL was writing DL letter P hospital

'John was writing a letter at the hospital.'

b. Locative phrase occurring between the verb and the direct object

*A *John a milluches er ospitar a babier.*

DL John DL was writing P hospital DL letter

'John was writing at the hospital a letter.'

These examples demonstrate that the direct object in ordinary transitive verbs occurs immediately after the verb. When other phrases occur between the verb and its direct object, the sentence is ill formed. Therefore, if the subject of an intransitive embedded clause immediately follows a causativized verb, it is in the correct position to be a direct object.

The second test for direct objecthood, namely object agreement, is found only with perfective transitive verbs. Recall from our discussion in Chapter 2 that Palauan verbs may be either imperfective (progressive) or perfective. With imperfective verbs there is no agreement marking for the direct object. However, perfective verbs do show limited agreement in person and number with the direct objects. Sentences (42) and (43) illustrate imperfective and perfective verbs respectively.

(42) *A John a milenga er a ngikel.*

DL John DL was eating SP DL fish

'John was eating the fish.'

(43) *A John a kill-ii$_i$ a ngikel$_i$.*

DL John DL was eating- AGR DL fish

'John was eating (completely) the fish.'

In (42), there is no agreement between the imperfective verb *milenga* 'was eating' and the direct object *ngikel* 'fish' in person or number. However, in (43) the perfective verb, with its agreement marker *-ii*, does agree with the direct object. The set of agreement marking suffixes that attach to perfective verbs is repeated in (44).

(44) Direct Object Agreement Suffixes

1st person SG	*-ak*
2nd person SG	*-au*
3rd person SG human/nonhuman	***-ii***
1st person PL INCL	*-id*
1st person PL EXCL	*-emam*
2nd person PL	*-emiu*
3rd person PL human	***-terir***
3rd person PL nonhuman	***-ii***

An important thing to notice about direct object agreement markers is that they distinguish between human and nonhuman nouns in the third person plurals. There is no such distinction in the third person singular. The same agreement marker *-ii* is used for third person singular human and nonhuman objects, and for third person plural nonhuman objects. Thus, the third person plural is marked only for human direct objects. In imperfective clauses, there are no object agreement markers at all on the verb.

In order to demonstrate that verbs with agreement suffixes show agreement with the NP that immediately follows, consider (47).

(47) a. *A sensei a cholebed-ii a ngalek.*

DL teacher DL hitting-him DL child

'The teacher is hitting the child.'

b. *A sensei a cholebed-etetir a re-ngalek.*

DL teacher DL hitting-them DL PL-child

'The teacher is hitting the children.'

c. **A sensei a cholebed-ii a re-ngalek.*

DL teacher DL hitting-him DL PL-child

'The teacher is hitting him the children.'

Sentence (47a) contains a verb with the agreement morpheme *-ii*, which agrees with the human singular object NP *ngalek* 'child'. In (47b) the verb with the agreement marker *-eterir* 'them-human' agrees with the plural human noun *rengalek* 'children'. In Palauan, only human nouns may be inflected for plural. When the human plural noun follows the agreement marker *-ii* ('third person singular human') as in (47c), the sentence is unacceptable.

Thus, there are two ways of testing NPs in causative constructions to see if they behave like direct objects. If they immediately follow the verb, and if they agree with the marker on a perfective causative verb, they have the properties of a direct object.

Now I return to the morphological causatives and attempt to determine the surface status of the underlying subject in the embedded clause. First, I consider causatives with embedded intransitive clauses. Recall that I claim that the subject of the embedded clause behaves like a

direct object in surface structure. I will test this claim by appealing to the linear order of direct objects and to object agreement.

I have shown that the usual position for direct objects is immediately following a transitive verb. I begin by considering causative sentences formed from embedded intransitive verbs.

(48) a. *A Tudong a ome-ka er a babii er a elechang.*
DL Tudong DL CAUS-eat SP DL pig P DL now
'Tudong is causing the pig to eat now.'

b. **A Tudong a ome-ka er a elechang er a babii.*
DL Tudong DL CAUS-eat P DL now SP DL pig
'Tudong is causing the pig to eat now.

c. *A sensei a ole-chiis a re-ngalek er a skuul*
DL teacher DL CAUS-run away DL PL-child P DL school
'The teacher is causing the children to run away from school.'

d. **A sensei a ole-chiis er a skuul a re-ngalek*
DL teacher DL CAUS-run away P DL school DL PL-child
'The teacher is causing the children to run away from school.'

In (48a), the subject of the intransitive embedded verb, has assumed the linear position of direct objects, occurring immediately after the causativized verb, but before a time phrase. However, in (48b), the time phrase has intervened between the verb and its object *a babii* pig, rendering

phrase has intervened between the verb and its object *a babii* pig, rendering the sentence ungrammatical. Likewise in (48c) the underlying subject occupies the position following the verb, resulting in an acceptable sentence. However, when a locative phrase intervenes, like the time phrase above, the sentence is unacceptable. Thus, only the object NP (the underlying subject) may occupy the position directly after the causative verb.

Next, I consider object agreement triggered by the embedded subject of the intransitive verb. For this test, I use a perfective causative verb, because only perfectives display object agreement.

(49) a. *A Romana a me-kel-ii$_i$ a ngelek-ek$_i$.*

DL Romana DL CAUS-eat-her/him DL child-her

'Romana is causing her child to eat.'

b. **A Romana a me-kel-ii$_i$ a re-ngelek-ek$_i$.*

DL Romana DL CAUS-eat-her/him DL PL-child-POSS

'Romana is causing her children to eat.'

In sentence (49a) we find *-ii*, which is the agreement marker for third person singular (human NPs), cooccurring with the post-verbal NP *ngalek* 'child', and the sentence is fine. However if the post-verbal NP is plural and the agreement marker is singular, as in (49b), the sentence is ill formed. Since the perfective verb shows agreement with only direct objects, we know that this NP is acting like a direct object.

The situation becomes more complicated, however, when we consider causatives of embedded transitive clauses. In this case there are

The situation becomes more complicated, however, when we consider causatives of embedded transitive clauses. In this case there are two NPs following the verb -- the subject and the object of the embedded verb. I have claimed that the embedded subject will behave like the surface direct object and the embedded object will be oblique. I will begin by testing to see which NP is the surface direct object of the causative verb. For this I examine both linear order and object agreement.

I have shown that the direct object normally directly follows its transitive verb. When other phrases are inserted between the object and the verb, the sentence is not acceptable. Contrasting (50a) and (50b) we see that the underlying subject of the embedded clause must follow the verb directly.

(50) a. Underlying: subject = *ngelekel*, direct object = *kukau*

A Romana a ome-ka er a ngelek-el er a kukau.

DL Romana DL CAUS-eat-3SG P DL child-her SP DL taro

'Romana is causing her child to eat the taro.'

b. Underlying: direct object = *kukau*, subject = *ngelekel*

**A Romana a ome-ka er a kukau er a ngelek-el.*

DL Romana DL CAUS-eat SP DL taro OBL DL child-her

'Romana is causing her child to eat the taro.'

In (50b), the first potential position is filled by the object of the embedded verb and is ill formed for this reason. In contrast, when the subject of the embedded verb occupies that position, as in (50a), the sentence is acceptable.

Turning now to object agreement, recall that the perfective verb agrees in a limited way with its direct object. The sentences in (51) vary the

agreement possibilities to see which NP from the embedded clause takes on the properties of the direct object.

(51) a. *Ak milek-dekt-ii$_i$ a ngelek-ek$_i$ er a re-ngalek.*

I CAUS-afraid-him/her DL child-my OBL DL PL-child

'I caused my child to frighten the children.'

b. **Ak milek-dekt-ii$_i$ a re-ngal-ek$_i$ er a ngelek-ek.*

I CAUS-afraid-him/her DL PL-child-my OBL DL child-my

'I caused my child to frighten the children.'

In sentence (51a) the subject of the embedded clause, *ngelekek* 'my child', is singular and triggers the singular agreement marker *-ii*, and the sentence is fully acceptable. However, in sentence (51b) where the object of the embedded clause, *ngelekek* 'my child', triggers the object agreement marker *-ii*, the result is ill formed.

In sum, based on its linear position (following the causative verb) and its ability to trigger the object agreement marker, we conclude that the subject of the embedded transitive clause, and not the object of the embedded transitive clause, behaves like the surface object of the causative verb. This is consistent with Causative Rule II, outlined above.

However, if the second NP is not the direct object, what is it? J. Gibson (1980) claimed that in languages of the Rule II type, the second NP was a 'kind of second object.' I claim that it is an oblique NP. The status of the word *er*, which precedes the second NP, is crucial to our argument. The oblique marker *er* is homophonous with many other instances of this

word. It may have many forms and many functions. Three of these are illustrated in (52).

(52) *A chad* ***er*** *a Siabal a mo mesuub* ***er*** *a skuul* ***er***
DL person **of** DL Japan DL Fut study **Loc** DL school **Time**
a klukuk.
DL tomorrow
'The Japanese person will study at school tomorrow.'

There are many more functions of this word *er,* which appears to be a kind of all-purpose preposition and relational particle. In the present context, *er* operates as an oblique marker. This word functions either as a specific/singular-marking particle or as an oblique marking preposition. First, let us examine *er* as a singular indicator for a nonhuman direct object.

Recall that Palauan nonhuman nouns do not indicate number the way human nouns do. Thus the noun *bilas* 'boat' may be either singular or plural, but *rengalek* 'children' is plural, while *ngalek* 'child' is singular. Therefore, when a nonhuman object noun follows a transitive verb, it is difficult to know whether or not it is plural. However, the word *er* can help make some number distinctions. For example, if a nonhuman noun is specific, the presence of *er* will tell us whether it is singular or plural. Only singular specific nonhuman nouns may be preceded by *er*. If *er* is absent, the object is not singular and specific. It may be nonspecific singular or

plural, or specific plural. In this way, *er* can be a number marker for specific nonhuman nouns. Consider sentences (53a) and (53b).

(53) a. *Ak menga er a melek-ek.*
I eating SP-SG DL chicken-my.
'I am eating my chicken.'

b. *Ak menga a melek-ek.*
I eating DL chicken-my
I am eating my chickens.

Because of the *er* in (53a), the following direct object can only be specific and singular. In (53b) there is no *er* and the noun is specific, so it is plural. Therefore if an object is plural in meaning and *er* precedes it, that *er* must be indicating something other than plural.

I now resume the examination of the second NP in a causative transitive sentence. The sentences in (54) show a contrast in the use of *er* before the so-called second object.

(54) a. *Ak ole-chiis er a ngelek-ek er a melek-ek.*
I CAUS-chase SP DL child-my ? DL chicken-my
'I caused my child to chase my chicken .'

b. **Ak ole-chiis er a ngelek-ek a melek-ek.*
I CAUS-chase SP DL child-my DL chickens-my
'I caused my child to chase my chickens.

Since (54a) is singular and specific, we expect the word *er* to introduce it, and it does. However, since (54b) is not singular, we would expect *er* to be

absent. However if *er is* not present, the sentence is ungrammatical. *Er* must precede the second NP. Therefore, *er* must be serving a different function. It appears to be an oblique marker of some kind, perhaps a preposition. I take up that problem when I discuss the case marking of the NPs in causative constructions in section 4.6.

In the next section, I examine constraints on head movement imposed by the ECP.

4.4 The ECP Movement Constraint in Palauan Causatives

One of the major points that Baker makes in his account of verb incorporation is that head movement is constrained by general principles of Universal Grammar. In the case of causative verb incorporation, the movement is constrained by the Empty Category Principle (ECP), the constraint applying to movement in general.

(55) The Empty Category Principle

An empty category (trace) must be properly governed by the moved category.

Simply put, if an element is moved to another part of a structure, it will leave a trace. The moved element and its trace cannot be separated by more than one XP, that is a VP, NP, IP, CP, or an AP. A more formal definition of proper government is (56).

(56) Proper Government

A properly governs B (its trace) if these conditions are met:

A (the moved category) is coindexed with B (the trace)

A c-commands B

There is no barrier between A and B

A Barrier is an XP whose head is **not** coindexed with A

C-command is defined in (57).

(57) C-command

A c-commands B iff the first XP that dominates A

also dominates B

and A and B do not dominate each other.

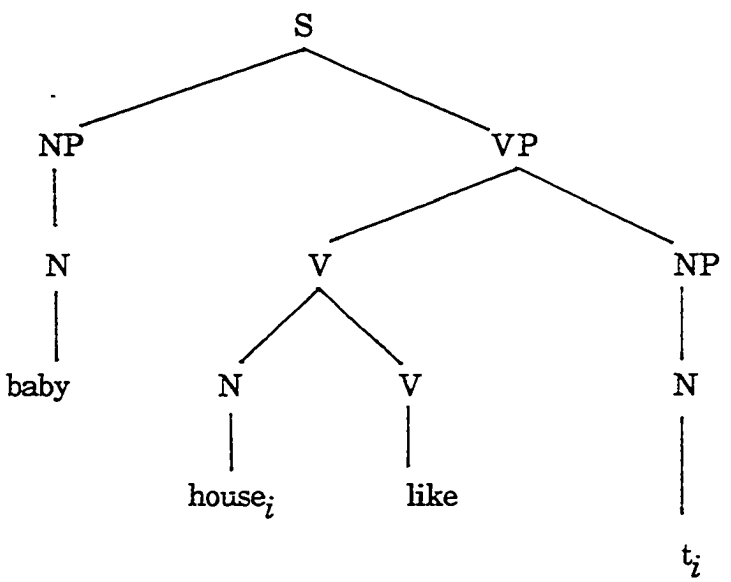
I will demonstrate how these constraints work as I move through the section.

Baker showed how the ECP excludes ill-formed movement structures by examining the distribution of Noun Incorporation and showing that it was a natural consequence of the ECP. Let us briefly consider this part of his analysis.

It has been noted that not all nouns may be incorporated into a verb. For example, the head of the direct object can incorporate, but the head of the subject cannot. Baker explains this restriction by showing that the ECP is violated if the subject of a transitive verb is incorporated, but satisfied when the object is. Consider the two S-structures in (58) and (59).

(58) shows object incorporation while (59) shows subject incorporation. (Baker 1988: 83)

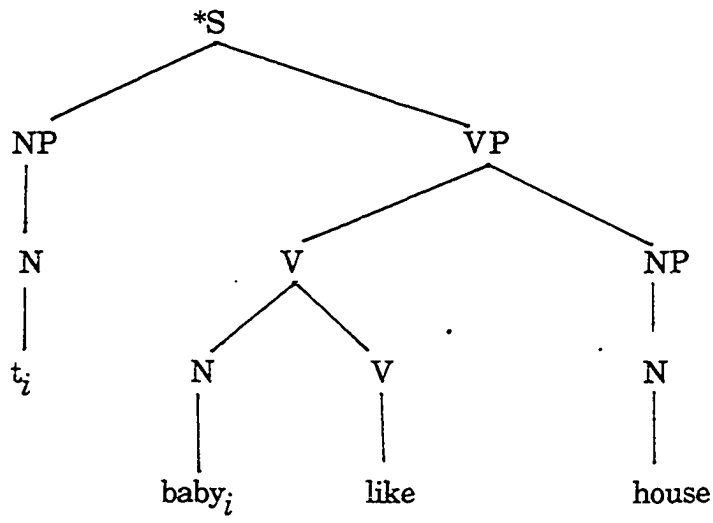
(58)



If the N *house* in (58) is incorporated into the verb by movement, it leaves a trace which is coindexed with the moved element. Thus the first requirement of proper government is satisfied. The N *baby* also c-commands its trace since the only XP that dominates the N also dominates the trace and neither dominates the other. Finally, there is no barrier between the two because although there is one XP separating them -- the NP -- its head is coindexed with the moved element. The ECP is thus satisfied.

Matters are quite different in (59), where the head of the subject has been incorporated into the V and the ECP has been violated.

(59)



Let us proceed step-by-step to show how the ECP is breached. First the moved N (*baby*) and its trace are coindexed. So far, so good. The problem is that the moved N does not c-command its trace since the first XP above it is the VP, which does not dominate the trace. In this way the unacceptability of subject incorporation is a natural consequence of the ECP. Therefore this movement need not be restricted by special rules.

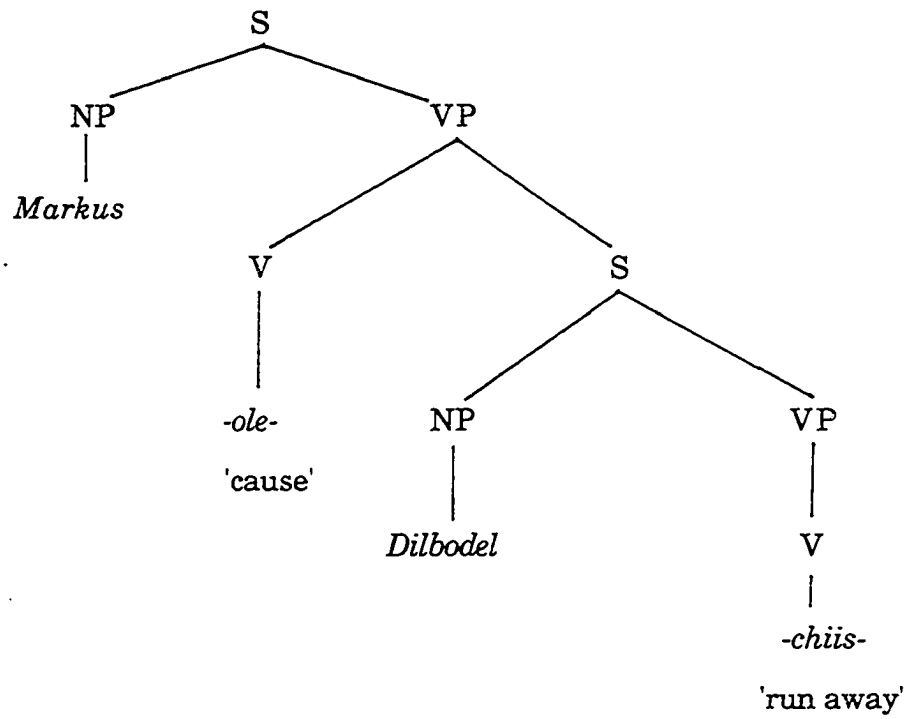
Verb incorporation, which underlies morphological causative formation, must also obey the ECP in Baker's analysis. This constraint accounts for the fact that the embedded verb moves up to join the causative affix rather than the affix moving down to join the lower verb. Since the lower verb is the full form verb, one might expect the affix to move. However, by comparing the two possibilities, we can see that the ECP dictates verb raising rather than lowering. Consider (60), the D-structure of (32) repeated here for convenience.

(32) *A Markus a ole-chiis er a Dilbodel.*

DL Markus DL CAUS-run away ? DL Dilbodel

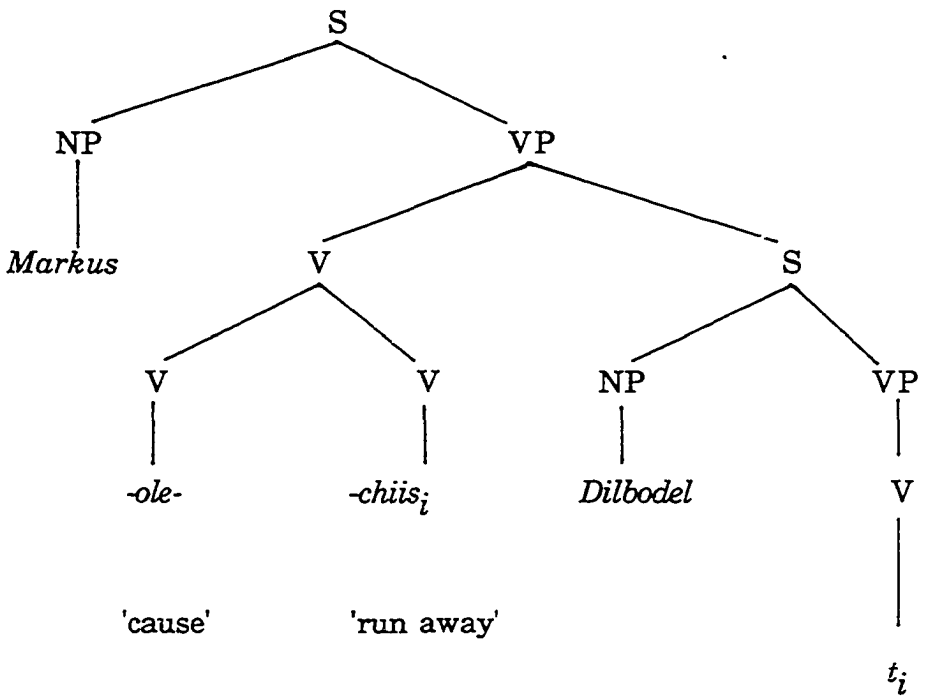
'Markus is causing Dilbodel to run away.'

(60) D-structure



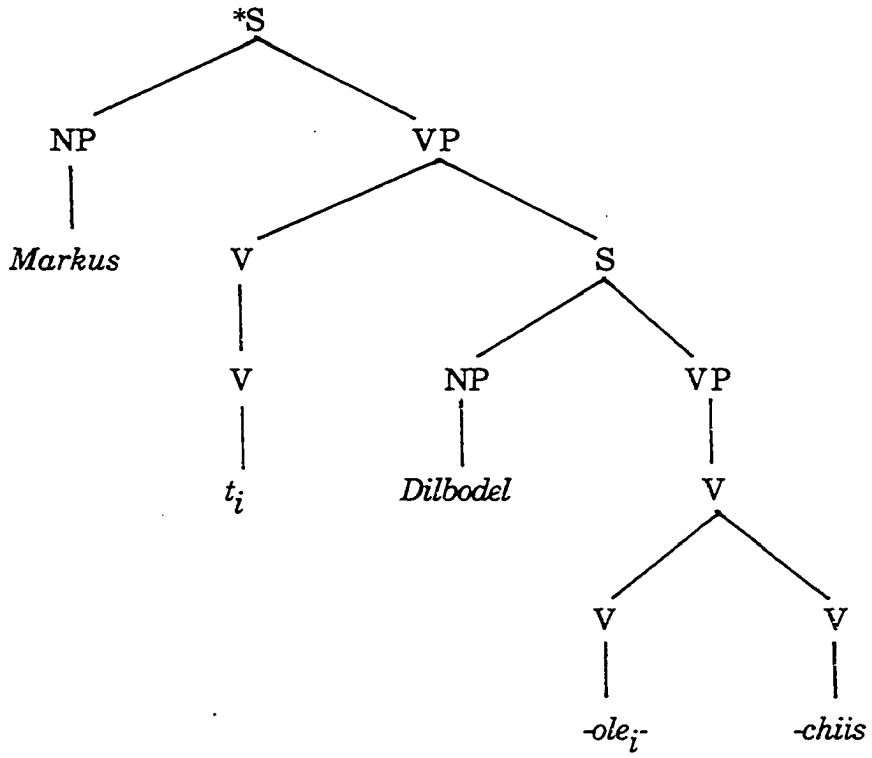
There are two possible candidates for S-structure, depending on whether the embedded verb *chiis* 'run away' moves up to adjoin to the causative verb affix *ole-*, as in (61a) or the causative affix *ole-* moves down to adjoin to the embedded verb *-chiis* 'run away', as in (61b).

(61) a. <u>One candidate for S-structure</u> (raising of the embedded V)



In (61a) the embedded verb *chiis* 'run away' has been moved up to adjoin to the causative verb *ole-* in the higher clause, leaving a trace in the lower V. Let us examine this structure to see whether the moved category properly governs its trace. (We assume, for the moment, that V is the X-bar head of S. We will revise this assumption in section 4.5.) First, the verb and the trace are coindexed. Second the moved verb c-commands its trace because the XP above the moved verb dominates the trace and neither dominates the other. Finally, there are no barriers between the two.

b. A second candidate for S-structure (lowering of the higher verb)



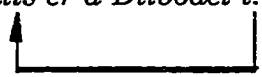
The VP dominating V has a head that is coindexed with its antecedent. The head of that XP is the trace itself, and I have already established that the two are coindexed.

However, in (61b), the movement of the causative affix *ole-* violates the ECP and thus yields an unacceptable structure. First, the antecedent and its trace are coindexed. The antecedent does not c-command its trace, as required for government. The XP (VP) that dominates the moved verb *-ole* does not dominate its trace and thus c-command fails. Therefore, a trace cannot be properly governed by its antecedent, resulting in a violation of the ECP. This is parallel to the Noun Incorporation from subject position described above.

Just as important, if the movement of the verb is upward, the proper word order is achieved for Palauan (NP CAUS-V NP (NP)). If the movement is downward, however, the resulting word order is incorrect (NP NP CAUS-V (NP)).

(62) Upward movement, correct word order:

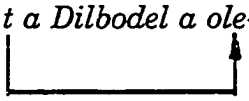
A Markus a ole-chiis er a Dilbodel t.



NP CAUS-V NP

(63) Downward movement, incorrect word order:

**A Markus t a Dilbodel a ole-chiis.*



NP NP CAUS-V

In this way, we see that Palauan morphological causatives are restricted in the same way as the languages cited by Baker. This demonstrates that the D-structure and S-structure posited for Palauan morphological causatives can be justified based on their behavior with respect to the ECP.

4.5 Path of Causative Verb Movement

In the last section, I demonstrated that the causative affix in the matrix clause could not move downward to attach to the embedded verb since it would not be in a position to c-command (or govern) the resulting trace, a violation of the ECP. On the other hand, if the embedded verb were

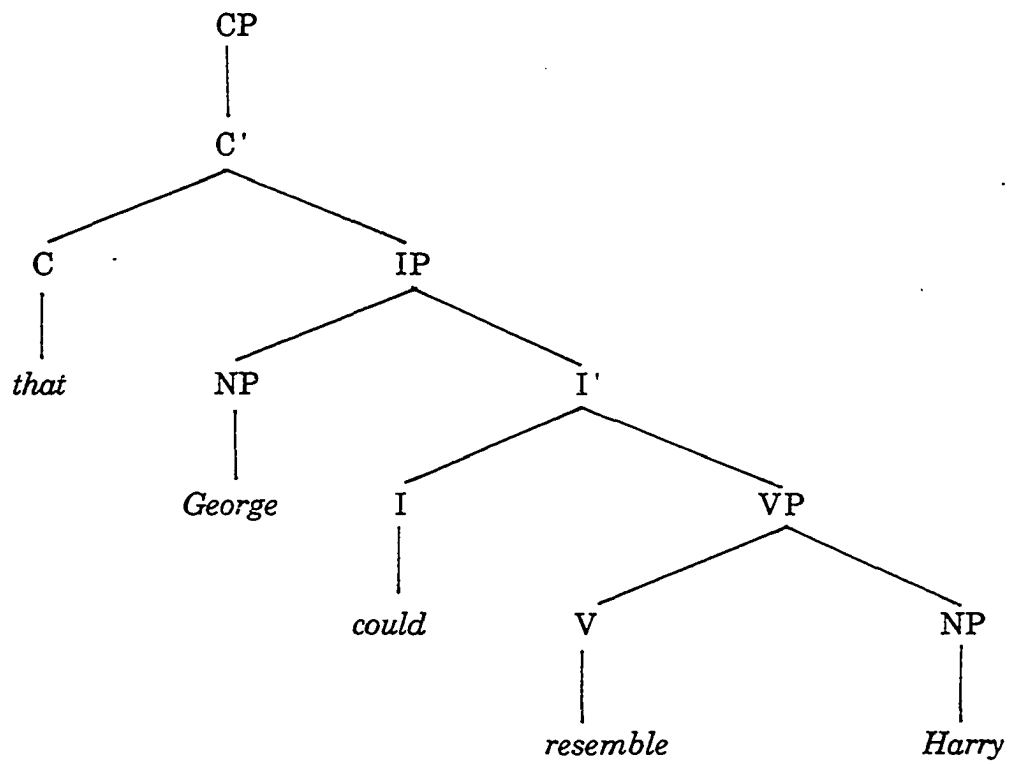
since it would not be in a position to c-command (or govern) the resulting trace, a violation of the ECP. On the other hand, if the embedded verb were to move upward to the causative verb position, the trace could be properly governed and the resulting S-structure would be acceptable.

The simplified structure that I used in section 4.4 was sufficient for our initial purposes. However, within the GB framework, there are two more categories within the clause structure, I (Infl) with its projection to IP and C (Comp) with its projection to CP.

Following X-bar theory, the complete D-structure for the sentential subject in (64) would be (65)

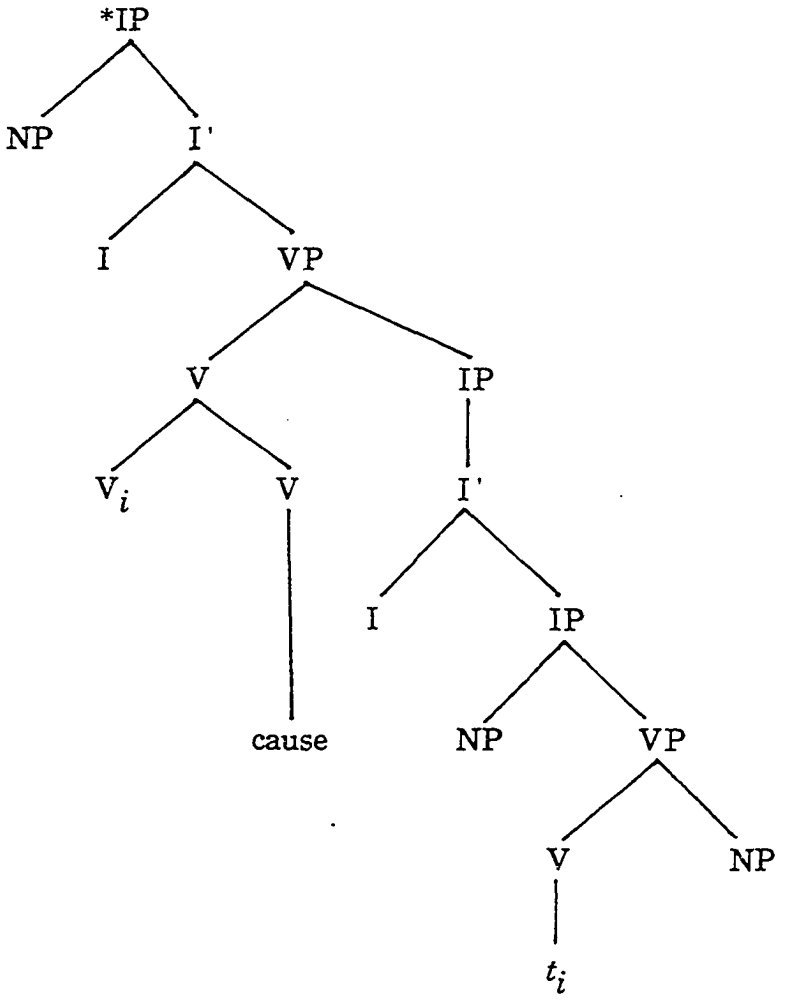
(64) That George could resemble Harry (is outrageous).

(65)



In this system, IP corresponds to what was traditionally called S and CP to what used to be known as S'. These categories comply with the X-bar schema just as maximal projections like VP, NP, and AP do, and are headed by I and C respectively. I assume, in this framework, that causative complements are IPs in Palauan. That is, Palauan morphological causatives select IP complements. If this is the case, and I move the embedded verb to adjoin to the causative verb in one move, then the matrix causative verb would not govern the embedded verb's trace and the structure would violate the ECP.

(66)



The resulting structure in (66) violates the ECP because the antecedent, the moved verb, does not properly govern its trace. To see how this is so, I again go through the steps to determine proper government. Both elements are coindexed and the moved category c-commands its trace (since the first XP that dominates the moved verb also dominates the trace and neither dominates the other). However there is a barrier between the two, the lower IP. This IP is a barrier because its head (I) is not coindexed with the

potential governor -- the verb, which has Chomsky-adjoined to the causative verb.

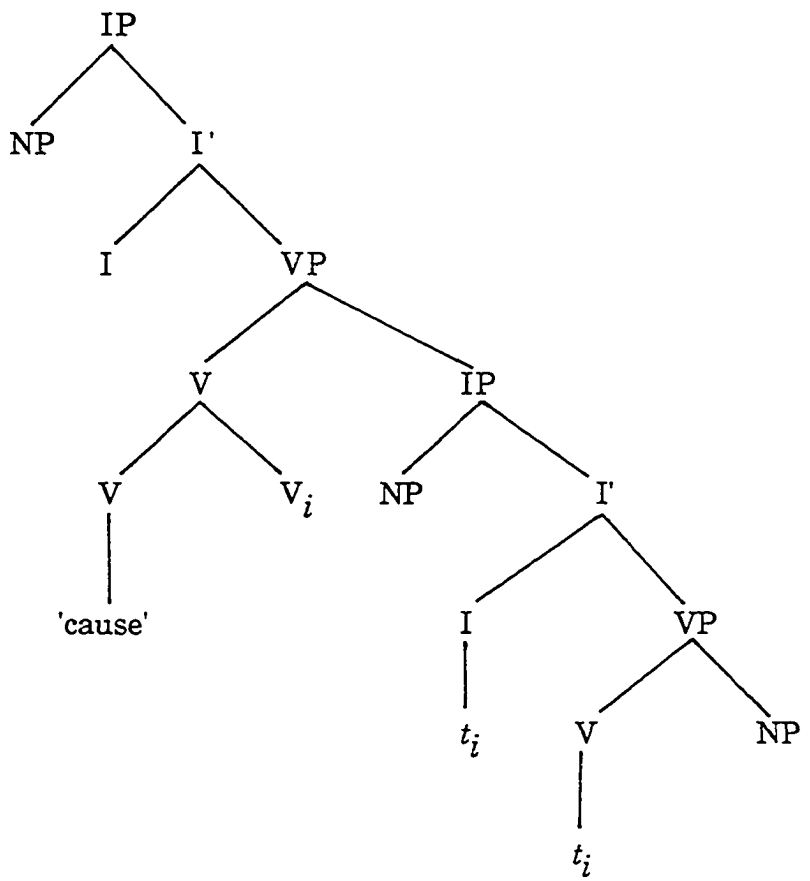
However, the lower verb must move in Palauan because the causative verb is a bound morpheme, which must 'reach down', as it were, into the embedded clause and 'pull up' a verb to adjoin to. Otherwise, the resulting sentence would violate the Stray Affix Filter and would be unacceptable.

Since it is clear that the verb must move, that it must leave a trace, and that the trace must be properly governed, then there must be another route to its ultimate landing site. The solution is to move the verb in steps, each of which obeys the ECP.

Baker proposes two ways to accomplish this move. For languages conforming to Causative Rule I, the entire VP is moved and adjoined to the specifier in CP. The result is that the object of the embedded verb will be in the direct object position of the causative verb, where it belongs. If the verb only had moved, the embedded object would not be in position to become the direct object of the causative verb. The second result is that the verb will now be in a position to move into the higher CP, where it can properly govern its trace. I will not consider this option further here since I have already shown that Palauan obeys Causative Rule II.

In languages such as Palauan, which obey Causative Rule II, V movement takes place in the manner depicted in (67).

(67)



The first step is to move the V to I -- the head of the IP. VP is not a barrier between the moved V and its trace because its head (the trace) is coindexed with the moved element. Next, the V moves to the V position in the higher VP. The intervening IP is not a barrier because its head, I, is coindexed with the moved element. In this way, Palauan embedded verbs may move up to adjoin to the causative verb without violating the ECP.

When we examine the results of the Rule I and Rule II patterns of movement, we see that V to I to V movement takes place in languages like

immediately following the complex verb that is associated with direct objects. This result supports our claim that Palauan is a language employing Causative Rule II. In summary, the addition of CP and IP structures has provided a well-motivated way to account for the differences in grammatical function change in complex causatives, while allowing general constraints on movement (ECP) to account for them. Thus, Causative Rules I and II are supported by general movement constraints.

4.6 Case assignment in Palauan Morphological Causatives

At S-structure, abstract Case is assigned to all overt NPs in accordance with the Case Filter.

(68) The Case Filter

Every overt NP must have Case.[5]

In sentence (69) there are three NPs that must be assigned Case, the subject NP (*ngelekek* 'my child'), the object NP (*bobai* 'papaya'), and the NP following the preposition (*uum* 'kitchen').

(69) ***A ngelek-ek a*** *menga a* ***bobai*** *er a* ***uum.***
DL child-my DL eating DL papaya P DL kitchen.
'My child is eating papaya in the kitchen.'

The set of Case assigners in Baker's theory consists of transitive verbs, tensed Infl, prepositions, and nouns. In order to assign Case to overt NPs, all Case assigners must govern their NPs. Thus, Infl assigns Nominative

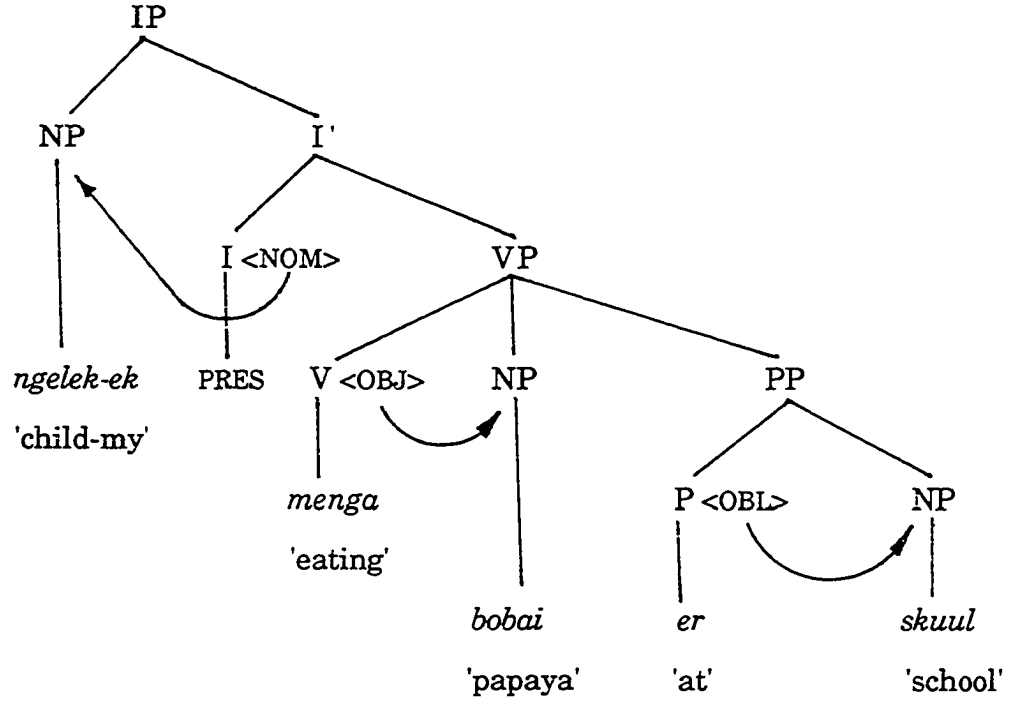
Case to the NP it governs, transitive V assigns Objective Case to the NP it governs, P assigns Objective or Oblique Case to the NP it governs, and N assigns Genitive case to the NP it governs. The version of government I use is defined in (70).

(70) Government

A governs B iff A c-commands B, and
the head of every XP between A and B
is coindexed with A.

I examine the S-structure for (71) to see how Case is assigned under government in a simple transitive Palauan sentence.

(71)



First, Nominative Case is assigned to the NP *ngelekek* by the tensed I. Tensed I is a Case assigner and it governs the NP *ngelekek* 'my child'. Infl c-commands the NP and there is no intervening XP to form a barrier. Second, Objective Case is assigned to the NP containing *bobai* 'papaya' by the transitive verb *menga* 'eat'. The transitive verb c-commands this NP and there is once again no intervening XP to form a barrier. The V itself is the head. Finally, the P *er* assigns Oblique Case to the NP *skuul* 'school', which it governs.

Now let us examine what happens when an embedded verb moves up in the structure to adjoin to the causative verb. First, I examine an important principle constraining the Case-assigning properties of the complex causative verb. One might expect that since the causative verb is made up of two verbs in S-structure, it might assign Case to two NPs. However, the Case Frame Preservation Principle (Baker 1988: 122) excludes this possibility.

(72) The Case Frame Preservation Principle:

A complex X^0 of category A in a given language can have, at the most, the maximal Case-assigning properties allowed to a morphological simple item of Category A in that language.

What this means for a complex causative verb in Palauan is that it will have the same number of Cases to assign as a simple transitive verb, namely one (an objective Case). As we saw above, a causative verb may show object agreement with the NP immediately following it. This is also the NP to which it will assign its sole objective Case (the underlying subject of the

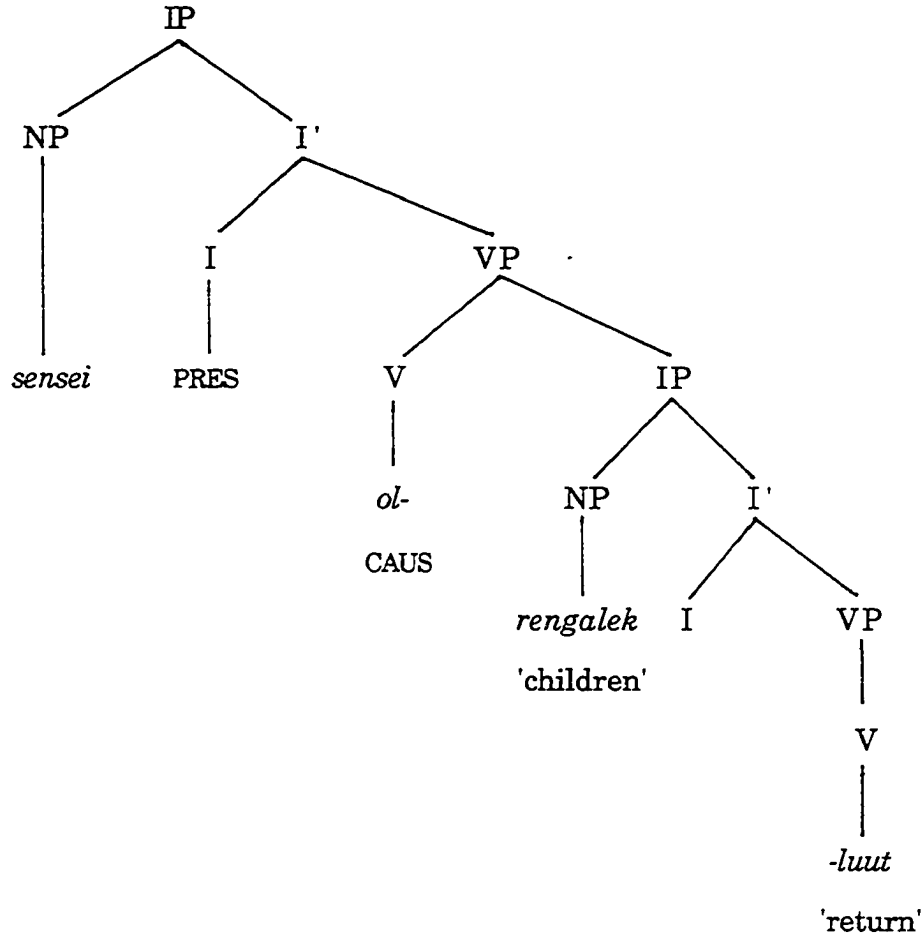
embedded clause). A causative intransitive sentence (73) is illustrated in D- and S-structure (74a) and (74b).

(73) *A sensei a o-lut-ii*$_i$ *a re-ngalek*$_i$.

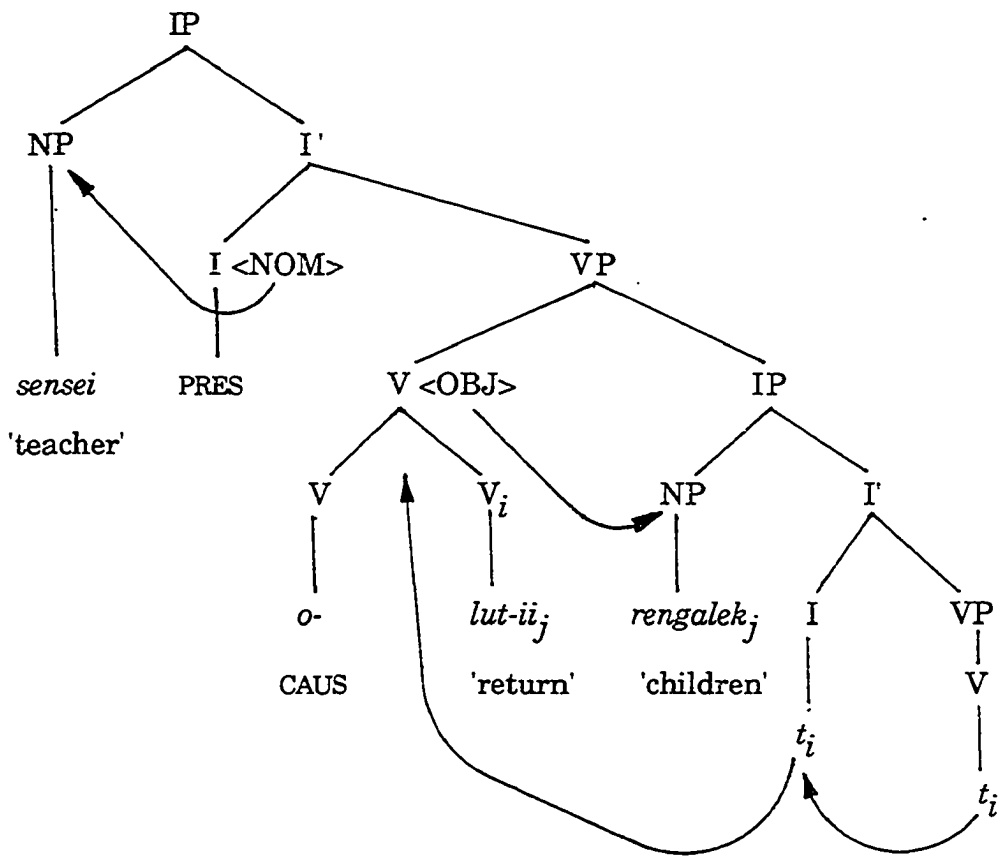
DL teacher DL CAUS-return-3PL DL PL-child

'The teacher made the children return.'

(74) a. D-structure



b. S-structure



In (74b) the complex verb assigns objective Case to the embedded subject NP *rengalek* 'children'. In order to assign Case, it must govern the NP. The first part of government requires that the verb c-commands the NP. Since the VP which dominates the complex V dominates the NP and the NP does not dominate the verb, c-command is accomplished. There is one XP on the c-command path between the complex verb and the NP -- namely IP --, but its head (I) is coindexed with the complex verb, because the first movement of the verb was to the I position. Therefore, the verb governs the NP and Case assignment is accomplished. Second, the subject NP of the sentence

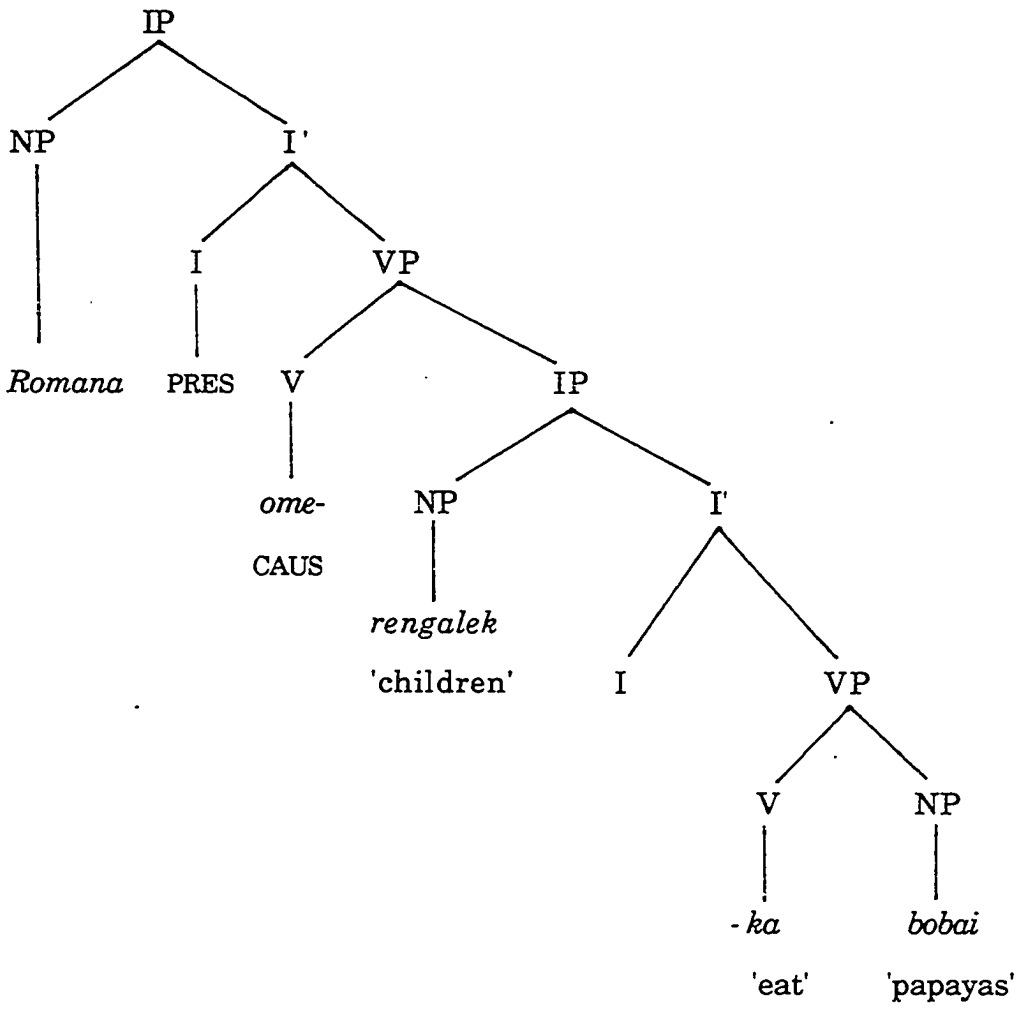
will receive nominative Case from the tensed I. The tensed I c-commands the matrix subject and its head is itself.

In patterns such as (75), where a transitive verb has been causativized, matters are somewhat more complicated.

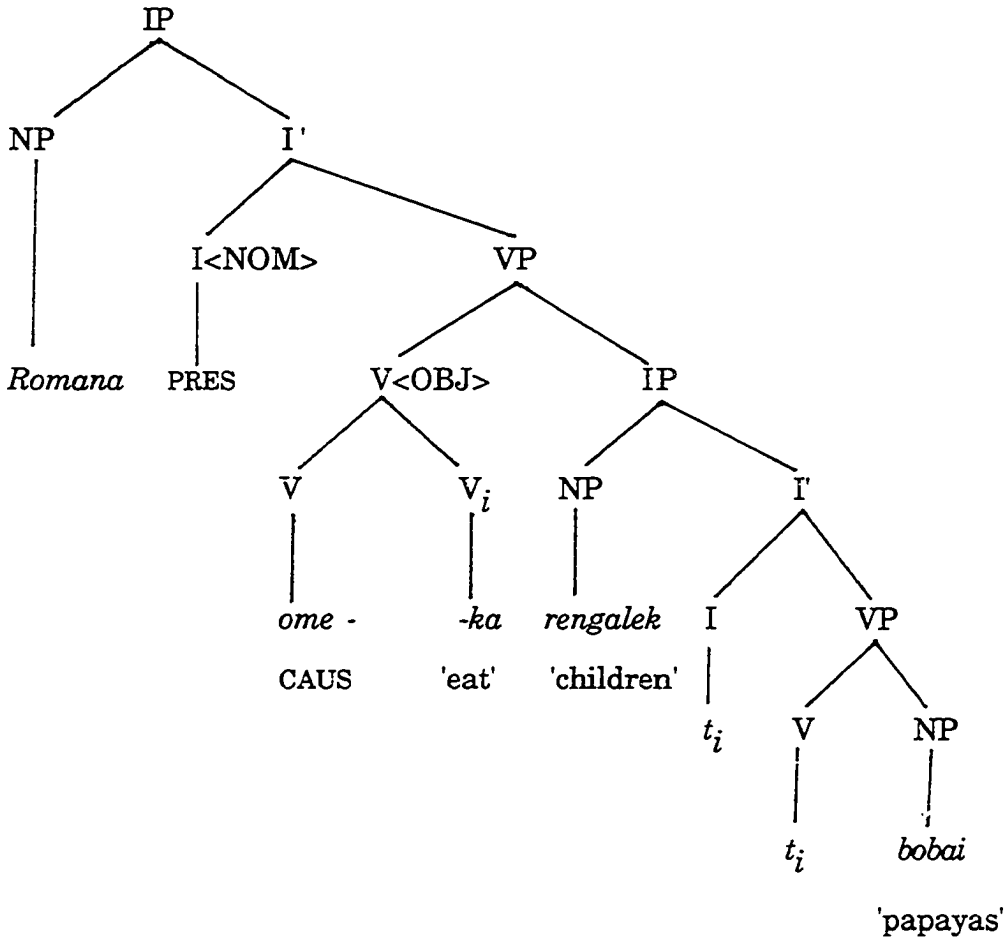
(75) *A Romana a ome-ka er a re-ngalek er a bobai.*
DL Romana DL CAUS-eat SP DL PL-child P DL papaya
'Romana is causing the children to eat some papayas.'

The D- And S-structure for (75) are depicted in (76a) and (76b), respectively.

(76) a. D-Structure



(76) b. S-structure after verb incorporation

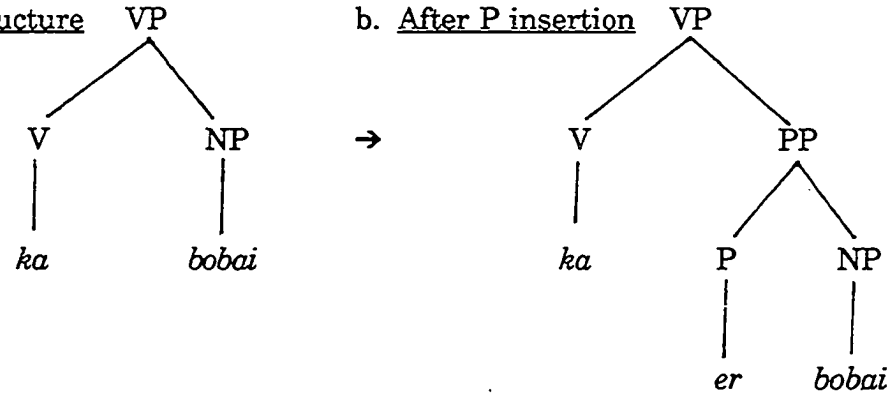


With this S-structure, there is no Case assigner for the final NP. In the discussion about *er* as a possible Case assigner, we saw that where it functions as a specific marker, it should not precede a nonhuman and plural NP. However, in this structure, the NP is plural, but *er* is nonetheless obligatory. Thus, this *er* must have a different function. It must be a preposition that behaves much like the pleonastic *of* in English in

the phrase *criticism of John*, existing solely to assign Case to the following NP.

This raises the question of the point in the derivation at which the P *er* is inserted. In order to retain the UTAH, I propose that it be inserted at S-structure. In this case, the VP in S-structure would undergo the changes in (77).

(77) a. S-structure b. After P insertion



At S-structure the NP complement of the original verb has been reanalyzed as a PP with *er* as its head and the NP as its complement. In this way, the problem of Case assignment to the underlying Object of the moved verb NP is resolved without surrendering the Case Frame Preservation Principle.

4.7 Reflexive Pronoun Interpretation

In this analysis of morphological causatives, a biclausal D-structure was proposed, based on the UTAH, that requires structures with identical theta role assignments to have the same D-structure. Then, in order to derive the proper S-structure with the causative morpheme and the embedded verb adjoined, Verb Incorporation that obeys the ECP is posited.

Since the Projection Principle requires that lexical properties found in D-structure remain at all levels of the derivation, the morphological causative structure must remain biclausal.

However, the surface structures of morphological causatives do not appear to be biclausal. Instead of two verbs in two separate clauses, there is only one. After causativization, the structure appears to contain a transitive verb and one or two objects. Furthermore, the verb assigns the same number of Cases as a noncomplex verb in that category.

Therefore, it is important to be able to demonstrate that the resulting structure retains its biclausal character. Baker (1988: 209-215) proposes that since the difference between biclausal and monoclausal structures is the embedded S (IP), biclausal effects may appear with the interpretation of reflexive pronouns. This is because in many languages a reflexive pronoun must have an antecedent in the same clause. In English, for example, the reflexive pronoun *himself* in (78) can take as its antecedent the NP *John*, which is in the same clause, but not *Sam*, which is in a higher clause.

(78) Sam_i *thinks* [$John_j$ *criticized himself* $_{j\ *i}$]

In Palauan, there is no reflexive morpheme per se. However, by inserting the word *di*, which has multiple meanings, before the pronoun, the form is interpreted as a reflexive. Thus, sentences (79a), (79b), and (79c) contrast a reflexive NP with related non-reflexive ones.

(79) a. *A sechel-ik$_i$ a ulu-mes **di** ngii$_i$ er a dirk.*

DL friend-my DL PST-see himself P DL mirror

'My friend saw himself in the mirror.'

b. *A sechel-ik$_i$ a ulu-mes er ngii$_j$ er a dirk.*

DL friend-my DL PST-see P him P DL mirror

'My friend saw him/himself in the mirror.'

b. **Ak$_i$ a ulu-mes **di** ngii$_i$ er a dirk.*

I DL PST-see himself P DL mirror

'My friend saw himself in the mirror.'

In (79a), the subject NP *sechelik* 'my friend' is the antecedent for the reflexive *di ngii* 'himself' in the object position. This form is used for third person singular. Third person plural human is *di tir* 'themselves'. All other reflexives simply use the coreferential full form pronouns, *ngak* 'me, myself', *kau* 'you, yourself', etc. Thus, (79b) can be assigned either a reflexive or a nonreflexive interpretation. This form is ambiguous in that it can refer to the subject or to another person. The substitution of *di* for *er* disambiguates the NP, making it **only** reflexive. Thus, in (79c) the NP *ak* 'I' is forced to corefer with the reflexive di *ngii* 'himself', and the sentence is unacceptable.

In order to confirm that Palauan causatives are structurally biclausal, we first establish that uncontroversial biclausal structures in Palauan require a clause mate antecedent for a reflexive pronoun We compare (80a) with (80b) both of which have reflexives.

(80) a. *A merredel a uchul a re-ngalek* $_i$ *a mengelebed* ***di tir***$_i$.

DL man DL CAUS DL PL-child DL hit **themselves**

'The chief is making the children hit themselves.'

b **A merredel* $_i$ *a uchul a re-ngalek a mengelebed* ***di ngii***$_i$.

DL chief DL CAUS DL PL-child DL hit **himself**

'The chief is making the children hit himself.'

In (80a), since the antecedent for the reflexive *di tir* 'themselves', *rengalek* 'children', is in the same clause, the sentence is well formed. However, in (80b), since the antecedent *merredel* 'chief is not a clause mate of *di ngii* 'himself', the sentence is ill formed.

We now examine the behavior of the underlying subject NP (causee) of the embedded clause with respect to reflexives in the underlying object position. Compare (81a), where the causee (underlying subject of the embedded clause) is the antecedent of the reflexive, to (81b), where it is not.

(81) a. *A re-sensei a omek-duuch er a David*$_i$ *di ngii*$_i$.

DL PL-teacher DL make-encourage SP DL David himself

'The teachers caused David to encourage himself.'

b. **A re-sensei a omek-duuch er a David*$_i$ *di tir*$_i$.

DL PL-teacher DL make-encourage SP DL David themselves

'The teachers caused David to encourage themselves.'

c. *A *re-sensei*$_i$ *a omekduuch er a David di tir*$_i$

DL PL-teacher DL make-encourage SP DL David themselves

'The teachers caused David to encourage themselves.'

In (81a), the underlying subject (causee) of the embedded clause (*David*) is the antecedent for the underlying object reflexive (*di ngii* 'himself'). Although this NP behaves like a surface object in passives, it behaves like the subject of the embedded clause with reflexives. It serves as the antecedent of the reflexive object. Moreover, if the subject of the matrix clause is the antecedent for the reflexive pronoun in the embedded sentence (81c), the sentence is ill formed. Therefore, the underlying subject NP not only serves as the antecedent of the lower direct object, but it also prevents the matrix NP from serving that function.

Thus, in morphological causatives, the behavior of the underlying subject NP with respect to the reflexive anaphor it binds, indicates that the underlying structure is biclausal. This is so in spite of the fact that this same NP behaves in other respects like a surface object, which, in monoclausal structures, cannot act as an antecedent for a lower reflexive anaphor. I have confirmed the same behavior in Palauan the same way as Baker demonstrated with Japanese and other languages.

4.8 Summary

In this chapter, I have argued that Palauan morphological causative structures conform to Baker's Verb Incorporation analysis (1988). Owing to the UTAH, they have biclausal D-structure since they are thematic paraphrases of uncontroversial biclausal causatives. Furthermore, these

structures remain biclausal, obeying the Projection Principle, which requires, among other things, that properties of lexical items in the D-structure be maintained at all levels. Because the causative verb is a bound form, generated in the matrix clause, and the other verb is generated in the lower clause, the lower verb moves up to adjoin to the causative verb, obeying the ECP. This move is required in order to satisfy the Stray Affix Filter, which requires the bound causative verb to attach to a stem.

Case assignment by Palauan causative verbs conforms to the Case Frame Preservation Principle. This principle requires that a complex causative verb assign only the number of cases that a simple verb in that position would assign. In the case of Palauan, that is one. In causatives with an underlying object, that NP will receive Oblique Case from an inserted pleonastic P *er*. This P is part of a reanalyzed NP compliment of the original verb.

Finally, I have shown that the biclausal structure of causatives remains at S-structure, as it should, owing to the Projection Principle, even though the surface sentence looks like a monoclausal structure. By observing that the underlying subject NP (causee) of the embedded sentence binds an anaphor in the lower clause, I confirm that the NP retains its subject status. This is evidence of the biclausal structure since monoclausal structures have only one subject.

By adopting the verb incorporation analysis for Palauan causatives, the various properties of the construction are shown to be natural consequences of noncontroversial notions and principles of Universal Grammar.

Chapter 4 Notes

1. In J. Gibson's description, she uses the cover terms 'ergative' for subject of the transitive and 'absolutive' for the subject of an intransitive clause and the object of a transitive clause.

2. It appears that this free form causative predicate nominal *uchul* is unrelated to the causative affixes, *ole-, omek-,* which combine with the embedded verb in the matrix clause, forming a complex morphological causative verb.

3. This V category for the free form causative *uchul* is a necessary simplification of a more complex constituent.

4. Josephs (1975: 212) states that the causative verb affixes often exhibit a contrast between whether the agent of the morphological causative verb intends for the action or state to take place. He shows that when *ole-* is used, there is an implication of non-intention. However, when *omek-* is used, there is a connotation of intention. Sentences (1a) and (1b) illustrate the difference in meaning.

(1) a. *A sensei a* ***ol****-sebek er a reng-ul a Droteo.*
DL teacher DL CAUS-fly P DL heart-his DL Droteo
'The teacher is worrying (flying his heart) Droteo
unintentionally.'

b. *A sensei a* ***omek****-sebek er a reng-ul a Droteo.*

DL teacher DL CAUS-fly P DL heart-his DL Droteo

'The teacher is worrying (flying his heart) Droteo **intentionally**.'

In (1a) *ol-* occurs with the meaning of unintentional causation, while in (1b) *omek-* occurs with an intentional meaning. This would lead us to believe that the lexical entries for these two verbs would have to be marked for intentionality. However, there are many other instances where both forms occur with intentionality. Just how these meaning distinctions will ultimately be handled is an interesting question. For the present time, however, I will set this problem aside. It will not affect our analysis of Palauan causative verb incorporation.

5. Baker's version of the Case Filter is slightly different, but the effect on the NPs is the same. Every argument NP is assigned abstract Case (i.e. is Case-indexed) in a given structure, so that the NP may be visible for theta-role assignment.

Chapter 5: Pre-Passives in Palauan

5.1 Introduction

The incorporation analysis for complex causative verbs was extended by Baker (1988) to apply to other constructions, such as the Antipassive and the Passive. Baker proposes that passivization is a further case of Incorporation, claiming that passivization may be explained by normal movement rules and related constraints of Universal Grammar. His proposal rests squarely on the UTAH (Thematic paraphrases share the same D-structures) and the Projection Principle (Lexical requirements must be satisfied at all levels of the derivation.). Employing these two basic principles, Baker demonstrated that the necessary D- and S-structure follow quite naturally out of general syntactic processes motivated elsewhere in the grammar.

In Palauan, there is a construction that has been called 'passive' by Wilson (1972) and Josephs (1975), and termed 'topicalization' by Waters (1979) and Georgopoulos (1985). This construction behaves very much like a passive, but possesses some difficult-to-explain properties that suggest it may not be a 'pure' passive. I refer to it as the 'Pre-Passive' since it may be a construction that is in the process of becoming a passive in the language, while retaining some of the characteristics of active constructions. The reasons for these conflicting properties are unclear at this time. The pre-passive is complemented by another construction that Georgopoulos (1985) and Waters (1979) claim is the 'true' passive. My purpose here is to examine the pre-passive construction as it relates to Baker's passivization analysis, and to show that his framework accounts for much of the

syntactic behavior of this construction. This will provide strong support for the construction as a passive variant, perhaps in a parallel way to Chung's (1980) description of object promotion in Bahasa Indonesia.

Generally, this chapter is organized in this way. First, I describe Baker's passivization analysis and summarize the evidence for his position. Then I examine Palauan passivization as it is manifested in the pre-passive, and demonstrate how Baker's approach accounts for the behavior of that construction. Specifically, section 5.2 describes in detail the assignment of the external agent role to the passive morpheme, the process of verb movement to I, the evidence motivating the move, implicit argument effects, the *by*-phrase, Case assignment, and NP movement to subject position. In Section 5.3, I describe the distinction between Palauan passives and pre-passives, the evidence supporting the distinction, and propose that Palauan possesses a prototypical passive morpheme in the way Baker describes it. In section 5.4, I discuss the external <agent> argument in Palauan pre-passives. In Section 5.5, I offer justification for the process of Palauan verb incorporation, using Baker's approach. Section 5.6 offers a variety of tests for the status of the external agent argument by showing the effects that this 'phantom' argument has on the rest of the sentence. Then in Section 5.7, the *by*-phrase and its apparent agent theta role is examined. In section 5.8, I address the movement of the 'logical direct object to subject position and how Case is assigned to that NP and to the Passive morpheme. Finally, in section 5.9, I summarize the view that Palauan pre-passive is an archetype of Baker's passivization process.

5.2 Passivization as Verb Incorporation

Baker's analysis begins with an examination of a pair of English sentences.

(1) a. Something bit my hand.

<agent> <theme>

b. My hand was bitten (by something).

<theme> <agent>

(Baker 1988: 305)

Since the verb assigns identical theta roles to the same NPs in this pair of sentences, the two sentences are 'thematic paraphrases' of each other. That is, the thing that was bitten (*my hand)* is the same in both sentences and the entity which did the biting in both cases is the same (*something*). Baker points out that even when the optional agent in the *by*-phrase is deleted, it 'feels' like it is still there. Because of the UTAH, which states that if verbs assign thematic roles in a pair of sentences, in the same way, the sentences will have parallel D-structures.

If we accept the claim that active and passive sentences have essentially parallel D-structures, especially with regard to the theta roles assigned by the verb, then a problem arises. In active sentences, the verb assigns an external agent role to the NP in subject position. However, in passives, there is no obvious argument outside the VP to receive this theta role assignment. In the past, it has been proposed that this agent role is suppressed (Chomsky 1981), that somehow the theta role disappears between D-structure and S-structure. At the same time, in English, some passive morphology appears in the form of *be + en* . Thus, there is a

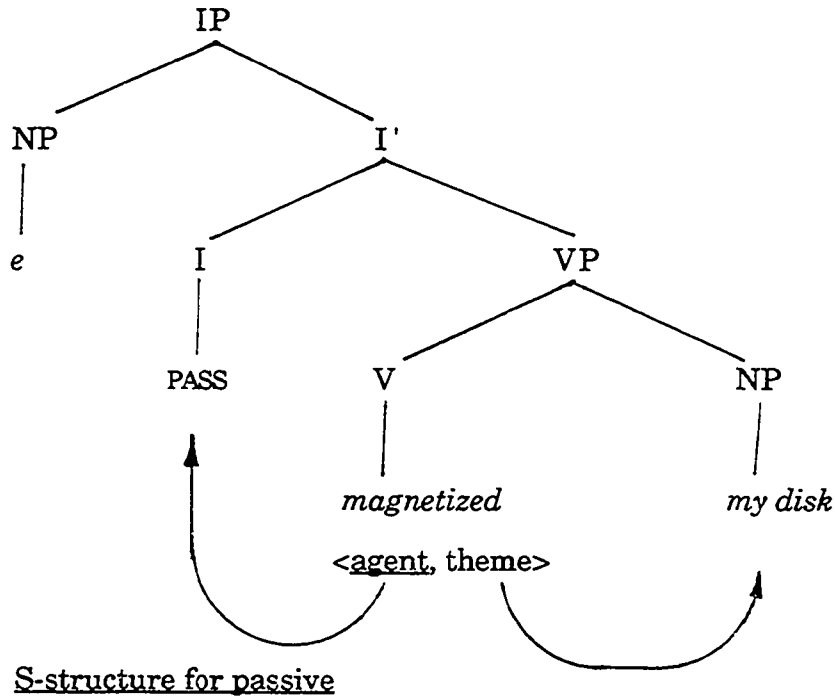
violation of the Projection Principle, which requires that relationships and properties of lexical items present at D-structure be present at all subsequent levels. Baker asks how is it that theta roles can disappear and lexical items can appear and still obey these two principles? He reasons that since the external agent theta role must be assigned to some argument that is outside the VP, the passive morpheme must be that argument, and that it is attached under Infl. Then, because at some point in the derivation the passive morpheme and the verb merge, Baker proposes that the verb moves to the Infl node as well. We have seen this same kind of movement, verbs moving to join with affixes, in causativization (Chapter 4). Thus, the movement itself is not unusual. Baker establishes that this movement obeys the same general syntactic requirements that any movement must, that is, it complies with the ECP.

The abbreviated D- and S-structures for (2) illustrate verb movement to Infl, where it joins the passive morpheme.

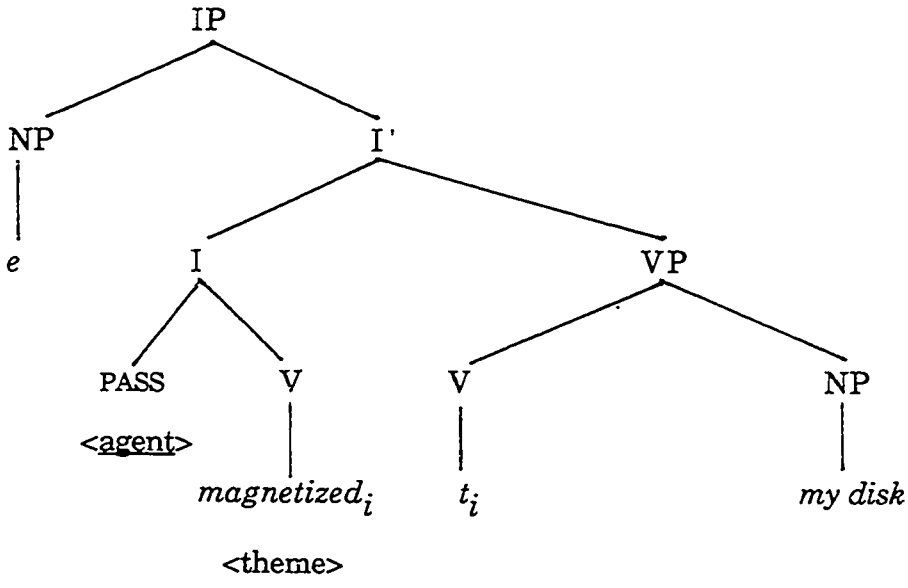
(2) a. *Something magnetized my disk*

b. *My disk was magnetized (by something)*

(3) a. D-structure for passive



(3) b. S-structure for passive



Two aspects of this analysis which need to be explained are the movement of the verb into the Infl node and the assignment of the external theta role to the passive morpheme under Infl. First, head movement has been illustrated in my treatment of morphological causatives. I showed in that chapter that the verb *must* move up to a position where it can govern its trace. If the passive morpheme moves down to join the verb, the trace it leaves can not be c-commanded and so it will not be governed. The movement upward to the Infl obeys the ECP. In this way it satisfies the requirement that the agent role is external and the verb and its trace satisfy the ECP.

The agent role cannot be assigned to the NP in the subject position because that position is empty and cannot receive a theta role. This is the landing site for the theme NP in S-structure. If this theta role is assigned to the subject, the object NP would not be allowed to move into that position. That would put two theta roles in one position, a violation of the Theta Criterion.

Second, when the theta role is assigned to the passive morpheme in Infl, the requirement that an argument receive a VP-external role and be a sister to the projection of the verb is satisfied.

In sum, Baker proposes that the passive morpheme is a nominal element which is assigned the outside agent role quite naturally. Thus, the transitive verb in the D-structure of a passive sentence assigns its agent theta role to a VP external argument, just as it does in an active sentence.

5.2.1 The Passive Morpheme Form

When the passive morpheme of the English passive is examined, it may seem strange to consider it an argument that receives the agent role. However, there are other languages in which this form behaves more like a nominal. In Chamorro (Marianas Is.), for example, there are two passive morphemes, the prefix *ma-* and the infix *-in-*, which merge with the verb by S-structure. Their distribution depends on the number of the agent. If the agent is plural or unspecified (no *by*-phrase), the morpheme is *ma-*. If the agent is singular, *-in-* occurs. These sentences from J. Gibson (1980) illustrate the agreement pattern.

(4) Chamorro

Ma-dulalak si Jose nu i famagu'un.

PASS-follow PN Jose OBL the children

'Jose was followed by the children.'

(5) *D-in-ilalak si Jose as Juan.*

PASS-follow PN Jose OBL Juan

'Jose was followed by Juan.'

Thus in (4) the passive morpheme *ma-* occurs where the agent in the optional *by*-phrase (*i famagu'un* 'OBL children') is plural. The passive morpheme *-in-* cooccurs in sentence (5) with a singular agent in the optional *by*-phrase, *as Juan*. In these examples, the fact that the passive morphemes match the agent's number strongly supports the nominal nature of the morpheme. In Baker's words, 'This is a natural situation

and I interpret it as direct evidence that the external theta role of the verb is assigned to the passive morpheme. In fact, given my account, it would be surprising if the pattern illustrated in Chamorro did not arise in some language.' (Baker 1988: 315)

Even more dramatic evidence occurs in Palauan (W. Caroline Is.), spoken a few hundred miles south of where Chamorro is spoken. We will discuss the Palauan case in more detail in section 5.4 below, but briefly, that passive morpheme not only agrees with the external agent theta role in number, but in person as well. It behaves much more like a nominal than even the Chamorro passive morphemes.

5.2.2 Syntactic Effects by the External Argument

Even though the external argument in a passive structure may not look like a nominal, it can be shown to behave like this type of element with respect to a variety of syntactic phenomena.

5.2.2.1 Reflexive Pronouns

Recall, as explained in the previous chapter, that English reflexive pronouns require an antecedent in the same clause. Where an antecedent is not available, as in (6), the sentence is unacceptable.

(6) a. * *Oneself left.*

b. * *I saw oneself.*

Consider now the passive sentences in (7):

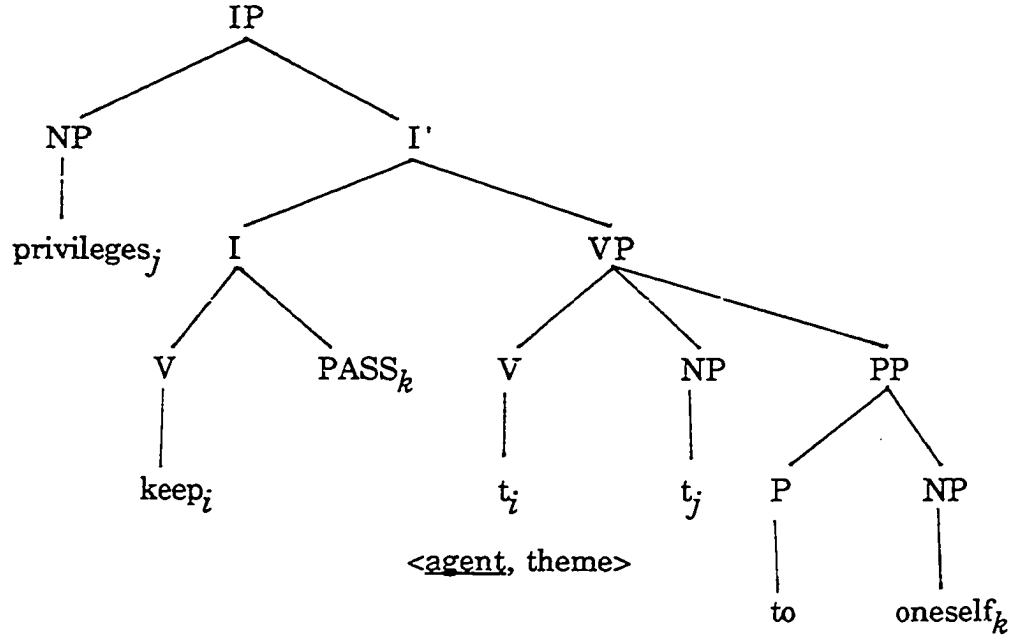
(7) a. *Such a privilege cannot be kept to oneself.*

b. *Boats shouldn't be sunk (only) for oneself.*

(Baker 1988: 316)

Since sentences (7a) and (7b) both contain a reflexive, *oneself*, there must be an an antecedent. It is obvious that the initial NPs, *such a privilege* and *boats*, do not qualify, because they are inanimate and *oneself* requires an animate antecedent. The only possibility left is the external argument. Since both sentences have been passivized, the external argument with the agent theta role is the passive morpheme. Therefore, it is natural to conclude that the antecedent for *oneself* is the external argument in the form of the passive morpheme. The S-structure in (8) represents the relationship between the antecedent (the passive morpheme) and the reflexive.

(8)



As the indexing shows, the passive morpheme (the agent argument in Baker's analysis) serves as antecedent for the reflexive pronoun *oneself*. If there were no such agent to bind the reflexive, the sentence would be ungrammatical. Since, in active sentences, there is no passive morpheme with its agent role, and no other overt antecedent is either, the sentences in (9) are unacceptable. (Baker: 316)

(9) a. **Such privileges can easily disappear on oneself.*

b. **Boats shouldn't sink for oneself.*

5.2.2.2 Control Structures

Another process which shows the syntactic effects the external argument exerts on the rest of the sentence can be seen in so called 'control' structures (structures in which a nonfinite verb has a null subject, which we represent as PRO). In this situation, the passive morpheme, acting as the external argument, provides the reference for the empty category PRO in sentences such as the following:

(10) a. *The bureaucrat$_i$ was bribed$_j$ [PRO$_j$ to gain special privileges].*

b. **The bureaucrat bribeds easily [PRO]to gain special privileges].*

In sentence (10a) the one who will gain special privileges is not the bureaucrat, but the implicit argument (someone), represented by the passive morpheme. This shows how the implicit argument may provide the

reference which the PRO element requires. Without a controlling argument (10b), the PRO could not be interpreted semantically.

5.2.2.3 Predication Theory

Baker also shows how this same argument can act as the subject for a predicate adjunct, appealing to predication theory. (A predicate in this sense is any maximal projection which does not receive a theta role.) Essentially, predication theory requires that a predicate must be associated with a maximal projection, an XP, which serves as its 'subject.' In the following sentences, the bracketed phrase is a predicate and therefore needs a subject.

(11) *The petition was presented [kneeling].*

What is the subject of the predicate *kneeling* in the predicate adjunct? It is the passive morpheme in the Infl which bears the agent role in Baker's analysis. In structures like these, the passive agent is not merely understood, but must occur syntactically, because its effects may be seen in the interpretation of the bracketed predicates. Without an overt argument for the verb to be predicated of, the sentence might be expected to be ungrammatical. However, it is not. The crucial evidence for this is that in non-passive intransitive sentences, where there is no passive morpheme, the grammaticality is questionable.

(12) **The petition slipped from his hands [kneeling].*.

Because (12) is intransitive and has no passive agent, the predicate adjunct *kneeling* has no subject, rendering the sentence ill formed.

5.2.3 The External Argument and the *By*-Phrase

In English passives, there is an optional oblique *by*-phrase, which semantically shares the theta role of the passive morpheme. This *by*-phrase has a parallel phrase in Palauan, which too is optional, and more often than not, does not occur. I will refer to all such phrases as '*by*-phrases' for convenience.

(13) *'Taps' was played (by Private Prewitt).*

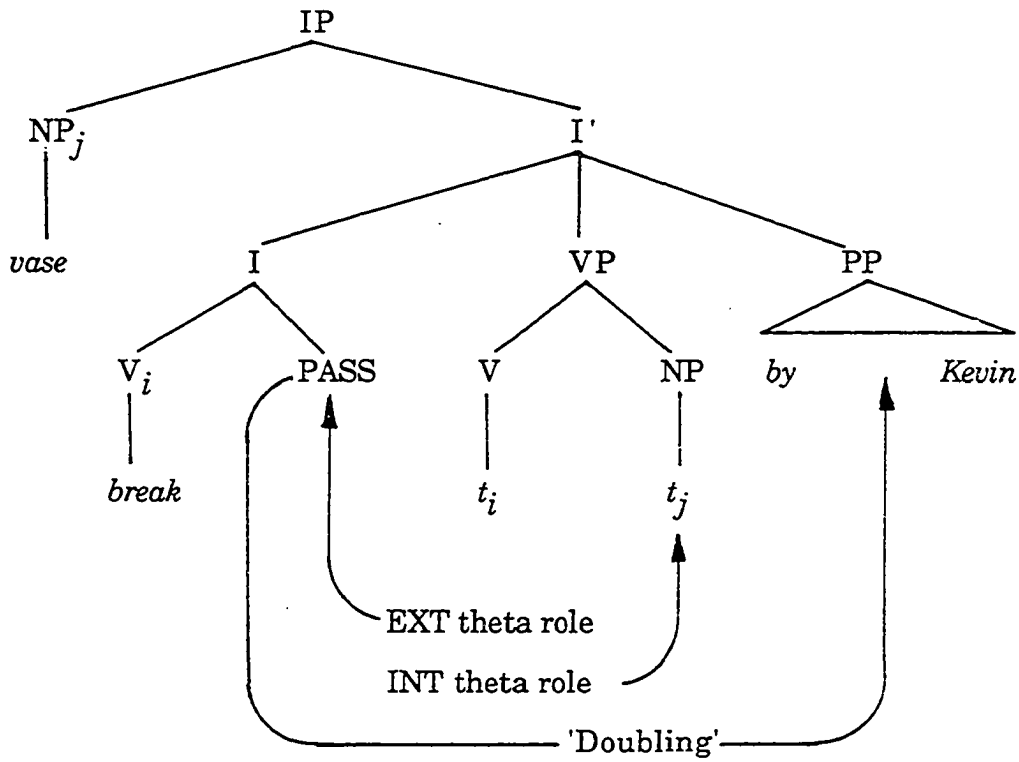
(14) *A skuul a lo-ruul (er a chad er a Ulimang).*

school being made P people P Ulimang.

'The school is being built (by the people of Ulimang.)'

Although the *by*-phrase in (13) is related in a strong way to the passive morpheme with its external agent role, a verb cannot assign theta roles to two different entities. The problem that arises then is how to deal with this relationship. Baker (335) proposes that the verb assign the external theta role to the passive morpheme in Infl and that the *by*-phrase then 'doubles' the theta role. He formalizes this relationship with the structure in (15).

(15)



Baker concludes this discussion by observing that at D-structure, *by*-phrases of passive constructions are not inside the VP, but instead occur outside, in a position that is a sister of the I, the location of its theta-coindexed passive morpheme.

5.2.4 Case Assignment

Since the passive morpheme is being treated in this analysis as an argument generated in I, it must be assigned Case. The two questions to be answered are, which Case is it assigned and how does it receive Case? Two Case assigners appear to have the potential to assign Case to the passive morpheme. One is I and the other is the verb.

A tensed I assigns NOM Case to the subject position, which will be filled by the preposed underlying object. Thus, this cannot be the Case assigner for the passive morpheme.

Therefore, the verb must be the Case assigner, and in the case of a transitive verb, it will assign Objective Case to the passive morpheme. This leads to a fortunate result. Since the object of the verb moves to the higher NP node, there is no NP to which the verb can assign Case in the VP. However, since the verb incorporates into I, where it is able to assign Case to the passive morpheme, it will have an argument to which it can assign Case, in this instance, Object Case.

5.2.5 NP Movement to Subject Position

As we have seen, within the incorporation analysis, there are two reasons for the underlying object NP to move up into the subject position. First, when the verb incorporates into I in order to join with the passive morpheme and to assign Objective Case, there is no longer a Case assigner for the object NP. In order to receive any Case at all it must move. Second, a tensed I assigns Nominative Case to the subject position, which will remain empty unless the object moves up to receive that Case. Thus, the move is motivated by the need to receive Case.

5.3 Palauan Pre-Passives

There are two competing 'passive' constructions in Palauan. Thus, in the descriptions of Palauan by Wilson (1972) and Josephs (1975), they claim that there are 'passive' and 'ergative' constructions. In the following examples, (16a) is active, (16b) is passive (my pre-passive), and (16c) is

'ergative'. (The use of 'ergative' in this context is different from the usual GB definition, so I will mark the Josephs and Wilson use with quotation marks.)

(16) a. Active

A ngalek a me-nga er a ngikel.

DL child DL VM-eat SP DL.fish

'The child is eating the fish.'

In sentence (16a), the normal unmarked word order for an active transitive sentence occurs (Subject - Verb - Object). The verb consists of the verb marker (VM) *me-*, the imperfective aspect marker *-ng-*, which replaces the first consonant of the stem, and what is left of the verb stem.

b. Passive (Josephs') (= my pre-passives)

A ngikel a lo-nga er ngii a ngalek.

DL fish DL PASS-eat SP 3SG DL child
3SG

'The fish is being eaten by the children.'

In the passivized construction of (16b), the NPs change positions, the verb morphology changes, and a full pronoun (*ngii* '3SG') occurs. First, the underlying object (*ngikel* 'fish') is placed in surface subject position while the 'logical' subject is in sentence final position, in a kind of *by*-phrase. The verb is prefixed with a pronominal element which agrees in person and number with the external theta role (<agent>) of the verb. This prefix attaches to the imperfective form of the verb and the VM is absent. Finally, there is a free

form pronoun which agrees in person and number with the preposed 'logical' object.

The 'ergative' construction in (16c) appears to be another, simpler passive.

c. 'Ergative' (Josephs')

A ngikel a me-ka er a ngalek.

DL fish DL VM-eaten P DL child

'The fish is being eaten by the child.'

The underlying object (*ngikel* 'fish') is in surface subject position, the verb consists of the VM prefix (*me-*) and the stem of the verb *-ka* 'eat'. The 'logical' subject surfaces in an oblique phrase marked by *er*. Josephs claims that the *by*-phrases in the 'passives' are very common, while the *by*-phrases in the 'ergative', though grammatical, are not preferred by most Palauan speakers. This is an empirical question, which will need to wait for a different kind of study. Josephs' main point is that the emphasis in 'ergative' constructions is on the receiver of the action, not on the agent.

In later studies, Waters (1979) and Georgopoulos (1985), rejected the Josephs and Wilson account of the 'passive' and maintained instead that the 'ergative' was the true passive and that Josephs' and Wilson's passives (my pre-passives) are instead instances of topicalization of the underlying object. In order to support that position, Georgopoulos enumerated six reasons for not considering the construction in (16b) a passive pattern. I summarize her objections here:

G 1. The passive morpheme (= Georgopoulos' irrealis agreement marker) behaves in an odd way in agreeing with the postposed agent rather than the apparent subject (the preverbal NP). Although it is true that verb agreement is usually triggered by a surface subject, even Georgopoulos admits that agreement with the 'demoted' logical subject, while unusual, is 'perfectly possible.' (Georgopoulos 1985: 51) In the theory, I propose that this is a natural consequence of the fact that the post-posed agent 'doubles' the passive morpheme, which is itself a nominal capable of person and number agreement. This morpheme is discussed at length in Section 5.4.

G 2. The verb is superficially transitive in that perfective forms continue to register agreement with the underlying object and a pronoun that agrees with the underlying object occurs in object position following passivization. Sentences (17) and (18) below illustrate this residual agreement phenomenon.

(17) a. *A ngalek a o-mes er a ngikel.*

DL child DL VM-see SP DL fish

'The child is looking at the fish.'

b. *A ngikel$_i$ a lo-mes er ngii$_i$ a ngalek.*

DL fish DL HYPO-see PASS SP 3SG DL child

'The fish is being looked at by the child.'

(18) a. *A tolechoi$_i$ a l - ulekerng-ii$_i$ a cherrodech.*

DL baby DL HYP-wake-3SG DL noise.
PASS

'The baby was awakened by the noise.'

In sentence (17a) the active sentence contains a direct object *ngikel* 'fish' following the verb. Sentence (17b) is the related pre-passive, in which the underlying object NP (*ngikel*) has been preposed. A full-form pronoun (*ngii*) which agrees with the preposed NP now occurs in that position. In (18), the pre-passive sentence contains a perfective verb in which the agreement suffix *-ii* agrees with the new surface subject, the underlying object, *tolechoi* 'baby.' In fact, this is one of the main reasons for not designating these constructions full-fledged passives.

This too has a natural explanation in my analysis. Since the object position continues to exist structurally as a trace, we can assume that it triggers object agreement in the verb. Perhaps the use of a full form pronoun following the imperfective is a sort of agreement form as well, since the pronouns continue to register person and number agreement with the preposed 'logical' object.

Perhaps it is important in Palauan to continue to indicate aspect after passivization has applied. If that is the case, we would expect the agreement marker to be retained on the verb and the agreeing pronoun to remain with imperfective verbs. (Recall that the agreement-markers in Palauan also mark aspect.)

G 3. Not only objects, but locatives and other oblique NPs can be passivized. Sentence (19) illustrates a pre-passive in which a source NP (*kerrekar* 'tree') has been preposed.

(19) *A kerrekar$_i$ a le-silebek er ngii$_i$ a belochel.*

tree HYP-fly P 3SG pigeon

'The tree was being flown out of by the pigeon.'

(Josephs 1975: 407)

NPs with other roles, such as location and cause have been documented with the pre-passive. However, these patterns may still be passives, in fact, they seem to resemble English pseudo-passives. For example, in (20), an source NP becomes the subject of a passive sentence, parallel to the Palauan example in (19).

(20) *A garage was being driven out of t by my father.*

Other preposed NPs such as cause NPs, do not seem to have parallels in English. However, it appears to be the case that Palauan simply is more tolerant of a broader range of pseudo-passive types of patterns. This leads naturally to the next issue concerning the pre-passive.

G 4. NPs originating in embedded complements may be passivized. The examples, while perfectly acceptable, result in almost unintelligible English glosses.

(21) *A skuul$_i$ a l-dilu a Nina el kmo ng milngiil er a ngelek-el*

DL school DL HYP-said DL Nina COMP 3SG wait P DL child-3SG

el mo er ngii$_i$.

COMP go P 3SG

'To school was being said by Nina for her child to go.'

('Nina said she was waiting for her son to go to school.' Georgopoulos' gloss)

Sentence (21) illustrates the most problematical property of the Palauan pre-passive. This pattern not only occurs in passives, but also happens in relative clauses when an NP other than the subject is relativized. (see section 5.3.2 below) This pattern is what convinced me that this is not yet a true passive, hence the term pre-passive. Although the pattern does not occur frequently, most speakers agree that it is grammatical. The occurrence of these NPs in subject position is unusual for normal passives. Since I claim that the pre-passives are not yet full-fledged passives, I would expect these constructions to become increasingly ill-formed if their evolution toward true passives continues. Nevertheless, Palauan pre-passives allow a wide range of NPs to be passivized in this way.

G 5. The subjects in the passive act like topicalizations and not like subjects at all in that they do not undergo all the syntactic processes that subjects normally do. The example given showed the passive surface subject does not undergo 'subject shifting', a rule Josephs posited to explain sentences like (22) in which the subject is postposed, and the expletive *ng* is inserted in the preverbal position.

(22) *Ng so-ak a biang.*

3SG like-my beer

'I like beer.'

This was said by Josephs to come from the source sentence in (23). The movement is obligatory.

(23) **A biang a so-ak.*

beer (is) like-my

'Beer is my liking.'

In relativization, the preposed 'logical' object appears to behave like a subject. If the NP accessibility hierarchy is correct (Keenan and Comrie 1977), and Palauan allows only subjects to relativize, then there is strong support for this NP to be the surface subject in the pre-passive. A more complete discussion follows in Section 5.3.2 below.

G 6. The 'ergative' constructions have characteristics which are expected of true passives.[1]

Sentence (16c) is an example of this passive. This objection appears to be based on the assumption that a language may not have more than one passive construction. However, as I will show in the next section, at least one other language, Bahasa Indonesia, has two constructions which are either passive or passive-like.

The 'ergative' does in fact behave like a true passive in many respects. In addition, these constructions do not exhibit the offending superficial object following the verb. Furthermore, these constructions may apply to the output of causativization, with the object of the causative verb being fronted and the causer occurring in the oblique position. Therefore, it appears, as Waters claims, that this construction is a 'true' passive. In the remainder of this chapter, I will simply call this construction the 'passive.' The question is, if the other 'passive' is not a 'true' passive, what is it? Is it possible for a language to possess two passives? Are there other languages which exhibit parallel phenomena?

I propose that this construction possesses many of the properties attributed to passives, but retains other properties which other passives do not. As suggested above, it may be that this construction is in the process of becoming a passive in the language, but retains some of the characteristics of active constructions for reasons that are unclear. Therefore, I refer to it as a **pre-passive** construction.

5.3.1 A Second Passive

Interestingly, there is another Austronesian language, Bahasa Indonesia, which appears to have one "true" passive and another construction which behaves in much the same way as the Palauan pre-passive. Sandra Chung (1976) describes the Bahasa Indonesia passive construction and the 'object preposing' construction (similar to the Palauan Pre-Passive) in a general discussion about subject-creating rules in that language. Passives in that language behave much like Palauan passives, while the object preposing constructions operate much like Palauan pre-

passives. In the Bahasa Indonesia passive, the direct object becomes the surface subject, the underlying subject occurs in a prepositional phrase following *oleh*, while the verb adds a prefix *di-* where the active transitive prefix *meng-* was. The active and passive pair is seen in (24).

(24) a. *Monjet men-gigit saja.*
monkey TRANS-bite me
'A monkey bit me.'

b. *Saja di-gigit oleh monjet.*
I PASS-bite by monkey
'I was bitten by the monkey.'

Thus, as in Palauan passives, the subject and object NPs switch places, as it were, and the verb is marked with a simple prefix, just as the Palauan verb is prefixed by the VM (*me-*). Only objects may be fronted in regular passives, the same as Palauan passives.

Chung (1981: 223-232) next describes another construction, referred to as object preposing, which she states is an 'unusual process' in Bahasa Indonesia. She finds this construction unusual, because it exhibits many of the properties of a passive, but the language already has another passive. Although, she states that a language with two passives would be 'typologically peculiar', in the end, she maintains that it behaves enough like a passive to be considered part of the passive process. This construction and its functions look very much like the Palauan pre-passive construction.

Briefly, the Bahasa Indonesia object may be preposed while the subject

surfaces as a pronoun. The pronoun appears to serve the same function as its Palauan counterpart. It co-refers with the underlying agent. In sentence (25) (Chung 1981: 223), object preposing has applied.

(25) *Ikan merah itu dia sudah tangkap.*
fish red the he PERF catch
'The red fish he already caught.'

When object preposing applies, the transitive marker *meng-*, which we saw in sentence (28a) does not occur, and the underlying agent is represented by the pronoun (*dia* 'he'). The object preposing structure interacts with 'equi' deletion (Controlled PRO) in a way that supports its status as a passive. In Bahasa Indonesia, PRO must be a subject. (As Chung puts it, in order to apply equi deletion, the deleted NP must be in the subject position at the time that this process applies.) Therefore, in order for the underlying object to be deleted, object preposing must apply, presumably moving the underlying object to the subject position. (26a), (26b), and (26c) (Chung 1981: 225) illustrate the process of object preposing and then equi deletion.

(26) a. Transitive without deletion
Saja mem-bawa surat itu supaja teman saya dapat
I TRANS-bring letter the COMP friend my can
mem-baja-nja.
TRANS-read-it
'I brought the letter so that my friends could read it.'

b. Transitive with deletion in place

**Saja mem-bawa surat itu untuk teman saya (dapat)*

I TRANS-bring letter the for friend my can

(mem)-baja.

TRANS-read

'I brought the letter so that my friends to (be able to) read.'

c. Passive with preposed object with deletion

Saja mem-bawa surat itu untuk PRO (dapat) di-batja

I TRANS-bring letter the for PRO can PASS-read

oleh teman saja.

by friend my

'I brought the letter to (be able to) be read by my friends.'

In sentence (26b), the direct object is deleted in place without being preposed. The verb is marked with the transitive (nonpassive) *mem-* instead of the passive *di-* indicating that the object was not moved before being deleted. Because the object has not moved to subject position, it is not eligible to delete. Only subjects, as stated earlier, may delete under equi deletion.

However, in sentence (26c), the lower clause has undergone object preposing, shown by the passive marker *di-* attached to the verb instead of the transitive *mem-*. Since the object has been preposed to the subject position, it is eligible for equi deletion and the resulting sentence is grammatical.

Palauan pre-passives appear strikingly similar to these Indonesian object preposing structures. As we shall see in the next section, Palauan objects must also be preposed to subject position before they may undergo

relativization since only subjects may undergo relativization in that language. Therefore, having two passives, or one 'true' passive and another passive-like construction in a language is not so very unusual. Therefore, it seems warranted to treat this construction as a form of passivization.

5.3.2 Preverbal Nominal as Subject

A major question raised against pre-passives as a form of passivization involves the status of the pre verbal nominal as a subject. The strongest evidence that this nominal is a subject comes from its behavior in relative clauses.

Keenan and Comrie (1977), mentioned earlier, proposed a hierarchy of nominals that are likely to be relativized based on data from a large number of diverse languages. Basically, they found that if a given language was able to relativize only one position, it would be the subject. If it were able to relativize two, it would be the subject and the direct object, and so on.[2] Palauan appears to be a language which can only relativize subjects, which bears directly on the status of the pre verbal nominal of a passivized sentence.

In Palauan, if a subject in the lower clause is relativized, the relativized NP simply deletes under identity with the coreferring NP in the higher clause and the rest of the sentence is in the active voice. Thus, in (27), the NP *ngikel* 'fish' is the deleted subject of the lower clause and the verb *klou* 'big' is in the active voice.

(27) *A rubak a m-il-echar er a ngikel$_i$ el Ø$_i$ mle klou.*

DL titled man DL VM-PST-buy P DL fish LNK *t* PST big.

'The titled man bought the fish that was big.'

When any other NP i.e., a direct object, a source, goal, or locative NP, is relativized, however, then the relative clause must be pre-passivized. The effect of this process is to promote the relativized NP to subject position where it can be relativized. This would explain why pre-passives are obligatory in these relative clauses. Why else would the relative clause be required to contain a structure which preposes nonsubjects to subject position? Sentences (28) and (29) are relative clauses where an NP other than subject has been relativized. In these cases, the relativized NP is preposed through pre-passive to subject position, where it is accessible to relativization.

(28) Direct object:

A uum$_i$ *el lu-r-ruul* ***er ngii***$_i$ *a Andrew a mle kmal*
DL kitchen LNK PASS-PST-build P 3SG DL Andrew DL PST very

ungil.

good.

'The kitchen that was built by Andrew was very nice.'

In (32), the 'logical' object is relativized, but before that can happen, the clause must be pre-passivized, promoting the object to subject, where it is eligible to be relativized. Likewise, in (29), a locative NP within a PP has been preposed to subject position through the pre-passive process in order to be relativized.

(29) Locative:

a. *Tia kid a* ***blsibs***$_i$ *el le-tilobed* ***er ngii***$_i$ *a beab.*

this here DL hole LNK PASS-PST P 3SG DL mouse.

'Here is the hole that the mouse came out of.

Sentence (29b) shows that if the same locative is relativized, but has not been preposed to subject position through the pre-passive first, the sentence is ill formed.

b. **Tia kid a* ***blsibs***$_i$ *el tilobed* $\emptyset_i$ *a beab.*

this here DL hole LNK PST P 3SG DL mouse.

'Here is the hole that the mouse came out of.'

Because Palauan is a language at the top of the NP accessibility hierarchy, a language that allows only subjects to be relativized, if any NP other than a subject is relativized, it must be promoted to subject position through pre-passivization first. This is the evidence that leads me to conclude that the preposed nominal in the pre-passives is a subject.

Another objection to treating the pre-passive as an instance of passivization is the occurrence of a prefixed pronominal on the passive verb. These forms are what Josephs and Wilson have termed 'hypothetical' pronouns and Georgopoulos has called 'irrealis.' In these contexts, the morphemes seem to be neither hypothetical nor irrealis, so the labels appear to be fairly nondescriptive.[3] The second thing that Georgopoulos found strange about the hypothetical prefix is that it agrees with the underlying subject of the passive sentence. I propose that these two properties of the

prefix on the pre-passive verb match Baker's passive morpheme, which is allowed to have nominal properties, including person and number features. This passive morpheme is illustrated in the pairs of active and pre-passive sentences below.

(30) a. *A mechas a me-nga er a bobai.*

woman VM-eat SP papaya

' The woman is eating the papaya.'

b. *A bobai$_i$ a lo$_j$-nga er ngii$_i$ a mechas$_j$.*

papaya PASS-eat SP 3SG woman

'The papaya is being eaten by the woman.'

(31) a. ***Ak** me-nga er a bobai.*

I VM-eat SP papaya

'I am eating the papaya.'

b. *A bobai a **ku**-nga er ngii.*

papaya PASS-eat SP 3SG
1SG

'The papaya was being eaten (by me).'

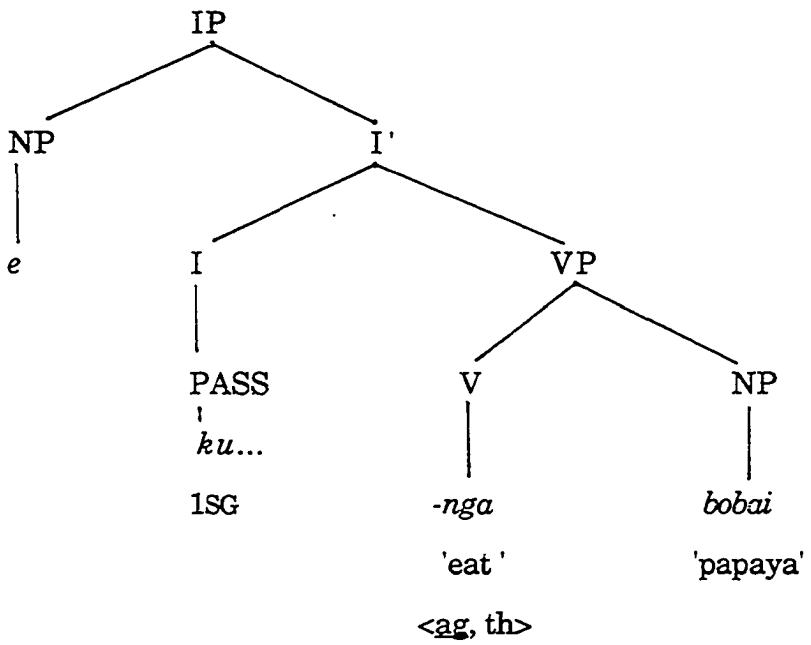
The important thing to notice here is that the passive morphemes (*lo-* '3SG' and *ku-*'1SG') prefixed to the verbs, agree in person and number with the agent (underlying subject). Recall that in Baker's analysis of passives, he claims that the passive morpheme (e.g. *-en* in English) is, in fact, an argument of the verb, which is assigned the external agent theta role. Recall

argument, the two passive morphemes in Chamorro, agree in number with the agent NP in the *by*-phrase. Thus, in Chamorro, the passive morpheme does exhibit some of the nominal properties of an argument. And now, Palauan possesses an even more convincing form as the external argument, a form which not only agrees with the agent in number, but agrees in person as well. Thus, the form of the Palauan passive morpheme provides very strong support for Baker's position, that these morphemes are indeed arguments. In the next section, I propose that the passive morpheme is the external argument of a pre-passive verb.

5.4 The External Argument

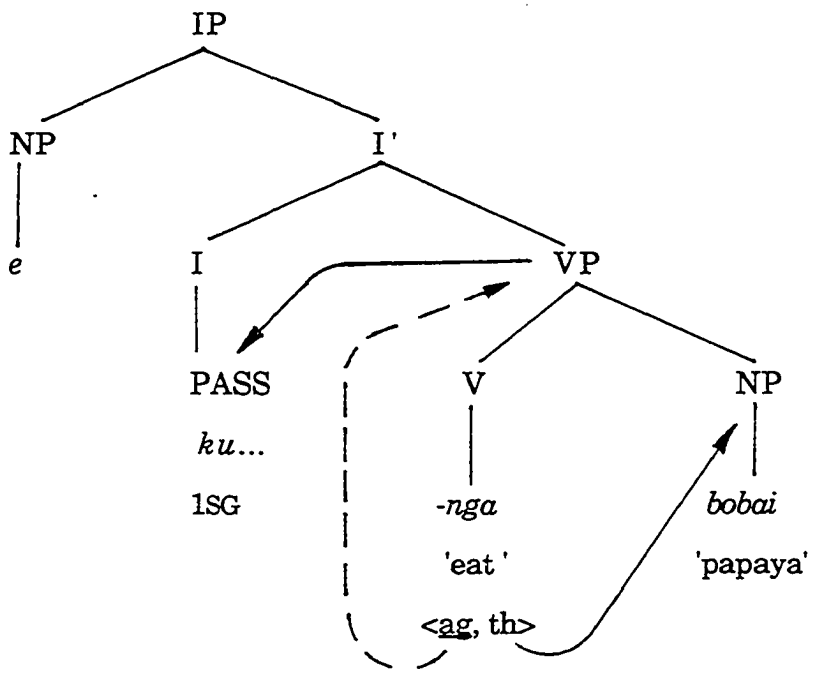
In Baker's discussion of passivization, the external theta role is assigned to the passive morpheme attached under the Infl node. Thus, in Palauan pre-passives, the D-structure for sentence (31b) is as follows:

(32) a. D-structure for Pre-Passive



This D-structure shows the passive morpheme *ku-* attached under Infl and the verb *-nga* 'eat' with two theta roles to assign. First, the verb assigns the internal theme role to its NP complement, just as it would in the active transitive sentence. Next, however, there is the external theta role to assign. One possible recipient of this role would be the empty NP under IP. However, that is the site where the underlying object NP is destined to go, which would result in two theta roles being associated with that NP -- in violation of the Theta Criterion (See chapter 3). Thus, in the same way that the external agent role was assigned to passive morphemes in English and Chamorro, the external role is assigned by the verb, via the VP, to the passive morpheme *ku-* in Palauan.

(32) b. Theta Role Assignment



The full set of putative passive morphemes is repeated here in (33) showing the most common phonological forms for each and how they attach to one verb (*omes* 'see'). In second and third person, there is no distinction between singular and plural.

(33)

PASS+***omes*** 'see'		variant forms
ku-mes	1 SG 'see'	***ku-, ke-, k-***
chomo-mes chomu-, mu-, cho-, chome-, m-	2 PL/SG 'see'	***chomo-, mo-,***
lo-mes	3 PL/SG 'see'	***lo-, lu-, le-, l-***
do-mes	1 PL INCL 'see'	***do-, du-, de-***
kimo-mes	1 PL EXCL 'see'	***kimo-, kimu-, ki-***

The I (Infl) category provides a natural position for the passive morphemes in Palauan. Traditionally, this has been the site for tense and aspect, which helps to explain why passive morphology is represented by an auxiliary (*be*) and a verbal participle (*-en*) in English. Furthermore, in Palauan, both tense and aspect morphemes immediately follow the passive morpheme in the complex verb. Thus, in the pre-passive verb in sentence (34), the passive morpheme *lu-* is followed by the past tense *-le-* and the imperfective *-ng-*.

(34) *A re-ngalek a lu-le-ng-elebed er tir er a sensei.*
DL PL-child DL PASS-PST-IMP-hit SP 3PL SP DL teacher
'The children were being hit by the teacher.'

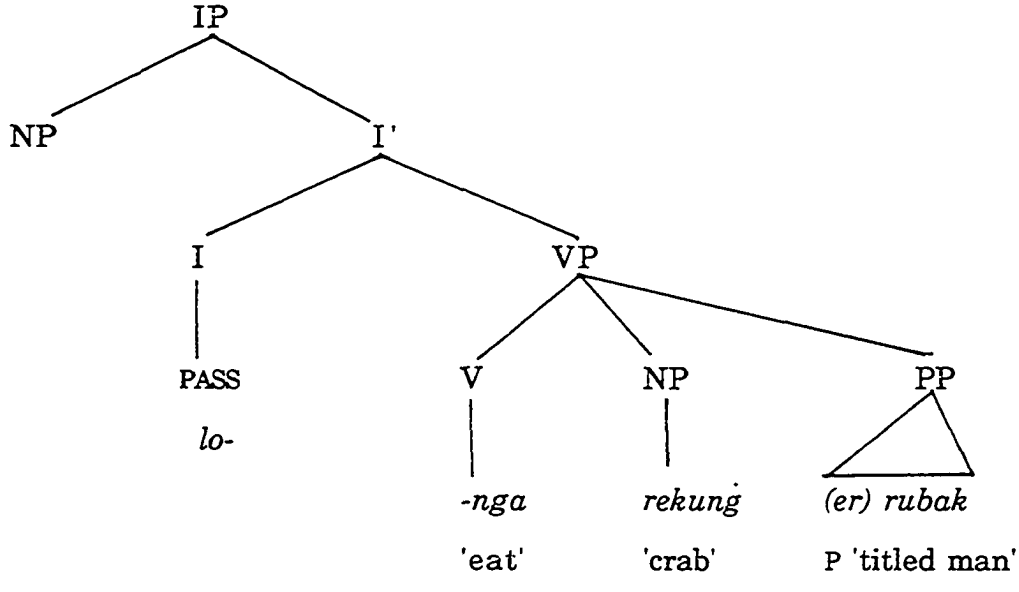
At this point, we have seen where the passive morpheme is inserted and how it receives the external agent theta role. Since it is a bound morpheme, however, we know that it must be attached to a verb. The lexical entry for the PASS morpheme must therefore include a requirement that it attach to a verb. Otherwise, the sentence will nct satisfy the 'Stray Affix Filter' (See Section 4.2 in the last chapter), which requires all bound morphemes to attach to another constituent.) In the case of the passive morpheme, that means either that the verb moves up to attach to the passive morpheme, or that the passive morpheme moves down to attach to the verb. The precise nature of this movement is the topic of section 5.5.

5.5 Pre-Passive Verb Incorporation

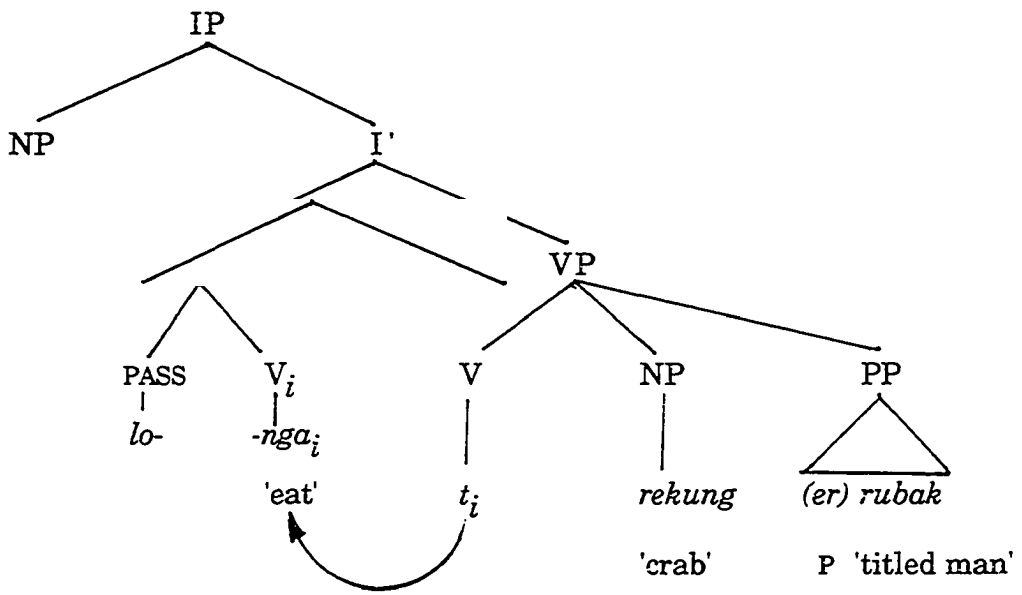
In the following Palauan pre-passive sentence, the verb *-nga* 'eat' moves from its place in the VP to adjoin to the passive morpheme *lo-* in I. This move will satisfy the Stray Affix Filter, which requires that affixes be attached to the verb stem by S-structure.

(35) *A rekung a lo-nga er ngii a rubak*
DL crab DL PASS-eat SP 3SG DL titled man.
'The crab is being eaten by the titled man.

(36) a. D-structure for (35)



(36) b. S-structure for (35)



The verb moves, satisfying the ECP, leaving a coindexed trace in the original position.

5.6 The Passive Morpheme as External Argument

Central to the incorporation analysis of the Palauan pre-passive is the status of the passive morpheme as an external argument. The claim is that the passive morpheme is generated under Infl, and receives the agent theta role from the verb. The form of the morpheme provides strong evidence that this morpheme is the external argument and that it has all the features of a nominal.

Further support for this position can be found in what has become known as 'implicit argument effects.' Baker points out that even though the agent is unexpressed in many passive sentences, it continues to have effects

on the rest of the sentence as though it were still present. As explained in section 5.2.2.1.Baker (1988) demonstrated that this passive morpheme can serve as the antecedent for a reflexive pronoun, can provide the controller for PRO (in 'equi' sentences), and can be the subject of an adjunct predicate in the same way as other NPs can. To see these effects in Palauan, I begin with a case in which the agent serves as the antecedent of a reflexive pronoun.

As we demonstrated in Chapter 4 (Section 4.7), there is no special reflexive pronoun in Palauan. Instead, the word *di* precedes a regular pronominal, causing it to be interpreted as a reflexive. Reflexive NPs in Palauan occur in object position with subjects as their antecedents, as we see in (37).

(37) a. *A John$_i$ a m-il-engelebed di ngii$_i$.*

DL John DL VM-PST-hit himself.

'John hit himself.'

b. **Ak $_i$ m-il-engelebed di ngii$_i$.*

I VM-PST-hit himself.

'I hit himself.'

The sentences in (37) illustrate that the reflexive *di ngii* 'himself' requires an antecedent in the same clause. In sentence (38), however, there is no apparent antecedent for the reflexive *di ngii.*

(38) *A cheldecheduch a lo-nguiu er ngii er a buk el kirel di ngii.*

DL story DL PASS-read P 3SG SP DL book LNK about himself

'A story is being read from a book about himself.'

This is a well-formed sentence with no apparent antecedent for the reflexive *di ngii* 'himself' since the subject NP 'story' is inanimate. However, because the verb is passive, the sentence also contains an agent argument, the passive morpheme *lo-*, which behaves as the antecedent. If the passive morpheme is *ku-* 1SG, as in (39), the passive morpheme no longer agrees with the reflexive and the sentence is ill formed.

(39) **A cheldecheduch a **ku**-nguiu er ngii er a buk el kirel di ngii.*

DL story DL PASS-read P 3SG SP DL book LNK about himself
1SG

'A story is being read from a book about himself.'

Thus, it is clear that the passive morpheme does serve as the antecedent for the reflexive pronoun and therefore behaves like an argument, just as Baker's theory predicts.

In addition to acting as the antecedent to a reflexive, the passive morpheme behaves as the controller (antecedent) in a sentence containing PRO (a null subject pronoun).. In a nonpassive sentence with a clause containing PRO, the matrix subject acts as the controller of the lower clause. Thus in sentence (40a) *John* is the controller of PRO in the lower clause.

(40) a. *A John$_i$ a me-luches a babier el PRO$_i$ oba a pen.*

DL John DL VM-write DL letter LNK PRO using DL pen

'John is writing a letter using a pen.'

b. **A John a me-luches a babier el Mary a oba a pen.*

DL John DL VM-write DL letter LNK Mary DL using DL pen

'John is writing a letter Mary using a pen.'

Example (40b) shows that if the overt NP *Mary* is substituted for PRO, the sentence is not acceptable. Therefore, the subject of the lower sentence must be PRO and it must be controlled by the subject of the matrix clause.

If the sentence is passivized and the *by*-phrase is omitted, then there is no controller for the PRO other than the passive morpheme *lo-*. This is illustrated in (41), where the passive morpheme is the controller of PRO, consistent with its argument status.

(41) *A babier a lo$_i$ -luches er ngii PRO$_i$ oba a pen.*

DL letter DL PASS-write P 3SG PRO using DL pen

' A letter is being written using a pen.

If the passive morpheme is not available, then the sentence is ungrammatical. As we see in (42), where the verb is an intransitive with a theme argument, the sentence is ill formed since there is no agent to act as the controller of PRO.

(42) *A *soldau a mla mlad el PRO oba a boes.*

DL soldier DL just died LNK PRO using DL gun

'The soldier died using a gun.'

A third test for the argument status of the passive morpheme can be seen in sentences where it serves as a 'subject' for a predicate adjunct. In predication theory, every predicate must have a subject nominal. Because the passive morpheme is an agent nominal, it can serve as the subject for a predicate in predicate. Sentence (43) is a passive sentence which has no obvious subject for the predicate adjunct *chetelaol* 'drunk', yet the sentence is grammatical. In this case, there needs to be someone who is drunk. And once more, since the passive morpheme *lo-* is the agent nominal, it supplies the subject for *chetelaol* 'drunk'.

(43) *A bilas a lo-mekal er ngii a chetelaol*

DL boat DL pass-driven P 3SG DL drunk

'The boat is being driven drunk.'

In a situation where the sentence is not passive, there is no nominal to serve as subject of the predicate adjunct. In (44), where the verb is intransitive, there is no agent to act as subject of *chetelaol* 'drunk', rendering the sentence ungrammatical.

(44) **A bilas a ur-rechorech el chetelaol.*

DL boat DL PST-sink LNK drunk

'The boat sank drunk.'

In summary, the claim that the passive morpheme in Palauan pre-passives is an agent argument enjoys strong support from the implicit argument effects that occur when it interacts with reflexives, controlled PRO structures, and predicate adjuncts. Thus, the passive morpheme behaves in ways parallel to overt NP agents in active sentences.

5.7 The *By*-Phrase in Pre-Passives

Palauan pre-passives may optionally contain an oblique NP corresponding to the *by*-phrase in an English passive (Section 5.2.3). More often than not, this phrase is omitted in Palauan pre-passives, probably because the purpose is to emphasize person or thing undergoing the action (the theme), not the person or thing performing the action (the agent). Baker points out that since this phrase is optional, it does not receive a theta role from the verb. However, he also notes that this phrase is closely related to the thematic role of the verb in a way too strong to be just another adjunct phrase. In the pre-passives below, there is a *by*-phrase with an agent role in sentence (34) (repeated here), which agrees with the passive morpheme, but is omitted in (45).[4] Oblique Case is assigned by the P to the NP in the same way as the preposition *by* in English assigns Case to its NP complement.

(34) *A re-ngalek a lu* $_i$ *- le - ng-elebed er tir er a sensei*$_i$.

DL PL-child DL PASS-PST-IMPERF-hit SP 3PL P DL teacher

'The children were being hit by the teacher.'

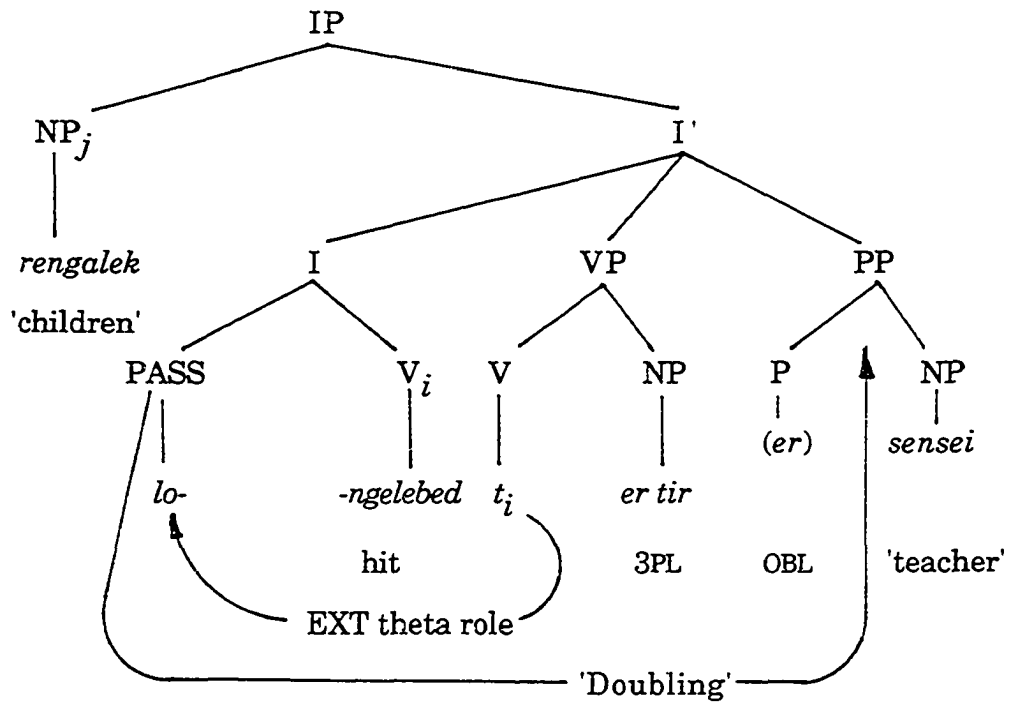
(45) *A babier a lo-nguiu.*

DL letter DL PASS-read

'The letter is being read.'

(46) illustrates the 'doubling' of the agent role that takes place when an overt *by*-phrase appears.

(46)



In section 5.2.3 above, I noted that Baker claims that whether the 'doubling' process is allowed or not is a function of the lexical entry of the passive morpheme. Some languages allow doubling and some do not. Palauan allows it, but its appearance in the pre-passive seems to be marked. This is most likely a discourse, not syntactic phenomenon.

5.8 Movement and Case Assignment

There are two Case assignments which need to be made, each of which involves movement. The first is verb movement to expedite Objective Case assignment. The second is the NP movement of the 'logical' object to subject position.

In Baker's analysis there are two reasons for why the verb moved up to adjoin to the passive morpheme in I. First, it moved to satisfy the Stray Affix Filter, which requires the bound passive morpheme to attach to a verb stem. As we saw in verb movement in the Causatives, the verb must move to the affix rather than the other way around in order for the moved element to c-command its trace. Recall that if the movement is downward, it is not possible for the moved element to c-command its trace and the move is not warranted by the ECP.

The second reason the verb must move is to put it into a position where it can assign objective Case to the passive morpheme. The pre-passive requires that the passive morpheme receive Case. Thus the movement satisfies two filters: the Stray Affix Filter and the Case Assignment Filter.

The second movement that must be accounted for is that of the 'logical' object to the subject position. This is the most obvious feature of the pre-passive construction. Since the verb assigns Objective Case to the passive morpheme in I, there is no Case assigner for the 'logical' object in its original D-structure position, so it must move. The empty subject is a position to which the tensed I assigns Nominative Case, so the NP moves to that position. Thus, the movement is motivated by the need to receive Case. If the movement is not made, the result is an ill formed sentence as in (47).

(47) * *Ø a lo-lengelebed er a ngalek.*

Ø DL PASS-hit SP DL child

'Was hit the child.'

Thus, both movement operations are made necessary in order to put the verb into a Case assigning position and to put an NP into a position to receive Case.

5.9 Summary

In this chapter, I have examined a construction that I have termed pre-passive with the purpose of demonstrating that it has many of the properties of a passive. Further, I have attempted to use Baker's incorporation analysis of passives as a means of testing this hypothesis. I have found that in many respects, this construction supports Baker's analysis in striking ways. For example, the passive morpheme in pre-passives looks and behaves even more like an argument than Baker was able to demonstrate with languages like English and Chamorro. In particular, the fact that the Palauan passive morpheme agrees in both number *and* person with the *by*-phrase supports his basic claim that this morpheme is, in fact, a nominal argument.

I have also shown how the incorporation analysis accounts for the attachment of the passive morpheme to the verb as a natural consequence of verb movement. A simple operation movement accomplishes this, thereby satisfying the Stray Affix Filter, and accounting for the assignment of Case by the verb to the passive morpheme.

The movement of the 'logical' object to subject position was also shown to be a consequence of a movement necessitated by the need to assign Case to

that NP. This movement and verb movement to I were shown to be instances of a general movement rule, governed by well known constraints needed elsewhere in the grammar. Thus, there was no need for ad hoc rules to account for the properties of this construction.

However, this construction does not fully conform to what is expected from a typical passive. I acknowledged that earlier, suggesting instead the term 'pre-passive.' Georgopoulos (1985) raised a number of issues regarding the status of this construction as a passive. Some of these objections have been answered in the course of this analysis, while others remain open. To end this chapter, I provide a table that summarizes these issues and the responses found in the chapter. The resulting analysis is not complete. There are questions that remain to be explored, but this result is expected, given the unusual nature of this passive-like construction.

Earlier in this chapter, I listed six potential difficulties with considering the pre-passive construction to be a form of passivization that were raised by Georgopoulos (1985) and Waters (1979). Table 4 summarizes the issues and responses that are found in this chapter.

Table 4

Issues Concerning the Pre-Passive Construction

Issues Concerning the Pre-Passive from Georgopoulos (1985: 51)	Responses from Pre-Passives in Baker's Incorporation framework	See Section or page No.
1. Passive morpheme (= Georgopoulos' irrealis) agrees with postposed agent (in Josephs' sense) instead of the surface subject.	Natural consequence of the fact that the postposed agent 'doubles' the passive morpheme, which is itself a nominal capable of person and number agreement.	Section 5.4 External Agent
2. The verb is superficially transitive with the perfective form agreeing with the logical object.	The verb agrees with the trace of the moved object. The object position continues to exist.	Section 5.8 Movement and Case
3. NPs other than objects may become subjects. in passivized sentences. (Oblique NPs)	This is not so unusual. These resemble English pseudo-passives.	Sections 5.3 and 5.3.2
4. NPs in embedded complements may be passivized.	If pre-passives do become full-fledged passives, then these constructions should become ill formed.	Section 5.3 page 146
5. The pre-verbal NP in the pre-passive behaves more like a topic than a subject.	With respect to relativization, the pre-verbal NP in pre-passives, behaves like a subject.	Section 5.3.2
6. The 'ergative' (Josephs') acts like the 'true' passives	This construction probably is the passive. There is precedent for a language having two passives.	Sections 5.3 and 5.3.1

Chapter 5 Notes

1. Issues five and six were attributed to Waters by Georgopoulos.

2. The Noun Phrase Accessibility Hierarchy for relativization of different grammatical roles is as follows:

   Subjects > Direct Objects > Indirect Objects > Obliques > Genitives > Object Complements.

3. I use the term 'hypothetical' with no theoretical claims implied, but just to be consistent with the *Palauan Reference Grammar* (Josephs 1975).

4. In the pre-passive, the *by*-phrase is marked by *er*. in some pre-passives that I elicited, but not in others. I assume for Case-assignment purposes that where *er* is omitted, it exists in D-structure, but deletes for reasons that are unclear at this time.

Chapter 6: Implications of Syntactic Incorporation

6.1 Summation and Results

In this study I have sought to show how complex morphological phenomena in Palauan causativization and passivization can be accounted for by Baker's (1988) incorporation theory. In this view, complex verb morphology was shown to be the natural consequence of well-motivated principles and rules of Universal Grammar. The form of the syntactic Base, D-structure, is derived from lexical properties contained in the lexicon for the causative verb affix and the passive morpheme. These lexical items, constrained by X-bar theory and theta theory are projected at all levels, constrained by the Projection Principle. Then, syntactic movement applies in the form of verb incorporation and NP movement to derive S-structure. S-structure is checked by the Case filter, and the Stray Affix filter, (among others) prior to interpretation in the LF and PF. Thus, we have argued that Baker's incorporation analysis is able to account for two important constructions in Palauan, namely morphological causatives and pre-passives.

In Chapter 2, I endeavored to provide the general outline of Palauan morphology and syntax necessary to frame the arguments in the next two chapters. Because of the complexity of morphological forms in Palauan, it is important to recognize the various morphemes, especially in the verbs.

Next, in Chapter 3, I outlined the framework in which this study was carried out, namely the Government and Binding theory together with Baker's incorporation analysis of grammatical function changing processes. The basic approach involves generating morphemes which

would eventually combine in surface structure, in underlying positions where they could assign or receive proper theta roles, consistent with the UTAH. Then, using the well-motivated Move α rule in the form of incorporation, surface order and surface consitituency was accounted for.

In Chapter 4, I took the position that morphological causative verbs in Palauan are biclausal. That is, they occur in the D-structure as separate verbs in two separate clauses, with the causative bound morpheme serving as the verb in the matrix clause. Then by Move-Alpha, with all that entails, the verb in the embedded clause is moved up to adjoin to the causative bound morpheme. This analysis avoids any rule specific to causative constructions or a plethora of individual lexical items for all the various causative verbs. However, since causative constructions differ from one language to another in how the grammatical function changing takes place (Causative Rules I and II), it was necessary to explain the differences as functions of different head movement constraints and variations in case marking for the two types.

In Chapter 4, I also put the complex causative verbs in Palauan to the incorporation test. By generating the causative morpheme in the higher clause and moving the verb stem up to incorporate into the higher verb of causation, I could account for the behavior of the underlying subject of the lower clause. I demonstrated that Palauan is a language which conforms to J. Gibson's (1980) Causative Rule II type, in which the underlying subject behaves like a direct object in the surface structure. I showed that the conformity to Causative Rule II naturally led to the position that head movement is responsible for this surface structure. Finally, the

path of verb movement and Case assignment was outlined utilizing tests that Baker had used for other languages in his study.

In Chapter 5, the puzzling construction that I have termed the Palauan pre-passive was analyzed in terms of Baker's incorporation analysis. In this view, the passive morpheme assumes the form of the 'hypothetical' pronoun which is prefixed to the passive verb. This passive morpheme provided strong evidence for Baker's position that the passive morpheme is an argument in Infl, which receives the external theta role from the verb. This is a viable alternative to the theta role absorption or suppression necessary in other analyses of this construction.

In addition, I demonstrated that the passive morpheme had syntactic consequences for the rest of the clause in the form of implicit argument effects. For example, I showed that it provided the necessary antecedent for reflexives in lower clauses. Finally, the problem of assigning Case to both the passive morpheme and the subject was taken up and shown to be natural consequences of a parameterized Case assigning process for Palauan.

6.2 Unsolved Problems and Areas for Future Research

We have looked at the pre-passive as an example of verb incorporation, but there is the question of how to account for the true passive. That is the construction in which the underlying object occupies the surface subject position, while the verb form is a simple verb marker (VM) + stem verb. Whether or not this passivization process would lend itself to the incorporation theory, has yet to be tested. That this passive is a syntactic process seems to be clear.

Baker shows that causative constructions, which are clearly syntactic in his framework, can be passivized (= Josephs' 'ergative'). Since syntactic processes cannot feed lexical ones, these passives must not be lexical processes, as Bresnan (1982) proposes. Thus, a Palauan causative sentence may undergo passivization as in (1b).

(1) a. Causative Structure

A Mary o ole-kiis a ngalek.

Mary CAUS-awake child

'Mary caused the child to awaken.'

b. Passivized Causative Structure

A ngalek a mo-kiis er a Mary.

child CAUS/PASS-waken P Mary

'The child was awakened by Mary.'

Lexical processes are assumed to be completed before lexical insertion at D-structure and before any syntactic movement has taken place.

Questions to be answered concern the form of the passive morpheme, if any. Since the verb marker (VM) occurs in most active verbs in Palauan, it is difficult to see how this could be considered a passive morpheme, at least not in the sense of Baker's external argument. In addition, the placement of the passive morpheme, should one exist, needs to be addressed. Are these passives generated within the verb phrase, as suggested for some languages? If the passive morpheme is generated in the direct object position of the VP, then does the form incorporate with the

verb, or is it abstractly incorporated, or what? There are many possibilities and thus, many questions to be answered.

A second set of questions arises naturally from this study, and that concerns the analysis of Palauan reciprocal verbs. These verbs consist of a reciprocal prefix on the verb, making a complex verb in much the same way as the causatives were. Sentences (2) and (3) are examples of Palauan reciprocal constructions.

(2) *A re-chidois a mle ka - chelebed.*
DL PL-German DL PST RECIP-hit
'The Germans are hitting each other.'

(3) *A Markus me a Idip a ka - cherchur.*
DL Markus and DL Idip DL RECIP-laugh
'Markus and Idip laugh together.'

Do these constructions involve incorporation? Do these complex verbs "feed" other syntactic processes? How do they interact with processes like passivization or causativization?

It appears to me that these questions, if addressed, could further test the incorporation analysis of Palauan complex morphology, and would lead to a more unified approach to the complex verb morphology that the language exhibits.

These are but a few of the many questions that this study of complex verb morphology has uncovered. I have intended to demonstrate that Baker's incorporation analysis is a productive model in which to study

these phenomena. I have intended to demonstrate also that by utilizing well-motivated general principles and constraints of the GB theory, there is less idiosyncratic information needed in the lexicon by Palauan causatives and passives, that this information could be explained by appealing to normal constraints of the Base (X-bar, theta theory, the UTAH, and the Projection Principle) , by Move α, constrained by the ECP, and by the S-structure filters and principles (Case marking, government, and binding). In this way, much of Palauan syntax can be explained by a general theory of Universal Grammar, with parameters set for Palauan. The result, I hope, will be that more of the language will be cast in a framework which can be compared to other languages, to the end that more light may be shed on the question of the relationship of Palauan to its Austronesian relatives, and that our understanding of this language will be, in some small way increased.

Finally, one area in particular that interests me is the acquisition of this complex verb morphology by young Palauan children. It appears to me that it would be useful to investigate the emergence of the parametric variation which Palauan requires by looking for evidence of a grammar with some of the parameters not yet set, such as Causative Rule I or II. Other emerging aspects of complex verb morphology acquisition may very well lend independent support for or against some of the processes suggested here. This, too would be a productive area to pursue. I hope this present study will provide further stimulus for work in this area.

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