Topics in Northern Pomo Grammar

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Abstract

Data are presented bearing on a number of topics in the grammar of Northern Pomo, an American Indian language of Northern California. The emphasis is on topics which illuminate the mappings between morphology, syntax, semantics, and discourse pragmatics.

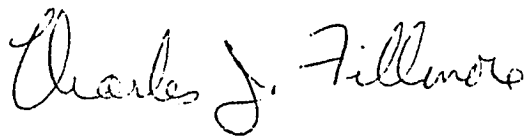
The first three chapters are concerned with the internal structure of the verb in Northern Pomo: its derivational and inflectional categories; constraints on interpretation of particular morphemes; and productivity of word formation. The category of verbal number is extensively discussed.

The next two chapters present a detailed description of the Northern Pomo nominal case marking system. A three-way overlapping marking system involves case assignment that is sensitive to the status of the nominal on the animacy hierarchy, and in certain cases to the semantics of the verb. Of particular interest is a verbally governed active case marking pattern: Subjects may receive the case marking associated with Subjects *or* that associated with canonical Objects. The dimensions of expressivity and point of view are shown to play a crucial role. No syntactic behaviors are found to differentiate canonically and non-canonically marked Subjects. One central aspect of this alternation involves the *person* of the Subject. The semantic and pragmatic dimensions of the verbs' lexical content in combination with general discourse pragmatic principles concerning point of view are shown to provide an explanation for the complicated variations of case according to person. Implications of these data are presented for the typology of case marking systems.

Chapter Seven explicates the marking of possession in Northern Pomo. A con-

struction which corresponds to what is commonly called "Possessor Ascension" is described from the perspective of its semantics and conditions of use.

Finally, Chapter Eight is an examination of the system of non-clause bounded reflexives. It is found that two distinct binding domains must be posited in order to derive obligatory conditions of use of these elements, and the observed patterns of disjoint reference. One domain is the minimal clause, one is the domain of 3rd Person Point of View, a discourse-pragmatically determined domain. Explanations of disjoint reference patterns must make reference to syntactic, semantic, and pragmatic factors.



For my parents,

John and Winifred O'Connor

and for

Edna Campbell Guerrero

Acknowledgements

There is no way I can adequately acknowledge the character and the talents of my consultant in this work, Edna Campbell Guerrero. Her intelligence, her sensitivity to language, and her ability to articulate her internal experience about her language as well as to express the perspective that would be taken by an interlocutor, are the only reasons that this work could progress. In addition, she has an inspiring curiosity about linguistic matters. As a consultant she is more than any linguist could hope for. I cannot thank her enough for this, or for her friendship through these years. *k'edi ma to: na.*

When composing an acknowledgements page, as one reviews the course of the work, (a work that in this case took a significant number of years --seven from the start of field work to the present) many people come to mind who did not figure in the final writing of the dissertation. Some of these are people who encountered this work only briefly. Although I will not name these people, I wish to thank them here. I thank all of those who have shared their knowledge and perspective with me during the course of my work.

I wish to thank the Phillips Fund of the American Philosophical Society, for their generous support throughout my fieldwork. Thanks are also due to the Survey of California and Other Indian Languages at U.C. Berkeley for financial support. I would like also to acknowledge the University of California at Berkeley, for a Humanities Graduate Research Grant, and the Sloan Foundation Cognitive Science Grant to U.C.Berkeley.

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beautiful view of language and the field of linguistics which is very different from that of the others. In working with each one I have had the privilege of seeing language and its representation in linguistics from new perspectives. I thank them for sharing their views with me, and for supporting the development of my own views through their careful attention to this work.

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initial contact with it to her-- she suggested that we do field work on the language, and did most of the initial work to set up the field situation. I wish also to thank Eero Vihman, who worked with Edna Guerrero on Northern Pomo during the 1960s. He very graciously directed us to Mrs. Guerrero in late 1979.

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I wish to thank my parents, John and Winifred O'Connor, for their generous support and encouragment over many, many years of schooling. I will owe them a debt all my life for the role they have played in my education.

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Chapter One: Introduction

In aboriginal times, speakers of the Northern Pomo language lived and moved seasonally through an area of Northern California that stretches from the Pacific coast in central Mendocino county, through the small valleys that surround branches of the Russian River, inland fifty miles to the northwest shore of Clear Lake. The language that they spoke has characteristics that are of compelling interest to linguists of the present day. In this work I will discuss a number of grammatical topics, describing aspects of the language in detail and drawing implications for several current issues of theoretical interest.

1. Goals of the dissertation

The Pomo languages are dying. The most lively of them, Kashaya Pomo, has under one hundred speakers. Several others are essentially extinct. The speakers of Northern Pomo number less than ten, only one of whom is available for linguistic consultation. In the face of this, it is difficult to know what to focus on. Particularly in the case of the Pomo languages, where extensive work has been done on the morphology and phonology of some of the sister languages (McLendon, 1975; Oswalt, 1960) as well as reconstruction of the proto language (McLendon, 1973; Oswalt, 1974), the broadest possible coverage would seem to be warranted.[1] However, this dissertation is

[1] Several factors have led me to temporarily focus extensively on a few morphosyntactic and syntactic topics. My consultant, Mrs. Edna Campbell Guerrero, upon beginning work with me in 1980, expressed a strong interest in working at the level of the sentence. She has an outstanding talent for articulate discussion of subtle semantic, pragmatic, and syntactic distinctions. This ability fortunately coexisted with a language that contains some extraordinary grammatical subsystems, phenomena that could not be explored by a non-native speaker unless the language consultant were so talented. These grammatical phenomena happen to address a number of issues of general interest to linguists, and few detailed explications of such systems exist. I felt therefore that these topics deserved detailed description in the goal of making the data available to the widest range of interested linguists.

not a traditional grammar. It is a detailed account of several topics which I have studied in depth. Its scope is not as wide as a traditional grammar; detailed elaboration of certain topics has required postponement of work in other areas. Research is in progress on a number of topics not covered here.

I have tried to make the discussions in this dissertation as accessible as possible. My descriptions are generally neutrally stated with respect to theoretical framework. While it is of course impossible to do grammatical analysis in a theory-neutral way, I have tried to clearly indicate where I make use of assumptions held commonly by most theories of the past few decades, and where I depart from these. In a few sections the analyis of interesting aspects of the data require a more explicit statement of assumptions about the form of the grammar being assumed. In these sections I have chosen to rely on some of the assumptions and theoretical primitives of Lexical Functional Grammar (Bresnan, 1982). The language and tools of that framework provide clear ways to explicate certain aspects of these data. However, only to the extent that its findings provide substantive material for further consideration within LFG, should the dissertation be considered to be directed toward that theory. The main purpose is the detailed explication and consideration of some previously undescribed aspects of the grammar, aspects which cause us to see from a different perspective the interfaces between morphology, syntax, semantics and discourse pragmatics

2. Contents of the dissertation

The first three chapters (Chapters Two, Three, and Four) are concerned with the internal structure of the verb in Northern Pomo.

Chapter Two is divided into roughly two parts. The first forty pages is an overview of the categories of the verb: it ranges from a discussion of the internal structure of basic stems, to the derivational affixes which may semantically modify basic stems (both valence-changing and non-valence-changing), to the inflectional categories associated with non-finite and finite inflected verbs. Some consideration is given to the

relationship between basic and derived lexemes, and to questions of productive and non-productive lexical relationships. The next thirty pages is a detailed analysis of the morphological expressions of inherent verbal number. This is shown to be a derivational category in Northern Pomo, differing in several ways from inflectional number agreement. Particular attention is given to a suffix which 'multiplies' the events or states of affairs denoted by the verb. The interpretation of the verbal action is consequently interpreted as being distributed over either individuals or time, resulting in what appears at first to be sensitivity to participant number, but what is in fact an aspectual modification.

Chapter Three is a description of the three valence-changing derivational suffixes: the causative, the reflexive, and the passive. The causative affix is the most predicate-like of the three, bringing its own argument structure to the derivation. The argument mapping from the underived to the derived predicate is described and evidence is provided that the derived predicate is functionally complex. The causative morpheme in this language has an additional, non-causative function as a 'switch-reference' complementizer for certain complement taking verbs and in purpose clauses. The implications of this additional function for the lexical representation of the affix are briefly considered. The reflexive and passive affixes are then discussed, with a description of the argument mapping between the base and the derived verb. The passive is found to be an impersonal passive in which no subject may be expressed. The subject argument of the base is available for semantic interpretation, but does not evince the control behaviors of canonical subjects. No other arguments are promoted in a clause headed by an impersonal passive verb.

Chapter Four is a consideration of the possible relationships between the order of valence-changing affixes within a derived verb and the lexical rules associated with these affixes. The order of causative and reflexive morphemes in this language is not predicted by a current model of morpheme order and the grammar presented in Baker

1985. It is concluded that a consideration of the process of word formation from a diachronic perspective gives a better account of the data than this model, and that there is no necessary relationship between the order of morphemes and the order of application of lexical rules.

The next two chapters present a detailed description of the nominal case marking system of Northern Pomo. One issue that recurs throughout these chapters is that of the determinants of case--specifically, is it possible to state all case marking rules in terms of grammatical relations as given in lexical forms and lexical rules? While there is no one to one mapping between cases and grammatical functions, it is possible, using a range of lexical devices, to correctly associate arguments and the appropriate inflections.

Chapter Five covers two important aspects of the case system: (1) the variation in case realization depending upon the position of the nominal in an animacy hierarchy and (2) the choice of case category determined by grammatical function status, relative to particular grammatical constructions. The description of (1) involves a consideration of three subsystems of case marking, realized as (i) inflectional (suffixal), (ii) clitic, and (iii) neutral (unmarked). Choice of one of these three subsystems is partially determined by the nominal class of the argument expression. The description of case category assignment in this chapter involves, in addition to an account of case marking of Subjects and Objects, the marking of Objects of postpositions, and Benefactive arguments.

In the next chapter the topic of the theoretical significance of case category alternations is dealt with in detail. Chapter Six is a lengthy consideration of the semantics, pragmatics and syntax of the clauses in which an active case marking pattern is found. In such clauses the Subject may receive the case marking associated with Subjects *or* that associated with canonical Objects. First it is established that the contrast is not simply one of thematic role. Next the dimensions of expressivity and point of view

are shown to play a crucial role; these are shown to be intrinsic aspects of the lexical semantics and pragmatics of the verbs that allow this case marking pattern. One central aspect of this alternation involves the *person* of the Subject. The semantic and pragmatic dimensions of the verbs' lexical content in combination with general discourse pragmatic principles concerning point of view are shown to provide an explanation for the complicated variations of case according to person. Finally, the data as presented are considered from the syntactic perspective. It is found that an account which assumes that case category alternations must reflect differences in grammatical function status is not supported in any way by the data in Northern Pomo.

Chapter Seven explicates the marking of possession. The areas of kinship possession, alienable possession, and the possession of body parts are described in detail. A construction which corresponds to what is commonly called "Possessor Ascension" is described from the perspective of its semantics and conditions of use.

Finally, Chapter Eight is an examination of the system of non-clause bounded reflexives. It is found that two distinct binding domains must be posited in order to derive obligatory conditions of use of these elements, and the observed patterns of disjoint reference. One domain is the minimal clause, one is the domain of 3rd Person Point of View (3POV), a domain determined by discourse pragmatic considerations. Each domain has a distinct binder, the minimal clause requiring a Subject, the 3POV domain requiring the highest ranking semantic argument in a clause superordinate to the anaphor. Pragmatic and semantic properties of the latter are considered, and other morphosyntactic consequences of this domain are identified. The typical patterns of distribution of logophoric pronouns are derived from this more general notion of point of view, and the lexical semantics and pragmatics of individual lexical items are shown to substantiate a discourse pragmatic account of NCBRs (and the associated disjoint reference facts) over a syntactic account of these facts.

3. The language

Northern Pomo is one of the seven Pomo languages, which are considered to be of the Hokan stock (Langdon, 1974). Although all seven languages share the name Pomo[2] they differ significantly, as did the cultures and societies of the people that spoke them.

> Linguistically no two of the Pomoan languages spoken by people referred to as Pomo are as closely related as Navajo is to any of the varieties of Apache. The most divergent Pomoan languages are about as distantly related as the Athapaskan language Navajo in Arizona is to Tanaina in Alaska....the most divergent of the Pomoan languages differ from one another more than do the Germanic languages: German, English, Danish, Dutch, Norwegian, and Icelandic. (McLendon and Oswalt, 1978:274)

Within the family, Northern Pomo is a member of the Western Branch (Oswalt, 1964) which includes the three most closely related languages, Kashaya, Southern, and Central Pomo. According to Oswalt, based on lexical statistic evidence and morphological comparisons, these three are related to Northern Pomo about as closely as Western Romance is related to Rumanian.

Today, there are a few speakers of Northern Pomo remaining, most of whom live in Mendocino County, in the valleys around the town of Ukiah. My consultant for this work is Mrs. Edna Campbell Guerrero, who was born 80 years ago in Potter Valley, which is 18 miles north of Ukiah in Mendocino County. Her mother was a member of the group *balo?khay pho?ma?* a name that denoted groups living from Potter Valley down to Ukiah, some 20 miles away. Her mother's mother spoke the dialect of of the

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[2] For a discussion of the origins of name Pomo and of the names of the daughter languages, as well as a review of the known anthropological and linguistic sources regarding the early locations and relationships of the seven sister speech communities, and an introduction to what is known of their aboriginal society and culture, see McLendon and Oswalt (1978). See McLendon (1973), for a review of the existing proposals concerning the internal relationships among the family.

masu? pho?ma?, and lived in an area about ten miles west of Potter Valley, north of the present-day town of Calpella. Her father spoke the dialect of his mother, who was of the *šibal dano? po?ma?* ('nearby mountain'), 4-5 miles west of Sherwood Valley). Edna Campbell herself spoke all of these dialects but the current work is largely in the dialect of the *balo?khay pho?ma?* group.

3.1. A brief grammatical sketch of Northern Pomo

Here I will very briefly outline some of the typological characteristics of the language, as well as some of the general details that will not be discussed further in this work.

The following abbreviations will be used in glossing examples throughout the text.

1s, 2s, 3s	1st, 2nd, 3rd person singular
1p, 2p, 3p	1st, 2nd, 3rd person plural
1's, 2's, 3's	1st, 2nd, 3rd person possessor
A	case
Acomp	adverbial complementizer
adj	adjectival
asp	aspectual suffix or particle
caus/CAUS	causative morpheme
coll	collective
comp	complementizer
conj	conjunction
cop	copula
dem	demonstrative
dir	directional
emph	emphatic
evid/EVID	evidential

f	feminine
fut	future modality
IMP	imperative
iprf	instrumental prefix
loc	locative postposition
m	masculine
mev	multiple event aspect
mod	modal
NCBR	non-clause-bounded reflexive
NCBR's	non-clause-bounded reflexive possessor
neg	negative
Obl	Oblique case
P	P case
pp	post position
pass	passive
perf	perfective tense/aspect
pl	plural
poss	possessor
pres	present tense
prog	progressive aspect
prosp	prospective aspect
prt	particle
Q	question particle
rpst	remote past
refl/REFL	reflexive verbal affix
recip	reciprocal
semlf	semelfactive aspect
sg	singular
spec	specifier

3.1.1. Phonology

The following phonemic inventory is adapted from McLendon (1973). Her description of the phonemes of Northern Pomo was based in turn on the phonemic transcription system of Eero Vihman (unpublished field notes). Like the other Pomo languages, Northern Pomo's phonemic inventory is notable for its extensive ejective obstruent series, and the large number of dental and alveolar obstruents. (See Table 1).

The dental/alveolar distinction found in the stop series is neutralized in the category of voiced stops. The segment [kh] freely alternates with the segment [x]. In a few words there is an alternation between [c'], clearly an affricate, and a fricative version of the segment, [s'], an alveolar sibilant with a very narrow constriction. There is one grammatical morpheme (see Chapter 2, Section 5.1.2) which contains the segment

Table 1. Consonant Inventory						
	lab.	dent.	alveo.	palatal	velar	glottal
voiced. stop	b		d			
vls.unasp.stop	p	t	ţ		k	?
vls. asp. stop	ph	th	ţh		kh (x)	
vls. eject.stop	p'	t'	ţ'		k'	
unasp.affric.			c	č		
asp. affric.			ch	čh		
ejectiv.affric.			c'(s')	č'		
fricative			s	š		h
nasal	m		n			
lateral			l			
glide	w			y		

[s'], alternating not with [c'], but with [s]. Transcriptions in this dissertation represent surface forms, but are not narrowly phonetic.

The vocalic inventory includes five members: *i, e, a, o* and *u*. There are two degrees of phonemically distinctive length.[3] Vowels in unaccented syllables are laxed.

Vihman (1976) analyzes Northern Pomo as a language in which "stress is an inherent lexical feature, and pitch variation is a phonetic phenomenon correlated with syllable structure" (1976:77). Vowel length is virtually always accompanied by low pitch. There are a few examples where vowel length is not accompanied by low pitch, but these are largely loan words like *sapa:ta*, 'shoes'. The native words all may have an historically prior sequence of V? --> V:[+low pitch], a not-implausible move from a phonetic standpoint. There is a less discernible low pitch on syllables with a surface structure of V?. I have found evidence of stress realized through neither pitch nor length, but amplitude.[4]

In addition, there are subtle pitch alternations associated with at least interrogative and imperative voice. Both of these are marked by a distinct falling pitch on the last

[3] There appear to be a few minimal triplets but these also involve, in the longest vowels, the addition of creaky voice which indicates an underlying glottal stop between two vowels. I have not included these few cases as another degree of length.

[4] As reported in Chapter Two, the root of a verb stem usually bears the stress. Aside from this general observation, I have not yet worked out all the realizations of stress and pitch accent at the word, phrase and sentence level in sufficient detail to be able to include transcriptions of prosodic phenomena here.

syllable of the main verb. Imperatives, unlike interrogatives, are marked by a suffix, which then carries this falling pitch. (See Appendix A for further details on question formation.) The fall in pitch associated with the imperative suffix *-(V)m* interacts with the pitch of the preceding syllable in ways that are not yet well understood.

The syllable structure of the language is not very complex; most syllables are of the form CV(C). There are no consonant clusters word or syllable initially. When a closed syllable (CVC) is followed by a V(C) string, e.g. a suffix that begins with a vowel, resyllabification to CV-CV sequences occurs, as evidenced by rules of vowel length allomorphy. Some CC strings containing ejective segments are subject to simplification rules. These topics will not be dealt with here, but will be explored in work that is now in progress.

3.1.2. Morphology

Northern Pomo is an agglutinative language; affixation is the principal means of word formation, with the vast majority of both derivational and inflectional elements being suffixal. Reduplication is a minor process, and compounding exists both in the verbal and nominal classes. It is possible to incorporate noun stems into the verb by a fairly loose process of juxtaposition. This will be discussed more extensively in Chapter Seven. Categories of the verb are dealt with extensively in Chapter Two.

Northern Pomo is a "dependent-marking" language (Nichols, 1986); that is, syntactic relations are marked on the dependent member(s) of a construction, not the head. For example, there is case marking of nominal arguments, and objects of postpositions are case marked, but there is no verb agreement for person or number. The only real example of number agreement inflection appears on modifying adjectives, the dependents of their noun heads (see Chapter Two). In possessive constructions it is the possessor that is marked (except in the case of kinship terms, where it is both the possessor and the possessed kin that display marking).

3.1.3. Syntax

In an independent clause, only the verb must be expressed. There is no verbal inflection that codes the person and number of the nominal arguments, and these arguments are usually instantiated (both in texts and in elicited sentences) by the use of nouns or independent pronouns.

Northern Pomo is a verb-final language, with fairly free order of arguments in a transitive clause. Discourse-based factors appear to determine the order of these elements. Either of the two nominal participants may appear after the verb at certain major junctures of a narrative text. This is never found in elicited sentences, however, and is not very frequent in texts either.

In general, the head follows the dependent in Northern Pomo. Verbs are found to the right of their arguments. Main verbs occur to the right of dependent verbs most of the time. Adverbs precede verbs. All adpositions follow their objects. Quantifiers precede the head noun. However, most modifying adjectives follow the head noun. The situation with relative clauses is a bit unclear, since these are generally headless.

Following are some examples of phrase-internal word order. As stated above, the simple verb phrase displays the verb as its rightmost element; the arguments may appear in any order depending on various discourse factors that are not well understood at this time.

(1) NP --> (QP) N (AP*) DET

diley šal xabe -ṭi -y -nam mal kadokado
all 5 rock-large -pl -spec downward roll
"All those five large rocks rolled downward."

(2) PP --> NP Postposition[5]

xabeda diyi c'i?e k'edi bated -e
river near bush-mass good grow -pres
"Near the river a thick mass of bushes of all types grows well."

[5] See Chapter Five for an extended discussion of the various possible internal structures of postposi-

(3) **Possessive construction ---> Possessor Possessed**

kawi -nam -yaču? hayu -nam
child -spec -Obl dog -spec
'the child's dog'

The following are examples of a few of the major constructions found in the language.

In general, clausal or VP complements of main verbs occur to the left of the main clause arguments. Any of these matrix arguments may, under appropriate circumstances, be topicalized to the left-most position.

(4) [mo:wal duhu -ka] ?a: da?ad -e
3sm.P leave -cause 1s.A want-pres
"I want him to leave."

?a: [mo:wal duhu -ka] da?ad -e
1s.A 3sm.P leave-caus want-pres
"I want him to leave."

(5) phowal way?e tiyi duhu khe hin man bayi?-ye
3pl.P early NCBR.A leave fut comp 3sf.A promise-perf
"She promised them that she would leave early"

Predicative complements tend to occur to the left of the subject

(6) ya: kaṭa ?a: na
bone empty 1s.A cop
"I'm single."

(7) mana? ba -pho ?a: na
expensive man-marry 1s.A cop
"I married expensive"
(They paid a lot for me.)

(8) ?al xadalom-nam mo:w mama +min ?a: mama -khena
dem cat -spec 3sm.A look +being such I look -will
"I'm going to look like this cat looks."

Adjuncts of various kinds also tend to occur to the left of the main verb, although purpose clauses and temporal adverbials may also be found to the right of the main

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tional phrases.

clause.

(9) mo:w biniš̌ ša?a -khe uwil -hu
3sm.A nut gather -fut upwards-go
"He went up to gather nuts."

(10) phik'a šibu - khe man kuhum xa?a -ka
basket weave -fut 3sf.A root trim-caus
"She trimmed some basket roots so she could make a basket."

Comparative adjuncts also tend to occur to the left of the main verb and its arguments.

(11) to: ano k'edi mo:w k'otama
1s.P more good 3sm.A swim
"He swims better than I do."

Descriptions of relative clauses will be provided in Chapter Five, and adverbial clauses of various kinds are displayed in Chapter Two.

Chapter Two: Categories of the Verb

1. Introduction

The principal goal of this chapter is descriptive: the first six sections are an exposition of the categories of the verb in Northern Pomo. The last section is a detailed description of the category of inherent verbal number.

To begin I will review the subcomponents of *minimal stems*. These are the minimal lexemes, heads of lexical entries, unadorned by any derivational morphology. Next I will describe the range of affixal devices available to semantically modify minimal stems, including directionals, and aspectuals, and finally, I will briefly discuss incorporation. The valence-changing derivational affixes, discussed extensively in Chapter Three, will be briefly described. Finally I will review inflectional categories of the verb, including tense/aspect categories, voice categories, non-finite adverbializing suffixes, complementizers, evidentials, and expressives.

The last section will review the various devices available for signalling verbal number. The only morphology approximating canonical number agreement is found on adjectives, both modificational and predicational. Nevertheless, a fairly large number of lexical and affixal indications of verbal number exist. These differ significantly from the inflectional number categories conceived of as *agreement* between inherent number of arguments and the verbal stem. This section will include a discussion of the types of semantic information encoded in these morphemes, and the appropriate sort of representation for them within the lexicon.

In the discussion which follows I will discuss aspects of stem formation which range in semantic transparency and generality from the very idiosyncratic to the highly

general. To aid in this discussion I will make a distinction between a *minimal stem* and a *modified stem.* A minimal stem may be composed of recognizable smaller units, but none of them can be subtracted and leave a related word. It is possible to ask of any derivational formative whether we could subtract it from the form in which it occurs, and still have an inflectable stem with a predictable meaning. If we can, then that affix is a *stem modifier.* If we cannot, then the derivational formative is part of a minimal stem.

The following is a schematic representation of the categories of the verb.

Table 1. Categories of the Verb

Incorp.	Minimal Stem			Derivation		Inflection
	Instr.Pref.	Root	C-suffix	Asp/Direct.	Valence-chng.	

2. Minimal stem formation

In this section I will review the affixal subparts of minimal stems. McLendon (1973) reconstructs for Proto-Pomo a minimal stem which consists in most cases of one of

> ...a class of Instrumental Prefixes with the shape CV- indicating the physical agent/instrument of an action or state, and/or the patient of that activity or state, plus a root with the probable shape CV(:)[1] specifying activities or states, plus probably one or two position classes of suffixes with the shape C, CC, or /:/ marking various sorts of aspects and manners....There were also a number of stems which do not at present seem to have been analyzable, as well as a few stems which must be reconstructed without an instrumental prefix, consisting uniquely of a root, or a root plus suffix.
>
> (McLendon, 1973, p.55)

[1] Throughout, where McLendon and Oswalt use the raised dot for length, I will use the colon.

Minimal stems in Northern Pomo largely follow this pattern as well. The three components of the canonical minimal stem will be briefly described below.

Since the instrumental prefixes, roots and aspect/manner suffixes are not independently occurring entities, their combinations will form minimal stems. Here, however, another issue of lexical structure arises. To what extent are the semantic contributions of the subparts of these three-part minimal stems general? There are sometimes identifiable semantic commonalities in verbs sharing a particular instrumental prefix, or aspectual suffix. (McLendon 1975 and Oswalt 1976 are beautifully detailed and careful accounts of the range of meanings conveyed by different combinations of prefixes, roots, and aspect/manner suffixes in Eastern and Kashaya Pomo, respectively.)

Northern Pomo minimal stem-internal semantic structure is irregular, sporadic, and not productive. The regularities that do exist in no sense constitute active word formation rules. There are several dimensions along which these regularities may be judged to be non-productive.

With a few exceptions, the lexical semantics of a minimal stem is not a compositional function of the semantics of its parts, the instrumental prefix, root, and aspectual suffix. The speaker I have worked with does not have explicit intuitions about the subparts of a minimal stem (although in general her semantic intuitions are excellent). There are some clearly identifiable semantic threads which run through a large number of verbs with a particular instrumental prefix, or a particular single-consonant aspectual suffix; however, in general it is not possible for the analyst to predict what a given combination will mean.

Moreover, given the existence of one combination, it is not possible to predict whether another related combination exists or not. Thus, if we view the class of CV(:) roots as the input to the potential rules of prefixation and inherent aspect/manner suffixation, we find that the prefixes and suffixes do not cooccur with a large proportion of their potential hosts.[2] So these affixes are low in productivity, both on the

dimension of semantic compositionality, and on the quantitative dimension of proportion of potential inputs available to the process.

On the other hand, as the examples in the next section will show, there is far more semantic transparency in this domain than there is in say, the English formatives *mit* and *per*. In many cases the connections between different minimal stems are transparent.

2.1. Instrumental prefixes

The name 'instrumental prefix' is somewhat misleading, as these prefixes may encode aspects of objects' dimensions and manner of action as well as instrument of action. (In her grammar of Eastern Pomo, McLendon gives a detailed account of the semantic contribution of various instrumental prefixes. Oswalt (1976) includes a list of the cognates of each prefix in the daughter languages, along with a summary of the kinds of semantic dimensions contributed by them. Oswalt 1981 is a case study of the interlocking domains reflected in the meanings of words containing one particular prefix in Kashaya Pomo.)

The relation of the prefix to the verb meaning as a whole varies. Sometimes the prefix specifies the instrument used by an agentive subject. Other instances bring the modified element in as the 'ground' against which something happens.[3]

ma- sil "to get stuck in the foot with something"

ma- bah "strike with the foot"

There are a number of verb roots which occur with several instrumental prefixes in a fairly transparent pattern. However, the occurrence of these patterns is not predictable, even in the most transparent cases, which involve actions that use body parts as instruments.

---

[2] The dimension of productivity which centers on the formation of new words in the language is, sadly, not available to current research on this language family (but see Chapter Three regarding Kashaya Pomo). Most identifiable post-contact borrowings are in the domain of nominals.

(1)	di- wat̩	"to bust something up with hands, like karate expert"
	čˇa-wat̩	"to bust something up by sitting on it"
	ma- wat̩	"to bust something up with foot"
	phi-wat̩	"to swat something or bust up (e.g.) a log with an axe"
(2)	da-de:d	"pushing, eg. wagon, with hand"
(3)	ma-de:d	"pushing wagon with foot"
(4)	khe mi-de:d	"dancing forward with your body as though pushing outward"
(5)	ba-k'oče	"to comfort someone with words"
	da-k'oče	"To comfort someone with hands"
(6)	mi-boh	"to bloat up"
	mi-čˇoh	"to turn some color"
(7)	ma-bah	"strike with foot, kick"
	*da- bah	
	pha-bah	"strike with hand"
	(cf. da- c'ap	"to slap someone", examples above with *da-*)

There are at least two sources of idiosyncrasy in this domain of sublexical meaning. First, in many of the languages, distinct morphemes present in the proto language have collapsed into one form, thus rendering unrecoverable any semantic coherence which previously existed in the prefix's use. For example, in Northern Pomo the prefixes *šu-* and *chi-* have collapsed into *ši-*. This prefix now covers the semantic domains of *šu-*, "pull, breathe, long flexible object, rope, stockings" (Oswalt 1976:16); and the semantic domains of *chi-*, "small part of larger object, handle, hook, pendant object". Secondly, as will be apparent from the following two examples, there has been a significant amount of metaphorical extension in the case of every prefix. This detracts further from the semantic transparency of the relationship. We can often see the motivation for a metaphorical extension, but we cannot necessarily predict that this

[3] Leonard Talmy (1972 and p.c.) reports that Atsugewi, a Hokan language spoken by a small tribe in Northern California, also has a large inventory of so-called instrumental prefixes. These may enter in to a predication as instrument, ground, or figure. Not every prefix may fill every function. This is clearly an aspect of lexical semantics that is worth pursuing, however, I will not be able to do so here.

extension should have occurred, or that it will occur with some other root.

For example, the following examples (from McLendon, 1975:51) are easily motivated (via the spatial similarity of a long thin object such as an axe or a flyswatter coming into contact with an object, and the line of sight created between the seer and the seen). However, they are not truly predictable.

(8) p^{h}i: dák^{h} "break up/open something with an instrument such as an axe"...

(9) p^{h}i: qó "recognize through sight"

Thus, even though we know that the Northern Pomo prefix *šǐ-* is the reflex of the two prefixes *šǔ-* and *chi-* (described above), and even though we know something about what these prefixes contribute to the meaning of the stem, we still cannot confidently say why the stem *šǐ-nu?*, "to get drunk", should carry this prefix. Why not some other, for example one which conveys the use or presence of "water, tongue, slip, float" or "fire, heat, cold, light, emotions, mind" (Oswalt, 1976)?

Furthermore, there are a number of minimal stems of the form CVCV in which the first syllable may by homophonous with one of the instrumental prefixes, but which seems to share nothing with it semantically: compare the verb *čǎ-wac'* above, "to break by sitting ōn" with *čǎxa* "to cut something (with a knife or some sharp object)".

Many of the instrumental prefixes are not analyzable by the speaker I have worked with. A few seem to be recognizable to her, typically those which encode body-part instruments, but only in the context of a root which denotes some clear physical action, and only when the instrumental prefix is being used in its (presumably) non-metaphorical physical sense as in (8) above. In these cases it is also probably significant that at least three or four of the prefixes can occur in the same slot, with no idiosyncratic change in meaning. Examples like those below, which are analyzable as being actions involving the mouth, are not clearly recognizable as such to the speaker.

(This is not to say that she could not also analyze them as such upon reflection, simply that there is no evidence that she regards them in this way at any level which approaches conscious awareness.)

(10) ba-t'a? "to speak to someone"

ba- sama "to give a speech"

ba- nanamu? "to argue or haggle"

ba- yi:d "to teach"

In fact, the orality implied by the prefix *-ba-* is so bleached out that teaching orally is now rendered by the incorporation of the word for "word":

(11) v̌ano-bayi:d "teach orally"

(12) phik'a v̌ibu bayi:d "teach someone to make baskets" [done primarily by demonstration]

2.2. The root

The root is usually of the form CV(:). Based on McLendon's detailed description of word formation in Eastern Pomo, I suspect that the meanings of roots are generally quite abstract, e.g. Eastern Pomo {q'á-}, 'by applying pressure'. Since I have not conducted a study of this dimension of lexical meaning in Northern Pomo, I cannot assign independent meanings to most roots. A few examples are fairly transparent, as in the example below, where the meaning of the root seems reliably to be something like "to strike".

(13) ma-bah "to kick, to strike with the foot"

pha-bah "to punch, to strike with the hand"

The root typically carries the accent. The rules of phonetic realization of accent have not yet been worked out.

2.3. Inherent aspect/manner suffixes

Some minimal stems end in a single consonant which adds some constraint on the manner or aspect of the (optional) prefix + root combination.[4]

[4] As in the preceding two sections, my understanding of this domain of stem-internal structure owes

In the following examples, none of the final consonant manner/aspect suffixes are optional, i.e. the prefix + root combination does not occur independently. Thus these are minimal stems, as we have defined them. (The examples are from Northern Pomo. The Eastern Pomo cognates are supplied as an illustration of the collapsing of distinct prefixes in Northern Pomo.)

(14) Pn forms Pe cognates

{di-}	(Pe {di:-}) "by natural or unseen forces, e.g. gravity, motor activity, mental processes, and hence frequently by throwing, or involving the shoulder" (p.44)
	(Pe {du:-}) "with or affecting the fingers, frequently with fingertips acting together to pull..." (p.45)
{-l}	{-l} "The durative suffix characterizes an action or state as having duration, permanence, ..." (p.62)
{-c'}	{-c'} "with/from pressure, applied to or affecting an extent of surface." (p.60)

In this category of final aspectual consonants we encounter many examples which present interpretive difficulties parallel to those found for the prefixes. Although *some* of these suffixes can be motivated post hoc, they cannot be predicted. Others are opaque. For many aspect/manner consonants, it is difficult if not impossible to isolate the semantic commonality.

(15) di- ṭhá -l	"to be sick"
di- ṭhá -?	"to get hurt"
da- ka:́-l	"to crawl"
da- ká-?	"to be lost"
da- k'a:́-ṭ	"to scratch"
da- pó -l	"to brush off"
di- dá: -l	"to split open (intrans)"

Some of the most transparent cases involve the lexicalized use of more generally

much to Sally McLendon's description of Eastern Pomo morphology. As she very effectively demonstrates, this aspect of Pomo verb morphology is a beautiful and unusual characteristic of the family. Anyone with an interest in word formation typology (particularly from a semantic perspective) will find her grammar of Eastern Pomo well worth reading.

available suffixes. For example, as will be discussed later, there is a progressive aspect suffix of the form *-ad.*[5] This occurs in some minimal stems which are inherently ongoing or durative, but by no means does it occur in all such stems.[6]

(16) ṭha-d "to play"
khebe:-d "to sing"
do-d "to do or make"
wa:-d "to walk (sg.)"

Another moderately transparent example involves the (minimal stem final consonant) inherent aspect suffix [-y]. McLendon (1975:69) assigns this suffix in Eastern Pomo the meaning of perfective or completive. In Northern Pomo there is weak evidence that in at least some words it retains this inherent aspectual meaning. It is difficult to infer a constant contribution to stem meaning from simply looking at lists of meanings like those following.

(17) kaw̌'a:y "to get stuck in an opening that is too narrow"
phiw̌oy-? "chopped off, squared off"
pha:y "to roast under ashes"

However, when we compare minimal stems which differ only in the final segment we can see some of the semantic generalizations which underly the alternations. For example, the minimal stem *diyoc'* means "to gather together, to sweep up together". Its inherent manner/aspect suffix {-c'} means something like "with or from pressure, applied to or affecting an extent of surface" (McLendon 1975:60). My informant, in discussing this word and a related one which ends in the perfective *-y*, *diyoy*, stated that both meant something like "gather together", and that *diyoc'* was somehow the more "haphazard" (less successfully completed) of the two. This intuition may reflect

[5] The vowel is not realized after a vowel, and the [d] is realized as an alveolar nasal except before a vowel.

[6] In order to keep the final segment in these forms distinct from the segment [n], as in *sip'un* "to kiss", I will represent it as a [d] in examples like those above. Of course, in the tenseless environment, if followed by no vocalic segment, it would be realized as a [n].

the fact that the stem containing the perfective really implicates a *result* from the gathering process. In other words, a pile of something will result from the action denoted by *diyoy*, while this is not necessarily true of *diyoc'*. Examples like the following show that *diyoc'* is a word that seems to focus more on the process than the end state; *diyoy* would not be appropriate in these examples.

(18) to: ?uymo situ diyoc'-ka
1s.P face wrinkle gather-caus
"(Those tart berries) made my face squint [made my wrinkles gather]"

(19) tiya č'a:ma: diyoc' khe hin phow he
NCBR.A together gather fut comp 3p.A say
"They said they would gather together"

This perfective meaning is clearly functioning at the level of verb meaning only. Section (5.1.2) details the sentence level use of a cognate perfective aspect morpheme.

Another example is the following:

(20) tha-y "to win" (21) tha-d "to play"
play -perf play -prog

Aspect suffixes found within minimal stems have more specialized meanings than would result from the productive addition of these elements. The verb in (20) entails having finished playing, but means more than that. Significantly, the productive aspect markers can modify these stems, and they can undergo further derivation:

(22) thad-ad-e "playing/going to play"
play -prog-pres

(23) mo:wal thay-?a "he was beaten"
3sm.P win -pass

Moreover, not every stem displays an alternation like that shown above for "play" and "win". The stems *khebed* and *dod* do not have sister stems *khebey* and *doy*.[7]

At this point in the language, then, the relationships that exist between these minimal stems are complex and not part of word formation rules.[8] However, it is not

[7] Although there is a form *do*, this is an evidential suffix (indicating that the source of evidence is hearsay) and is not felt to be related to the main verb *don*, "make".

[8] There are also synchronically non-productive relations between words of *different categories* con-

possible at this point to make any implicational statements about the cooccurrence of a particular prefix-root-suffix combination based on the existence of some other prefix-root-suffix combination.[9]

3. Modifications of the minimal stem

Various suffixes[10] can modify the minimal stem. These include suffixes indicating physical orientation or direction of the action, suffixes which change the aspect[11] in some way, suffixes which change valence, and suffixes which convey information about number. A description of this last category of stem modification will comprise the last section of this chapter.

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taining instances of what are almost certainly the same aspectual suffixes. It is probably a tacit part of the speakers' knowledge, for example, that the perfective suffix *-y* and the durative/'essive' suffix *-m* (or their ancestors) have been involved in the derivation of nouns. For example *bala-y* is a noun, "blood", and *bala-m* is an modificational adjective "bloodshot/bruised". (Cf. the predicate adjective, balay-am, "bloodshot".) Or, as briefly discussed in Chapter Five, the unmarked specifier *nam* is probably composed of the copula, *na* and the durative/"essive' suffix *-m*, while the specifier *nay* (more emphatic, deictic) probably is composed of the copula and the perfective suffix *-y*.
These instances of cross-categorial semantic commonalities may be of interest to those concerned with the structure of lexical semantic networks. They are not of clear relevance to the study of word formation rules, since the relationships are temporally obscure.

[9] Some recent work in the lexical representation of semantic structure gives a great deal of attention to the explicit discovery and representation of metaphorical relationships between words. Brugman (1981) and Lakoff (1986) treat elements that are metaphorically related in regular ways as part of the same lexical entry. A large part of their enterprise is spelling out the kinds of relationships I have only glimpsed here.

[10] It may be that certain length alternations in the minimal stem carry some aspectual information. However, I have not yet determined the conditioning factors, and so minimal stem internal vowel alternations will not be discussed in this section on stem modification rules.

[11] There is at least one stem-forming process that is not affixal, namely reduplication. At this time I do not have enough data to tell whether this is primarily a minimal-stem-forming process, or a minimal-stem-modification process. McLendon (1975:76-77) describes four processes of reduplication in Eastern Pomo. I have not investigated the extent to which similar forms are available in Northern Pomo. I have found examples in which only the root is reduplicated.

(i) xol - ba- nána -mu?
recip inst.pref.- root.redup. -recip.
"to argue, to haggle"
ta- tá -w -čˇi
root redup. -dir -semlf
"keep pouring" [tawčˇi = "pour"]

Most frequently the prefix+root is reduplicated, and the aspect/manner consonantal suffix may be added to the unit.

(ii) ṭa-wa ṭa-wa -m "to make a lot of noise, be noisy"

(iii) c'imu c'imu "smirking or smiling to oneself"

In some cases the base of reduplication does not exist as an independent form. Reduplication seems

The following table lays out the categories of derivation found after the minimal stem. As will become clear, some of these categories may also be lexicalized subparts of minimal stems.

Table 2. Derivational Categories

Aspect/Directional			*Valence-changing*			*Aspect*
Multiple event	Directional	Semelfactive	Causative	Reflexive	Passive	Progressive

3.1. Directionals

These are elements which are more productive and semantically predictable than the minimal-stem-final aspect/manner consonants. More than one can be used in a single stem. It would probably be more accurate to call them manner suffixes, although they do highlight some aspect of motion which involves direction.

(24) **-al** "motion forward, hand over hand, or end over end (repeating cycles along a linear vector)

(25) lok "to drop down, fall"
lokal "to tumble (as over a cliff)"
fall-dir

(26) dade "push"
dadi:l "push someone along"
push -dir

(27) daka:-d "crawl"
crawl-prog
daka:l "crawl along"
crawl-dir

These examples show that this directional is optional, i.e. the minimal stem occurs independently. The final example is of interest since there is no independently occurring stem *daka:*. Thus the progressive suffix and the directional suffix both form

usually to signal repetition of the verbal action, conveying either habitual aspect or intensification of a repeating action. It is not particularly pervasive or productive in my corpus, and I will not discuss it further here.

alternants with related meanings. Pairs like these demonstrate the limit of motivated decisions about structural notions like 'basic lexeme' and 'derived lexeme'. In some sense cases like this are similar to the problem faced in inflectional systems in which a particular lexeme may not have any base independent of inflection.

This directional constrains the meaning of the verb in such a way that the action is following a path (Fillmore, 1977; Talmy, 1985). The use of this particular directional may sanction the introduction of an argument which will denote the path which the verbal action will trace out. Compare the use of the semelfactive suffix, (to be described below) the progressive suffix, the directional above, and no suffix.

(28) mo:wal ?a: dadi-č -ad -e
3sm.P 1s.A push-semlf-prog-pres
"I'm going to give him a push."

(29) mo:wal ?a: dade: -d -ad -e
3sm.P 1s.A push-prog-prog-pres
"I'm going to push him."

(30) kawinam mo:w kako dadi:l-ad-e
kid 3sm.A field push-dir-prog-pres
"He's going to push the child across the field."

(31) to: mo:w kawinam xol dade
1s.P 3sm.A kid adv."around' push
"He's pushing the child away from me."

The addition of {-al} does not always introduce a path argument however. For example, the complex word below may be modified with this directional, and the semantic change seems to be in the temporal character of the word.

(32) ma - misé: -t - "feeling lonely, weepy, nostalgic"
[incorp.noun "stuff"; - iprf "body" - root -mev]

(33) ma misé: t-al -an "just sitting around feeling weepy, nostalgic"

[11] The words which have a stem-final [l] do not seem to bear any clear relationship to the directional {-al}. Although some relationship between this and words like *šibol* "to pull out (e.g. hair)'; could be imagined, other cases are considerably more improbable: *dasi:l* "to get stuck".

Few minimal stems seem to require the next directional suffix. It differs from *-al* in that it does not seem to introduce any additional argument.

(34) **-ew** "start on or change trajectory"

(35) mo:w daka:-l - aw -v̌i-n
3sm.A crawl-dir -dir -semlf-prog
"He started to crawl up"

(36) t'a -w -v̌i -n
pour -dir -semlf -prog
"(Some baskets that had been sitting on fence) all poured off." (Someone shook the fence and they fell off in a single motion.)

(37) phid -ew "fly up; swoop"
fly.sg -dir

(38) phila -w -ye "They left"
go.coll -dir -perf

cf.

(39) phila -d "walking along (coll)"
go.coll -prog

I will list only one more directional suffix,[12] although Oswalt (1976) reconstructs approximately 14 for the proto language.

(40) **-mulu(?)** "around"

(41) wa -mulu "walk around"
walk-dir

(42) do -mulu "put arms around"
reach -dir

(43) ha -mulu -? "turn over"
turn? -dir -refl

(44) daka: -d -ade "he's about to crawl"
crawl -prog -prosp

While these three directionals are all found suffixed to minimal stems, we will still want to treat each modified stem as a lexeme. Not every minimal stem can cooccur with every directional. The lexical semantic compatibilities and incompatibilities are quite subtle, and cannot be stated at this time.

[12] Work on these is in progress.

3.2. Perspectivalizing aspect

The remaining aspectual suffixes (which occur to the right of the minimal stem and directionals, and in varying positions with respect to the derivational suffixes discussed in Chapter Three) are of a slightly different character than those described above as inherent aspect and directional/manner suffixes. Although restricted in their distribution to some extent by the inherent aspect of the potential host, they are far more general than the minimal-stem final-consonant suffixes mentioned earlier. Three suffixes can be categorized as aspect markers. The first, the continuative aspect suffix, is somewhat different than the second and third, since it sometimes contains a spatial or directional component, and at other times reflects the temporal character of the action. The other two to be discussed, the semelfactive and the progressive, create a particular perspective on the situation denoted by the verb. That is, they do not change the inherent character of the verbal action, rather they cast the action or situation from a particular point of view, as closed or open, independent to a large extent from the internal texture and rhythm of the event type denoted by the verb.

3.2.1. The aspectual suffix *-m*

Oswalt (1976) reconstructs two suffixes of the shape [-m-]. One means that an action is repeated several times, by one or more agents, in one place. The other indicates a steady condition or state, action in a delimited area. This suffix has been described in Southeastern Pomo as meaning "towards or onto or on a surface" (Oswalt 1976:22).

This suffix appears as the final segment in certain minimal stems. In some of these cases (45) the primary semantic contribution seems to be the directional meaning, in others, a combination of the above. In example (46), compare the semantic effects of adding this suffix and directional suffix (2).

(45) šam "to collapse, drop"

(46) baneh "to throw"

banem "to flow, to put"

banew-či "to spurt, start flowing"

Here again, these words are probably best treated as independent lexemes--their meanings are motivated, but not predictable.

This aspect marker connotes a motion or action continuous through time and space, but one that is not dynamic. It can be usefully contrasted with the directional *-ew*.

(47) phid -ew "fly up; swoop"
flying motion.sing -dir

(48) phid - im "hanging in the sky"
fly.sing.-asp.

As we have seen before, it is difficult to tell whether there are two suffixes with distinct meanings, or one. In (49) below, is the suffix *-m* the quasi-directional or the temporal aspect? It is difficult to tell.

(49) šina: xa t'a: -m -an "baptize (head water pour)"
head water pour -asp -prog

Other examples show the suffix outside of the minimal stem:

(50) phid "to be suspended in air, to fly"

phidew "to swoop, fly up"

phidim "to hang suspended in the air, like a hawk, flying smoothly at a constant rate"

(51) kako-lala mo:w kawinam dadi: -m -khemna
field-across 3sm.A kid push-asp -fut
"He's going to push the child across the field."

Of the three aspect markers to be discussed here, this is the one which is most difficult to categorize as either part of the basic lexeme (i.e. an intrinsic part of the semantic substance) or a modification of a basic lexeme.

3.2.2. The semelfactive

This suffix has the shape {-č} before vowels, {-?} in the environment V_ C, and {-či} in the environment C__C.

It has various effects depending on the inherent aspect of the verb it is suffixed to. Traditionally the semelfactive has indicated one token of the event. However, when suffixed to stative predicates like *šinu* "be drunk", it typically signals entry into the state--*šinu:či* "get drunk". When suffixed to a verb which denotes a process with an outcome, such as *phabah* "to hit (continuously)", it signals closure on the event after one cycle of the action, or one punch--*phaba:či* "X punched Y". With predicates that denote atelic processes such as "to sit", "to float" or "to fly", the semelfactive denotes inception of the action.

(52) phad -i? -ye
float.sing -semlf -perf
"1 floated away "

(53) čima -či
sit -semlf
"to sit down"

(54) phid -eč -i
flying.sg-semlf-pres
"directed flight, took off, flew off"

In short, the semelfactive picks out one particular point of the verbal situation and focuses on that. If the verbal action is internally homogeneous, the relevant point of the verbal situation is the beginning. If the verbal action is inherently dynamic, then one cycle of the action is the focus.

Here the semelfactive is compared to the continuative on the same minimal stem, providing another example of two lexemes related to each other in predictable ways.

(55) mali -m "burning continuously"
mali -? "burst into flame"

There are a number of examples of verbs which contain the semelfactive as part

of the minimal stem:[13]

(56) kaphu? "to put a curse on someone"

(57) dịtha? "to get hurt"

(58) daka? "to get lost"

(59) hayi? "to answer"

(60) mayi? "to take after, resemble (in a negative way)"

(61) šow? "to hear"

(62) ši? "to name, to call someone something"

3.2.3. The progressive suffix, *-ad*

The interpretation of this suffix is dependent on the character of the stem. As discussed earlier it is found both as a part of certain minimal stems, and as a productive aspect suffix. Oswalt calls this suffix 'durative'. I have chosen the term 'progressive' because in Northern Pomo this suffix conveys "imperfectivity which is not occasioned by habituality" (Comrie 1976:33) and also it tends to be found principally on verbs with non-stative meanings.

The presence of this suffix is detectable because of its distinctive morphophonemics: the segment is realized as [d] between vowels and [n] elsewhere.

The notion of progressivity contains the feature *lack of closure*. At the level of the minimal stem, this morpheme encodes an inherent aspect of (atelic) activity. At the level of the predicate, this morpheme encodes the focus on the continuing character of the process. It tends to occur on verbs which are inherently activities. It is useful to contrast it with the semelfactive at this level.

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[13] The reflex of the semelfactive is frequently unrealized when the verb is rendered in the present tense. In this environment the semelfactive either takes the form [či] or else is realized as [h]. It may be that this is another aspect form. I cannot say anything more about this at this time. In environments where the perfective suffix is contributing a past tense meaning the glottal stop semelfactive always appears (e.g. *hayi?-ye*) as it does in environments like a negative imperative: *hayi?-thin-am*: answer-neg-IMP.

(63) daka:l -ad -im "crawl along!"
crawl.dir -prog -IMP

(64) dileya? daka:l -č̆ -im ! "y'all start crawling !"
all crawl.dir -semlf -IMP

3.3. Incorporated objects and goals.

The instrumental prefixes are the only verbal prefixes in Northern Pomo. However, occasionally a verb will display other elements to the left of the root. While tight incorporation is not a very productive process in this language, there are a fair number of elements of a few types which seem to be good examples of incorporation. In these cases an incorporated object, direction or goal can be found to the left of the minimal stem. When the minimal stem contains an instrumental prefix, these incorporated elements occur to the left of it. They are semantically non-specific, as is typical of this type of compounding. While they do not change the stress pattern of the verb (it remains on the root), they are not separable from the verb.

(65) čaw-hu da: -wak
house -go.sg "Go home" outside -walk "Go outside"

(66) ?uwi:l - hu
up -go.sg "Go up, climb up"

(67) lum- da-si -l -in
nettle- iprf-root-asp -prog
"getting stuck in the hand with a nettle"

(68) lum- ma-si -l -in
nettle- iprf-root-asp -prog
"getting stuck in the foot with a nettle"

At least three nonspecific nominal stems are found in compounds with verbs of mental state or emotion. These are *ba* "person"; *ma:* "stuff" (nonspecific mass noun); and *k'o* "thing" (nonspecific count noun).

(69) ma: - mi- se: -t -al -an
stuff - iprf.(emotions)- root -mev -dir -prog.
ma:misetalan "feeling all weepy and nostalgic about things"

(70) ba -kuc'
person-be annoyed "to be annoyed at people"

3.4. Valence-changing derivational morphology

Chapter Three will be devoted to a description of the three suffixes which change valence properties of basic stems in an extremely general fashion. These are the causative- *-ka*, the reflexive and reciprocal, suffixes---*i?* and *-mo?*; and the passive suffix---*ya*.

(71) mo:w phowal duhu -ka
3sm.A 3p.P leave -caus
"He made them leave"

(72) phow sip'un-mu?-u
3p.A kiss -recip-pres
"They kissed each other"

(73) mo:w čaxa-? -a
3sm.A cut -refl -pres
"He cut himself"

(74) mo:wal čaxa -ya
3sm.P cut -pass
"He was cut"

(75) ko -tuh ma?a-ma?a -nem -ka bayok- ?a: me?
beyond -from dinner -throw-caus order-pass adv
"When from beyond it is directed that (the community) throw a dinner

k'o xak'a -nha-ya
neg refuse -neg-pass
it is not refused.

3.5. Summary of basic stem formation

In the last section of this chapter I will discuss another semantic domain of derivation--verbal number. The next section will briefly cover the inflectional categories remaining: tense/aspect categories, modality, verbal subordinators

(adverbials and complementizers) and mood marking.

First let us briefly review the categories we have discussed so far.

Table 3. Categories of the Verb

Incorp.	Minimal Stem			Derivation		Inflection
	Instr.Pref.	Root	C-suffix	Asp/Direct.	Valence-chng.	

4. Markers of subordination

The suffixes described in this section are inflectional--they are completely general in their distribution, they are semantically transparent, they do not interact in striking ways with the lexical semantics of individual hosts, and at least some of them create a specifiable relationship with the larger sentential context.

4.1. Complement marking

Verbs of perception in general take complements which are tenseless and unmarked by any complementizers.

Verbs of cognition and communication take complements marked with the element *hin*. This may be an enclitic rather than a suffix, and is optional in almost every case, except with the verb "say".

(76) ba-phane mo:wal ba?ol khe hin mo:w hi
3's -daught 3sm.P call fut comp 3sm.A say
"He said that his daughter would call him"

(77) man mo:wal k'a: khe hin čon to bičod-e
3sf.A 3sm.P leave fut comp John 1s.P tell-pres
"John told me that she would leave him"

(78) ma-de: titi ba?ol (hin) čon šu?uči? -i
NCBR's-oldr.sis NCBR.P call comp John forget
"He forgot that his older sister called him"

(79) way?e tiyi duhu khe hin man bayi?-ye
early NCBR.A leave fut comp 3sf.A promise-perf
"She promised that she would leave early"

Verbs of directed intention (desire, coercion etc.) take complements with tenseless unmarked verbs if the subject of the matrix and embedded verb are the same.

(80) way?e duhu man natka
early leave 3sf.A try
"She tried to leave early"

(81) ?a: sima miṭi da?ad-e
1s.A sleep lie want-pres
"I want to go to sleep"

If the matrix and embedded subjects are different, the complement is marked with the causative suffix *-ka*.

(82) ?a: mo:wal duhu-ka da?ad-e
1s.A 3s.P leave-caus want-pres
"I want him to leave"

This is discussed extensively in Chapter Three.

4.2. Purpose clauses

Purpose clauses are characterized by the obligatory presence of the future tense/mode suffix *khe*. (These cover most of the semantic range of English infinitival relatives and 'in order to' clauses, as well as ordinary purpose clauses.) Like the complements of verbs of desire and intention just described, if the subject of the purpose clause is different than that of the main clause, the causative suffix appears on the verb immediately before the suffix *khe*.

(83) ša phe:n khe kosta:la nay ma: -ṭhi miṭi
fish hold fut bag spec ground-pp lie
"A bag to hold fish in is on the floor"

(84) mo:wal ma?a ka khe kosta:la da na
3sm.P eat caus fut bag loc cop
"Something for him to eat is in the bag"

(85) phik'a šibu khe man k'uhum xa?a-ka
basket make fut she root trim-caus

"She trimmed some basket roots so she could make a basket"
[causative on main verb serving as transitivizer]

(86) phik'a šibu -ka khe man k'uhum xa?a-ka
basket make caus fut she root trim-caus

"She trimmed some basket roots so (somebody else) could make a basket"

(87) mo:wa? ?a: kaweyo bila: -y mo:wal čima -ka -khe
him.OBL 1s.A horse buy-perf 3sm.P sit -caus -fut

"I bought him a horse to ride."

4.3. Adverbial adjunct marking

Two of the adverbial adjuncts below require that the subject of the matrix clause be construed as coreferent with the unexpressed subject of the adverbial adjunct. These controlled adjuncts are discussed further in Chapter Three.

(1) **-hI** -Action in main clause contiguous with or follows closely upon action in the dependent clause. The action in the suffixed clause is a prerequisite for the action in the main clause.

(2) **-en** -Action in suffixed clause precedes action in following clause, or is proceeding coextensively.

(88) man ša -nam ma?a -hi sima miṭi-ye
3fs.A fish-spec eat -Acomp sleep.lie-perf

"Having eaten the fish, she went to sleep"[14]

The following examples give some indication of the use of these two suffixes in extended texts.

[14] Although the subject precedes the controlled adjunct here, it should not be interpreted as being inside the embedded clause. Case marking facts establish that it is an argument of the main clause.

(89) Coyote is trying to trick some attractive young
women who are swimming in the river; he has changed
himself into a baby, and is floating towards them.

mina-n kawiya-mata -dašoya?-nam-phowa? tuxa?
cry-Acomp child-fem-yg.woman-spec. -3pl.Obl towards

phade:d-in xa-mo phade:d-in c'ika-da miti-n
float-Acomp water-loc float-Acomp baby basket-loc lie-Acomp

kawi dode -?-in nan mul xamo phaded-in
baby make-refl-Acomp conj dem water-loc float-Acomp

kawiya-mata-nam phowa? tuxa? phade:d-in mina-n
child-fem.-spec. 3-pl-Obl. dir.pp float-Acomp cry-Acomp

(Coyote)...crying, towards the young women floating,
floating in the water, lying in the baby basket,
having made himself into a baby, and floating in
the water, towards the young women floating, crying...'

(90) ..nan mul šapošapo -či-? -hI thinda mul
conj.Acomp dem shake shake- smlf-refl-Acomp evid dem

"and that one (Coyote) having shaken himself, I guess that way

mo:w diley ?emela t'aw-ka donway
3sm.A all fleas pour-caus evid

he got all of the fleas to fall off, it's said."

(91) nan mul mithom khay yatta-n yatta-n
conj dem. 'Willet's Valley' vomit-Acomp vomit-Acomp

"...and that one (Coyote) down in W's valley vomited and

yatta-n mul ka:ka-hI thinta bel dana? wan-ye
vomit-Acomp dem recover-Acomp evid this way walk-perf.

vomited, and vomited; that one, feeling better, walked this way."

(92) [While walking towards the water, she realized that she had forgotten the basket...]

nahI xamal hu -n nan ma-thel čadi-ka-thin
conj. return go-Acomp conj. mother.P see-caus-neg.

"So she went back and, not letting her mother see her,

phik'a-nam-mul deči-n phik'a-nam mako-hI
basket-spec-dem take-Acomp basket-spec find-Acomp

took the basket...having found the basket, then

še: ?ul xa-l duhu
then dem water-dir go-Acomp

then (she) went towards the stream."

The other adverbial subordinators do not create controlled clauses. These may conjoin two full clauses with expressed subjects.

(3) **-da** -Action in suffixed clause is simultaneous, coextensive, or overlapping with action in the following clause.

(4) **-kan** -Action in suffixed clause precedes action in main clause, and main clause event is seen as resulting from event in suffixed clause.

(5) **-haw** -Action in suffixed clause follows action in main clause.

(6) **-te** -Action in suffixed clause bears an adversative relationship to following clause's action: "Although X, Y".

(93) man šˇa-nam ma?a-da mo:w sima miti?-ye
3sf.A fish-spec eat-Acomp 3sm.A sleep-lie-perf
"While she ate the fish he went to sleep"

(94) mo:w mina-kan man xamal hu
3sm.A cry-Acomp 3sf.A inside/reverse go
"He cried so she went back"

(95) ma:dal dithal-kan mo:w ma:dal lomo? -o
3sf.P be sick-Acomp 3sm.A 3sf.P converse-pres
"She got sick so he talked to her."

(96) mo:wal dithal -haw kaweyo ya? maba?-ye
3sm.P be sick -Acomp horse -A kick-perf
"The horse kicked him before he got sick"

(97) mo:w kohu -haw ?a: ma?a ma?a -y
3sm.A arrive-Acomp 1a.A food eat-perf
"I ate before he arrived"

The adversative suffix *-te* is found both on otherwise uninflected verbs and on verbs suffixed with either *-en* or *-hl*.

(98) bic'u čaxa?a -n -te mo:wal balay bathe banem -a
slightly cut-refl -Acomp.-Acomp 3sm.P blood copious -flow-pres
"He cut himself slightly but he bled profusely"

(99) bicu mo: ma:dal čaxa-te ma:dal balay bathe banem-a
slight 3sm.A 3sf.P cut -Acomp 3sf.P blood copious flow-pres
"He cut her only a little bit but she bled profusely."

The subordinating suffixes *-en, -hl, -kan, -da,* and *-te* may all be suffixed to the copular element *na* to compose coordinating conjunctions.

5. Main clause verbal inflection

In general, the affixes and elements described in this section do not appear on verbs in subordinate clauses. (An uninflected version of the prospective and future tense/aspect markers may occur in certain environments. This will be discussed further in Chapter Eight.)

5.1. Tense/Aspect

There are three categories of tense/aspect combinations that are signalled in this language. Several dimensions of past, non-past and future states of affairs are encoded.

5.1.1. Present/Past imperfect

There is a verbal inflection which, unlike *ye*, is unmarked for perfectivity. Moreover, it is unspecified as to whether the action is coextensive with the speech situation or whether it has already happened. In either case, it seems to have present relevance.

(100) mo:wal man ba?ol-e
3sm.P 3sf.A call-pres
"She's calling him"
"She called him just now"

After a vowel, this suffix is not phonetically realized. Its quality varies after consonants in a way that is not always predictable (I will not discuss the exceptions here).

In general, it is realized as a lax [e] after coronal segments. If the last stem vowel is high or if the final consonant is a palatal affricate there is a partial vowel harmony effect such that the [e] is realized as [I]. After a glottal stop, complete vowel harmony operates producing the same vowel characteristics as the immediately preceding vowel. Elsewhere it is realized as [a].

(101)	ba?ó:l-e	"call"
	dithál-e	"be sick"
	thád-e	"play"
	čabán-e	"kill"
	sip'ún-I	"kiss"
	xa?án-č-i	"dream"
	phómo?-o	"marry (recip)"
	thá?-a	"play (collective)"
	dithá?-a	"get hurt"
	didi:ku?-u	"drive/run somebody out"
	da:wák-a	"go out"
	dac'áp-a	"slap"
	baném-a	"flow"
	lókt-a	"fall/drop multiple times"

5.1.2. Past tense/aspect suffixes

There are at least four suffixes which may indicate that the suffixed verb's action, or potential for action, took place before the speech time. One of these is clearly cognate with the aspectual suffix *-y* discussed above. It is not identical, since here there is a morphophonological alternation between *-y* and *-ye* which is dependent upon the final segment of the base: if the base ends in a vowel the suffix is simply a palatal glide, if the base ends in a consonant the suffix is realized as an extra syllable:

(102)	duhu-ka -y leave-caus-perf	" have made (someone) leave"
	yat'-ye vomit-perf	"vomited"

The verb marked with this suffix denotes an action that has been completed before the time of utterance. There is no implied remotivity of the completed action.

There is a suffix, *-s'u*, which may occur immediately before the suffix *-ye*. It

indicates that the state of affairs denoted by the verb *almost* took place, but did not.[15]

The following examples show that it is found to the right of the valence-changing derivational morphemes. Its aspectual contribution is made relative to a larger event frame which includes the time of speech. It cannot be used prospectively or in an irrealis fashion.

(103) mito xa:kanam- su -y
2s.P drown asp. -perf
"You almost drowned"

(104) mo:w ma:dal k'a: -s'u -y
3sm.A 3sf.P leave -asp -perf
"He almost left her"

(105) Kelly mo:wal pho?-s'u -y
Kell.A 3sm.P marry -asp -perf
"Kelly almost married him"

(106) mo:wal čaban-?a-s'u
3sm.P kill -pass -asp
"They almost killed him."

(107) mo:wal ?a: duhu-ka -s'u -y
3sm.P 1s.A leave-caus-asp -perf
"I almost made him leave."

(108) *?a: kayna -nam čaban su čade
1s.A chicken -spec kill asp prosp
"I was going to kill a chicken"

(109) * mo:w mul čaban -su -male
3sm.P kill -asp -mod
*" He could almost kill that."

(110) mo:w kayna-nam čaban su do
3sm.A chicken -spec kill asp evid
"I heard he almost killed a chicken."

---

[15] There is a virtually non-ejective variant of this suffix which is conditioned by an immediately preceding consonant. Although the ejective [s] is a rare segment, both in this language and cross-linguistically, and although there are no minimal pairs which contrast it with the segment [c'], phonetically this suffix is never realized as [c']. Therefore I will include the [s'] in my orthography.

There is a related stem, *s'ukan*, which means that the Subject referent proferred something to the Object referent and then grabbed it away, just as the Goal was reaching for it.

The suffix *-ṭhi* indicates that the state of affairs denoted by the suffixed verb took place in the remote past. There is an implication that the current state of affairs is different from that expressed in the sentence. For example, the speaker of (112) now likes beer, and the subject of (114) does not like to dance anymore.

(111) šẹ:tin ?a: bo?o -ṭhe
long ago 1s.A hụnt -rem.pst
"Long ago I hunted here"

(112) c'epa:nam me? to: k'o da: -nha-ṭhe
beer spec adv 1s.P neg like-neg-rem.pst
"I never liked beer"

(113) ha:w ?o? ?a: me? šowkowa bayu?-ṭhe
before yet 1s.A adv Hopland language understand-rem.pst
"A long time ago I used to understand the Hopland language"

(114) khe mane bit'a? mo:w me? na -ṭhi
dance enjoy 3sm.A adv COP-rem.pst
"He used to like to dance."

(115) kami:sa tac' man me? šịta -m -ṭhe
shirt red 3sf.A adv wear -asp-rem.pst
"She used to wear a red shirt"

(116) kami:sa-nam mo:wal t'e:s-ṭhe
shirt spec 3sm.P fit -rem.pst
"The shirt used to fit him."

(117) ?al cika -na -mu ?a: sima miṭi ṭhe
this basket-cop -dem.loc 1s.A sleep-lie -rem.pst
"This is the basket I used to sleep in."

Finally, there is a suffix which is probably not primarily a tense marker. However, it is only used with sentences reporting past events and it does not cooccur with either the past/perfective suffix or the past/remotive marker.

It has a quasi-evidential character, in that the informant's interpretation of sentences containing it often have the flavor of emphasis, or expression of speaker's certainty. The element of the sentence that is emphasized in the speaker's translation is not consistent, and sometimes there is no element that receives emphasis. Of course,

the facts presented here are only a partial account of these suffixes.

(118) čaw-nami man holhu -mi
house-inside 3sf.A walk around -emph
"She DID walk around inside the house"

(119) mo:w to: dac'ap-mi
3sm.A 1s.P slap -emph
"He did slap me"

(120) mo:w ma:dal phik'a dika nan man mo:wal phik'a dika-mi
3sm.A 3sf.P basket give and 3sf.A 3sm.P basket give-emph
"He gave her a basket and she gave HIM a basket"

(121) ša dače -mi
fish catch -past.emph
" caught fish a while back"

(122) xal ča -nam mu: še:thin ?a: ?anhu-mi
dir. house -spec dem.Obl 'back then' 1s.A pass-emph
"I walked past this house."

5.1.3. Prospective tense/aspect

The progressive aspect marker has one use which is distinct semantically from what has been described thus far. In this use it is interpreted with respect to the the time of the speech event--the interpretation it is given is 'prospective tense', i.e. the event is about to begin. Although aspect markers are used to signal this relation, it may be considered a tense, since (a) it is always interpreted with respect to the deictic anchor of speech time, (b) it is specified for remotivity (Comrie, 1985) from that deictic center (as [-remote]) and (c) it is specified for direction from deictic center (as *after* speech time).

In this function it most frequently appears with the semelfactive aspect marker preceding it.

(123) hayu -nam ya? čawin-či man čadi -č -ad-e
dog -spec -A run -semlf 3sf.A watch -semlf-prog-pres
"She is going to watch the dog running."

It may occur following a lexicalized (or near lexicalized) progressive aspect marker.

(124) mo:wal ?a: dade: -d -e
3sm.P 1s.A push-prog -pres
"I'm pushing him"

(125) mo:wal ?a: dade: -n -ye
3sm.P 1s.A push-prog -perf
"I was pushing him"

(126) mo:wal ?a: dade:-d - ad -e
3sm.P 1s.A push-prog -prog -pres
"I'm going to push him"

There are several aspects to sort out in a description of the distribution and interpretation of this tense/aspect category. As is the case with the prospective use of the present progressive in English, ("I'm taking a vacation next week"; "?*I'm feeling better after this is done"; "* She's being president next term") inherent aspectual characteristics of the suffixed verb interact with the sentence-level aspect in complex ways. All verbs with just the progressive suffix *-ad* of course allow the progressive interpretation. Many also allow the prospective interpretation. However, some seem to require the addition of the semelfactive to sanction the prospective interpretation. Many verbs have inherent semelfactive aspect, and these verbs all allow the prospective interpretation when the progressive morpheme is added. These facts would seem to indicate a semantic conditioning of an allomorphic variant, *ad* and *v̆cade*.

However, other facts would indicate that the form of the suffix (+ or - [v̆c]) is conditioned by the surrounding phonological environment. In the preponderance of cases where the semelfactive occurs with the progressive and results in the prospective interpretation, the verb stem ends in a vowel. In general, if a verb ends in a vowel, the prospective tense is marked with both the semelfactive and the progressive. If the verb ends in a consonant, and the semelfactive is neither added nor an inherent part of the verb stem, the prospective meaning is often available. (The semelfactive suffix has been separated from the stem when it is not part of the minimal stem.)

(127) matu: mo:w na- č-ad-i
doctor 3sm.A cop-semlf-prog-pres
"He's going to be a medicine man."

(128) man basa:m -ad-e
3sf.A speechify-prog-pres
"The old woman is going to give a speech."

(129) man to: bat'ač - ad -e
3sf.A 1s.P speak -prog-pres
"She's going to speak to me"

(130) data? -nam -man to: šu?u -ka -d -e
old woman spec.3sf.A 1s.P crazy -caus -prog-pres
"The old woman is going to make me crazy"

(131) bu man phe?el -ad -i [16]
wild potat. 3sf.A look for -prog-pres
"She's going to look for wild potatoes"

(132) mul xabenam mil mina ?a: čima -č-ad-e
dem rock.spec dem.obl on 1s.A sit-semlf-prog-pres
"I'm going to sit on that rock."

(133) ?a: ho dasim -ad -i
1s.A fire extinguish.-prog-pres
"I'm going to put that fire out"

(134) ?a k'ala - č-ad -i
1s.A die-semlf.prog-pres
"I'm going to die"

(135) phow ley -ad -e
3p.A die -prog-pres
"They are going to die."

5.1.4. Future Tense/Mode

The suffix *-khe* discussed above, as found on purpose clauses, is the element which forms the base of sentence-level future marking. When used as a future tense marker it occurs as part of a unit followed by the continuative aspect suffix *-m* and the copula *na*. In this function it appears to be independent of the main verb, in that it

[16] The present tense vowel occasionally varies in quality for unknown reasons. I have recorded examples as they were elicited. I have been unable to discover any motivation for the variation.

bears stress.

(136) biš̌éma khémna
rain fut
"It's going to rain"

(137) š̌a dač̌e nam mul mo:w ma:dal hóh khémna
fish catch spec dem 3sm.A 3sf.P give fut
"He will give her a fish he caught"

It appears that there is an alternation between this form, which contains the suffix *-m*, and a form lacking this suffix. The former signals prediction, while the latter seems in some cases to be signalling intention on the part of the speaker. (However, examples like (139) are puzzling in this regard.)

(138) ?a: kami:sa-nam daséy khéna
1s.A shirt.spec wash fut
"I will wash that shirt"

(139) ?awe mito lok'-hi š̌ina diwác-č̌i khéna
mood.prt 2s.P fall -adv head burst-semlf fut
"I wish you'd fall and break your head open"

The full form does not occur in embedded environments--here the suffix *khe* is used to indicate relative future relations:

(140) man duhu khe mo:w t'a?án-ye
3sf.A leave fut 3sm.A think -perf
"He thought she would leave"

5.2. Evidentials

These are inflectional elements that indicate the source of the speaker's evidence for the assertion. They are discussed further in Chapter Eight.

Here I will mention three evidentials--one indicates aural evidence, one hearsay, and one indicates an inference based on some sort of visible evidence.

(141) xa čá-nhe
water jump -evid
"Something jumped into the water (I heard) "

(142) mo:w xó:ta -m -anhe
3sm.A snore-asp -evid
" He's snoring (I hear)."

(143) kawi miná -či -nhe
child cry -semlf -evid
"The baby cried one time (I heard)"

These must be interpreted as the speaker's source of evidence; they do not require (or allow) a subject independent of the suffixed verb's subject. The source of evidence is backgrounded with respect to the content of the proposition as a whole. Compare the following example with a full verb.

(144) xa čam-?a ?a: šów? -ye
water jump-pass 1s.A hear-perf
"I heard something jump into the water."

The evidentials may be followed by the past/perfective marker.

(145) mo:w duhú -do -y
3sm.A leave -evid -perf
"He left, I heard tell"

(146) c'itnam xol pidĭ- na -y
bird.spec away fly evid -perf
"I saw that the bird had flown away"[17]

(147) ?a: mo:wal dac'aṕ -na [18]
1s.A 3s.P slap -evid
"I must have slapped him (I didn't know whether I did it)"

5.3. Potential modality

The expression of potential modality is done via a morpheme which is not

[17] This is one of the few examples of an evidential in which the speaker spontaneously included the evidential material in the translation. Usually, as indicated by the parentheses above, this information is implicit.

[18] This evidential is homophonous with the copular element *na*. They are distinct, as shown in chapter 8.

inflectable. It is interpreted as reflecting either the subject's abilities, or the opportunities provided by the situation. This morpheme is not found in dependent clauses. Expression of the notion of capability or potential in subordinate clauses must be accomplished through use of full verbs like that found in (149-150).

(148) mo:w k'o haynam mac'a: -nha male
3sm.A neg stick break-neg mod
"He can't break the stick"

(149) mo:w haynam mac'a: šu?u:di
3sm.A stick.spec break incapable
"He doesn't know how to break the stick"

(150) wa:n šu?ud -in mo:w k'o duhu-nha
walk incapable-Acomp 3sm.A neg leave-neg
"Since he was incapable of walking, he didn't go out"

(151) xanam mu: thinda padim-?a male
water.spec dem eivd swim -pass mod
"(Someone) could swim across the river here"

(152) bo: mo:w padim male
here 3sm.A swim mod
"The man can swim across the river here."

5.4. Epistemic modality

I have found one suffix that expresses possibility.

(153) min čon hi -wa
dem John say-mod
"John might say that"

(154) mito hašidu xamal ba?-wa
2s.P pear inside grow-mod
"(Don't eat the seeds or) a pear might grow inside of you"

(155) min hi thin-am mo:w bayu?-wa
dem say neg-IMP 3sm.A understand-mod
"Don't say anything that he might understand."

This element is not found on verbs that head dependent clauses.

(156) * man bayu? -wa -kan mo:w k'o hi-nha
3sf.A understand-poss-Acomp 3sm.A neg say-neg
*"He didn't say anything since she might understand"

(157) man bayu? -khe - t'a-n mo:w k'o hi -nha
3sf.A understand -fut -think -Acomp 3sm.A neg say-neg
"Thinking that she would understand, he didn't say anything"

In texts this morpheme appears in a lexicalized formula *donway* which may be analyzed into the hearsay evidential *do*, the progressive *ad*, the epistemic modal *wa* and the perfective suffix *-y*. It is translated "it is said" or "so they said".

(158) bo: xa diwinam mo:w duhu donway
west water coyote 3sm.A leave
"Coyote went to the coast it is said"

5.5. Imperatives

There is both a second person imperative and a first person plural imperative (hortative). Both of these forms may derive historically from the postposing of the first and second person pronouns. (The second person pronouns begin with the segment [m] and the first person plural pronouns begin with the segments [ya].

(159) ho dasim -am
fire -extinguish -IMP
"Put that fire out"

(160) hayu-nam phi?el-im
dog spec look for -IMP
"Go look for the dog!"

(161) balaw to: ho-m
part 1s.P give (lengthy obj) -IMP
"Give me part!"

(162) daka:law? -ya
crawl -IMP
"Let's crawl"

(163) tha? -ya
play.coll -IMP
"Let's play"

6. Overview of the verb

There are many semantically based cooccurrence restrictions between various pairs of the suffixes described thus far. I will not go into these here. Roughly, we can draw a line between the minimal stem and stem modifier suffixes (Sections 2-3) as being derivational, and the tense, mood and subordinating suffixes as being inflectional. With a few exceptions, the tense and mood suffixes (including the evidentials) cannot occur on embedded verbs. Thus the tense and mood suffixes and the subordinating suffixes are in mutually exclusive classes.

The following table reviews the categories of the verb as laid out so far.

Table 4. Categories of the Verb

Incorp.	Minimal Stem			Derivation		Inflection	
	Inst.Pref.	Root	C-sffix	Asp/Direct.	Vlnce-chng.	Tns/Asp	Evid/Mood

7. Number marking: plural agreement or inherent verbal category?

> But is the Nootka correlate of "the small fires in the house" the true equivalent of an English "*the house-firelets*"? By no means. First of all, the plural element precedes the diminutive in Nootka: "fire-in-the-house-plural-small-the", in other words "the house-fireslet", which at once reveals the important fact that the plural concept is not as abstractly, as relationally, felt as in English.
>
> Sapir, 1922:104

Both theoretical and descriptive considerations call for careful attention to the grammatical provenance of number marking on verbs. It may be inflection--purely grammatical agreement, expressive of "abstract relational" information, determined by other aspects of the clause or sentence. On the other hand, it may differ significantly in character from classical number agreement--as Sapir noted, certain types of number

marking are semantically more contentful, more concrete. These are frequently found internal to other types of derivational morphology; thus both content and relative position in the word might motivate describing them as derivational. (Durie, 1986; Anderson, 1985a)

Verb agreement for number is one surface marking device which is frequently cited as evidence for the presence or absence of a particular grammatical relation at some level of derivation or representation. In later chapters I will consider several aspects of the grammar of Northern Pomo in which the grammatical relational status of nominals is a central concern. Since agreement is typically considered to be one diagnostic of the grammatical functional status of particular nominals, it is important to carefully show that verbal number phenomena in this language fall into the category of minimal stem modification, not inflection. In addition, the lexical semantics involved will raise several pertinent issues regarding the structure of lexical items, issues that will be returned to later.[19]

Number agreement which is inflectional in character is characteristically highly productive and highly predictable in its distribution. In many systems with number agreement it is the superficial grammatical property of singularity or plurality which triggers number marking, rather than the notional cardinality of a noun phrase. Moreover, whenever there is the appropriate sort of nominal, the agreement is triggered.

In Northern Pomo we find three types of verbal suffixation and two instances of consonant mutation which seem to convey information about number of participants, and one set of verbs which clearly supplete for number of participants. In no case is there evidence for an analysis in which these constitute examples of the inflectional category of number agreement. I will describe the semantics of these different elements and consider their instantiation in the lexicon. I will conclude that two different

[19] Mithun (1986) discusses inherent number marking in Central Pomo, and covers many of the same affixes discussed in this part of the chapter.

types of representation are appropriate.

Durie (1986), in a typological discussion of similar facts in a number of languages, terms the relation between verbal number marking and plurality of nominal arguments one of *semantic selection.* His account focuses on suppletion for number, and his analysis is limited to cases in which "a morphological Number (fn omitted) category inherent to the verb is linked directly into the semantic representation of verbal argument structure. This semantic representation, specified for the number of an argument, accordingly enables the appropriate argument expression to be selected" (Durie 1986). This level of semantic representation, i.e. verbally specified properties of argument structure, or selection, is appropriate for some of the verbal number marking I will describe. However, in some cases of productive verbal number suffixation, the relation between verbal number marking and the number of arguments is somewhat more complex. I will argue that at least two of these suffixes in Northern Pomo are aspectual. In these cases, a verb seems not to *select* for a particular number of arguments; rather the perspective of the event is changed with the addition of the relevant suffixes: it includes *multiplicity*, or multiple tokens of the event type denoted by the verb. These tokens may be distributed over individuals or over times, in ways to be described below.

This analysis has significance for theoretical issues concerning the relationship of derivation and inflection, and for the study of the lexical representation of aspects of verbal semantics.

7.1. Inherent verbal number marking

Oswalt (1976) reconstructs for Proto-Pomo four suffixes which he says indicate a "plural act" and one suffix which indicates a "plural agent". The presence of a plural act morpheme indicates that "the act is performed several times on one object, or on several objects at one time" (p. 22). A full account of the reflexes of these morphemes

in Northern Pomo will show that further elaboration of this description is warranted.

In arguing for the derivational status of these morphemes, I will demonstrate their semantic contentfulness, their relevance to the interpretation of the verb, their invariance through derivation and their position inside the verbal stem.

7.1.1. The "multiple event" suffix *-ta-*[20]

Oswalt calls this suffix a 'plural act' marker. I have chosen to call it a *multiple event* marker since the use of this morpheme goes far beyond the semantics of 'acts' in the sense associated with Vendlerian classifications of verbs. It may be suffixed to verbs of almost any inherent aspectual character. Its effect may differ depending on the inherent aspectual class of the base stem. This suffix is the most productive[21] number marking of all of those I will describe as occurring in Northern Pomo.

It is suffixed to the minimal stem, in many cases occurring directly outside of it:

(164) **-ta** $STEM_{minimal}$ +____

[vowel realization rule...]

lok "to fall/drop"
lok-ta "fall/drop multiple instances"

However, in certain cases it occurs inside what must be analyzed as the minimal stem. For example, the stem *šam*, meaning "to collapse", displays the invariance of final consonant found in other stems that have incorporated an aspectual final consonant, as described above. However, instead of the multiple event suffix occuring after the final *-m*, it occurs inside of it.

---

[20] The vowel in this suffix is of variable quality and is usually fairly reduced. Roughly, it is an [i] in the presence of a preceding high vowel or a following [č], and an [a] elsewhere. It is not realized when followed immediately by an inflectional suffix.

[21] By this I mean the dimension of productivity determined by the proportion of appropriate stems which actually do allow the suffixation. It does not freely occur on all minimal stems, as I will demonstrate below. It is not possible to determine whether new words added to the language would allow it.

(165) *šam* "to fall down, collapse"

ša-ta-m "multiple collapse"

(166) xale-nam šam-a
tree-spec fall-pres
"the tree is falling/collapsing"

(167) xalenam ša-ta-m-na
tree-spec fall-pl -cop
"the trees have fallen/collapsed"

Another example is the verb "to forget", which includes, as part of the minimal stem, the semelfactive aspect marker and the reflexive morpheme suffixed onto the stem which means "stupid". The multiple event morpheme, however, is suffixed onto the minimal stem *šu?u*, not the minimal stem which means "to forget", *šu?u-či-?*. Thus, "They forgot' may be *šu?u-ti-či -?*,
never * *šu?uči?-ti.*

7.1.2. The Semantic Contribution of *ta-*

The semantic interpretation of a verb containing the suffix *ta-* is a product of the lexical semantics of the base, the notion of *multiplicity*, and the actual instantiation of that combination in a clause with specified participants.

Roughly, if the morpheme is found on a verb in a clause with multiple participants, the usual interpretation is that each member of the group participated in the action at least once.

(168) phow phik'a šibu-t-ye
3pl.A basket weave mev-perf
"each one made one or more baskets"

If the verb denotes an action/achievment, such as making baskets, and the subject is singular, then the multiplicity of the event is interpreted as meaning that the same individual engaged in the activity many times.

(169) man phik'a šibu-t-ye
3sf.A basket weave-mev.-perf
"She made more than one basket"
"She did a lot of basket-weaving."

This example demonstrates that the notion of *nominal* number is not necessarily the primary determinant of the presence of the *ta-* suffix. The object, *phik'a*, "basket", here is indefinite. This is probably an object incorporation structure. Thus the object is not necessarily the target of the plural marking. Rather, the interpretation is that many cycles occurred of the action of basket-making, an action which results in a product. Nothing is implied about the actual products of her basket making sessions.

This is even clearer in cases where the subject is singular and the verb is intransitive: here the primary interpretation involves aspectual notions such as iterativity, habitual action, etc.

(170) khebe-ta-n me? mul na -y to: t'a
sing-mev adv dem cop-perf 1s.P think
"I think it does sing."

(171) mul ya? kheben male to: t'a
dem.A sing Mod 1s.P think
"I think it is able to sing."

If this were an agreement marker, the presence of a plural subject would trigger its use. However, this is not sufficient to motivate the use of the *-ta* suffix. The next two examples show that unless the event can be construed as happening multiply, with at least some distribution in time and/or space, then the *-ta* suffix is not necessary.

(172) man phowal mako-ti
3sf.A 3p.P find-mev.
she's finding them (the kids playing hide and seek)

(173) phow ma:dal mako
3p.A 3sf.P find
"they found her (as a group, all at once)"

(174) mo:w ma:dal mako-t-ye
3sm.A 3sf.P find-mev.-perf
" he found her again and again (in a game of hide and seek)"

Example (175a) and example (175b) below show that when the subject is notionally plural (in general, nouns do not inflect for number) the occurrence of the multiple event marker is not obligatory. Use of the unmarked verb conveys that the multiple subjects acted "as one".

(175a) xale-nam šam ?a: šow?-ye
tree-spec fall 1s.A hear-past
"I heard the trees/tree fall."

Moreover, the real world properties of the action and its participants restrict the interpretations in unsurprising ways. For example, when the verb is something like "collapse", the multiple event suffix is not found with notionally singular subjects, since the only interpretation, multiple cycles of the event experienced by one individual, is precluded by the verb meaning--a tree can only collapse once.

(175b) xalenam ša-ta-m-anhe
fall-pl-EVID
"I heard the trees falling"

This is not to say that the meaning of the multiple event suffix is predictable given any verb and any participant number. For example, we might expect the multiple event suffix on the verb "listen" or "hear", *šow?*, with a singular subject, to be interpretable as multiple instances of listening. However, this interpretation is not available.

(176) šo:w -či -m!
listen -semlf-IMP
Listen! (addressing one or a few individuals).

šow-ta -?-či-m!
listen-mev -semlf-IMP
Listen! (addressing a group)
[This could not be used for e.g. giving one person a collection of records]

In this example the *-ta* suffix seems simply to be indicating the plurality of the subject/addressee. On the other hand, the subtle and somewhat unpredictable interaction of the suffix with the lexical semantics of the host verb can produce the opposite result, as seen in an example such as (177c). Here, simple plurality of subjects is not enough. In this example, the *-ta* suffix could not be interpreted to mean that a group was being ordered to put down a large object they were jointly holding.

(177) a) nem to put down
b) nem-am put it down!
c) ne-ta-m-am "put it down multiple times!" OR "put them down!"
NOT "you all put it down (group holding a couch)"

These facts show that subtle distinctions exist within the limited domain of collective action. There is necessarily joint collective action (such as the collective carrying of a couch), and there is logically independent collective action (such as listening in a group). The *-ta* suffix seems to be indicative of the latter type.

7.1.3. The aspectual character of the suffix *-ta*

The examples above seem to indicate that the suffix in question is not simply indicating number of participants. Rather, the notion of multiplicity distributes over either individual participants, or instantiations of events, or both. The interaction of the meaning of this suffix with the inherent verbal aspect of the host stem argues for its membership in a category like aspect. The fact that its interpretation is determined at the level of the predicate, i.e. in terms of the available arguments, and the fact that it does not *change* the *inherent* verbal semantics, but simply *interacts* with them, argues

for its classification as an aspectual suffix whose domain of operation is the predicate. There are many examples of these interactions between the aspectual meaning of multiplicity and the verbal semantics of the host stems.

Some verbs denote situations which are inherently multiple. That is, the minimal stem must undergo suffixation with the semelfactive suffix *-čʲi-* in order to signal one instance of the action. The verbs which denote hitting or kicking actions are of this type:

(178) mabah to kick (instr.prefix=foot; root=strike)

maba:- čʲi to kick once

In these cases, the use of the multiple event suffix *-ta* is restricted in occurrence: it is only found on the form of the stem bearing the semelfactive (although the suffix occurs in its usual position immediately following the minimal stem); i.e. only the form of the word which means "to kick once" may host the multiple event suffix. When this combination does occur it indicates that the object of the kicking received distinct blows from the participants.

(179) phow mul hayu-nam mabah /*maba-ta
3p.A dem dog-spec. kick
"They kicked the dogs (continuously)."

(180) phow mul hayu-nam maba:čʲi
-semlf
"They kicked the dog(s) once"

(181) phow hayu-nam čʲ'a:-tu?kan maba-ti-čʲi
one at a time kick-mev.-semlf.
"They kicked each of the dogs once."

(182) mo:w hayu-nam čʲ'a:-tu?kan maba-ti-čʲi
one at a time kick-mev.-semlf
"He kicked each of the dogs once."

When there are other means of signalling multiple occurrences of the event denoted by the verb, the *ta* suffix does not appear within the same word.

(183) k'ilu "to cough (continuously)"

k'ilu+čˇi "to cough once"
cough -semlf

(184) čˇ'a:kan phow k'ilu-ti-čˇi
one at a time they cough -mev -semlf
"They each coughed once."

(185) čˇ'a:kan ya? phow k'iluk'ilu
one by one they coughed continuously
"they coughed one by one"

(186) k'iluk'ilu <==/==> *k'iluk'iluTiCi

The next example demonstrates that this number marking depends not at all on the notional number of the verb's arguments. That is, its occurrence on a verb does not signal that the semantics of the verb has changed to require selection of multiple participants. Nor does its presence on a verb necessarily result in interpretation of multiple number, even where the possibility for it exists. In this example, we can see that even when the multiple event suffix is present, and a noun phrase, *xalenam*, "the tree", unmarked for number, is available for plural interpretation, there is no necessity for the noun phrase to be assigned a plural interpretation. The multiple repetitions interpretation is still open. So there is no *necessary* semantic relation between number of nominal participants and the *-ta* suffix.

(187) man xalenam maba-ti-čˇi
3sf.A tree-spec kick-mev. -semlf
"She kicked the tree a bunch of times."

So what is the function of the suffix? What is the difference between the verb form in (187) and the minimal stem form *mabah*? If the minimal stem form itself means "continuous kicking", then what is added by the addition of the multiple event suffix and the semelfactive suffix? The next two examples, both with a singular subject, the wind, and multiple objects, the baskets, provide a partial answer to this question. In the first case, the falling of the baskets is described as happening in sequence,

many instances of falling. In the second case, an unrelated verb, *t'aw*, is used. This is the verb which is used to denote the pouring of liquids. Thus the two examples contrast not in number of participants, or outcome of event, but in a certain dimension of *verbal aspect*, the dimension of *multiplicity*. This dimension bears a certain similarity to the count-mass distinction in nominals.

(188) mul selka mina phik'a na-y mul ya ko yahe
dem. fence on baskets cop-perf dem. wind come blow,

č'a:kan lok -ta -ka -y
one by one fall -mev. -cause -perf

"Those baskets that were on the fence--the wind came blowing along and knocked 'em all off."

(189) mul selka mina phik'a na-y mul diley ṭ'aw -či
dem fence on basket cop-perf Dem all pour -smlf

"Those baskets that were on the fence, they all fell off"
[context: somebody comes along and shakes the end of the fence, all the baskets fall off in a wave.]

In other words, the multiple event suffix creates a picture of discrete instances of the event, even if these instances are happening en masse.

It is extremely difficult to predict the semantic outcome of the suffixation of *-ta* to a particular verb, since it is often difficult to precisely characterize the lexical semantics of the stem in enough detail. For example, given the example above with the verb "kick", we might expect other verbs whose basic form denotes an undifferentiated stretch of activity to display a requirement similar to that described for "kick". We might expect that postural verbs like "sit" or mental activity verbs like "dream" would require the presence of the semelfactive marker in order to sanction the multiple event marker, in effect singling out one "unit" of sitting or dreaming to create multiples of. This, however, is not the case.

(190) xa?a -ṭe mo:w me? mu: čima-t-ye
morning he adv dem sit-pl-perf
"Every morning he always sat there."

(191) man xa?an-ta
3sf.A dream-mev.
"She dreamed (continously throughout the night)."

This is probably because the semelfactive itself contributes differently to the meaning of particular verbs. In the case of 'dream', the semelfactive creates a focus on the product, a dream, which is a cultural category of great significance. In the case of other verbs, as discussed previously, the semelfactive focusses on the beginning of the event. Thus for these verbs[22], an episode of the verbal event is available without the necessity for the semelfactive to carve one out.

7.1.4. The multiple event suffix and stative predicates

There are a number of stative stems in Northern Pomo. When used as a verb they signal entry into the state. Some of these require the semelfactive aspect suffix when used as verbs, which explicitly introduces an inchoative or ingressive meaning in these cases. When the multiple event suffix is used with these stems in their verbal function, the combination of singular subject and multiple event suffix means repetition of the verbal event, as was true for previously presented examples.

[22] It seems unwise to assume that we can know in advance whether such differences are due to a difference in the real world situation associated with the verbal meaning, or whether some subtle and unobservable feature of lexical semantics determines the cooccurrence restriction. For example, in (183) above, is the multiple event suffix available because dreams tend to have natural recurrent boundaries, i.e. does a session of dreaming contain natural subunits? Similarly, does the postural change associated with sitting down and getting up imbue the posturally static stem 'to sit' with enough inherent internal structure or dynamism to allow use of the multiplicative aspect? What is it about *phaban*, to 'pummel', that does not permit this? The lens of existing theories of lexical semantics is not of high enough resolution to tell.

(192) čiba: ta šinu?-ye
who.A Q drunk-perf
"who got drunk?"

phow šinu-ti?-ye
3p.A drunk-mev.-perf
"they got drunk"

(193) man me? šu?u-ti-?-ye
3sf.A adv crazy-mev.-semlf-perf
"She tended to get goofy."

(194a) kaweyonam ya? šu?u-ti-či
horse-spec A crazy-mev.-semlf
"the horse gets crazy (from time to time)"

(194b) na:ma mo:w šinu:-ti-či
always 3sm.A drunk-mev.-semlf
he always gets drunk

(195a) mo:w daka:-či
3sm.A lost-semlf.
He gets lost/got lost/is getting lost

(195b) na:ma hayunam daka:-ti-či
always dog lost-mev.-semel.
"the dog gets lost all the time"

However, when these stative predicates are used as complements to the copula, *na*, the interpretation of the multiple event suffix is slightly different.

The predicative construction in Northern Pomo is used to attribute properties to its subject. The predicative complement usually occurs to the left of the subject, but may occur directly before the copula. Predicate nominals and predicate adjectives both occur in this construction.

(196) dakol man na matu-ma:ta-nam man na
wild she cop dreamer-woman-spec 3sf.A cop
"She's wild." "She is a dreamer."

(197) mini thin man na
pregnant neg 3sf.A cop
"She's not pregnant"

(198) man mini na
3sf.A pregnant cop
"she's pregnant"

When the stems in examples (192)-(195) are used with the copular element *-na* in this construction, they denote states as properties of the subject. In this construction they have the status of adjectives, as demonstrated by their ability to occur to the left of the subject, in predicative function. (Example (199) shows one of these functioning as a modificational adjective, to the right of a noun within a noun phrase).

(199) čа? šu?u diyi mo:w wade
person crazy with he walking
"He's walking with the crazy one"

(200) šu?u? basa? na-y
crazy mo's.fa. cop-past
"Grandfather was crazy"

However, when the stems denoting states are used in the predicate or modificational adjective status, the multiple event marker can only be interpreted as meaning that *multiple entities have the relevant property.* It loses the potential for meaning that a single individual characteristically or repetitively enters the relevant state, as it did above in examples (193-195).

(201) mo:wal baču:-ti [23]
3sm.P tired-mev.
"he gets tired." [experiences tiredness from time to time]

(202) phowal baču:-ti
3p.P tired-mev.
"They get tired"

(203) baču-ti? phow na
tired-mev. 3p.A COP
"They are tired."

(204) *baču-ti-? mo:w na
tired-mev. 3sm.A cop
* "he is often tired."

(205) baču? mo:w na
tired 3sm.A cop
"he's tired"

(206) šu?u-ti phow me? na
crazy-mev. 3p.A adv cop
"They are crazy."

(207) * šu?u-ti man me? na
crazy-mev. 3sf.A adv cop
*She always gets crazy."

(208) man šu?u-ti-č-i
3sf.A crazy-mev-semlf-pres
"She always gets crazy"

In general it is true that the multiple event suffix is not used in predicative position when the subject is singular. In this respect, and only in this function, it looks somewhat similar to number agreement. However, even here the determining factor is verbal semantics, of a particularly subtle sort. The states being tired and being crazy differ from the state of being drunk in some crucial way which disallows the use of the *ta-* suffix in predicative position for the former, while allowing it for the latter. However, instances of the multiple event suffix with the stem *šinu* "be drunk", are

[23] The different forms of *baču*, some with long vowel, some with glottal stop, reflect a probable derivational process which I do not yet understand.

always interpreted as entry into the state as a characteristic property of the individual.

(209) šinu-ti phow na-y, diley ya?
drunk-mev. 3p.P COP-perf, all A
"they were drunk, all of 'em"

(210) šinu? ye? mo:w me? na-y
drunk always 3sm.A adv cop-perf
"he's always drunk"

(211) šinu-ti ye? mo:w me? nay
- mev. always
"he always gets drunk"

Further, some stems which denote not states, but achievments or activities, may derive predicate adjectives which then do allow the multiple event marker with singular subjects.

(212) šu?učˇi-? "forget"

(213) šu?u-ti-čˇi? "keep forgetting"

(214) ma: šu?u-ti-čˇi? man me? nay
stuff-forget-mev.-semlf 3sf.A adv COP
"She's forgetful."

In the case of stative predicates, it seems that the semantics of the predicate and the semantics of the construction are interacting to limit the available interpretations for the multiple event suffix. If the addition of the suffix *-ta* means that multiple tokens of the event are part of the stem meaning, then in verbal contexts these can be distributed over times or over individuals. In the predicate adjective context, they can no longer be distributed over times. Thus unless there are multiple participants to distribute over, or unless the multiplicity is contained somehow inside the predicate meaning, as in the previous example, the multiple event suffix cannot receive an interpretation.

7.1.5. The position of the multiple event suffix relative to other suffixes

The multiple event suffix is found to occur only on underived stems. It is found inside of the directional suffixes discussed in section 3.2, although such examples are

rare, since many of the verbs which host the multiple event suffix do not seem to occur with directionals.

(215) lok-al "To fall downwards, tumble"
fall-direct.

lok-ta-l "multiple tumbling"

Given its semantics, we might expect to find it suffixed to stems that are the product of the causative derivation, such as in the example below.

(216) lok ==drop (intransitive) /fall
lok-ta ==multiple dropping/falling
lok-ka ==drop (make/let fall)

(217) man phik'anam lok-ka
she basket drop-caus
"she dropped the basket"

However, it is never suffixed to the causative marker, *-ka*.

(218) be?be? man phik'anam lok-ta-ka
now&then she basket drop-mev.-caus.
she dropped the basket many times
or now and then she dropped the basket

(219) na:ma ?a: phik'anam daka:-te -?-ka
always I basket-spec lost-mev.- semlf -caus
"I lose my basket all the time"

Given its idiosyncratic distribution and interpretation, its position closest to the minimal stem and inside of the extremely productive causative suffix (to be discussed below), there is no question that this 'verbal number marking' is an instance of a lexical process of stem formation, not an instance of inflectional agreement for number.

7.1.6. The suffix *-m-*

Oswalt (1976) isolates two suffixes of the shape *-m-* for reconstruction in the proto language, one a plural action marker which denotes repetition of the action in one place, and one which he calls an 'essive'. As discussed above, in Northern Pomo the productive suffix of this shape seems to indicate continuous action and is clearly aspectual. If there is a function of verbal number associated with it in Nothern Pomo,

then this is probably parasitic on its aspectual function.

This suffix, like the multiple event suffix, does not require multiple participants. It is less common than the *-ta* suffix (at least in Northern Pomo), and so a comparable semantic analysis is not available at this point. However, we can find instances of it occurring with the multiple event suffix.

(220) mo:w mina
3sm.A cry
he cries/cried

(221) phow mina-to -ta-m -ye
3p.A cry -? -mev.-asp.-perf
"They cried/kept crying."

(the affix *-to* is rare; it may be another verbal number marker.)

7.1.7. The -ak- plural action morpheme

This species of verbal number marking is quite rare in Northern Pomo. I have only found two or three examples of it. It seems to have similar semantic properties to the *-ta* suffix.

(222) man me? mo:wal sipu:na?k-do
3sf.A char. 3sm.P kiss-mev. -evid .
"I hear she always kisses him"

(223) phow mo:wal sip'un -ak-ye
3p.A 3sm.P kiss -mev.-perf
"They kiss him a lot, they'd go back and kiss him again"

Despite the scanty evidence, these examples show that the use of the suffix *-ak* does not depend on the number of the subject per se.

(224) *kan* 'a small child, undergoing unpleasant personality changes because anticipating the birth of the next child'

(225) kawiyanam phow ka:ne / *kan-te
mev.
"the children are feeling bad (kan)"

(226) ka:n phow/mo:w na
3p.A /3sm.A cop
"they/he are in the state of 'kan'"

(227) kan-ak-ta phow na
kan-pl.act.-mev. 3p.A COP
"They are all upset, 'kan'."

Not much can be said about this suffix on the basis of its very limited distribution. In example (228) it occurs inside of the plural event morpheme; however, in another example it is found outside of it.

(228) sima:-ta -k -č̬ -im "Sleep, group!"
sleep-mev.-me3-semlf -IMP

Its position is roughly the same as that of the plural event morpheme *-ta*, and it is probably internal to the directional suffixes. It is probably more similar to the multiple event suffix in its semantics than to the inherent-aspect, stem-final consonants described in section 2.3 above. Notice that, as in the case of *-ta*, its use is optional with plural subjects, and possible with singular subjects.

7.1.8. The reflexive/reciprocal alternation

In Chapter Three I will discuss the productive reflexive and reciprocal derivations. Here I would like to note that certain verbs have as part of their lexical stems the reflexive morpheme *-i?-*. When the subject of such a verb is plural, the morpheme associated with the reciprocal is used: *-mo?*.

(229) šu?u: - či - ?
stupid? - semlf.- refl
" to forget"

(230) ma?ama?a mo:w šu?u:- či-?-i
food-eat 3sm.A stupid-semlf-refl.-pres
"he forgot to eat"

(231) phow šu?u:-či-mo?-o
3p.A stupid -semlf-recip.-pres
"they forgot"

(232) ma:ba:d -REFL
ma:ba:d-i?-i
refl-pres
"One person acting big"

(233) ma:ba:n - mo? me? phow nay
act big -Refl.pl adv. 3p.A Cop-perf
"They are people who act proud"

(234) ma:ba:di? ta man na
-refl Q she cop
"Is she a proud person?"

In Chapter Three, I will show that the plural reflexive marker is used both for plural reflexive action and for reciprocal action. The alternation between *-i?-* and *-mo?-* looks more like real subject-verb agreement than any of the suffixes presented thus far. The inherent plural reflexive rarely occurs with a singular subject, and the inherent singular reflexive rarely occurs with plural subjects. However, there are a few examples of a non-inherent, productive plural reflexive being used with a singular subject, which seems to indicate that *number of participants required by the verbal action* is being *selected* for by the singular and plural reflexive markers. Strikingly, in these examples the subjects are instantiated by pronouns, the only members of the nominal hierarchy that are obligatorily inflected for number. In spite of the grammatical (and notional) singularity of the Subjects, the reflexive is plural. The Subjects of (235) and (235) must be metaphorically construed as two participants.

(235) k'aye čanočanon-mu? man me? na-y
SELF talktalk-refl.pl. 3sf.A adv. cop-perf
"She talks to herself."

(236) k'aye mo:w dibe:-mo?-o
SELF 3sm.A fight-refl.pl -pres
"He's fighting himself."

While the association between number of subject and choice of suffix is more predictable in this case than in the cases of multiple event/action suffixes described above, there seems to be no hard evidence that the *-V?- / -mo?* alternation represents straightforward inflectional agreement of subject number on the verb.

7.1.9. Collective action -- The d/? alternation

A limited set of stems in the lexicon and a limited number of stems suffixed with the progressive aspect morpheme[24] undergo a regular alternation depending on whether the action denoted by the verb is collective or individual. A stem-final or suffix final [d] (which is realized as [d] before vowels and [n] elsewhere) for singular action alternates with a [?] for collective action.

In the case of the verbs described below, not all combinations of participant number and verb number are possible, as they were with most of the suffixes described above. Specifically, an inherently plural nominal may occur as the subject of either the singular or the plural marked verb, (presumably because a group may participate in an activity either individually [its members acting autonomously] or collectively), while an inherently singular nominal may occur as subject of only the singular verb form. (It may be that singular subjects can occur with these verbs with some metaphorical interpretation resulting as in the English example "The administrative assistant swarmed into the room", but I have no evidence for this.)

---

[24] According to Oswalt (1976) and Mithun, p.c., this alternation is not limited to a few stems in the other Western Pomo languages, but is quite general.

(237) hayunam-ya? thad-e
dog A play.sg-pres
"the dog is playing"

(238) mu: me? mo:w than-ta
dem adv. 3sm.A play.sg-mev.
"that's where he plays"

(239) phow tha? -ye
3p.A play.coll -perf
"They played (at a particular time)"

(240) phe?el "to look for'

(a) ?ami-ṭ'il ?a: phe?el-ye
1s's yng.sis 1s.A search -perf
"I looked for my little sister"

(b) bu man phe?el-ad-e
wild pot. 3sf.A search-prog.sg-pres
"She's looking for wild potatoes"

(c) soh phow phe?el-a?-a
clover 3p.A search-prog.coll.-pres
"They're looking for clover."

As with suffixes previously described, it is often difficult to predict[25] when the singular form or the collective form will be appropriate.

(241) phow xol khamat' -don -mo?o
3p.A recip. angry -make.sg-Refl.pl
"They made each other mad"

(242) *phow xol khamat'-do?-mo?o
make.coll
"They made each other mad"

When the subject of a verb whose stem encodes this distinction is notionally plural and the verb is the singular alternant, the verb is frequently suffixed with the multiple event suffix, *-ta*. This tendency has been found both when the d/? alternation is part of the minimal stem[26], as in (243-244) below, and when it is due to the

[25] Even suppletive forms that encode collectivity can contain as part of the minimal stem the singular [ad] suffix:
(i) *wad* "to walk sg." *phila:d* "to walk, collective"

presence of the productively used progressive aspect suffix *-ad.*

(243) mu: me? phow than-ta
there adv. 3p.A play.sg.-mev.
"that's where they play."

(244) phow than-ta
play.sg-mev
"they played occasionally--when the notion hit them"

(245) *phow tha?-ta
play.coll-mev.

The examples above show that the collective alternant of a minimal stem is not obligatory with multiple participants. Neither is the collective alternant [a?] of the progressive suffix [ad] obligatory with multiple participants.[27]

(246)) mu: phow daka:l-ad-e
there they crawl.around-prog.-pres
"They crawl around there."

(247) mu: phow daka:l-a?-a
dem they crawl-prog-pres
"They crawl around there (collectively)."

(248) phow kal do? -ad -e
3p.A bead make.coll -prog -pres
"They are about to make beads."

The examples below display another alternation: singular stem-final [d] alternates with collective stem-final [t]. This may be the remnant of a morphophonological simplification of the multiple event marker suffixed onto the stem final [d]. If the segment [d] occurs before a consonant it is realized as [n]. If the multiple event suffix were consistently present with the singular stem-final [d], the resulting [-Vnt] sequence might have simplified to [-Vt] and become frozen as the collective stem form.

[27] Mithun (p.c.) has reported that in Central Pomo there may be an evidential contrast signalled by the use of the [-V?] alternant.

(249) phad-i?-ye ==1 floated away stem-semlf-perf
phat-e?-ye ==many floated away

phad-en-ye ==1 floated along stem-prog-perf
phat-eN-ye ==many floated along

(250) čadim! mo:l k'ayan phat -e:d-e
look-IMP there duck float.coll-prog.-pres
"look! way over there, ducks floating!"

(251) mul k'ayan phad -e:d -e
dem. duck float.sg -prog.-pres
"that duck is floating"

There are a few other morphemes which show up very infrequently which seem to accomplish similar 'aspectual number' functions. Since their distribution is extremely limited, I will not discuss them here.

7.1.10. Suppletive number marking

There are verbs which show suppletive stem changes according to the number of one argument. This argument seems exclusively to bear the role of THEME. Thus, the suppletion is governed by absolutives--subjects of certain intransitives and objects of certain transitives. Anderson (1985b:171) suggests that "Suppletion ... forms the borderline between inflectionally related forms of the same lexical item and distinct lexical items with a great deal of shared semantic material." At this borderline it is often difficult to decide whether the suppletively related stems deserve their own semantically distinct lexical entries, i.e. whether there is a distinct verbal notion being encoded by the suppletion. (Of course the unrelated form would certainly require it on a formal basis.) Some have suggested that the term 'suppletion' be limited to forms which are inflectionally related. So far there has been no evidence for real inflectional number marking of any kind, and the examples below, in the context of the description so far, militate against any such analysis.[28] It is difficult to determine if any semantic

[28] Nevertheless, I will continue for the rest of this work to use the term suppletion to refer to these semantically related stems.

contrast other than simple number is being encoded.

SIT sg. čima pl. phočam

(252) phočamčim (to a group) go sit down!

(253) čimačim (to an individual) go sit down!

LIE sg. miṭi coll. phoh

(254) bišenam miṭi mo:w čadi
deer lie.sg 3sm.A see
"he saw the deer(sg) lie down"

(255) hayunam diley phoh mo:w čadi
dog all lie.coll 3sm.A see
"he saw all the dogs lie down"

KILL sg. čaban coll. diley

(diley 'kill', formed of instru. prefix di- and root: ley =die pl.)

(256) c'itnam diley-em
bird-spec kill.coll-IMP
"kill those birds!"

(257) misaxalanam čaban -em
snake -spec kill.sg.-IMP
"kill that snake!"

DIE sg. *k'ala* coll. *ley*

(258) ?a: k'ala: khemna ==I'm going to die

(259) phow ley khemna ==they're going to die

In order to investigate whether something other than simple number is encoded in these suppletive alternates, we can ask whether multiple instances of the singular suppletive are allowable with plural subjects. In some cases, suppletive singular forms *cannot* be used to indicate individual experiences of the event within a group: In order to assert that each one of a group will die, implicating separate deaths, the adverbial *č'a:kan* meaning "one by one" must be used with the suppletive *plural.*

(260) *phow k'ala -ta khemna
die.sg -mev. fut
"They will each die"

(261) č'a:kan phow ley-khemna
one by one they die -fut
"they will each die"

However, in some cases the singular suppletive form *can* be used when speaking of a group, or of a pair. In the examples below, the multiple event marking and the plural reflexive morpheme combine with the meaning of the suppletive singular stem to denote a particular configuration of the event type which involves more than one person.

(262) phow phočam mo:w čadi
3p.A lie.coll 3sm.A see
"He saw them lie down"

(263) phowal č'a:kan miti-ti?-ka -m
3p.P one by one lie.sg.-mev.-caus-IMP
"Make them lie down one at a time"

(264) phow xol čaban -mo? -o
3p.A recip kill.sg -Refl.pl. -pres
"They killed each other."

The idiosyncratic nature of the distribution of the two semantically related stems leads to the following conclusion: Since there are no cases where a single individual, as denoted by a grammatically singular nominal can be THEME of one of the suppletive plural/collective forms, we can assume that these forms are *marked* for collectivity. They have as part of their lexical entry the fact that their THEME argument must be interpretable as a collective. This stipulation is stated in the lexical entry for each verb.

Lack of shared morphological material as well as the limited number of such stems argues against the positing of a productive rule of word formation for these collective-THEME verbs. However, they do share a significant amount of semantic material, namely, there are pairs of verbs differing only in the feature of collectivity,

and the affected argument is the theme. These shared features can be represented by lexical links between these pairs of verbs.

There are a number of irregular stem alternations which I will not discuss here (see also Mithun, 1986). Most fall into the category of stem suppletion for number of THEME argument. However, as is frequently the case, there is a cline of transparency of relationship. Some stems are clearly suppletive, others show traces of some derivational relationship. In no case however is there any evidence of an inflectional process of number agreement, that is, a consistent, automatic process which is triggered by the number (grammatical or notional) of one of the nominal arguments.

7.2. Representation of verbal number in the lexicon

What is the significance of these facts for the representation of verbal number in the lexicon? We have seen that certain minimal stems encode something like number of participants either suppletively or in stem-final consonant mutation. For the suppletive stems we would want to represent this fact in the lexical entry of some stems as selection for collectivity of theme argument.

As McCawley (1968) and others have shown, any aspect of the meaning of a word can determine selection of arguments (or be the basis for a metaphorical extension in the case of arguments that do not fit the selectional restrictions superficially). In the cases of collective action marking, the verbal complex (including the stem and the marker of collective action) is indeed selecting for a particular type of argument: it has to be true of any entity denoted by the relevant argument of that verb that it satisfies the requirements of being 'collective'. Viewed in this way, semantic plurality of arguments is entailed by the verb meaning. This relationship between verbal and nominal number is notionally distinct from the kind of grammatical plurality as reflected in agreement processes, where the inherent nominal number typically triggers a superficial and invariant marking on the verb.

What about the singular version of the pairs of suppletively related words? The suppletive singular for "lie down" can be used with a grammatically plural subject if each member of the group will lie down separately (example (263)). This use requires the presence of the multiple event suffix *-ta*, however, in order that the singularity of the verbal action can distribute over all the participants. These observations show that what we have been calling the suppletive singular does select for singular participants, and that this semantic property is not necessarily changed when the verb undergoes the derivation associated with the multiple event suffix. By aspectually multiplying the stem event we allow multiple participants. The suppletive collective, on the other hand, selects a collective argument, and hence cannot be used with a notionally singular subject, since there is no mapping, aspectual or otherwise, from the verbal collectivity requirements (a set whose members number more than 1) onto the single nominal participant. Thus the superficial number correlations between certain suppletively related stem classes and their subjects is shown to be a semantic selection property, not a grammatical agreement process.

Since the d/? alternation signalling collectivity is a property of minimal stems, as shown by the distributional facts discussed above, we could also incorporate this selection for singular or collective participants into the lexical entries for these minimal stems. For the suppletive stems the lexical entries could be paired in some sense, one selecting collective participants and one selecting singular participants. The same solution is possible for the d/? stems.

We can contrast this situation, *semantic number selection*, with the situation that obtains in the case of the multiple event marker. Here, as discussed previously, the stem containing the *-ta* suffix does not select for number of participants. The verb's semantic selectional requirements do not change. Rather, the verb's aspectual silhouette is changed, such that multiple tokens of the event denoted by the stem must be distributed somehow over the available nominal and temporal dimensions.

The usual definitions of aspect crucially mention the temporal dimension. In this case it seems appropriate to expand the borders of the category to include a morpheme which will interact with the temporal dimension if it is there, and otherwise will distribute over participants, as in the case of stative predicative complements. This type of aspect then seems different from inherent aspect as expressed in minimal-stem final consonants (section 2.3), both because the *-ta* suffix is fairly productive (i.e. occurs on a large number of stems and is semantically quite transparent), and because it does not affect the inherent aspect of the verb stem, it simply multiplies instances of it. This aspect marker is operating at a level higher than that of the verb: its interpretation is determined by elements of the entire clause, both nominal arguments and verbal semantics, and their interaction.

Thus the data presented in this section fall into two sorts: (a) minimal stems whose lexical entries specify, among other things, semantic argument selection requirements that entail certain aspects of argument number; (b) modified stems whose basic selectional properties have not been changed, but whose aspectual configuration has been 'multiplied'. The former involve basic lexical entries, the latter involve a fairly general type of derivational modification.

Finally, we can compare these types of number modification with what seems to be clearly a case of inflectional agreement for number. In these cases, adjectives (both modificational and predicational) are inflected for the number of the noun. There is no sense in which the property of number inheres in the meaning of the adjective. The presence of the plural marking on the adjective (*-(a)y*) is automatic, its absence is ungrammatical, and its presence signals only plurality of the head noun. (Number is generally not marked on nouns.)

(265) (a) hay ṭ'ac
stick red
"red stick"

(b) hay ṭ'ac-ay
-pl
"red sticks"

(266) biles̆ "fine"

bile:s̆-ay kal-nam na
fine -pl bead-spec cop
"The beads are fine"

(267) (a) k'o k'edi
thing good
"good thing"

(b) k'o k'edi-y
-pl
"good things"

8. Conclusions

The description of the lexicon of a particular language has as one of its goals the specification of the regularities in existing word structure. It must also characterize the types of rules that are available for forming new words. These two goals are considered by some to be identical, as in Aronoff 1976:

> ...while the rules of word formation are rules for generating forms, the same rules of word analysis can be viewed as redundancy rules....It is only a WFR which can serve as a redundancy rule, and WFRs are rules by which new words are formed. This means that the only sorts of facts which can count as redundancies or generalizations in the analysis of existing words are those which enter the formation of new ones.
>
> Aronoff, 1976:31

The data presented in this chapter argue for a more catholic notion of lexical redundancy rules. Gragg (1978) suggests that lexical rules are best thought of as indices of relatedness between words and word classes rather than as devices to avoid redundant specification of features. As such, they are to be seen as composed of links of different types, rather than rules (an approach which entails conditions of application and exception etc.). These links may represent relations between words that share a formative and some substantive piece of lexical semantics, whether or not a produc-

tive rule of word formation exists which is available to add new words to the class of derived words. Some word classes will be related by large coherent bundles of links, with shared semantic, syntactic and morphological features. These will constitute lexical rules of the sort most discussed in the literature, for example rules relating active and passive forms of stems.

This sort of view gives us the beginnings of a way to characterize the relationship between lexical links or rules, the static component of the lexicon, which represents speakers' implicit knowledge about word structure, and active word formation rules, the dynamic component of the lexicon. Word formation rules will be a small subset of the lexical links in a language. They will be structurally identical to those sets of links that can be extended to new words or classes of words.

Since a productive word formation rule must contain a specification of the category of the base, and the syntactic and semantic contribution of the formative, and any other facts which will result from the application of the rule, many of the relationships between classes of words discussed in this chapter will immediately be seen to be unavailable for the addition of new words. In particular, we can contrast the following three cases: (1) words containing the same instrumental prefix are often semantically unpredictable (although partially motivated), yet are completely invariant as far as position in the word goes. If a robust WFR must contain (a) a coherent semantics and (b) a straightforward linear ordering rule, then these are deficient in the first. (2) the semantic links between words containing the multiple event aspect suffix *ta* are quite coherent. A predictable semantic relationship exists between the suffixed verb and the base, but the position of the affix with respect to the root is somewhat unpredictable. These lexical relationships are then deficient in the second property of WFRs.

In the next chapter productive lexical rules which contain both of these components and others will be examined, and in Chapter Four the relationship between the

syntactic/semantic content of derivational morphemes and their linear order within a word will be examined.

Chapter Three: Valence-changing Derivation and the Lexicon

1. Introduction

In this chapter the syntactic and semantic properties of the causative, reflexive, and passive morphemes will be examined with the goal of characterizing precisely how these affixes in combination with various bases comprise classes of derived words.

In the last chapter directional and aspectual suffixes were seen to semantically modify minimal stems in ways that did not change the valence of the verb stem. Thus lexical links between classes of words containing these suffixes generally did not contain information that was crucial to the syntax. Moreover there was a great deal of idiosyncrasy in distribution: not every verb stem cooccurred with every suffix, and semantic interpretation was not always transparently compositional. The affixes to be discussed in this chapter change the character of the verb stem in a more drastic way, and in a much more consistent and general way. In all three cases one or more semantic arguments of the underived verb are mapped onto a different grammatical function in the lexical entry for the derived verb than that to which they are assigned in the underived verb's entry. In addition they each cooccur with an extremely large percentage of the verb stems in the language.

In describing the morphology which changes valence it is necessary to go into detail about the relationships between the underived and derived stems. In order to do this in the most accessible fashion, I will make the following assumptions.[1]

[1] These assumptions are compatible with frameworks like Lexical Functional Grammar which assume that valence-changing operations are relations between lexical items, not syntactic operations. See papers in Bresnan (1982). For a different approach in which the same sorts of operations are lexical, see Dowty (1978). The account here strives to be as 'framework-neutral' as possible, so that the facts will be intelligible to readers with different perspectives on these issues.

At least in the case of productive derivational affixes such as these, I will assume that each affix has its own lexical entry. This assumption (Lieber, 1981) is also usually accompanied by the assumption that each such affix is the head of the word it derives. Being a head of the word structure, its features are then percolated to the node dominating the derived word.[2] Just as the lexical entry for a verb contains a 'lexical form', which consists of the meaning of the verb, its semantic arguments and their associated grammatical functions, the lexical entry for an affix contains any argument structure it may possess; it also notes the type of stem that the affix subcategorizes for, the category of the resulting word, as well as the morphological changes that take place in the derived stem.

The lexical rules are then the relationships that exist between the underived word(s) and the derived word(s). These state the mapping relationship between the lexical forms of the underived and derived words.

2. Causativization

The suffix *-ka*, to be called the "Causative" morpheme, has three principal roles in Northern Pomo: as a transitivizer; a causativizer; and as a complementizer in certain environments.[3]

To begin I will describe the first two of these functions, showing how the mappings of thematic roles onto grammatical functions are accomplished when the *-ka* suffix is added to a stem. Next I will describe the complementizer function of the

[2] In the next chapter we shall see that the interpretation of each affix from left to right as successive additions of a new head does not work in all cases. Specifically there is a scope paradox in the case of the causative and reflexive morphemes. We will ignore this problem for now and assume this fairly standard model of word structure.

[3] Semantically, there is not much difference between transitivizing and causativizing functions of this suffix. The distinction between the two seems to depend completely on the semantics of the base. It may be that the contribution of the suffix is the same in each case, viz. that the action is one which entails that someone instigate or allow a state of affairs in which some other entity will be affected; alternatively we can say that in each case an Agentive argument is added to the valence of the underived verb. I make the distinction here because later on I will have cause to mention words where the two must be distinct, i.e. verbs that are both transitivized and causativized.

causative suffix, and will then consider the question of whether there is one lexical rule which would generate all three types of functionally distinct outputs.

In contrast to the morphology described in Chapter Two, this derivational suffix is extremely productive: it takes as input virtually every basic stem, and its semantic effects are predictable, given a few observations about the semantics of the suffixed stem and of the construction itself.

2.1. The suffix -ka as transitivizer/causativizer

As in many languages, the causative formation can function to create an active transitive verb out of a stative root-intransitive. Many of these are verbs[4] which are lexical causatives in English.

(1) kaṭa-nam dida:l -e
shell -spec break -pres
"The shell broke."

(2) man kaṭa-nam dida:l-ka
3sf.A shell-spec break-caus
"She broke the shell."

When suffixed to transitive verbs or active intransitives, the suffix *-ka* results in a clause with a causative or permissive[5] semantics most easily glossed as the equivalent of the English periphrastic causative:

[4] Other such verbs (intransitive stems with change-of-state meanings like 'break') have a zero-derived alternant with an active transitive meaning that obviates the need for the transitivizing effect of *-ka*. Predictably, in these cases the suffixation of *-ka* results in regular causativization.

[5] If the speaker intends to limit the interpretation of *ka* to direct, forceful causation, an adverbial *pelesu* is added to the sentence. This is the stem for the verb "To arrest/imprison" *pelesu?ka.*

(i) pelesu man mo:wal ma?ama?a-ka
adverb she him food eat-caus
"She forced him to eat."

(3) mo:w sima-miti
3sm.A sleep-lie
"He slept/ is sleeping"

(4) mo:wal sima-miti-ka
3sm.P sleep-lie -caus
"Somebody made him sleep."

(5) man tho?onam ma?a
3sm.A acornmush eat
"She ate the acorn mush."

(6) phow ma:dal tho?onam ma?a-ka
3p.A 3sf.P acornmush eat-caus
"They let her eat the acorn mush."

Support for a lexical analysis comes from the fact that verbs suffixed with *-ka* can undergo any category-changing morphological derivational process that the base verb can undergo.

2.2. Clause-union or functional complexity?

One aspect of the relationship between a base verb and its causative counterpart that must be specified in a lexical rule is the change, if any, in the clause structure.[6] The fact that the causative is a suffix which produces a derived stem that is (a) inflectable, and (b) a phonological word, does not in and of itself determine the structure of the resulting clause (see Marantz, 1984:261-291). The question arises as to whether clause-union has taken place, i.e. whether all of the arguments in the sentence are immediate dependents of the derived verb with no embedded clause structure (as is the case in e.g. Turkish or Spanish, (Aissen and Perlmutter, 1976; Comrie, 1976)). One diagnostic test for such structures typically involves causatives of transitive verbs. In

[6] I will conduct this discussion using the terminology and assumptions introduced earlier, generally derived from Lexical Functional Grammar. So in this section I will be referring to 'functional structure', the level of representation where all semantically relevant information about grammatical functions is available. In other frameworks many of these observations could be stated in an explicitly semantic terminology, in others a purely syntactic surface structural account could perhaps be constructed. All of the tests for structure can be motivated at the level of functional structure.

many of these cases the object of the lower verb becomes the object of the union clause, and the causee (formerly the subject of the lower verb) becomes the indirect object of the union clause, headed by the derived verb.

Since indirect objects are indistinguishable from direct objects in Northern Pomo with respect to both ordering and case marking, there is no evidence for or against such an analysis. However, there is evidence *for* a different structure, one which is similar to that proposed for Japanese by Shibatani (1970). This structure is biclausal, as evidenced by the behavior of two kinds of reflexives found in Northern Pomo.

Within the framework being assumed here, we will rely on the functional correlate of an embedded clause, that is, an XCOMP. This is a member of the grammatical function inventory of Lexical Functional Grammar. It denotes an open complement containing a predicate whose Subject is interpreted as identical with an argument of the containing predicate.[7] (Unless otherwise specified as a lexical property of some verb, the controller of the Subject of an XCOMP is a second Object if present, otherwise a first Object, otherwise a Subject.)

The morphological reflexive in Northern Pomo (indicated by the verbal suffix *-i?*, to be discussed in section 2.4) is usually accompanied by the phonologically independent form *k'aye*. This element seems to be a slightly defective pronoun which occurs in the same clause with its antecedent. (This element will also receive more discussion in section 2.4.) The controller[8] of this element must be in the same clause and must be a subject.

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[7] The encoding of interpretive dependencies of the Equi type between grammatical functions in this fashion is particular to LFG. Given slightly different assumptions, the facts could also be accounted for with a surface structure syntactic rule, or a semantic interpretation procedure.

[8] The discussion in section 2.4 will call into question the nominal status of *k'aye*. In light of this, it is somewhat anomalous to refer to its 'controller'. Nevertheless, whether it is a noun or an adjunct of some kind, it is interpreted with respect to some argument that must be tauto-clausal.

(7) Sam k'aye čaxa -? -a
self cut -refl -pres
"Sam cut himself."

If the causativized clause is monoclausal, we would expect that the subject-Causer should be a possible controller of *k'aye*. Similarly, the putative object-Causee should not be a possible controller. However, we find just the reverse.

(8) čon Sam -tu? k'aye čaxa: -ka -? -a
John Sam-P self cut -caus -refl -pres
"John made Sam$_i$ cut himself$_i$"
* "John$_j$ made Sam cut himself$_j$"

(The ordering of the causative and reflexive suffix will be discussed in Chapter Four).

This finding is compatible with a structure in which the Object of the causative predicate is controller of the Subject of the base verb "cut". That is, the constituent structure role of the NP *Sam-tuh* is that of Direct Object of the predicate *ka*, 'cause'. However, functionally it controls the Subject role of the embedded verb *čaxa*, 'cut'. It is by virtue of this relationship that the Object of *-ka* seems to control the interpretation of *k'aye*, 'self':

Another piece of evidence is provided by a set of third person, non-clause-bounded reflexives to be discussed in depth in Chapter Eight. The relevant properties of these forms for the current topic are that (a) they must be controlled by subjects and (b) the A- and P-marked forms of these reflexives, *tiyi* and *titi*, (the cases associated with subjects and objects of transitives respectively, see Chapters Five and Six) do not occur in the same clause with their antecedents. If the structure in (9) is correct, then the anaphor *titi* should be controllable only by the matrix subject-Causer. This is exactly what we find. Although the object-Causee functionally controls the subject position of the XCOMP, that subject is in the same clause as the form *titi*, and thus cannot count as an antecedent.

(9) man mo:wal sip'un
3sf.A 3sm.P kiss
"She kissed him."

(10) man mo:wal titi sip'un-ka
3sf.A 3sm.P NCBR.P kiss-caus
"She made him kiss her."
*"She made him kiss himself."

Having established that the internal structure of a clause headed by a causativized verb is functionally complex (i.e. that one of the arguments of the derived verb also bears a grammatical functional relationship to the base of derivation), I will now suggest how such a structure could be introduced in a lexical rule for *-ka*.

2.3. A lexical rule for causativization

I am assuming a general organization of lexical items roughly like that in (12-14) below. This is a version of the schema for lexical items in Bresnan (1982) and Zaenen and Maling (1984). Each lexical entry for a particular verb stem contains a specification of the thematic roles associated with that verb.

(11) Thematic representation: V (Θ_1, Θ_2...)

(12) [phabah] V 'hit' (AGENT , THEME)

Each verb-argument set is subject to association conventions, at least some of which are claimed to be universal (e.g. Zaenen and Maling,1984: 318).

(13) **1. Initial associations**

a. If the lexical entry of a verb contains only one Θ-role, it is assigned to SUBJ; if there are two, they are assigned to SUBJ and OBJ; if there are three, they are assigned to SUBJ, OBJ and 2OBJ.

b. AGENTS are linked to SUBJ.

c. Language specific assignments

(Zaenen and Maling, 1984:318)

Together, the lexical semantics of a predicate and the output of these association principles are termed *lexical forms*: the verb and its semantic arguments paired with

the appropriate grammatical functions.[9]

The lexical entry for the causative suffix will also contain a lexical form--a lexical semantics, the thematic representation of the arguments associated with the affix and an association between the semantic arguments and grammatical functions. The lexical rule will specify the reassignment of the arguments of input verbs to the argument structure of the affix. The fact that the affix is the head of the derived word will determine that the new lexeme will have the argument structure found in the lexical entry associated with that affix.

The lexical entry for *-ka* gives us the information that causative or permissive semantics is associated with the derived verb. We may call the three semantic arguments associated with this affix the Agent (alternatively we might label this the 'Causer'), the Patient or Theme (or 'Causee') and the Outcome.[10] Each of these arguments will have associated with it a grammatical function: in the case of the Agent and Theme, these will be the grammatical functions of Subject and Object. The Outcome argument will be associated with the grammatical function of XCOMP.

Lexical entry for the causative suffix *-ka*:

[-ka] Aff_{V} 'cause/permit' (AGENT, THEME, OUTCOME)
SUBJ OBJ XCOMP

$]_{\text{v-stem}}$ ——

[9] Levin (1986) introduces an approach to lexical rules within the LFG framework with somewhat different assumptions. A complex lexical rule like Passive is the outcome of the application of more than one very minimal operations. These operations do not change grammatical function - thematic role linkages; lexical rules operate on predicate argument structure, before the assignment of grammatical functions. I will assume the more standard model, in which lexical rules operate on lexical forms, which contain linked pairs of predicate arguments and grammatical functions. I believe the two approaches may be interchangeable, given a hierarchy of thematic role-grammatical function mappings, such as that suggested most recently by Carrier-Duncan (1986).

[10] This form of representation may be seen as a shorthand for an actual lexical semantics of *-ka*. (Nothing in this account requires that thematic roles such as Agent, Theme etc. be primitives.) Such a representation would spell out the entailments of *-ka* as a predicate--that some individual brought it about or allowed it to be the case that some other individual was involved in some state of affairs. That state of affairs would naturally be interpreted to the state of affairs denoted by the base verb.

(C) Association conventions:

1. AGENT ==> SUBJ (universal convention for AGENT-SUBJ association)
2. THEME ==> OBJ (default after 1)
3. OUTCOME ==> XCOMP
   (by semantic constraints on certain function-argument pairs, Bresnan,1982:293)

The lexical rule that relates a base verb and a verb suffixed with *-ka* encodes the fact that the Subject argument of the base verb is interpreted as identical with the Object of the derived verb, and that the base verb forms the predicate of the XCOMP, and is interpreted as the Outcome.

Since the XCOMP contains its own lexical form (meaning and argument structure associated with the base verb), any non-Subject arguments associated with the base verb may be realized in the clause with no change in their grammatical function. Since the XCOMP argument of the derived verb is an open complement, i.e. since it does not have a Subject with an independently specified identity, the value of the Subject of the XCOMP's predicate is determined completely by the identity of the Object of *-ka* and there will be no other independent nominal which provides information about the interpretation of the Subject of the XCOMP's predicate.

The following example shows the stages of a derivation with the verb "to kiss".[11]

(14) [sip'un] V 'to kiss (Ag-Kisser Th-Kissee) '
SUBJ OBJ (by association rules)

[ka] Aff $]_{V\_\_\_}$ 'cause... <Agent Theme Outcome >'
SUBJ OBJ XCOMP (by association rules)

[sip'un-ka] V 'cause <Agent Theme Outcome>'
SUBJ OBJ XCOMP
[kiss <Ag-SUBJ, Th-OBJ>]

Derived V's OBJ = XCOMP's SUBJ (default control principles)

2.4. The suffix -ka as complementizer for control verbs

An additional function of the suffix *-ka* is as a complementizer on a subset of the complements of a few verbs. The verb "want" is a central example.

(15) man [mo:wal sip'un] da?ade
she him kiss want
"She wants to kiss him."

(16) man mo:wal [titi sip'un-ka] da?ade
she him NCBR.P kiss-caus want
"She wants him to kiss her."[12]

The *-ka* suffix is used *just in case the subject of the downstairs verb is different from the matrix subject.* In addition to its presence in complement clauses for certain verbs, it appears under the same 'switch-reference' conditions in purpose clauses (marked by the future modal *khe*).

(17) phik'a šibu khe man k'uhum xa?a-ka
basket make fut she root trim-caus
"She trimmed some basket roots so she could make a c'ika"
[Here the use of the causative on the main verb is as a transitivizer.]

(18) phik'a šibu -ka khe man k'uhum xa?a-ka
basket make caus fut she root trim-caus
"She trimmed some basket roots so (somebody else) could make a c'ika"

The same pattern is observed in purpose structures that correspond to infinitival relatives in English.

(19) ša phe:n khe kosta:la nay ma: ṭhi miṭi
fish hold fut bag spec ground -pp. lie
"A bag to hold fish in is on the floor"

(20) mo:wal ma?a ka khe kosta:la - da na -y
3sm.P eat caus fut bag - loc cop
"(Something) for him to eat is in the bag"

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[12] Recall that the form *titi* is a (P-case marked) non-clause-bounded reflexive form which must be controlled by a subject outside its clause.

There is no evidence that the speaker sees these as causative clauses. They are never spontaneously glossed as explicitly causative (although as I will discuss below that interpretation is available for them). In addition, the same pattern is found in sentences where the complement of the verb "want" contains a predicate that denotes activities over which the subject could never have control, such as the sun rising, rain falling, etc.

This pattern has been attested in several unrelated languages: Oswalt (1977) discusses the phenomenon in the Western Pomo branch, of which Northern Pomo is a member. (It seems not to exist in the more distantly related Pomo languages, thus providing evidence that this development is later than the development of the causative function, which is ubiquitous.) In Kashaya, we find the causative "in sequences expressing purpose or involving verbs of volition or emotional attitude, and then the Causative is brought into play to signal a switch in agent" (Oswalt, 1977:50).

(21) Kashaya Pomo (Oswalt's (5a,b,g,h))

a) mo:du daqa:c'é: man?
run-along-Abs. want she
'She wants to run.'

b) mon? qá: daqa:c'é: man?
run caus want she
'She wants someone else to run.'

c) hayu ?
dog be
'It is a dog.'

d) hayú ? -qa -š̆
dog be -caus -OPT
'I hope it is a dog.'

Oswalt says that examples (c) and (d) "might be said if someone saw or heard an animal in the brush and expressed the hope that it be a dog rather than something dangerous, like a bear" (ibid:51). As such they demonstrate the bleaching out of the causative meaning in this extended use of the suffix in Kashaya as well.

Nichols (1985) reports that in Chechen-Ingush (two dialects of a North Central Caucasian language), the indirect causative is found in "only two contexts: dependent clauses of purpose and complements of some verbs meaning 'want'"(Nichols, 1985:194). I have also found it in similar circumstances in Hmong, a Southeast Asian language (field notes).[13]

(22) Hmong (translated from Mottin, 1980:130-131)

kuv xav mus
I want go
"I want to go"

kuv xav kom nws mus
I want 'for' he go
"I want him to go"

hais kom nws paub
say 'for' he know
"Tell him so that he'll know"

(23) Chechen: (Nichols' (7) and (8))

as kni:ga yecna jieša^{n}
I-ERG book-NOM bought read-INF
'I bought a book to read'

as kni:ga yecna jieš -i:t- a^{n}
I-ERG book-NOM bought read -caus -INF
'I bought a book for someone else to read'

(24) Jordan Chechen (Nichols' (21) and (22))

so har žejn de:š -jăl
I-NOM this book-NOM read INCEP
'I want to read this book'

so har žejn de:š -i:t -jăl
caus
'I want (someone) to read this book'

[13] It is interesting that Hmong is not by any means a concatenative morphologically agglutinative language. Rather it is a typical southeast Asian analytic language. Although this is a lexical process in the morphologically complex Pomo and Chechen Ingush, we don't want to rule out a similar treatment for Hmong. For a discussion of issues regarding the unity of descriptions of lexical processes irrespective of morphological type, see Ackerman (1987).

Should this 'switch-reference' use of the causative marker be subsumed under the same lexical rule as that proposed for the first two functions? Implicit in this question is another question: What is the source of such an extension? Are the elements in the lexical entry for *-ka* in its causative sense present in this use of the suffix? What is there about the suffix and the lexical properties of the relevant complement-taking verbs, that would favor the use of this suffix as a complementizer?

To answer this question we must consider the lexical properties of the verb 'want' in cases where the matrix subject and the embedded subject are the same, and the suffix *-ka* is not triggered, as well as cases where they are different, where the suffix appears.

Assume that the lexical entry for 'want' is as follows:

(25) [da?ad] V 'want < AG-WANTER, OUTCOME >'
SUBJ XCOMP

This says that the verb "want" takes an open complement or XCOMP as the grammatical function associated with its Outcome argument. This XCOMP will be headed by its own predicate, which will have associated with it a lexical form--the semantic arguments and their associated grammatical functions. The interpretation of the Subject of the complement verb will be determined by the interpretation of the main clause subject, the "wanter". This is by ordinary principles of functional control. Since the Subject is the only nominal argument of the higher verb it will be the default controller of the complement Subject. The functional structure for a 'same-subject' sentence like (16) would include the information represented informally below.

(26) PRED *da?ad* 'want' < SUBJ, XCOMP>

SUBJ *man* 'she'

XCOMP SUBJ ____
OBJ *mo:wal* 'him'
PRED *sip'un* 'kiss' <SUBJ, OBJ>

What are the ways, given what we have said so far, that a different Subject could be introduced into the lower clause? The specification of the functional subcategorization pattern of 'want', given above rules out both the (a) and (b) examples below:

(27) (a) * man [mo:w titi sip'un] da?ade
she he NCBR.P kiss want
"She wants him to kiss her."

(b) * man mo:wal [___ titi sip'un] da?ade
she him NCBR.P kiss want
"She wants him to kiss her."

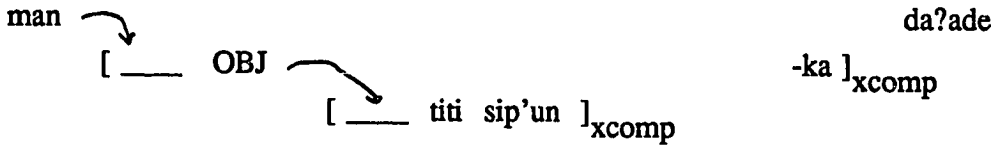
In sentence (a) the bracketed segment would be a closed complement, one with its own Subject (in LFG terms a 'COMP'). Thus the lexical requirements of the highest verb are not satisfied. The Outcome argument is not expressed as an XCOMP. In (b), the Outcome argument is expressed as an XCOMP, but the verb "want" does not subcategorize for a Direct Object.

The solution arrived at by the morphology involves *-ka* . The *-ka* marked complement solves both of these requirements: the introduction of the morpheme *-ka* introduces a an Object function, and it subcategorizes for an Outcome/XCOMP argument. The subject of the lowest verb is controlled by the object of *-ka*, thus transparently retaining its semantic relation to the lowest verb. The suffix *-ka* also introduces its own clause, with a Subject function. This then becomes the predicate of the XCOMP required by the highest verb "want".

Within the lexical analysis as presented here, we have emphasized the fact that the verb "want" is not subcategorized for an Object. I have implied that this was the obstacle which required the addition of the suffix *-ka*. In fact, it might be the case that the relevant verbal property is that "want" must have Subject control of the XCOMP

function. If this were true, then the function of *-ka* would be to introduce a new XCOMP which could simultaneously introduce an argument to express the intended 'downstairs Subject', and provide a XCOMP which may be controlled by the matrix Subject.[14]

(28)



Purpose clauses can be given a similar analysis. Later on in this chapter I will discuss two types of controlled adjuncts (adjuncts which may not have expressed Subject nominals, but whose Subjects must be interpreted as identical with (roughly) the Subject of the main clause of which they are a part). Purpose clauses in this language are the same type of structure. They are controlled, open adjuncts ('XADJs'). They have as a complementizer the future modal/tense marker *-khe*. Whether we assume (following Waksler, 1984) that purpose clauses are introduced as an optional adjunct to particular verbs, or whether we assume, (following Bach, 1982) that no such lexical government is possible, we can say that the suffix *-khe* in its purpose clause function subcategorizes for an adjunct with a functionally controlled subject.[15] Like the verb "want" (see example ()), this element requires that the Subject of its open function, the XADJ, be controlled by the subject of the main clause.

[14] This second analysis is in fact easier to translate into a semantic account such as one that might be given in a categorial grammar. This might say that in this language the verb "want" subcategorizes for a property, as expressed by a VP. The introduction of a different downstairs Subject results in a proposition, a Subject and Predicate. To transmute this into a property, the suffix *-ka* is added as a predicate. It has the right argument structure to introduce the downstairs Subject while constituting the head of a VP which is a property argument of "want".

(29) [khe] Aff_{compl} $]_V$ — $\underset{XADJ}{<PURPOSE>}$

Control condition: [MATRIX SUBJ = XADJ SUBJ]

(30) mo:wa? ?a: kaweyo bila: -y mo:wal čima -ka -khe
him.OBL 1s.A horse buy-perf 3sm.P sit -caus -fut.mod
"I bought him a horse to ride."

Since this construction has no direct causative semantics (beyond the very oblique relation that someone who wants some outcome will probably not hinder it, and someone who does not want some outcome will probably not promote it) we probably don't want to say that the causative suffix was adopted for a purely semantic reason. Moreover, of the many languages with morphological causatives, only a vanishingly small number (as far as I know) display this particular extension. We might guess that semantic compatibility is not enough: some feature of the affixation must be attractive to and compatible with the larger construction. In this case that feature is hypothesized to be the grammatical function of XCOMP which allows the subject control constraints on the verb "want" and the purpose clause to be satisfied.[16]

On the other hand, the fact that this innovated complementizer is a causative is not totally unmotivated. Although its causative/permissive semantics is relatively bleached out[17] we can see that it is compatible with these higher predicates.

We are left with a question about its status in the lexicon. The suffix is assumed to have its own lexical entry. All of the verbs suffixed with the causative have the same argument structure. As argued above, it is in virtue of this argument structure (and less clearly, in virtue of its semantics) that it has been adopted as a complemen-

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[15] It may be that this is only true of *khe* when it introduces a purpose clause. This element also occurs as a future marker on embedded clauses, and in this function does not display the 'switch-reference causative' phenomenon. I will not pursue this question of multi-functional formatives here.

[16] I have not done an analysis of the Chechen-Ingush data nor the Hmong data to see if such an analysis will work for them.

[17] Nichols points out that a semantic precondition for this morphological drift in Chechen-Ingush and Pomo appears to be the availability of a causative morpheme that signals permissive semantics, a notion of causation one step removed from direct causation. This condition holds for Hmong also.

tizer. However, in this role it is almost inflectional. It has lost virtually all of its causative semantics, and it is completely impervious to the semantics of the base. In fact, (a) it does not change the basic meaning of the suffixed stem at all (Bybee, 1985) and (b) it is required by the syntax of the sentence (Matthews, 1974; Anderson, 1985b), i.e. when the the above described conditions hold.

Should we assume that these two senses of the suffix require two rules? In the following section, I offer more evidence that in fact only one rule of lexical relatedness is involved.

2.5. Suffixal reiteration

So far this analysis has proposed one device, a single lexical rule, to handle two (or possibly three) different functions. In evaluating the usefulness of this it may be useful to ask a descriptive question which bears on the typological status of Northern Pomo's word formation rules. As pointed out by Anderson (1985a and b) a useful and illuminating typology of morphology must focus on the character of particular word formation processes. Two issues of particular importance are the following. (1) To what extent is derivation cumulative, i.e. does it proceed in stages, and can a particular word formation process (say, affixation of a certain formative) apply recursively to its own output? (2) What is the mapping from form to meaning? Does each formative have one meaning or function, or is the mapping many to many? This phenomenon brings into sharp focus the difficulty of answering these questions. The answer to question (2) is unclear--are these senses of *-ka* different enough to motivate, say, two lexical entries?

Let us turn to question (1). Can the *-ka* suffix in one of its functions apply to the output of the *-ka* suffix in another of its functions? At the level of surface realization, the answer seems to be no. In the following example, we can see that an instance of *ka* which has a transitivizing function cannot be causativized by adding another *-ka*.

(31) lok'-ta-ka "to drop again and again, or one after the other"
fall-mev.-caus [transitivization of *lok'* 'fall']

(32) ?a: mo:wal mul lok -ta-ka
1s.A 3s.P dem. fall-mev -caus
"I made him drop them."

*?a: mo:wal mul lokta-ka -ka
-caus -caus

This doesn't seem to be a phonologically motivated simplification, since the sequence *ka-ka* is found in cases like the following.

(33) di "to take or borrow"

dika "to give (=make/let take)"

dika-ka "to make/let give"

dika-ta "multiple giving"

dika-ta-ka "make give multiple things"

As was the case with certain aspectual suffixes discussed in Chapter Two, some apparent examples of *-ka* suffixation involve frozen or lexicalized stems. The multiple event suffix *-ta* provides evidence for this. As shown in Chapter Two it is typically found suffixed directly to stems, *inside* of the causative suffix. In cases like (37) above, it is found outside of the fossilized causative and inside the productive causative.

Moreover, the complementizer function of the *-ka* suffix may be realized on the surface when this verb, *dika*, is embedded under the verb *da?an*, "want".

(34) ?a: mo:wal ma:dal pe:su dika-ka da?ad-e
1s.A 3sm.P 3sf.P money give-caus want-pres
"I want him to give her money."

This can be contrasted with the case where the *-ka* suffix is found on the verb as a result of its *productive* transitivizing function *or* the causativizing function. Here the suffix in its complementizer function does *not* appear.

(35) (a) ma:dal ?a: kaṭa-nam dida:lka da?ad-e
3sf.P 1s.A shell -spec break-caus want-pres
"I want her to break the shell."

* ma:dal ?a: kaṭa-nam dida:l -ka-ka da?ad-e
*caus-caus

(b) ?a: mo:wal duhu -ka da?ad-e
1s.A 3sm.P leave-caus want-pres
"I want to make him leave."

*?a: mo:wal duhu -ka -ka da?ad-e
*caus -caus

So unless the base verb is one of the few which contains a completely frozen instance of the causative, like *dika*, the formative may never appear twice in a word, no matter how many of its functions are intended to be expressed. The facts so far do not support an analysis in which two (or three) independent rules govern the distribution of the suffix, since it would then be necessary to find some way to constrain their joint application. One would be barred from applying just in case the other had applied.

A lexical rule is a relationship between lexemes (or words, in the case of inflection). In many cases this relationship is mediated via the addition of a formative. The relationship between the base and the derived word is different in the case of the causativizing function and the complementizing function, since the former involves explicitly causative semantics. The simplest solution would be to have distinct lexical entries for each lexical relationship. However, this is problematic, since the suffix *-ka* can occur only once on a word, no matter how many functions the suffix is simultaneously serving. In other words, the *-ka* rule is not recursive as a word-formation rule.

This, however, does not mean that the lexical entry for *-ka* could not have more than one function. In this way, the links between the bases and the derived words could be assigned several *interpretations*. From one perspective, one instance of the *-ka* suffix could be seen as having at least six senses: (a) transitivizer; (b) causativizer;

(c) 'switch-reference' complementizer; (a) + (b); (a) + (c); or (b) + (c).

Since these functions are quite distinct, it seems a bit odd that the suffix does NOT iterate. A comparison of Northern Pomo and Kashaya Pomo in this regard reveals a difference between the two languages.

2.6. Activation of the causative in Kashaya Pomo

Kashaya Pomo differs from Northern in the domain of iteration of the causative suffix: in Kashaya we find that this suffix, which has the same functions, can occur once for each function:

(36) (Oswalt's 10d)

mon? -qah -qa -qa -s̆
run CAUS CAUS CAUS OPT
'I hope someone else makes a third person drive.'

In this example, the final suffix is the Optative, "a suffix which could be deemed to embody a higher verb 'hope', complete with its agent 'I', because the suffix can be used only for the hope of the speaker. The only way to express 'He hopes...' would be by a separate verb, namely the 'want' verb...(ibid:51). The causative closest to the verb stem 'run' creates the transitive verb 'drive'. The second suffix causativizes this transitive verb, and the third serves to fill the lexical requirements of the higher verb/suffix, what Oswalt calls the 'switch-reference function'.

According to Oswalt (p.c.), the multiple uses of this suffix are not well-installed in the speech of his older Kashaya informants. They will accept these sentences, but in general do not produce them completely freely. However, in the speech of his younger informant, a man in his thirties, these forms are commonly attested, and his judgements of such examples shows that for him, they have the status of words that are "in the dictionary"; normal formations that are unmarked.

It seems clear that at this stage in Kashaya the causative suffix {-qa} has become *activated.* That is, it is currently actively[18] forming new lexemes. This is a dimension

[18] The only source in the literature I have found which makes this distinction, or something like it, is

of word-formation distinct from productivity as commonly discussed. In both Northern Pomo and Kashaya Pomo the causative suffix is very productive in the structural sense discussed in Aronoff (1976). That is, there are no observable restrictions on the class of verbs that can serve as a base to it. It also displays the semantic coherence characteristic of highly productive word formation. However, in Northern Pomo it is not actively creating new words; this is not to say that a new loan word could not be causativized. There is an important distinction to be made between *being available for derivation and inflection of newly arrived words* and *actively adding large classes of new words to the lexicon.* For the purposes of this discussion and that in the next chapter, the second type of productive word formation rule will be called *activated* word formation. For a particularly good example of this phenomenon see Jamison (1976) and Hamp (1985) on the transition from transitivizer to causativizer in Sanskrit-- at the point at which it spread rapidly through the lexicon, forming causatives of transitive roots which had previously been unavailable to it, we could say that the formation was activated.

In Kashaya, members of the small (less than 100 individuals) speech community clearly differ on the status of words which display multiple causatives, a sign that new words are entering the lexicon.

We might speculate that the multiple functions of the suffix {-qa} provoked speakers of Kashaya to form new words containing multiple instances of it. Why then didn't the Northern Pomo speakers follow the same course? We cannot say. It might be that if the speech community were similar in size and demographics to the

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Clark & Berman, 1984. In their discussion of the acquisition of Hebrew word formation devices, they make a distinction between *structural productivity*, ("the nature of the formal constraints that govern, for instance, the application of suffixes and prefixes (ibid:571)), *normative productivity* (in this case, those WFRs favored and promoted by the Hebrew Language Academy), and *natural productivity*. The last "reflects the current patterns and word formation options favored by speakers of a language on a day-to-day basis" (ibid:574). Anderson (1985a) also mentions the distinction between a WFR that is available to derive or inflect a new word in the language, but otherwise is relatively quiescent, and a WFR that is in the process of adding large numbers of new derived forms to the language.

somewhat more distributed Kashaya community, we might find such an activation going on there too. Phonological or morphotactic factors may also play a role. This notion of *activation* will arise again in Chapter Four, in the context of a discussion about the relation between order of morphemes and lexical rules.

Here the notion of activation gives us a way to talk about the difference between the current state of word formation in Kashaya and in Northern Pomo with respect to this suffix. In the former it is actively adding words to the lexicon, words whose surface form reflects the several functions associated with the formative by representing one instance of the formative for each function. In the latter, the suffix has the same functional capacity, but new words have not been added to the lexicon to reflect this. The multiplicity of function is not represented in the surface structure of the word.

These facts bring us back to Anderson's question (2) above. What is the mapping from form to meaning in Northern Pomo? He contrasts languages like Hebrew, in which every vocalic derivational pattern has associated with it a number of semantic functions,[19] with an affixing language like Kwakw'ala in which every formative has one and only one meaning. These two extreme examples suggest that further typological study might reveal a tendency in affixing languages to a one-to-one mapping between function and form. We might say that what has happened in Pomo is this: over time, the causative suffix has acquired more than one sense. In Northern Pomo the formative still constitutes one lexical item, but this is not the preferred situation. In Kashaya Pomo the several functions of the formative have caused a split--there are now two lexical entries which may act as heads of derived words, and the multiple applications reveal that these are separate formatives.[20]

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[19] See also Gragg (1984), who discusses polysemy of the triconsonantal roots in the same language family. The Semitic languages provide a "multiplicity of cases of polysemy-bordering-on-homophony (or as some might put it, polysemy-bordering-on-the-ridiculous)..." (Gragg, 1984:133). Because of the relatively limited inventory of consonants, (about two dozen), and the morpheme structure constraints that determine a system of tri-radical roots, relatively few distinct lexical bases are available. Yet, according to Gragg, the roots must retain their identity "in the face of the shifting myriad of vocalic environments to which the radicals are exposed in the course of the simplest inflection" (ibid:134-5).

[20] It is easy to see that it is very difficult to avoid circularity in the consideration of these two typo-

3. The Reflexive affixes

The Pomo languages all possess a morphological reflexive; in Northern Pomo the formative is {-i?}.[21] When the actor is notionally plural the formative is {-mo?}.

The suffixes seem to be limited to taking transitive verbs as bases. The plural formative {-mo?} is interpreted as either a reflexive or a reciprocal. The following examples show that there are two independent elements, *k'aye* and *xol*, that may optionally occur in sentences that are interpreted as reflexive or reciprocal respectively.

(37) hayunam ya? dak'a:t -i? -i
dog A scratch -refl -pres
"The dog was scratching itself"

(38) man k'aye dak'a:t -i? -i
3sf.A self scratch -refl -pres
"She is scratching herself"

(39) xol kawiya nam dasey? mo? - ye
recip. children wash-refl.pl -perf
"The kids washed each other"

(40) k'aye kawiyanam dasey? -mo? -ye
self children wash-refl.pl -perf
"The kids washed themselves"

(41) ma se?e nami dibu -? -un to: čadi -m
2s.A bush pp hide-refl-Acomp 1s.P watch-IMP
"Hide (yourself) in the bushes and watch me."

(42) phow ba?ol -mo? -ye
3p.A call -refl.pl -perf
"They called each other."

The status of these optional independent reflexive and reciprocal markers is somewhat unclear. The reciprocal element *xol* is most likely an instance of the adverbial *xol* which means something like 'around'. It is found as an incorporated preverbal element in verbs like *xol-baneh*, "To throw around (back and forth)". It is not a nominal

logical parameters.

[21] As in other suffixes with an initial vowel, after a consonant its underlying quality is revealed--it is realized as [I]; after a vowel it is unrealized. I will not discuss the few exceptions I have found.

element.

The form *k'aye* is more nominal in character. It takes none of the case inflection found on pronouns and certain nominals, nor does it appear with the clitic cases that mark common nouns. However, the obviously cognate form in Eastern Pomo, *k'e:hey*, participates in the inflectional paradigm of pronouns, showing inflections associated with subjects, objects and genitives (McLendon, 1975:111).[22]

As exemplified above, the presence of the suffix {-mo?} or {-i?} does not require the use of the elements *k'aye* and *xol*. Moreover, *k'aye* may appear when the verb does not bear the {-mo?} or {-i?} suffix, with no implied reflexive meaning resulting. In particular, *k'aye* can be used emphatically. In neither of these examples is the action reflexive in the ordinary sense.

(43) k'aye mo:w mul dasey
self he dem wash
"He washed it HIMSELF"

(44) tiya? kami:sa k'aye phow dasey nan diwema: mul čac'am-ka-khe
NCBR.Obl shirt self they wash and tomorrow dem dirty-caus-fut
"They THEMSELVES washed their shirts
and tomorrow they will get them dirty again."

In its emphatic function, the element *k'aye* seems to be limited to emphatically modifying the Subject of the sentence.

With certain verbs, such as "talk", *k'aye* may be used even when the verb is not marked with the reflexive suffix. (This verb allows a direct object argument).

(45) khila: čiman mi: man k'aye čano: - d - e
alone sitting there she self talk-prog-pres
"Sitting alone in there, she's muttering to herself."

It can also occur in a phrase with the postposition *khe*. In this example the purposive, future/modal postposition described in the previous section, can mark *k'aye* with a

[22] It is unclear to me in what contexts the subject marked version of the stem would appear. A language much more closely related to Northern Pomo, Kashaya Pomo, does not seem to have the cognate form, according to Oswalt (1960).

resulting interpretation of 'self-benefactive'.[23]

(46) k'aye khe man čano -? -ye
self for she speak -semlf -perf
"She spoke for herself."

(47) k'aye khe mo:w ma?a dode
self for 3sm.A food make
"He made himself dinner."

Note that the privileges of occurrence of *k'aye* do not extend to all postpositional phrases. It cannot occur as the object of other postpositions where we might expect it; instead, objects of postpositions which are to be construed as coreferent with the Subject of the sentence are instantiated by the Oblique form of the non-clause-bounded reflexives (described in Chapter Eight).

(48) ti?/ *k'aye dakhe ye? man me? čano:-ta-n-ye
NCBR.Obl/*self about always 3sf.A adv talk.mev-prog -perf
"She is always talking about herself"

Since in Northern Pomo the element *k'aye* is a defective nominal at best, and is optional anyway, we might see both *xol* and *k'aye* as adverbially modifying the verb. In other words, we have no compelling reason to think of the output of the reflexive suffix as a syntactically transitive verb. Unfortunately, there are no general tests for intransitivity in Northern Pomo. The closest I have been able to come is constructing reflexive sentences which contain body parts. If the reflexive verb has no direct object, we might expect that a sentence like "She burned her arm", which is headed by a transitive verb, would not allow the body part to be expressed as an independent argument. In fact, this seems to be the case:

(49) man (k'aye) kimu-dato:y-e?-e
3sf.A self arm color/tatoo-refl-pres
"She tatooed her arm."

---

[23] This construction is also mysterious. As shown in Chapter Five, the first person Oblique$_{\text{benefactive}}$ form is *khe*, but no other pronouns occur with *khe*, as beneficiaries or any other role. The same string occurs in the postposition *dakhe*, "about", and as a marker of purposive constructions and as part of the future tense morpheme.

This sentence is an instance of the 'Possessor Ascension' construction described extensively in Chapter Seven. Briefly, in certain contexts the body part noun phrase is broken up, the body part becomes semi-incorporated into the verb, and the possessor may 'ascend' to become a direct dependent of the verb. There, as here, the body part is not inflected as an independent argument. We can see this as a reflexivized version of the stem "arm-tatoo", *kimu-datoy*. In short, this sentence type, which had the potential to allow the expression of a direct object of a reflexive, does not. Thus, while the conclusion that reflexive and reciprocal verbs are intransitive in this language must be tentative, there are no obvious counterexamples.

3.1. A lexical rule for reflexivization

In deriving an appropriate formulation of the lexical rule for the reflexive and reciprocal suffixes, one factor we must note is its subcategorization. It is suffixed onto a transitive verb. This may be stated as part of the subcategorization environment of the affix.

The underived input verb's lexical form must contain two arguments which are assigned in its lexical entry to Subject and Direct Object. Many accounts of lexical rules of reflexivization focus on the mapping between the grammatical functions of the base verb and the derived verb (e.g. Marantz, 1984). In some cases, a decision can be made (e.g. on the basis of semantic evidence) as to whether it is more appropriate to represent the relationship between the input verb and the derived reflexive verb as a mapping of Subject/Actor argument onto the Subject role of the reflexive, while allowing the Object/Undergoer role of the input verb to be bound somehow to the verb, or whether it is more illuminating to assume that the Subject of the underived verb is 'absorbed' into the verb meaning, and the Undergoer role of the input verb is mapped onto the Subject of the reflexive verb (cf Grimshaw, 1982). My account will avoid this decision, since there is no evidence in Northern Pomo for either choice. I will assume that the mapping from the argument structure of the underived verb to the

derived verb may involve either linking.

We can ask, however, what the lexical semantic relationship between the two verbs is. The lexical semantics of the reflexive verb will be a compositional function of the semantics of the reflexive morpheme and the base verb. The means for accomplishing this will have the added benefit that the reciprocal *and* reflexive reading for the morpheme *mo?* will fall out in a natural way.

(A) There are two participant roles associated with the base verb, one of which is in the set of Actor-type roles, and one of which is in the set of Undergoer-type roles (Foley and Van Valin, 1985). The individual(s) denoted by the sole argument of the reflexive verb must participate in both sets of participant roles.

If we assume that the morpheme *mo?* adds only the information that the entities denoted by the sole argument of the reflexive verb are members of a set which contains more than one member, then we can see that either the reflexive or the reciprocal reading is available. The multiple members of the set denoted by the subject of the verb containing the reflexive/reciprocal morpheme may be Undergoers of the verbal action either by virtue of the actions of others in the set or by virtue of their own actions on themselves. These two readings may be disambiguated by use of the modifying elements *xol* and *k'aye* as described above.

For example, consider the verb "to cut", *čaxa.* The base verb has two semantic arguments, the cutter and the cut, and we understand the derived verb in the same terms. That is, a sentence like *Sam (k'aye) čaxa-?a*, "Sam cut himself", entails that Sam was both the cutter and the cut.[24] A sentence like the following requires that the individuals denoted by the pronominal *phow*, 'they', must have been both cutter and cuttee, though not necessarily by their own reflexive action.

(50) phow čaxa-mu? -u
3p.A cut -refl/recip -pres
"They cut themselves/each other."

[24] It may be that this participant role inheritance effect can be handled by the normal sorts of feature

4. The passive affix *-ya*

In this section I will develop a lexical rule for the suffix *-ya*, the only passive construction in the language. I will show that according to the available tests in the language, this construction has no Subject argument, i.e. the argument of the underived verb which is assigned the Subject function is still available for semantic interpretation, but that it does not possess the grammatical properties of Subjects. Moreover, no other arguments of the underived verb are 'promoted' to the Subject function.

Keenan (1985) describes 'basic passives', a central reference point in the typology of the construction, as those in which "(i) no agent phrase (e.g. *by Mary*) is present, (ii) the main verb (in its non-passive form) is transitive, and (iii) the main verb expresses an activity, taking agent subjects and patient objects"(1985:247). The verbal derivation which most closely approximates this type in Northern Pomo is signalled by the addition of the suffix *-ya* to a basic or derived stem. It displays the allomorphs shown in (1) below.

(1) If the stem ends in an oral or nasal consonant, suffix /-?a/;

Elsewhere (after vowels, [?] and [h]), suffix /-ya/.

It is a strict morphological passive, not requiring any auxiliary-like elements. As shown in the following example, the addition of the suffix *-ya* causes no change in the case marking of non-subject arguments; the subject, however, is suppressed and cannot surface in any form whatsoever, neither in an agentive phrase nor an oblique case-marked nominal. In an active sentence, the subject (and most other arguments as well) may be unexpressed; in a passive sentence, the nominal corresponding to the 'underlying' subject must be unexpressed. We will see that the unexpressed argument of a

passing mechanisms. The fact that the reflexive/reciprocal suffix is the head and itself does not contribute any semantics except that stated above (that the Subject argument must be both an Actor and an Undergoer) will ensure that the semantic roles of the base verb are passed up to be part of the derived verb's argument structure; i.e. if the head is unspecified for some feature, but a non-head constituent is specified for that feature, then the non-head feature values may percolate up to the mother node. For a formal statement of such a percolation convention, see Selkirk, 1982:76.)

passive is quite different in character than arguments that may be omitted because of discourse considerations.

(51) **Active:** nan mili ?al phow phowal xama-de:n -khemna
and dem+with dem 3p.A 3p.P track -fut
"And with that they will track them."

(52) **Passive:** nan mili ?al (* phow) phowal xama-de:n -?a
and with dem 3p.A 3p.P track -pass
"And with that they were tracked."

(53) **Active:** (čʷa?-ya?) diley mul hač'ʷa:-ka -na
(person.A) all dem fill -caus -cop
"Somebody filled them all."

(54) **Passive:** (*čʷa?-ya?) diley mul hač'ʷa:-ka -ya -d -e
-pass -prog -pres
"They are all going to be filled (by someone)."

Both transitive and intransitive verbs can undergo this derivational process:[25]

(55) **Active:** phow mu: k'otam-a
3pl.A there swim-pres
"They swim there."

(56) **Passive:** (*phow) mu: k'otam-?a
-pass
"People swim there."

Before describing in detail the characteristics of this construction, I will review briefly some issues in the typology of passives.

4.1. Personal and impersonal passives

As I will demonstrate below, there is no evidence for any surface subject in the Northern Pomo passive. Therefore, the possibility that this construction is an impersonal passive must be considered. The existing literature, however, is somewhat equivocal on the question of just what constitutes an impersonal passive.

Comrie (1977) gives a fairly neutral version of the situation cross-linguistically.

[25] I will discuss lexical exceptions to this derivation further in Chapter Six and Appendix A.

He states that impersonal passives "...will have no derived subject,...if there are objects (direct or not) in the underlying structure, then these will be retained in the derived structure and will not be promoted to subject. The underlying subject will either be completely absent or will be present as an oblique object." [page number]

The common sense of *impersonal* is independent of the passive construction. It is that a special third person subject, often plural, is not understood to refer to any specific group of individuals. This subject may be a dummy nominal or may simply be reflected in verbal agreement morphology. Passives that are formed on intransitive verbs thus gained the name 'impersonal', since suppression of the underlying subject resulted in either no surface subject or a dummy element. Cross-linguistically, passives on transitive verbs typically involve promotion of the underlying object to subject. Thus in languages which allow impersonal passives it is common to find personal passives of transitives and only impersonal passives of intransitives. However, this tendency does not form the basis for an adequate cross-linguistic characterization of impersonal passives. The label *impersonal passive* is not properly limited to intransitives that host passive morphology and seem to have undergone a passive-like suppression of the subject. As Postal (1986) points out:

> An idea sometimes expressed or hinted at [references omitted] is that IPs are passives of intransitive structures. While this is certainly true extensionally in certain specific (natural languages), and while there may be something intensionally valid to be said universally along these lines, taken as a definition, such an account seems to fail in both directions [footnote omitted]. First there are passives of intransitives which are not IPs. English PSEUDO-PASSIVES... are typically based on intransitive predicates and yet are (personal passives)....Second, IPs are apparently not lawfully limited to intransitive predicates.
>
> Postal, 1986, p.10

He goes on to describe cases where impersonal passives are formed corresponding to transitives with invisible unspecified objects, as in German:

(57)	Man hat gegessen	Es wurde gegessen
	one has eaten	it became eaten

In other languages, e.g. Welsh, impersonal passives of transitive predicates are allowed freely, including those with "superficial expressed underlying 2s".

Part of the terminological unclarity is due to the lack of a theory-neutral set of concepts with which to discuss the facts. For example, Keenan (1985) identifies impersonal passives solely with passives of intransitives. However, since he treats passivization as an operation on predicates, he is able to subsume the case of impersonal passives of *transitive verbs with expressed objects* to the general category of *intransitive predicates*. In his account, Passive generally derives *n*-place predicates from *n+1*-place predicates. For a regular passive, n = 1. In impersonal passivization, n = 0. Thus a transitive verb and its object may be treated as a one-place predicate: a predicate which combines with one NP to make a sentence. As such, impersonal passivization may derive from it a zero-place predicate.

Perlmutter and Postal (1984a) offer a theoretically constrained definition of the impersonal passive. Within their framework of Relational Grammar, it is necessary that there be a final 1 (subject) in any clause. Thus, whether or not a dummy subject is phonologically evident, a clause headed by an impersonal passive must contain a dummy which advances from 2 to 1, putting a 1 *en chômage*. Yet this condition is not sufficient. An example like "There are believed to be gorillas in Australia" (op cit: fn 16, p.121), which meets this criterion, is not an impersonal passive, since there is a corresponding active sentence which contains the same dummy.[26] They do not give a complete criterial definition of the construction, but they do state informally that in an impersonal passive, the dummy exists only as a function of the passivization.

[26] Postal (1986) goes on to develop a sufficiency condition for impersonal passivization within the

Finally, impersonal passives are considered to be non-basic: presence of impersonal passives implies the presence of personal passives. Keenan (1985:276) points to only one counterexample, Ute, where the only passive is impersonal. Northern Pomo would seem to be another such language.

4.2. Syntactic, semantic and pragmatic dimensions of the Northern Pomo passive

The literature reveals that the IP construction can vary in a number of dimensions that do not bear directly on the syntactic representation of the clause. Yet these constraints will be important in determining what verbs can or cannot undergo impersonal passivization, and in the formulation of the lexical rule. In this section I will describe the *-ya* construction in Northern Pomo, paying attention to these dimensions, with a view to the question of how they should be represented in the lexical rule of passivization.

First, it should be noted that this derivation can feed other derivational rules that change category. This fact strongly supports the use of a lexical rule to describe its effects. For example, the *-ṭil* suffix creates adjectives from verbs.

(58) xaphiṭa:-ya-ṭil mo:w na
pity -pass -adj he COP
"He's pitiful."

Passive verbs may also form the basis for nominalizations.

framework of Arc Pair Grammar by formally defining the relation of the the dummy to the clause structure as a whole. Specifically, "an IP is precisely defined as a passive whose prepassive arc, A, is not only a ghost but one sponsored by the 1 arc which the arc-passive arc (the local successor of A) overruns. In other words, an IP is a passive whose prepassive arc is a ghost sponsored by the passive-destroyed arc" (p. 112). I am unaware of any other theoretical framework which has developed as comprehensive a statement theory-internally regarding the structure and identity of impersonal passives.

(59) to phik'a dika-ya-nam tiyiš̌ na
1s.P basket give-pass-spec ugly cop
"The basket given to me is ugly."

(60) kadem-?a+nam
play.coll-pass -spec
"The game"

The position of the passive suffix, to the left of all tense and mode inflection, also supports the supposition that it is derivational. Henceforth, I will simply assume that *-ya* suffixation is a lexical process.

4.2.1. Are objects promoted to subject in the passive construction?

An obvious question arises: if this derivation can take as input transitive verbs, does the object of the underived verb display any surface marking or behavioral properties which in the derived construction would lead one to believe that it had been assigned the subject function? There are several types of evidence which converge on the conclusion that the underlying object argument is still an object after the derivation.

The remaining arguments retain the case marking ("P case", as discussed in Chapter One and extensively in Chapters Five and Six) they would have in an active sentence.

(61) man mo:wal čaxa:
3sf.A 3sm.P cut
"She cut him"

(62) mo:wal čaxa:-ya
3sm.P cut-passive
"He was cut (by someone or something)"

However, as discussed in Chapter Six, presence of the P case does not necessarily preclude subjecthood of the nominal which bears it, so this evidence is inconclusive.

There are several behavioral properties displayed by subjects in Northern Pomo. The P-case-marked underived object does not display any of them. For example, it

cannot be functionally controlled, either by a subject or an object in a construction like that described in Section 2.3 (irrelevant details omitted):

(63) ma:dal v̌aban-?a
her kill -pass
"She was killed/They killed her."

(64) * mo:w ma:dal [____ v̌aban-ka -ya] da?ad-e[27]
3sm.A 3sf.P kill -caus -pass want
* "He wants her to be killed."

(65) * mo:w [_____ v̌aban -?a] da?ad-e
* "He wants to be killed."

There are two adverbial adjuncts, indicated by the suffixes {-v̂n} and {-hI} whose unexpressed Subjects are controlled by (construed as identical to) the Subjects of a higher clause.[28] The P-marked arguments of passives cannot be taken to be their antecedents.

(66) daka?-hI man mina -v̌i
lost-Acomp she cry-semelf
"Having gotten lost, she began to cry."

(67) * daka?-hI ma:dal mako-ya
lost-Acomp 3sf.P find-pass
*"Having gotten lost, she was found."

(68) * sima miti-n ma:dal mako-ya
sleep -Acomp 3sf.P find-pass
* "Sleeping, she was found."

Finally, there is a set of subject-controlled reflexive pronouns which can be controlled by subjects outside of their own minimal clause. (These will be discussed at length in Chapter Eight.) The P-marked object in a passive clause cannot control these:

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[27] Recall that in this construction the causative is required by the higher verb "want". Its position inside of the passive suffix is fixed by the morphology of the language. See Chapter Four for discussion.

[28] Subsequent discussion of control of these adverbials may call even this property into question as an indicator of subject status. However, at the very least, these examples show that the argument that appears to be the object of the passive clause cannot control these adjuncts' subject function.

(69) ti? hayunam diyi ma:dal čadi-ya
NCBR.Obl dog with her see -pass
*"She$_j$ was seen with her$_j$ dog."

4.2.2. The unexpressed argument

The *-ya* construction is a 'short passive': it may never express the underlying subject through the use of an agentive phrase or oblique argument of any sort. Although there is no surface expression of this argument, the verb's semantic valence is not changed. Various semantic aspects of the suppressed argument are available for interpretation, even though the argument may not be expressed in surface structure.

(A) Unexpressed argument: restricted to humans?

The conceptions of the impersonal passive cited above do not contain any implicit restrictions on the nature of the suppressed subject. However, descriptive accounts of impersonal passives often mention such constraints. For example, the impersonal passive in Plains Cree is reported to require an interpretation in which the supernatural or the deity is responsible for the action or event (Jolley, 1982, cited in Postal, 1986). In Turkish and in German the suppressed subject must be human.

There is evidence that the underlying subject of the passive in Northern Pomo must be human. (This information was offered spontaneously by the informant in the context of glossing the following example.)

(70) k'o šu?u-ti -či -nha -ya
neg crazy -mev -semlf -neg -pass
"They didn't go crazy"

This sentence could not be uttered if the speaker wished to refer to, say, a group of horses. In that event the speaker would use the underived form of the verb:

(71) (kaweyonam) k'o šu?u-ti-či -nha
horse neg crazy -mev -semlf -neg -pass
"The horses didn't go crazy."

(72) mu: kalnam don -?a
there bead.spec make -pass
"Beads are made there."

This sentence could not be uttered if the speaker wished to refer to a setting in which a machine made beads. In that case, the verb *dod* without the passive derivation must be used.

(73) mu: kal -nam dod-e
here bead -spec make -pres
"(Something or someone) makes beads there."

A similar restriction obtains in Turkish. In both Pomo and Turkish however, the restriction can be relaxed in the case of animals whom one is anthropomorphizing out of affection or in the context of a myth (K. Zimmer, p.c.).

(74) Bingo ṭha:y -ye
win -perf
"Bingo won"

(75) Tuffy tu? ṭha:y-?a
P win -pass
"Tuffy lost (got won)"

Dutch also restricts the use of the impersonal passive to human activities (Kirsner, 1976). Other languages may have such a restriction in passive constructions that are not impersonal. For example, Postal reports something like this concerning French reflexive personal passives: "French RF-PPs are systematically understood to have an 'unspecified' initial 1 referencing sentient beings, corresponding to active clauses with the clitic **on**, on one reading of the latter....This is the reading of **on** where it refers to an unspecified mind-possessing entity or group of entities." (Postal, 1986, pp.123, 137 fn.12.)

It is clear that in Northern Pomo at least, the interpretive restriction on Actors

(that they be human) is a function of the passive derivation. As the examples above show, the verbs that can undergo this derivation are not restricted to selecting human subjects normally. Only when the {-ya} suffix appears is the interpretation so restricted.

(B) Unexpressed argument: singular or plural?

Along similar lines, we can ask whether the underlying human participant is specified for number. In cross-linguistic discussions of impersonal passives, it is often noted that if agreement with the subject appears in the construction at all, the verb will display third person singular agreement here (Keenan, 1985). However, this is often interpreted, not as an indication of agreement with the underlying subject, but as agreement with a dummy subject, either phonologically expressed or not.

Recall that in Northern Pomo there is no clear case of number inflection (cf. Chapter Two). Rather, number marking in the verb is either a process of stem modification, indicating a kind of verbal aspect, or else it is a selectional restriction of particular verb stems on their THEME arguments or AGENT arguments.

It is possible to find evidence for the suppressed argument in the number marking of the verb stem. We can deduce from the form of passivized verbs that suppletively mark number that suppressed arguments may involve either singular or collective participants.

(76) mu: čima -ya
there sit.sg -pass
"Somebody sits there."

(77) mu: phočam -?a
there sit.coll -pass
"They sit there."

Moreover, when there is no evidence in verb form, contexts can be found in which it must be the case that if the speaker has anyone in mind for the suppressed argument it must be only one person. For example, in (78) below, the speaker knows that only her great grandson ever plays with a particular vase. In explaining why it is developing cracks, she may say:

(78) mul me? lok-ta-ka-ya
fall-mev-caus-pass
"It keeps getting dropped."

In the next example, the utterance is appropriate in the context that the speaker and the hearer both know that a mob of people were involved as agents.

(79) mo:wal phidim -ka-ya
3sm.P hang caus -pass
"(They) are hanging him."

Clearly, nothing need be said in the lexical rule for passive about the inherent number of the unexpressed argument.

(C) Unexpressed argument: necessarily agentive?

We can ask whether the passive derivation in Northern Pomo is restricted to verbs whose subjects are agentive. This question has implications for several of the theoretical questions that will be taken up in Chapter Six. Here I will simply show that in fact there is no such restriction, though in some languages (e.g. Dutch) impersonal passivization is sensitive to this factor.

(80) mil mul dithal-?a
dem dem be sick -pass
"That's when she started to feel sick"

(81) mil mul yat -ta -ya
dem dem vomit -mev -pass
"That's when they all started heaving"

In none of these cases is the suppressed subject assumed to be acting agentively.

(D) Discourse-pragmatic status of the unexpressed argument

In the literature on impersonal passives one occasionally finds reference to a discourse-pragmatic condition on the suppressed argument, namely that it be indefinite. The discourse status of such an argument, one that never appears on the surface, is different in kind from the status of an argument which is allowed to find expression in lexical material. A nominal expression has at least the potential of referring. An

argument that is never expressed cannot refer. Yet, as demonstrated above, it has semantic properties. Does it have determinate discourse-pragmatic properties?

The terminology associated with the discourse pragmatic status of nominals and their referents is fraught with inconsistency and vagueness. Here I will use some of the notions developed in Lambrecht (1986). Drawing on work by Chafe (1976,1986), Prince (1981), and others, he tries to break down some of the difficulties involved in talking about definiteness and specificity, giveness and newness, etc. by describing independent dimensions of the cognitive status of referents. (For 'referent' here the reader should understand something like 'a cognitive representation of the referent within the model of the discourse'.) Lambrecht discusses the *activation states* of a referent and the *identifiability* of a referent. The former refers to "the speaker's assessment of the cognitive state of a referent as already 'activated', as merely 'accessible', or as 'inactive' in the mind of the hearer at the time of the speech act." The latter refers to the speaker's assessment of whether a particular referent is already identifiable by the hearer or not" (p.50).

Using these dimensions, is it possible to characterize the discourse pragmatic status of the would-be referent of the suppressed subject? It is easy to find examples of the *-ya* passive in which the representation of the potential referent is inactive in the hearer's mind, and unidentifiable by the hearer, and is not specific in the mind of the speaker either (although there was a specific individual involved that is known to the subject-referent.) In the following example, the identity of the supressed Actor was unknown to the speaker and the hearer.

(82) titi ma?a-čˇa -da be? xa?a tuh k'uc -ka -ya hin man he
NCBR.P food-place-loc this AM pp annoy-caus-pass comp 3sf.A say
"She said that someone annoyed her in the restaurant this morning."

The next example is taken from a text about mourning customs. The would-be referent of the the suppressed subject of the verb 'bring' has been mentioned (the visiting mourners) thus, it is active. However, it is not identifiable except as an already

introduced entity in the discourse. There is no specific referent attached to the discourse representation of the visiting mourners.

(83) k'o čaw čado -ya -me? ča:lu-xa? mičan
thing house bring-pass-char to one side put
"putting to one side things brought to the house"

As is the case in many other languages with impersonal passives, this passive may be used to refer to generic activity:

(84) mu: mul ?al k'aye čaban -ta -mu? -ya
there dem dem self kill -mev -refl.pl -pass
"That's where people kill themselves."

Example (78) above is a case where both the speaker and the hearer know full well the identity of the person who dropped the vase. That person may be active and identifiable, but somehow the identity of the referent in this case is irrelevant. The important thing is the effect on the vase of being dropped.

It seems that the dimensions of identifiability and activation are not the determiners of this particular type of subject suppression. Rather, what ties all the examples together is the speaker's choice to *background* the identity of the subject. Perhaps it is known, perhaps not. In either case, it is not relevant to the purposes of the passive utterance. This backgrounding function, which we have seen is orthogonal to the dimensions of definiteness and specificity, has been described as a central discourse function of both personal and impersonal passives (Kirsner, 1976; Comrie 1981; Givon, 1980; Van Oosten, 1984).

Before we go on to consider whether this backgrounding function should be represented in the lexical rule for *-ya*, let us briefly examine a further property which will help to delineate the status of the suppressed subject.

The suppressed argument cannot be questioned.

(85) mu: me? maday -?a
there adv slip -pass
"People slip there."

(86) *čiba:l /*čiba: ta mu: me? maday-?a
who.P / who.A Q there adv slip-pass
*"Who slips there?" "By who is it slipped there?"

(87) hel yačul čaban -?a
which P kill -pass
"Which one was killed?"

(88) * hel ya he? čaban -?a
which A kill -pass
* "Which one killed someone?"

(89) hel ya he? ta čaban -ye
which A Q kill -perf
"Which one killed (that guy)?"

What is the explanation for this prohibition? There are two possible sources. One is a discourse incompatibility. The discourse status of a WH-question phrase has been described as being a focus (refs). It is clear that the backgrounded status of the suppressed subject is incompatible with the WH-question focussing function. In addition, if the identity of the suppressed argument is irrelevant in some sense, then the function of asking for the identity of the potential referent is incompatible and anomolous.

However, this explanation is in some sense insufficient. In English, the third person plural is used in similar circumstances, and questions regarding the identity of the pronominal referent are slightly infelicitous, or perhaps just uncooperative.

(90) A: They sure know how to train those gymnasts in Romania.

B: ?# Who does?

However, the infelicity of (90) is not comparable with the ungrammaticality of questions of passives in Northern Pomo. Example (86) and (88) are resoundingly unacceptable.

It would seem that the property of being superficially unexpressible is determinative of this fact. In some fashion this should be encoded in the lexical rule for this suffix.

4.2.3. Existential quantification and the suppressed subject

How should we represent the fact that there is an argument role being filled, even if there is no surface expression of it? Keenan (1985) suggests the use of the existential quantifier in the representation of the passive. There is the precedent of its use in the lexical rule of Existential Quantification (Levin, 1982:620). In relating clauses like 'Jenny sang' with 'Jenny sang "As Time Goes By"', Levin states that "The entailed argument in EQ and its indefiniteness are represented by existentially quantifying its referential index."

This may be unneccessary. In general, it is probably desirable to have as little stipulated in a lexical rule as possible. There are cases (discussed at length in Fillmore, 1986) in which a lexical entry of a particular verb must state whether a null complement is definite or indefinite. (In fact, in some cases it is even necessary to state this information for different polysemes of the same verb.) However, in many cases we can see that the implicit existential entailment is a result of a more general process, our knowledge of the events and actions denoted by the verb.

Every verb denotes a situation that has associated with it a number of participant roles, or semantic roles. It is a fact about each verb that some or all of its arguments are in some sense obligatory: without them, the verb meaning is not complete. Some verbs have arguments that are not obligatory. The possible interpretations of null complements can sometimes reveal this. For example, the verb *eat* has an obligatory complement, *the eaten.* The verb *kick* has an optional complement, *the kicked.* The use of a null complement results in an existential entailment in the first case but not in the second. "He ate" entails that he ate something, "He kicked" does not entail that he kicked something.[29] This might indicate that the lexical rule of Existential

[29] I am indebted to Mark Gawron for illuminating discussion of this point.

Quantification for objects in English could be revised to a lexical rule which simply removes the OBJ function. The lexical semantics of each verb might be made to produce the correct entailments.[30]

Given this, let us turn back to the case of the *-ya* passive in Northern Pomo. If, in the eventual semantic representation of a passive clause, we derive an existential entailment, this can be thought of as due to the obligatory nature of the unexpressed argument.

Although this argument cannot be expressed as a grammatical function, its presence in the predicate-argument structure of the basic stem licenses its presence semantically. We can see this both in English and in Northern Pomo. It has been observed that examples like (91) show that different valence versions of a verb allow different sets of roles to be accessed, whether or not these are expressed superficially.

(91) The boat sank *to collect the insurance.
The boat sank *with a torpedo (instrumental reading)

The boat was sunk to collect the insurance.
The boat was sunk with a torpedo.

4.2.4. A lexical rule for Passive

Certain features of the suppressed argument are specified by the construction, others are not. In the case of number and semantic role, the lexical semantic properties of the underived verb are undisturbed. The feature of humanness, however, must be specified in the rule. To ensure this interpretation we may add a constraint to the predicate argument structure of the derived verb. The lexical entry for the suffix *-ya* will take the following form.

(92) $\{\text{-ya}\}\ \text{Aff}_V\ ]_{V\text{-stem}}$—— $< \theta_1[+\text{human}]$, ... $>$
$\emptyset$/'PRO'

[30] The entailments produced by any verb concerning time, place and manner are due, I assume, not to predicate argument structure, but to some more general principle that is a function of (our knowledge of) actions and events in the world.

The lexical rule, reflecting the relation between the two verb classes, underived and derived, will simply reassign the Subject argument of the underived verb to either the null function, ∅, or to the null lexical anaphor 'PRO'. Moreover it will ensure that this element is interpreted as being human (either literally or metaphorically).

The choice between the null element (which is not a grammatical function at all,[31] but simply a notation for the information that this argument is not assigned to any expressible grammatical function) and 'PRO' (which is a semantic element, introduced in the lexicon, that may bear an anaphoric relationship to other elements and may instantiate the Subject function), will be determined by the analysis of the behavioral properties associated with the unexpressible argument of the impersonal passive. If it were to turn out that the unexpressible argument had no Subject properties, then the linking of that argument to the null function in the lexical rule for impersonal passive would be preferable. If the unexpressible argument had all the behavioral properties of Subjects, then the assignment of 'PRO' to that argument would be preferable. Unfortunately, the evidence is not unequivocal.[32] Nevertheless, I will proceed in considering the array of properties associated with this unexpressible element.

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[31] It is important to emphasize that the null function is *not* a grammatical function, but simply a place holder. In Bresnan 1982a [Poladicity]:166, we read "The assignment of the null function ϕ to an argument ...indicates that the argument is semantically bound and that no grammatical function is assigned to it." In 1982b [Control and complementation] fn 1 p.388:"It is important to note that ϕ is *not* a grammatical function, but a lexical symbol indicating that an argument is semantically filled in the lexicon and is not assigned any function."

[32] There is another possibility which I will not discuss beyond this footnote. This is that there is a 'silent' (phonologically null) dummy in each passive clause such as that described by Perlmutter and Postal (1984b) for Welsh. Such an alternative is not available in the LFG framework (there are no null elements in c-structure). (N.B. The dummy analysis is different from one which features either the null function ∅, a place holder within a lexical rule, or the null lexical element 'PRO' (Bresnan, 1982b). Dummy analyses assume the presence of a null element in constituent structure.) Since dummies are not semantic entities, they cannot be responsible for the number marking and interpretive (control) effects observed in examples (94-97). There is no inflectional number or person marking, so that type of evidence is not available.

4.2.5. What Subject-like properties does the unexpressible argument possess?

In previous sections I have briefly mentioned certain open adjuncts as having the property of being controlled by superordinate Subjects. The unexpressed Subjects of these adjuncts are construed as being identical to the Subjects of the clause containing the adjunct.

Here we will see that the unexpressible argument of a passive clause *can* serve as a controller of these adjuncts' Subjects. Below are examples of two kinds of adverbial open adjuncts and purpose clauses, their Subjects being interpreted as identical with the unexpressed arguments of the matrix passive clauses. As shown above, objects of the matrix verb cannot control these adjuncts.

(93) phi?ela?-an (*phow) ma:dal mako-ya
seek.pl-Acomp 3pl.A 3sf.P find-pass
"Searching, they found her."

(94) phi?ela?-hI (*phow) ma:dal mako-ya
seek.pl-Acomp 3pl.A 3sf.P find-pass
"Having searched, they found her."

(95) ma:da? diyi v̌ima-khe mo:w ma:dal mayu:v̌i .
3sf.Obl with sit -fut he her flirt/pursue
'He is flirting with her in order to live with/sit next to her'

(96) ma:da? diyi v̌ima-khe ma:dal mayu?-ya
3sf.Obl with sit -fut her flirt/pursue-pass
"He/Someone is flirting with her in order to live with/sit next to her"

There is one structure in which the unexpressed argument of the passive cannot functionally control another subject. This is in the case where the verb "want" is passivized. The verb itself can undergo this particular derivation when its complement is an object:

(97) **Active:** min phow da?ad -e
dem 3p.A want-pres
"That's what they wanted."

(98) **Passive:** min da?an -?a
dem want -pass
"That's what was wanted."

However, when the complement of the verb *da?an* is an XCOMP, not a nominal object, the passivization is not allowed. (Recall that the analysis given in the first section of this chapter requires that the Subject of "want" control the Subject function of the XCOMP headed by the suffix *-ka*.)

(99) **Active:** mo:w ma:dal duhu -ka da?ad -e
he her leave-caus want -pres
"He wanted her to leave."

(100) **Passive:** * ma:dal duhu -ka da?an -?a
her leave -caus want-pass
*"She was wanted to leave."

Another subject-control phenomenon involves the class of antecedents for the non-clause-bounded reflexive elements formed on the stem *ti-*, to be discussed further in Chapter Eight. In this domain we find that at first glance it looks as though the unexpressed argument of a passive can count as an antecedent for these forms.

(101) tiya? diyi phow ma:dal čima -ka
NCBR.Obl next they her sit -caus
"They sat her next to them."

(102) tiya? diyi ma:dal čima-ka -ya
NCBR.Obl next her sit -caus -pass
"She was made to sit next to them."

(103) ti? diyi čima-ka-khe ma:dal mayu?-ya
NCBR.Obl next sit-caus-fut 3sf.P flirt-pass
"(Somebody) flirted with her to get her to live with/sit next to him."
[The different subject of the purpose clause does not have to be expressed.]

(104) man tiya? hayu -nam diyi wan -da ma:dal mako-ya
she NCBR.pl.Obl dog-spec with walk-Acomp her found-pass
"While she was walking with their$_j$ dog, they$_j$ found her."

However, upon further investigation, the situation turns out to be more complicated than this. Although the unexpressed subject can control the *ti-* pronouns in an adjunct, open or closed, or in a complement of the suffix *ka* as seen above, it cannot count as an antecedent for instances of the *ti-* forms that are in the same clause as the passivized verb.

(105) * tiya? hayunam čaban-?a
NCBR.pl.poss dog.spec kill-pass
* "They killed their own dog"

(106) phowa? hayunam čaban-?a
3.pl.poss dog.spec kill-pass
"Somebody killed their dog."

(107) * ti? dakhe čano matu -ya
NCBR.Obl about story-tell -pass
* "A story was told about herself" (by her)

This same clause is acceptable if controlled by a (logophoric) subject antecedent outside the clause.

(108) ti? dakhe čano matu -ya hin man he
NCBR.Obl about story-tell -pass comp she say
"She said that a story was told about her."

This inconsistency, the fact that the unexpressed argument of the passive can functionally control the subjects of XADJs and serve as antecedents to certain *ti-* reflexives outside of its clause, but cannot serve as antecedent to clausemate *ti-* forms inside its own clause, suggests that (a) the unexpressed argument of a passive is not a Subject, and (b) that open adjuncts and cross-clause *ti-* anaphors are controlled by something other than Subjects per se.

I will assume in the following chapters that there is one clear test for Subjects, which is antecedency of a *ti-* reflexive in the same clause. *Outside* the clause the possibility of logophoric or discourse-based control is available. This will be further discussed in Chapter Eight.

What about the control of Subjects of open adjuncts, as illustrated above? If the unexpressible argument of the passive clause is not a real Subject, then the statement of what constitutes an acceptable controller of these forms must be changed. I will assume that these control relations are statable in terms of the position of the argument on the subjectivalization hierarchy (Fillmore, 1968; Carrier-Duncan, 1985). That is, control of adjuncts is available to the highest ranked semantic argument associated with the verb heading the clause that contains the adjunct. This condition is almost the same as saying that the Subject is controller, since obviously this highest ranked argument will be assigned the Subject function in the normal case. Only the passive clause requires that we go beyond the statement of control in terms of grammatical functions.[33]

(A) Distributional evidence

There is another relevant fact: the restricted distribution of passive clauses. There

[33] Obviously, it would be possible to maintain that control of adjuncts must be stated in terms of Subjects, assume that the unexpressible argument of the passive is a Subject, and find some other constraint on control of same-clause anaphors, e.g. that their controller must be expressable in surface structure. Both analyses require a slightly arbitrary decision at some point.

are two contexts where *-ya* clauses cannot appear.

(1). As described above, the passive clause cannot occur as the complement of the verb 'want'.

(109) * mo:w ma:dal čaban-ka -ya da?ad-e
3sm.A 3sf.P kill -caus -pass want
* "He wants her to be killed."

(110) * mo:w titi čaban -ya da?ad-e
NCBR.P kill -Pass want
* "He wants to be killed."

What could be the reason for this? The complement of verbs such as 'want' *da?an*, as described in section 2.3, bears the grammatical function of XCOMP. This is an open function; its subject is controlled by the subject of the matrix verb. The control equation that is motivated as part of the lexical entry of *da?an* encodes this.

Notice that in COMPs, which are closed functions, the *-ya* clause can appear.

(111) [titi čawde -ya -khe] man thiya?a
NCBR.P arrest -pass -fut she fears
"She is afraid she will be arrested."

(112) [phow titi čawde -khe] man thiya?a
they NCBR.P arrest -fut she fears
"She is afraid they will arrest her."

If the passive clause contains no Subject, it is structurally incompatible with the requirements of the XCOMP argument of "want" etc.

(2). The passivized verb is also restricted from occurring in certain adverbial adjuncts, signalled by the suffixes discussed above, {-hI} and {-Vn}. Again, these adjuncts are specified as having controlled Subjects. If passive clauses have no Subjects, then the two constructions would be structurally incompatible.

(113) * ma:dal čadi-ya-hI phow mo:wal ba?ol-ye
3sf.P see -pass-Acomp 3p.A 3sm.P call-perf
* "Having seen her, they called him."

The passive verb may constitute the head of other subordinate clause types: it may be a complement of a verb of communication (indicated below by the

complementizer *-hin*). It may be a complement of a verb of perception. It may occur as a predicative adjunct.

(114) mul tiyal čano -bayin -?a -hin
dem. NCBR.P word -teach -pass -comp
"This they were taught (it is said) "
[*hin* is a complementizer for verbs of communication]

(115) kheben-?a ta ma šo:w -či
sing -pass Q 2s.A hear -semelf
"Do you hear them singing?"

(116) pašil-?a hayunam k'ala
poison-pass dog die
"Poisoned, the dog died."

It is only barred from occurring in constructions which must have a controlled Subject.

5. Conclusions

In this chapter we have explored the semantic and syntactic properties associated with three derivational, valence-changing suffixes in Northern Pomo. Each of the three results in a derived form that bears a somewhat different relation to the underived stem. The causative suffix brings substantive semantic and syntactic/grammatical functional features of its own into the derivation. That is, it departs significantly from the semantics and argument structure of the base verb. The reflexive in effect funnels the two thematic roles of the underived verb into the semantics of the derived verb, not adding any additional roles of its own, rather constraining how the roles of the underived verb play a role as part of the entailments of the derived verb for its Subject. The passive (1) renders the Subject of the base unexpressible as a grammatical function and (2) insures that that argument will be interpreted as human. This affix is the least perturbing of the semantics of the base.

In the next chapter we will see that the ordering of these three suffixes presents a problem for a simple, binary branching model of derived words in Northern Pomo.

Chapter Four: Morpheme Order and Lexical Rules

1. Introduction

We have looked at the contribution a grammatical morpheme makes to the larger context which contains it, and at some of the relationships that exist between lexemes in the lexicon. Obviously, a detailed description of the morphology of any language will also need to specify the relationships between subparts of words. Inflectional and derivational morphemes may be variously ordered with respect to each other and to the root. Some morphemes may overlap, while some may be realized cumulatively; morphemes with prosodic exponents will not enter into statements about the sequential surface structure of a word.[1]

The Pomo languages are relatively agglutinating, and so we can expect to be able to make clear statements about how particular morphemes may be ordered with respect to each other. However, do such statements have anything to do with the lexical rules we have devised for these affixes?

1.1. What is the significance of morpheme order?

Various models of morphology have adopted different stances with respect to the question of the significance of morpheme order. Motivated partially by the morphological properties of Latin, Matthews (1974) argues in support of a traditional model, the Word and Paradigm model, in which a lexeme is accompanied by the entire paradigm of inflected forms based on it. The order of morphemes[2] is not specified, a form is merely listed as the 'aorist, third singular masculine' in the paradigm. Item and

[1] Of course, descriptions which are based on the *order of rule application* will not discriminate these different forms of morphological rules. For the purposes of this discussion I am assuming the simplest case, one in which only the surface order of affixes must be specified.

[2] Matthews is concerned here principally with inflectional morphology. For him, every derivational

Arrangement models, which rely on position as a central determinant of morpheme identity, and which represent a word as a sequence of abstract morphemes corresponding roughly to the order of their formative exponents, may work well for Mohawk or Turkish, but may prove inadequate when confronted with "the older Indo-European systems for which the Word and Paradigm model was developed. In many cases...the tidy patterning of formatives simply is not there." (Matthews, 1974:139).

In addition to the essential blurriness of inflection in some languages, Matthews sees a larger problem for models which crucially feature the order of morphemes in their lexical representations. It is the inherent prediction of a model which treats word-internal syntax on a par with sentence syntax.

> Since the morpheme is an abstract concept (not to be identified with anything at the phonological level), naturally that of 'sequence' between morphemes is an abstract concept too. There is therefore no reason, in principle, why analyses of this kind (abstract HAVE+PAST TENSE etc.) should not be adopted. (p.79).... However, if we say that *sailed* is the 'Past Tense' of SAIL -or simply that its grammatical elements are Past Tense on the one hand and SAIL on the other- this in itself is enough to distinguish it from every other word in English syntax. We add nothing,so far as the needs of grammatical or syntactic representation are concerned, by saying that there is a sequence with SAIL coming first and 'Past Tense' after.... Although the sequence of morphemes can in theory be contrastive (according, that is, to the morphemic model) it is never so in fact. But in that case what is the point, we may reasonably ask, in establishing morpheme sequences at all? If word order is contrastive within sentences, but morpheme order is invariant within words, one might fairly conclude that the principles of word and

process yields a new lexeme, and he does not discuss the question of sequence of derivational processes. In this section, we will principally be concerned with the derivational domain. Nevertheless, his views on order of morphemes are of interest, since they raise certain questions applicable to all.

> sentence construction are not after all the same. Why persist with a model in which the relationship of sequence is distinctive within the word as well as outside it?.... One can establish a pattern of inflectional formatives (the 'morphemes' in Bloomfield's or a common European sense) without having to add that the relationship of lexical and grammatical elements (the morphemes in our present sense) is the same as that of the larger units in syntax. (Matthews, 1974:138-9)

Moreover, he adds, there are no significant substantive universals concerning order of inflectional morphemes, so what could such models have to say which would be of interest anyway? In contrast to Matthews, a significant number of researchers very explicitly consider the question of morpheme order potentially revealing of universal tendencies, and so pursue it throughout the word, from root to periphery. Two issues arise in these studies: the diachronic significance of the parallels between sentence syntax and word-internal syntax, as a clue to the processes which lead to the formation of complex words; and the synchronic significance of morpheme order and the concomitant scopal semantics, particularly as it bears on questions of acquisition. I will discuss both of these in turn, below.

Often, the focus of consideration is the relative ordering of derivational versus inflectional morphemes (e.g. Bybee, 1985). Another area of research is the order of derivational morphemes relative to each other. The framework of Foley and Van Valin (1984) makes specific predictions about the relative order of all of these. They see cross-linguistic universals (near universals and implicational universals) in morpheme order as evidence for underlying semantic structure. For them, the clause consists of a layered structure with semantic operators over various layers. These operators (e.g. tense, aspect, modality) will be ordered in a way which reflects this structure. For example, tense and speech act operators, which have scope over the entire clause, will be outside of operators like aspect, which have as their domain the clause 'core', or

simply the verb meaning.

Bybee (1985) adopts a slightly different approach with many assumptions in common. She extensively surveys the crosslinguistic evidence and produces some general implicational tendencies for order of morphemes. To explain the orders that occur in her extensive sample she relies partially on the principle of *relevance*: oversimply, the more highly relevant some element is to, say, the verb, the more likely it is to be found adjacent to the verb. Since to a large extent verbal morphology is a product of the verb fusing with elements at its periphery, this principle which is claimed to determine adjacency then indirectly determines incorporation into the verb. We will return to this later.

Thus there clearly are a wide range of opinions regarding the significance of morpheme order within a word. We will now consider another proposal which raises explicit questions for what we have discussed thus far.

1.2. The mirror principle

Baker 1985 is a current proposal concerning the question of morpheme order and the grammar. In the case of agglutinative, concatenative languages, Baker observes that many descriptive accounts rely implicitly on the assumption "that morphology proceeds by doing one thing at a time to a basic stem" (1985:402) and "the order in which morphemes appear on a verb reflects the order in which the morphological processes that add those morphemes apply" (ibid.:378). Moreover, the interpretation of a word directly reflects the ordered application of the grammatical effects of the morphological process. For example, the different order of reciprocal and causative morphemes in the following two examples from Quechua (Muysken, 1981) transparently mirrors the semantic effects achieved by different orderings of the causative and reciprocal rules.

(1) (B's 3a and 3b)
Maqa -naku -ya -chi -n
beat-recip -dur-caus-3s

(A) 'He$_j$ is causing them$_i$ to beat each other$_i$.'

Maqa -chi -naku rka -n
beat-caus - recip -pl-3s

(B) 'They$_i$ let someone$_j$ beat each other$_i$.'

Observations like these are encoded by Baker as the following:

(4) *The Mirror Principle*
Morphological derivations must directly reflect syntactic derivations (and vice versa). (Baker, 1985:375)

He argues that this principle offers support for a model of grammar in which morphology and syntax work in tandem at each step. Other models which do not have this architecture must stipulate the Mirror Principle. In the model I am assuming, in which lexical rules encode the link between a particular formative and the changes in semantics and argument structure that go along with it,[3] this morphosyntactic mirror effect could result naturally. If we speak of a lexical rule 'applying' to a word, either building it or interpreting it, then the Mirror Principle would be an outcome of rules feeding and bleeding each other in predictable ways, depending on their content.

Let us take as an example the derived word *bila:-ka-ya*, as found in the sentence

(2) mo:wal mul bila: -ka -ya
3sm.P dem buy-CAUS -PASS
"He was made to buy it."

As formulated in the previous sections, the lexical rules for the Causative and Passive

[3] Baker erroneously concludes that in fact the lexical-functional approach is not a framework which intrinsically encodes the Mirror Principle. He proposes instead a model which shares certain features with Generative Semantics. Lexical insertion may take place before GF rules, thus the syntactic/morphological parallelism that constitutes the Mirror principle takes place in the syntax, not the lexicon. I will not consider this possibility here, since I do not find the one example he provides to argue against the LFG model (from Chi-Mwi:ni, cited in Marantz 1984) at all compelling. It involves causatives and clause-bound reflexives, and is exactly parallel to examples in Chapter Three section 2.2. Baker seems to have assumed that a lexical-functional approach would have no way to deal with causatives in which clause union has not taken place. Shibatani 1970 is one of the earlier examples of a lexicalist account of such facts. See also Ishikawa, 198X.

morphemes tell us that (reading from the stem outward) the subject of the verb *bila:*, "buy", has been mapped into the object function introduced by the Causative suffix. A new subject, the Causer, has been introduced. The Passive lexical rule tells us that this subject, the Causer, has been suppressed, and that the pronoun *mo:wal* is the object of the derived verb, i.e. that its GF has not changed.

The Mirror Principle predicts that we would not find a word of the form *bila:-ya-ka*, (with a meaning of something like "They made it be bought"). Since the lexical rule for Passive would apply 'first', given its proximity to the stem, we know from the contents of the rule that there is no subject after the rule has applied. Thus no subject would be available to serve as input to the rule of Causativization. Passive could then be said to bleed the lexical rule of causativization. And in fact, we do not find this order of the two suffixes. The Passive morpheme is always peripheral to the Causative.

Here a metagrammatical question might be posed: What can it mean to ask about the relationship of morpheme order to lexical rules? If a lexical rule (at least in the case of derivational morphology) is an encoding of the changes in a stem that take place when it is joined with a particular derivational formative, then if several such formatives are found in a word, what are the possible ways in which their order might be related to the application of these rules?

It might be that there is no relationship at all. If lexical rules are simply redundancy rules (or 'relatedness rules') which indicate that a particular relation exists between two classes of words, then perhaps there is no sense in which they "apply" to "build up" a word. They can be neutral with respect to questions of production and interpretation. At one time, the suffix in question, during a period of what I have labelled 'activated' productivity, became attached to the bases in question, deriving a new set of lexemes.

Morphologists frequently talk about construction of a word using temporal terms. There is no implicit claim about real-time processing. Baker several times goes on

record as saying that the process by which affixes are added to a stem is "not necessarily temporal"(1985:378). However, as the hedge indicates, there is a deeper issue. When we talk about principles which determine word formation, like the Mirror Principle, we must necessarily be talking about some point in the formation of a word--the first time it is formed, or the point at which it "enters the dictionary", or if it is particularly infrequent and complex, perhaps every time it is used by a speaker.

Models of morphology all address and equivocate on the issue of "rote versus combination" as principles governing both learning and production of complex morphology. This equivocation is not from lack of will--more likely it results from lack of evidence. The kind of evidence that we would need to construct a psychologically real model of word formation in acquisition and everyday use does not exist in sufficient quantity to determine a model.

Based on what is currently known (cited and reviewed in Bybee 1985), it seems that both rote and combination play a role in both word learning and on-line production of complex words. Particularly in the case of inflectional morphology, combinatoric rules seem crucial, since speakers can easily inflect nonce forms. Rote learning of irregular forms is commonly assumed. Derivational morphology lies at a very interesting crux. Derived words have a different status in most models than do inflected words. A derived word is 'autonomous', is a lexeme, heads a lexical entry, etc. Is a complex derived word produced and processed by rote or by combination?

As the reader might expect, I will not be able to answer this question here. However, I will present some evidence that bears on the question, and that directly addresses the issue of the status of the Mirror Principle within the grammar.

1.3. The Mirror Principle and scopal interpretation of morphemes

The examples from Quechua reproduced above show the interpretive consequences of varying the order of the Reciprocal and Reflexive morphemes. In contrast

to Matthews' objection above (regarding inflectional morphology), that the variable orders predicted by the morphemic model are not found, these derivational morphemes do show variable order with concomitant interpretive distinctions. I will refer to these as *scopal effects*. These scopal effects provide much of the evidence for the Mirror Principle, yet it does not depend on them logically. That is, we could imagine a language in which the order of all morphemes was fixed, with no examples of scopal effects due to morpheme order variability. This would not undermine the Mirror Principle as long as all orders of morphemes that did exist led to coherent types of rule applications when interpreted from the root outwards. What we are looking for is a case in which the order of morphemes does **not** reflect the order of rule application in interpretation. For example, a language in which the reciprocal morpheme occurred before the Causative morpheme, but in which either interpretation (1A) or interpretation (1B) were allowed would present a problem for this model.

Northern Pomo presents such a problem in examples like the following:

(3) mo:w phaley -ka -?a
he burn CAUS REFL
"He burned himself."

(4) phow mo:wal (k'aye) čaxa? -ka -?a
they him self cut CAUS REFL
"They made him cut himself

(5) man mo:wal (k'aye) čaxa? -ka -?a da?ade
she him self cut CAUS REFL want
"She wants him to cut himself."

Here we see that the same order of Causative and Reflexive occurs, with several different interpretations, the last two of which are the opposite of what we would expect to find, given the predictions of the Mirror Principle.

To see that this is so, consider the interpretation in (4). If the effect of the Reflexive suffix is to constrain the interpretation of the Subject and Object such that they denote the same entity-set, then the derived verb *čaxa?-ka-?a* should have a sub-

ject which denotes an individual who in some sense is both an Actor and an Undergoer. Instead we can see that the Actor ("they") and the Undergoer ("him") are clearly different individuals. In addition, since the subject of the sentence is *phow*, if the Reflexive morpheme were added at a point in the derivation in which the subject was plural, we would expect to find the plural alternate, {mu?}. This is not what we find. In fact, there is no interpretation for

(6) * phow mo:wal čaxa? -ka -mu?u
they him cut -CAUS -REFL.pl

We might expect it (on analogy with the Quechua examples) to mean something like "They made him cut each other". However, this sentence would be rendered as follows:

(7) phow mo:wal tiyal čaxa?-ka
they him NCBR.pl cut CAUS
"They$_j$ made him cut them$_j$."

In example (5), a similar paradox appears. Since here the *-ka* suffix is appearing only in its complementizer role, we would expect it to be peripheral to the reflexive morpheme, since the complementizer suffix is called into play only 'after' the clause to be embedded is constructed. Yet we find the same order, the Reflexive farther from the verb than the Causative.

In the example below, we can see that the Causer argument has been suppressed by the Passive rule, while the Theme/Undergoer remains as an object. Yet if the peripheral position of the Reflexive suffix is taken to indicate that the subject of the derived verb (after the application of Causative and Reflexive) is the Actor/Undergoer of the Reflexive, then we would expect that argument to be suppressed. It is not.

(8) mu: ?al mo:wal k'aye paley-ka -?a -?ya
there dem 3sm.P self burn -CAUS -REFL-PASS
"That is where (they) made him burn himself."

To make matters worse, the stem *paley* is intransitive, and the *-ka* suffix appears on it whether or not it is causative. In other words, this is an example of a verb where the

transitivizing and causativizing function of the suffix are both enabled by one instance of the formative.

Another wrinkle is presented by the multiple Actor Reflexive/Reciprocal suffix *-mu?*. Its pattern is somewhat different from that of the singular reflexive. For one thing, it can appear (with some verbs at least) in either position, before or after the Causative.

(9) mo:w phowal k'aye diley -mu? -ka
3sm.P 3p.P self kill.coll -REFL.pl CAUS
"He made them kill themselves."

(10) mu: phowal k'aye v̌caxa?-ka -mu? -ya
there 3p.P self cut -CAUS -REFL.pl -PASS
"There they were made to cut themselves."

(11) mu: phowal k'aye v̌caxa? -mu? -ka -ya
there 3p.P self cut -REFL.pl -CAUS -PASS
"There they were made to cut themselves."

(12) mu: mo:wal k'aye v̌caxa? -ka -?a -ya
there 3sm.P self cut -CAUS -REFL-PASS

* v̌caxa -?a -ka -ya
cut -REFL -CAUS -PASS
"There he was made to cut himself."

As example (12) shows, the corresponding sentences with singular arguments do not allow this variable ordering. This distribution is not in accord with expectations--since the semantics of the lexical rule for {mu?} is the same as that for {v̌?}, their order of application should be the same with respect to morphemes like the Causative.

Notice, however, in these examples, that with the variable ordering of suffixes there is no scopal semantics, or concomitant change in meaning. Rather, we seem simply to have free variation. There are examples in which the order does seem to have some semantic consequence, however they are not of the type that the Mirror Principle would lead us to expect:

(13) xol dithu? -mu? -ka -m
around point -REFL.pl -CAUS -IMP
"Let them point at each other."

(14) xol dithu? -ka -mu? -um
around point -CAUS -REFL.pl -IMP
"Let them point at each other."

It seems that the first and the second version differ in the situation they connote. In the first case, where the Reflexive/Reciprocal marker is immediately adjacent to the verb, the situation is one in which the speaker is talking about a group of children, playing a game in which they all point at each other. Whether this is an organized game, or simply a childish teasing activity is not clear. In any case, there is a clear indication that the derived stem *dithu?mu?* is lexicalized in a way that the the corresponding singular reflexive *dithu?i?* is not.

(15) mo:wal mito dithu?- ka-m
3sm.P 2s.P point at -CAUS -IMP
"Make him point at you."

(16) k'aye mo:wal dithu? -ka -?a -m
self -CAUS -REFL -IMP
"Make him point at himself."

This suggests that in some cases the Causative suffix is added to an existing stem, a stem which has developed a specialized meaning and is thus frozen into the dictionary as a whole. The next example might be taken as another instance of this: in this case the stem meaning "kiss" plus the Reflexive/Reciprocal suffix has become fossilized as the reciprocal version of "kiss". Lexicalization of the plural reflexive version of the stem in this case is understandable, whereas there is probably less frequently a sociocultural context of 'self-kissing' to promote fossilization.

(17) phowal xol sip'un -mu? -ka -m
3p.P around kiss -REFL.pl -CAUS -IMP
"Make/let them kiss each other."

* phowal xol sip'un -ka -mu? -um
CAUS REFL.pl IMP
[Informant reported that this utterance was 'not good for this meaning'. No other meaning offered.]

However, the other order (causative first) is always possible with the *mu?* suffix. The stem-adjacent position is not available to the singular Reflexive:

(18) phowal me? xol sip'un ka mu? č'a (y)
3p.P foc around kiss CAUS REFL.pl -mult. -perf
"Some people had made them kiss each other , forced them."

[the suffix *č'a* mentioned in Chapter Two seems to indicate that each action of a set of more than one was taken individually.]

(19) mo:wal k'aye sip'un ka ?a ya
*?a ka ya
He was made to kiss himself
Let's make him kiss himself.

Yet this provides only a small part of the picture. The difference in ordering possibilities cannot be wholly due to lexicalization, since we would certainly expect "to kill oneself" *čabani?* to be as subject to fossilization as the plural version of that word. If the plural reflexive can take part in the fossilization process, producing derived stems in the dictionary which are then available for suffixing by the Causative, then why doesn't the singular reflexive take part in the same process?

Moreover, completely independent of the ordering possibilities of the plural reflexive, how can we explain the fact that the respective ordering of the singular Reflexive and the Causative are the opposite of what the Mirror Principle predicts?

In contrast to the model presented by Baker, my account of this problem is going to rely on diachronic notions. Unfortunately, it is difficult to verify or falsify historical hypotheses of this fine-grained sort. What I propose can simply be taken as an alternative story about the Mirror Principle effect, as it has been noted by many

descriptive linguists. Essentially, Baker proposes that the coherent ordering of derivational (and inflectional) morphemes is a product of a feature of the grammar, operating synchronically. I will suggest that something like the Mirror Principle is working, but not at a level determinative of word formation in the synchronic sense.

1.4. Why the order Causative-Reflexive?

First we can ask the question: if the Mirror Principle is a reflection of the *interpretive* aspects of complex word formation, i.e. if it reflects something about the way speakers parse a word, why then are examples like (10) and (12) intelligible? Obviously they are intelligible, so we can only conclude that at least some derivational formations are not parsed from the stem outward. Rather, they may be learned by rote and used as wholes.

Let us then ask: if the Mirror Principle is a reflection of the active *composition* of a word, why is the reflexive out of order in some interpretations of the form **stem+causative+reflexive**? Here we can step back and consider the process of word-formation from a diachronic perspective.

How are words formed? There is general agreement that word-formation processes act on words that are already in the lexicon. There is also general agreement that certain word-formation processes are more productive than others. After a certain period of time, a word-formation process 'dies down' and no longer is available for the formation of new words. Frequently, no explicit distinction is made between highly productive word formation processes and those that are actually activated, in the sense suggested in Chapter Three, Section 2.3. (cf also Clark & Berman, 1984).

Let us assume that not all affixes are equally activated at all points in the history of the language. Let us assume also that many suffixes arise through the fusion of a postposed argument or modifier (Bybee, 1985; Givon, 1971; Venneman, 1974) to the verb. In the case of the Northern Pomo reflexive suffix, it seems likely that it arose

through the fusion of a postposed pronoun, since the glottal stop is a reflex of the Proto Pomo segment [k'] (a segment still found in several other Pomo languages as the Reflexive suffix), and this segment is the first segment of the reflexive form which was clearly originally a member of the pronominal paradigm (McLendon, 1976).

A plausible scenario is one in which the Reflexive suffix formation was an activated word formation process at a time when the Causative, although very productive structurally, was no longer 'alive' to form new words. If it had been, we would not be surprised to find words that displayed the scopal semantics of the Quechua verbs of examples (1A) and (1B).

What about the variable ordering allowed in the case of the plural reflexive? (Again, these are only guesses, since historical evidence is hard to come by.) Besides the lexicalized examples, like *dịthu?mu?*, "Pointing at each other", there are some examples where either order is available and no meaning difference results. How did these arise? One explanation comes to mind: the suffix {mu?} was activated and forming new words at a time when the Causative suffix was still itself activated. This seems implausible, but conceivable.

Whether or not this is the explanation, it seems clear that the two suffixes had different histories in the process of word formation in Northern Pomo.[4] The point is simply that since word formation is a gradual process, we need ways to talk about (1) the length of time that a particular process is activated, (2) the stems, relatively frozen, that it can take as input, and (3) the set of contemporaries of the process: other word formation rules that are contemporaneously activated. These facts about the lexicon at an arbitrary synchronic state together with whatever principles predict the adjacency of

[4] Towards the same conclusion it may be noted that the other Pomo languages share many of the same derivational suffixes, but often these are found in different orders in the verb. If in fact these suffixes arose from fusion of independent elements, different word orders in the daughter languages (which still persist today) could explain the different order of these cognate suffixes inside the verb. Independent principles of semantics and rule application cannot.

elements in the syntax, and their interpretation, should allow us to explain a large portion of the word formation products we see, at least in the derivational domain.

We might wonder why word formation processes couldn't simply change the inside of a word--why couldn't the reflexive morpheme infix itself in between the causative and the stem where this would be appropriate? As Bybee (1985:39-41) discusses, speakers sometimes do restructure the order of morphemes. However, both of the examples she gives (Provençal restructuring of the preterite and Pengo (Dravidian) restructuring of the perfect paradigm) involve 'moving' person and number inflection to the outside of a new preterite or perfect marker. And such reorderings are rare.

It may be that such reorderings take place only with respect to inflectional morphology. In fact, (although this study certainly provides no more than the barest suggestion that this may be worth further research) it may be that the notion of activation is really only relevant in the case of derivational morphemes. In some sense (productive) inflectional morphemes must always be activated. When new bases are formed, inflection must be ready to situate them in the syntax of the sentence. It is not hard to see how breaking up old words, lexemes, might pose a more unnatural task for the language learner.

The other alternative for a language learner who wants to restructure a lexeme is to reactivate an old morpheme, probably a structurally productive one, and create some new stems which more transparently reflect the general principles of scopal semantics found in words that follow the Mirror Principle. For example, the young speaker of Kashaya Pomo may now create forms in which the reflexive may precede the causative when appropriate.

This is not a neat picture. However, we are not, I believe, dealing with neat facts. Here I have attempted to talk precisely about some very particularistic and messy phenomena. To close this section I will demonstrate again the blurry picture that

presents itself when we look closely at a synchronic state. It is to be hoped that the squint of the historicist will help us make sense of facts like the following.

If the morpheme ordering facts we are dealing with are partially dependent on the effects of lexicalization (construed as the freezing of a form into an unbreakable whole) then we might expect to find borderline cases, where it is difficult to tell whether a word is completely frozen or is sometimes subject to thawing a bit. The process of lexicalization, like all drift phenomena, must look messy during any synchronic descriptive slice.

The plural reflexive provides an example of just such a case. In the following examples, it is relevant to recall that the causative morpheme sometimes acts as a transitivizer. When we wish to causativize a *-ka* transitivized verb, we cannot add another *-ka unless* the *-ka* found suffixed to the stem is frozen there, as was the case with *dika-ka* "cause to give". Here, the stem in question is *paley* "to burn". It is intransitive, thus when suffixed with *-ka* is transitivized and can be reflexivized. "To burn oneself" must be *paley-ka-?a*, with the reflexive following the causative as expected. In (21) below, we see that when this derived stem is causativized, we cannot add another *-ka*, thus allowing us to draw the inference that in fact *paley-ka* is NOT frozen. Otherwise it would allow the addition of another causative suffix.

(20) mo:wal k'aye paley-ka -? -am
3sm.P self burn -CAUS -REFL -IMP
"Make him burn himself."

(21) * mo:wal k'aye paley-ka -? a -ka -m
CAUS CAUS

However, when we produce the same sentence with the plural reflexive, we see that all of a sudden the stem *paley-ka* acts as if it IS frozen, licensing the addition of another Causative suffix.

(22) phowal k'aye paley-ka -mu? -ka -m
3p.P self burn -CAUS -REFL.p. -CAUS -IMP
"Make them burn themselves."

I don't see any general explanation for these facts other than the general explanation that arises out of the acknowledgement of many individual factors (some perhaps quite general) acting together.

2. Conclusion

In this chapter I have posed the question: How are lexical rules related to the internal structure of a word, specifically the order of morphemes? It was concluded that morpheme order is a product of history, and that lexical rules do not have to be construed as "applying" to a word to derive the order of morphemes. Speakers can learn and interpret words which do not follow the order of morphemes predicted by the Mirror Principle.

The general tendency, long noted by descriptive linguists, for morpheme and word order to reflect a certain semantic 'derivation', may be attributed to synchronic principles of syntax and semantics working through time as words are formed by gradual accretion of adjacent material. In order for morphology to reflect semantic interpretation through relative ordering, (e.g. variable ordering of the Causative and Reflexive morphemes), the two relevant word formation devices may have to be contemporaneously "activated". The results will be words with specific interpretations. After a time these will be completely lexicalized, and the scopal semantic effects will be seen as the property of individual lexemes.

In Northern Pomo, occasionally one runs across scopal semantics accomplished inside the word through the relative order of affixes. However, these examples are not generalizable, but are clearly lexicalized remains of what once may have been an active process word formation.

(23) kadew "To pry up" [kade = root; Vw =directional]

Example (23) is a lexeme--*k'ad* does not exist as a lexeme independently. In (24) and (25) we can see that at some point, the directional element *ew* and the multiple event marker were contemporaneously activated, allowing the formation of words with scopal semantic effects.

(24) kadewta "To pry up a lot of things" [root+directional+aspect]

(25) kadetaw "To pry something up repeatedly (as in trying continuously)" [root+aspect+directional]

The absence of many such examples shows the temporally remote process of relative ordering in this part of the word formation inventory. Once lexicalization of such items is an accomplished fact, learners may acquire such items as wholes. At this point it's not clear whether the semantic correlate of the Mirror Principal need play a role at all.

Thus we can see the current productivity status of a word formation rule as an independent fact: a lexical relatedness rule can correspond to an active or inactive word-formation device. Here, diachrony plays a part in our answer to our question about the place of lexical rules in a model of the lexicon.

Chapter Five: Dimensions of Case Marking in Northern Pomo

1. Introduction

Chapters Five, Six and Seven comprise an analysis of the marking patterns found in Northern Pomo. This chapter contains an introduction to the system as a whole: the three abstract case categories; the three morphological systems which encode the allomorphs of these categories; the conditioning of the allomorphs by nominal classes; and a description of the patterns of nominal case marking associated with several grammatical functions. Chapter Six is an extended discussion of the syntactic, semantic and pragmatic motivations and consequences of an alternation in the assignment of case to Subjects. Chapter Seven presents the array of surface markings associated with the relation of possession. A conclusion for all three of these chapters will be found at the end of Chapter Seven.

1.1. Preliminaries

There are a number of questions that any description of a particular case marking system seeks to address. First, there is the question of the relationship between case categories and other levels of representation of the clause. Are cases linked primarily to syntactic categories (grammatical functions) or to thematic or subthematic lexical semantics? Or is the system mixed, i.e. is it one in which, for example, case categories may be linked in some way with grammatical functions, and case allomorphs determined by semantically-based subcategories of nominals? In any case, any particular description must make some statement about what it presupposes in the way of representations of grammatical functions and thematic roles, the central 'anchor points' of the system. Clearly, a framework in which grammatical relations are primitives and in which nominals may undergo syntactic relation-changing rules resulting in several 'stages' of representation may make available different analyses of the relation

between surface case and grammatical function than a framework in which no relation-changing rules are possible.

Second, consider a potential dichotomy in the *overall function* of case marking within a language. Here we can separate a view in which case serves a *distinguishing* or *discriminating* function (Comrie, 1975; 1981) from a view in which it serves an *encoding* function. These two perspectives are independent of the question of *what* is encoded or distinguished: grammatical functions, participant roles, even the discourse status of a nominal are possible dimensions which may either be encoded or discriminated.

Let us consider a simple example: in a transitive sentence, a language with morphological case (independent of its overall typology) will mark at least one of the two arguments. From the distinguishing perspective, this case marking functions to distinguish the transitive Subject from the transitive Object. The discriminating function is determined by the local environment--there is no implicit claim that *every* Subject will be marked in the same way, or that a particular marking can only distinguish a certain pair of arguments. From the second perspective, the marker on a nominal encodes or signals its underlying properties, for example, its status as a direct object. In this view, the presence of a particular surface case marking may be construed as evidence for the presence of whatever category or feature the case is assumed to encode.

I have just stated the opposition at the most general level: that of case category. The same two functions may be distinguished at the level of case allomorph. In many languages case allomorphy is conditioned by the inherent features of the nominal. For example, in Russian, neuter nouns and inanimate masculine nouns display a case allomorph for the accusative which is unmarked, i.e. homophonous with the nominative. This could be seen as a reflection of a relative absence of need to distinguish these nominals as patients. On the other hand, one could see this allomorph as carrying the "meaning" of "inanimacy"" (Wierzbicka,1983). Other allomorphs may carry orthogonal

meanings such as respect, definiteness, countability, etc. (For further discussion of these two views, see Wierzbicka, 1983; Mallinson and Blake, 1981).[1]

It is certainly possible to maintain a position in which the discriminating function of case is an important determinant of the overall typology in a particular language, while still showing that particular case allomorphs or even case categories are linked to invariant grammatical, semantic or even pragmatic categories.

In these three chapters I will provide an account of case in Northern Pomo which is essentially mixed. It is possible to link case categories directly with grammatical functions (although there is no one to one mapping between case categories and grammatical functions) through a hierarchy of case marking rules. The realization of these categories by certain case allomorphs, on the other hand, must be linked to the inherent properties of the nominals involved.[2] Finally, it is also necessary to construct lexical rules of case marking which determine the distribution and interpretation of an *alternation* of case category for a particular set of verbs: a number of intransitive verbs allow either canonical or non-canonical marking of their Subjects.

Northern Pomo could be said to be an example of an 'active' case marking system (Sapir, 1917) or an 'Agent/Patient' system (Chafe, 1970). Roughly these terms name systems in which the assignment of case is sensitive to various aspects of clause-level semantics--either the inherent properties of entities denoted by case-marked nominals, or certain aspects of lexical semantics. We will see that the Northern Pomo patterns of case marking are determined both by nominal and verbal semantic features. The system is characterized by a great deal of semantically sponsored

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[1] Within the perspective which views cases as encoding semantic categories, there are a number of different positions on the proper treatment of the relation between a case or case allomorph and the putative semantic category being encoded. There are abstractionist approaches, and family-resemblance prototype-based approaches. These may or may not make use of Jakobsonian markedness principles.

[2] Moreover, the system is *local* in the sense of Silverstein, 1976:124ff; the assignment of case within a clause to any particular role or nominal does not depend on the features of any other role or nominal in the sentence with it.

variation, reflected in two ways: (1) by the choice of case marking device (either *inflections* or *clitics* or *absence of marking*) and (2) by alternations in case category assignment within particular verb classes.

2. Overview

There are two important descriptive dimensions to the Northern Pomo case system. The first concerns the morphological realization of any particular case category, or its morphological *encoding*. A particular case category may be expressed by means of either an *inflectional suffix*, an *enclitic*, or by an *unmarked* noun. The choice of encoding device is partially dependent upon the inherent properties of the referent of this noun phrase and its discourse status. The second dimension concerns the meaningful alternations of case marking: independent of whether inflectional or clitic case is used on a particular argument, i.e. independent of the choice of case allomorph, what determines the choice of case category?

2.1. Case categories

Abstracting away from morphological realization, there are three case categories in Northern Pomo. Following Comrie (1981) (and to some extent Dixon, 1979) I have chosen to use the mnemonic letters associated with the participant roles prototypically marked with the three cases: the 'A' case is that associated with the prototypically agentive subject of transitive clauses; the 'P' case is that associated with the prototypically patientive object of transitive clauses; yet both can occur on arguments that do not bear these roles in any strict sense. The use of these semi-arbitrary symbols facilitates discussion of case uses which do not fit the prototypes. A third morphologically distinguished case, found in certain possessive constructions and in other contexts to be discussed below, will be called the 'oblique' (OBL) case.[3]

[3] This choice of labels does not constitute a claim that these participant role prototypes are the main determinants of assignment of case category. More traditional names for case category, such as nominative, ergative, etc. bring with them a considerable amount of theoretical and descriptive baggage. If the system to be described here were to be classified as split ergative, it would have to be split two

2.2. The Animacy Hierarchy and noun classes

It has been observed in a number of languages that inherent properties of entities such as humanness, sentience, and animacy may affect grammatical encoding and syntactic behavior of nominals that denote those entities. Such properties are said to contribute to the composition of what is called the "animacy hierarchy", a ranking of nominals that reflects the relative ranking of the entities they denote. In Northern Pomo, certain aspects of the animacy hierarchy are indeed relevant to the description of some constructions and case marking patterns. It will be useful in what follows to break down the nominal hierarchy according to six categories. By the end of Chapter Seven, it will be apparent that at some point in the system, each of these classes is distinguished from the others in terms of some marking or behavior. Following McLendon (1978) I will distinguish the following classes:

(1) **Pronouns:** these include personal pronouns (inflected for person, number and gender in the third person, see table below); one set of interrogative pronouns, and non-clause bounded reflexive pronouns (discussed in chapter 7).

(2) **Kinship terms**

(3) **Proper names**

(4) **Personal nouns:** (McLendon, 1978:5) "a small, closed set of nouns referring to age grades and statuses of people..." e.g. "boy", "young woman", "doctor".

(5) **Common nouns, Animate.** This class includes nominals that denote humans (other than those above), animals, and another set of interrogative words meaning "which one".

(6) **Common nouns, Inanimate.**

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ways. The use of the whole set of labels of categories, *nom, acc, erg, abs*, would prove to be extremely cumbersome.

2.3. Encoding possibilities: Inflectional, clitic, and neutral

The three case categories, A, P and Obl; have different morphological realizations, depending in part upon the semantic class of the nominal. Northern Pomo provides three means for the realization of the A, P and Obl case categories. One is inflectional--the stem of the nominal occurs with an affix. The nominal classes of pronouns and kinship terms follow this pattern.

Inflectional A case nominals ==> unmarked

P case nominals ==> suffixed with *-v̂l*

Obl case nominals ==> suffixed with *-v̂?*;[4]

Another involves a set of clitics: in this subsystem there are unmarked or zero allomorphs for each case category in addition to the clitic.

Clitic A case nominals ==> clitic *ya?* or unmarked

P case nominals ==> unmarked *or* clitic *yačul*

Obl case nominals ==> clitic *yačuʔ*[5] *or* unmarked

Thirdly, the class of inanimate nouns is unmarked: the three way case category distinctions are neutralized. It is possible in some circumstances to use the case clitics just described even though the nominal denotes an inanimate entity. These cases will be discussed in Chapters Six and Seven.

The inflectional and clitic case allomorphs differ from each other in markedness, both semantically and morphologically. The A-case of inflected forms is unmarked,

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[4] The vowel in this suffix is realized as zero following a vowel, otherwise its quality is determined by the stem vowel preceding it--[e] following front, mid to high vowels, [u] or [o] following [u] or [o] stem vowels, and as [a] after a stem containing [a]. This distribution holds for most kinship terms, however, the 3rd person masculine and plural pronouns are exceptions in that [a] follows the stem vowel [o]. Also there are other irregularities in some other categories of personal pronouns.

[5] The parallelism with the inflectional forms will be obvious. It is possible that these were originally inflected noun stems. The form *ya?* means 'person' in Kashaya Pomo (McLendon and Oswalt, 1978:278). My consultant does not interpret the case clitic as a meaningful nominal element.

Since their distribution is markedly different from that of the inflectional markers, as will become apparent below, I will not discuss their superficial relationship to the inflectional cases.

i.e. it forms the stem to which the case suffixes for the categories P and Obl are added (see Table 1a). In the clitic paradigm, on the other hand, the three case categories *may* be expressed by one of three case clitics (see Table 1d). Superficially, since all three possess a surface case expression, there does not seem to be an unmarked member. However, in both texts and elicited sentences, the P-case clitic is rarely used. In real usage then, the upper classes of the nominal hierarchy show an accusative pattern, while the lower classes show an ergative pattern: the A case is marked with a clitic, while the P case is largely unmarked. Inanimate nouns are neutral with respect to any larger pattern.

(1) mo:w hayu-nam kane
3sm.A dog-spec.P bite
"He bit the dog."

(2) hayu-nam-ya? mo:w-al kane
dog+spec+A 3sm-P bite
"The dog bit him."

Table 0. Markedness: A vs P case, inflection vs clitic

	A case	P case
Inflectional	**0**	**-al**
Clitic	**+ya?**	**0**

Silverstein (1976) and others have suggested that markedness splits of this type reflect a grammaticization of the extent to which a referent of a particular nominal on one side of such a split is inherently likely to be depicted as an agent or a patient. His findings would lead us to expect that the inflectional, accusative-like patterning should be associated with nominals denoting human referents, and the ergative-like system of clitics should be associated with nominal expressions lower down on the animacy hierarchy. In fact, something like this does obtain. However, the details are sufficiently complex that their explication requires us to go beyond these observations. Besides discovering that relatively fixed dimensions of the grammar encode these nom-

inal hierarchy distinctions, we can see in fine-grained description of their use the interaction of speakers' conventionalized, culturally determined view of these entities and the lexical semantics of predicates.

3. Nominal classes and case realization

In this section I will describe the patterns of case realization throughout the range of nominal classes. Certain nominals must be marked inflectionally, others must be marked with clitics, others are unmarked. However, a large subset of the common nouns which would ordinarily receive clitic marking (left hand column below) may receive inflectional marking instead by appearing in construction with an enclitic pronominal which then constitutes the head of the noun phrase and determines inflectional case for the whole NP (right hand column below).

(3) **A case:** hayu -nam ya? — hayu -nam -mo:w
dog -spec A — dog -spec -3sm.A

P case: hayu -nam — hayu -nam -mo:wal
dog -spec -P — dog -spec -3sm.P

Obl case: hayu -nam yačču? — hayu -nam -mo:wa?
dog -spec Obl — dog -spec -3sm.Obl

This same device of pronominal cliticization allows an unmarked inanimate noun to instantiate the case category Oblique in certain constructions. An Oblique form of the demonstrative pronoun *mul* may occur encliticized to the noun phrase as seen below.

(4) **Obl case:** phik'a -nam — phik'a -nam -mil
basket-spec — basket-spec-dem.Obl

The availability of a strategy (pronominal incorporation) whereby nominals which typically receive clitic case marking may be marked inflectionally has consequences for the semantic interpretation of sentences: it makes accessible to these nominals certain semantically and/or pragmatically based case category alternations. This will be discussed in Chapter Six.

3.1. Inflectional case allomorphs

The tables below exemplify, for each member of the relevant part of the nominal hierarchy, the basic expression of the three case categories.[6]

Kinship terms, as illustrated in Table 1b, are distinguished from all other nominal classes, in that they possess a fourth case category, Vocative. This case is realized on the unpossessed kinship stem. In most other contexts, the stem of a kinship term occurs with a pronominal possessor prefix, discussed at length in chapter 7.

Table 1a. Inflectional case

PRONOUNS	A CASE	P CASE	Obl CASE
1 Sing.	?a:	to:	to?/khe
1 Plur.	ya	yal	ya?
2 Sing.	ma	mito	mi?
2 Plur.	ma:	ma:l	ma?
3 Sing.F.	man	ma:dal	ma:da?
3 Sing.M.	mo:w	mo:wal	mo:wa?
3 Plur.	phow	phowal	phowa?
3 NCBR Sg.	tiyi	titi	ti?
3 NCBR Pl.	tiya	tiyal	tiya?
Interr.	čiba:	čiba:l	čiba?

Table 1b. Inflectional case

KINSHIP TERMS	A CASE	P CASE	Obl CASE	VOCATIVE
older sister	bade:	bade:l	bade:?	de:?day
mo.older sister	basu?	basu?ul	basu:?	su?day

Proper names[7] are intermediate between the inflectionally marked class and the class marked with the clitics described below. They are like the inflectionally marked

[6] In the sections below, details concerning allomorphs of the Obl case category within particular nominal classes will be discussed.

[7] Traditionally, proper names were rarely used in reference or address (cf McLendon, 1978:4). My informant still adheres to this convention to some extent, even in English. Particularly in the case of

nominal classes, in that the A form is unmarked. The P and Obl cases are marked as indicated below.[8]

Table 1c. Inflectional case			
PROPER NAMES	A CASE	P CASE	Obl CASE
Sam	Sam	Sam-tuh	Sam-wi?
Caterpillar-head	lišina	lišina-tuh	lišina-wi?

3.2. · Clitic case allomorphs

Nouns denoting animate entities, both human and non-human, may be marked with the case clitics shown in Table 1d. The P-case clitic is enclosed in parentheses within the table since it is rarely used.[9] In certain circumstances, discussed below, all of the three case categories may be expressed with no marking.

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deceased persons, reference is carried out periphrastically. However, I have heard her use the name of another Pomo speaker in addressing her (in Pomo) over the telephone.

[8] The source of these case markers is unclear. It may be that the P-case marker derives from a postposition *-tuh*, indicating a Source ("from", "out of", etc.), while the Obl case may be derived from the instrumental postposition *wih*. On the other hand, its possible that these are retentions from the object and oblique cases that McLendon has reconstructed for some pronouns in the proto language. The object form was **-to:* (˜ -:to ˜ -tó) (McLendon, 1973:56); the oblique (listed for first person only) was **-i̯*. The latter followed the first person stem which ended in a labiovelar glide. This may have led to a reanalysis of the marker as *-wi̯*. More comparative work may shed light on this.

[9] Although much of the next chapters is devoted to an analysis of the function of case category and case allomorph alternations, I have no account of what motivates the choice of either the unmarked P-case allomorph or the P-case clitic, *yaču̯l*. It is possible that its contribution is conditioned in some way by discourse conditions of definiteness or specificity. Future text analysis will shed some light on this.

One of the few examples I have found of an object marked with a clitic is in the following expression, which seems to be something of an idiom.

(i) daṭa? dasay yaču̯l k'o yehin ka khe
old lady blind clitic.P thing do CAUS FUT/MOD
"Let the blind old lady do something."

(This utterance has the conventional force of a reproach--either for getting in someone's way or for trying to help them too much.)

Occasionally the P-case clitic is found in texts.

(ii) nan man wa:nda misaxala biču̯'u ču̯adin
and she walking adv. snake small seeing

mul yaču̯l man xama:ču̯in xa muxa
it P-clitic she following water towards

"And while she was walking , seeing a little snake she followed
it towards the water."

These elements are enclitic on the last member of the noun phrase. For example, since modificational adjectives (usually) follow the noun stem, the clitic is found after these.

(5) hayu-bic'u? -ya? c'it ma?a
dog small A bird eat
"A little dog ate a bird."

Table 1d. Clitic case marked nominals

Nominal Category	A CASE	P CASE	Obl CASE
Dem. Pn. 'that'	mul+ya?	mul+yačul	mul+yaču? / mil
Pers. N. 'old woman'	daṭha?+ya?	daṭha?+(yačul)	daṭha?+yaču?
Pers. N. 'child'	kawi+ya?	kawi+(yačul)	kawi+yaču?
Pers. N. 'chief'	ča?+khale?+ya?	ča?+khale?+(yačul)	ča?+khale?+yaču?
Common N.. anim.'dog'	hayu+ya?	hayu+(yačul)	hayu+yaču?
Interrg.comm.N.[11]'which one'	hel+ya?(he?)	hel+yačul	hel+yaču?

3.3. Neutralized (unmarked) case

All nominals denoting inanimate entities canonically occur in unmarked form.[12]

(6) ṭho?o -nam (*yačul) ?a: bida
acorn mush -spec (P-clitic) 1s.A dip
"I ate/am eating the acorn mush."

(7) phit'am -nam baden -ye
flower-spec grow -perf
"The flower(s) have grown."

Given the fact that (1) these nominals display only unmarked or zero case allomorphs, and (2) the [+animate] nominals may also be instantiated as unmarked nominals, we may describe the overall pattern as two overlapping paradigms:

[11] The suffix *he?* which occurs in at least one form of this interrogative pronoun is perhaps cognate with the "specifying suffix" {-he?} found in Eastern Pomo (McLendon 1978:5).

[12] Occasionally, the A case clitic may be used to mark a [+inanimate] Subject nominal. The conditioning environment and interpretive consequences of this will be discussed in Chapter Six.

Table 2. Overlapping clitic and neutral case paradigms	
Common Noun, Animate	Common Noun, Inanimate
Clitic	
Unmarked (neutral)	

I will return to this issue later.

3.4. Another option: encliticized pronouns

So far I have described inflectional case (the obligatory encoding device for pronouns, kinship terms and proper nouns) clitic case (associated with animate common nouns), and neutral unmarked case (associated with common nouns). There is another option for common nouns: the noun phrase may occur with an enclitic pronoun head. The entire noun phrase then inherits the case marking properties of the new head, the pronoun.

This device of pronominal encliticization is only possible when the noun stem is specified (i.e. is followed by the specifier *nam*). Before describing this option I will briefly discuss the internal structure of the noun phrases which host these clitics, and some related phenomena.

3.4.1. Bare noun stems and specified noun stems

Common nouns (including personal nouns, other animates, and inanimates) may appear in a sentence as bare stems, (with or without a clitic case) or as *specified* stems, i.e. followed by a clitic specifier *nam* (with or without a clitic case).[13]

[13] This specifier is clitic-like, in that it can be attached to nouns or adjectives, anything which occurs at the border of the phrase. Degemination occurs when the first consonant of the enclitic pronoun is [m]. This can be contrasted with geminate [m] found in the verbal environment of stem-final [m] followed by modal element *male*.
There is an alternant form, *nay*, which seems to be used more as a discourse and spatial deictic.
(i) hayu-nay xa -ne -ya
dog-spec water-throw -pass
"that dog was thrown in the water"

(ii) kawi - nay to: baku

What is the semantic contribution of this specifier? Oversimply, in contexts where the speaker wants to characterize a category without a specific exemplar of that category in mind, she must use the noun stem minus the specifier. This will include generic meanings, non-specific objects of propositional attitudes, and predicate nominals.

(8) matu: mo:w na: da?ade
doctor 3sm.A COP want-pres
"He wants to be a doctor."

(9) biše da?an thin mo:w na
meat like NEG 3sm.A COP
"He doesn't like meat"

(10) tunka šiwey ?a: siwe?e
dress new 1s.A wish for
"I wish for a new dress."

(11) mo:w ša dače da?ade
3sm.A fish catch want-pres
"He wants to catch a fish."

ša-nam mo:w k'o čaban da?ad-inha
fish+spec 3sm.A NEG kill want-NEG
"He doesn't want to kill the fish."

However, the bare stem is not necessarily non-referential. The speaker may or may not have a specific referent in mind when using the noun without the specifier.[14]

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kid -spec 1s.P bother
"that kid bugs me"

(iii) kawiya mata nay phow kawinay mul phičin
kid.pl female spec. 3p.A kid-spec dem take
"the girls took that child"

[14] I will not discuss the discourse pragmatic status of bare nominal stems with possessors. The presence of a possessor nominal leads to a preferred interpretation of referentiality and specificity.

(12) bita kabuh mo:w mo:wal ho-čadi
bear skin 3sm.A 3sm.P give-lengthy -pres
"He's going to give him a bear skin."

(13) kamisa t'ac' man me? šitam -the
shirt red she char. wear-rem.past
"She used to wear a red shirt."

In fact, the referent of the bare noun stem may even be present in the physical context. In the next example, uttered in a restaurant with the referents in view, it may be that the non-specific form was used because the speaker wanted to refer to the type of entity denoted by the object nominal: it was not the child himself that she wished to remark on, rather it was the fact that he was an instance of a particular category of person.

(14) masan ma:ta -nam+phow kawi xac'e hol -de
Caucas. female-spec+3p.A child black around take
"Those white women are taking around a black kid."

In general, it seems that the unmarked form may be interpreted either as referential and specific or not, while the specified form can only be specific, i.e. identifiable to at least the speaker.

(15) kawi mina ?a: šo:wči
child cry 1s.A hear -pres
"I hear the baby crying."
"I hear a baby crying."

(16) kawi -nam mina ?a: šo:wči
child-spec
"I hear the baby crying (specific baby)"
* # I hear a baby crying"

3.4.2. Enclitic pronoun paradigms

When a stem is specified, composing a complete noun phrase, the entire noun phrase may be followed by a third person or a demonstrative clitic pronoun. Choice of enclitic pronoun, personal or demonstrative, determines whether the entire noun phrase will be marked inflectionally, or with clitic or neutral case. That is, if the nom-

inal incorporates a personal pronoun, the inflectional paradigm shown below will instantiate the necessary case categories for the noun phrase. If the demonstrative pronoun *mul* is encliticized, the clitic allomorphs will mark the noun phrase. (Note that if the demonstrative is encliticized on a nominal denoting an inanimate entity, the forms may change suppletively: *mul ~ mil ~ mu:*. The clitic case allomorphs will not be used.) The following table includes all pronouns which may occur as enclitics on noun phrases.

Table 3. Enclitic Pronouns			
Personal pronouns (inflectional case marking)			
PRONOUNS	A CASE	P CASE	Obl CASE
3 Sing.F.	man	ma:dal	ma:da?
3 Sing.M.	mo:w	mo:wal	mo:wa?
3 Plur.	phow	phowal	phowa?
Demonstrative pronoun (clitic case marking)			
Dem. Anim.	mul+ya?	mul+yačul	mul+yaču?
Dem. Inan.	mul	mul	mil / mu:

Features of animacy on noun stems will clash with or match those on the enclitic pronoun. For example, the class of common noun *inanimates* cannot be host to *personal* pronoun enclitics. Presumably we can encode this fact as a lexical feature of personal pronouns: [+animate]. This is an absolute prohibition, since inanimate nouns are not used with personal pronouns even in a metaphorical sense, as far as I have been able to tell. The demonstrative pronoun *mul* must be unspecified in this dimension, since it can be used as a clitic on noun stems denoting humans, animals, or inanimates.

Third person forms, inflected for the appropriate number (and gender where the paradigm encodes this), are cliticized onto the end of a phrase headed by the noun stem followed by optional modifiers and the obligatory specifier, *-nam*.

(17) old woman

datà?-nam-man	datà?-nam-ma:dal	datá?-nam+ma:da?
old wo.+spec+3sf.A	old wo.+spec+3sf.P	old wo.+spec+3sf.Obl

(18) dog

hayu-nam-mo:w	hayu-nam-mo:wal	hayu-nam-mo:wa?
dog-spec-3sm.A	dog-spec-3sm.P	dog-spec-3sm.Obl

The following example shows the demonstrative pronoun *mul* in the enclitic pronoun construction. (The use of the unmarked version of the A case for the Subject of *na*, the copula, will be discussed in Chapter Six).

(19) kawi šina: xale- nam+mul mo:wa? thin na to: t'ah
child head white-spec+dem.A 3sm.Obl NEG COP 1s.P think
"I think that light haired kid isn't his."

It would be possible to view this pronominal encliticization strategy as simply another case marking strategy--in this view, common nouns would have two case paradigms associated with them, the clitic case paradigm, and a pronominal paradigm. A noun phrase headed by a common noun could be followed by a pronoun matching in features of number and gender with the appropriate case marking. I have chosen to instead see the process of pronominal encliticization as a separate phenomenon, with case marking as a simple consequence of choice of noun phrase head. There are two reasons for this.

First, the statement of this process as a type of case marking would complicate the rules of case marking with no concomitant benefit: for example, the noun "dog", *hayu*, would be associated with the clitic case paradigm. If it occurred in a specified noun phrase, it would then be associated with *two* more case markings, one the inflectional marking associated with the third person stems *mo:w, ma:dal*, and *phow*, and one the clitic case associated with the neuter third person demonstrative *mul*.

Second, the cliticization of a pronoun can be independently motivated, i.e. it is more than a case marking strategy, it is a way of setting a nominal apart within a discourse. It can be seen as having a discourse-deictic function: for example, if a

referent has already been introduced, and has been referred to using just a pronoun, at some point another referent may be introduced which calls for using a pronoun with the same person number combination (e.g."So he left and then HE came in."). At this point one or the other referent will be re-identified or disambiguated by use of a full noun stem + clitic pronoun. (Intuitively, this bears a certain similarity in function to the use of left dislocation in English.) In addition, it allows for the anthropomorphization of animals, in the context of mythic texts or simply designation of beloved domestic animals. The addition of gender to a noun phrase denoting a dog via the encliticization of the pronoun "he" seems to connote a very different kind of relationship to the animal than a bare noun stem followed by a clitic case.[15]

In view of these proposed functions of pronominal encliticization, I will briefly digress here to compare its use in noun phrases with some other uses of the demonstrative pronouns.

3.4.3. Pronominal encliticization compared with resumptive pronouns

Some of these pronouns (particularly demonstrative pronouns) are used in what are probably diachronically related functions, but functions which can be distinguished from the encliticization process just described.

Although demonstrative pronouns play a resumptive role in certain other constructions, some of them superficially similar, it is possible to distinguish the pronominal encliticization process from uses in which the pronoun is anaphoric to a topic. The encliticization process produces a noun phrase which is prosodically unitary, and while the pronoun is not particularly reduced segmentally, degemination does take place at the boundary of the specifier and pronoun.

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[15] I make this statement on the basis of seven years of conversations with a woman who owns three dogs and for whom dogs form a frequent topic of conversation.

(20) xale-nam-mul
wood-spec-dem --> [xalenamul]

In addition, the pronoun never bears a stress or pitch accent of any kind when in this compound phrase.

These are in clear contrast to examples like the following, where the pronoun is linked to the clausal topic preceding it. Prosodically (21) seems to be an appositional structure. In this example an entire clause is introduced as the cause of the main clause event, and *mil* looks like a resumptive pronoun anaphorically tied to the (topic) cause clause. Structures like this do not trigger any consonant reduction phenomena and the pronoun can be a locus of prosodic prominence.

(21) biše ṭhoṭ ma?a -n mil tuh ma:dal dithal-e
meat rotten eat-Acomp dem from her be sick-pres
"Eating rotten meat, from that she got sick."

(As will be discussed further below, *mil* is an oblique variant of the demonstrative *mul*.)

Relative clauses in this language are very similar, in that a (potentially tensed in this case) clause precedes the main clause, and a demonstrative may optionally follow, presumably either marking the role of the relativized noun in the matrix clause or acting as a relativizer. Here the same indeterminacy is again evident: the determiner need not be present, it may be subsumed under the prosodic envelope containing the relative clause, or it may follow a pause, acting as though it were a member of the matrix clause.

(22) mo:w kaweyo ma -phane? bila-y mul-ya? mo:wal maba:če
3sm.A horse NCBR's daught.Obl buy-perf dem-A 3sm.P kick
"The horse he bought for his daughter kicked him"

(23) khe kučiya ?a: k'ohum ha?ak-da (mul) maxay-?a-na-y
my knife 1.A roots cut-loc dem steal-perf-pass-COP-perf
"My knife that I cut basket roots with was stolen."

These examples are quite different from the enclitic pronominal heads of NPs, since they are clearly prosodically separate, optional, and they do not comprise a

phrasal head etc. However, there are other examples, particularly featuring the demonstrative pronoun *mul*, where it is difficult to tell whether it is acting as a nominalizer or enclitic marker on a larger host, or as a resumptive pronoun linked anaphorically to some larger phrase in apposition to it.

The following extended excerpt from a text contains several instances of the demonstrative pronoun in this intermediate role. (Instances of pronoun in boldface)

(24) č'a: yemal min nan ti? ča? maxoye- **mul**
one year thus being, NCBR.Obl person regret-perf+Dem,

?a:nu t'a -n
more thinking -PROG

tiyi k'o yehen-ye- **mul** diley subu tak' yemal diyen
NCBR.A thing do -perf-dem all three four years stopping

phik'a šibu thin k'uhum ba?adin ma?a ba?an-ye- **mul**
basket making root gathering food gathered-perf+Dem

ma?a yehen-ye- **mul**, diley diyen
food make-perf-Dem all stopping

"It's like that for one year, thinking more about the person you mourn,
everything you do stops for three or four years.
Basket making, root gathering, the food gathering, the food making,
they all stop."

Prosodically, these demonstrative pronouns are usually part of the phrase that precedes them, not the main verb *diyen*. However, they sometimes seem to show up as proclitics, attaching to a word which is part of the main clause nucleus.

The enclitic heads of NPs can be further differentiated from the preceding constructions by the property of non-separability from their host.

(25) lamesa-nam+mil yow mo:w čima
table -spec+dem.Obl under 3sm.A sit
"He's sitting under the table."

(26) * lamesa-nam mo:w mil yow čima
table -spec 3sm.A dem.Obl under sit
"He's sitting under the table."

What is the significance of these facts to the current question? By contextualizing

the pronominal encliticization strategy within the array of functions borne by demonstrative pronouns (loose relativization, reference to topic, etc.) I want to call attention to two points: first, that the pronominally headed compound NPs under consideration are somewhat different than some other structures in the language which rely on the demonstrative pronoun, because they are unambiguously one constituent. Moreover, we have observed that the case marking of the whole phrase proceeds according to the case marking propensities of the enclitic pronoun. We can conclude from this that the pronoun is the head of the phrase. (This will later form part of a generalization about case marking that will figure in a later discussion of possession.)

Second, by briefly surveying some other uses of at least the demonstrative pronoun in less tightly composed relations within the clause, we may gain some insight into the possible motivations for development of a phrase formation process like this. In the study of the development of derivational and inflectional morphology of verbs, the emphasis is often on how adjacency of 'relevant' elements (Bybee, 1985) results in fossilization into morphology. The examples briefly surveyed here demonstrate a range of linkages between demonstrative pronouns and other entities, varying in integration.

3.5. Encoding flexibility and the Animacy hierarchy

Within the subset of common nouns discussed above, we have the choices of clitic case (either directly applied to the noun stem or cliticized onto the enclitic version of the demonstrative pronoun *mul*), inflectional case, via enclitic (inflected) personal pronouns, and no marking at all. Without further analysis, we at least can surmise that this choice of case marking device is not simply statable in terms of humanness, animacy, or any other usual formulation of the animacy hierarchy. Within the domain of common nouns, non-human animates and humans may be case marked with either device. Inanimates and humans denoted by common nouns may both be unmarked.

(27) Case marking possibilities: common noun as Subject of transitive sentence:

dakosa?	young man
dakosa?+ya?	young man+A
dakosa?-nam	young man+spec
dakosa?-nam+ya?	young man+spec+A
dakosa?-nam+mul	young man+spec+demonstr.
dakosa?-nam+ mul+ ya?	young man+spec+demonstr.+A
dakosa?-nam+mo:w	young man+spec+3sm.A

It may be useful to think about the extremes of the case marking strategy: those categories of nominals which are limited to one of the three case marking strategies. The two ends of the spectrum are clear--well-known human entities, epitomized by pronominal reference, are limited to inflectional marking; inanimates and non-specific animates must usually be unmarked, although they may receive clitic marking. Participants 'in the middle', well-known and specific humans and animals, can appear unmarked, or marked with clitic case, or can be portrayed *as though* they were members of the pronominal class through adopting the case marking conventions of that class.[16]

In summary, there are three ways that case categories may be instantiated: inflection, clitic and unmarked. There is no one to one mapping between these three systems of case allomorphs and features that distinguish nominal classes (animacy, humanness, etc.). However, only nominals which denote animate entities can receive inflectional case. They can do this in one of two ways. (1) Certain classes of nomi-

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[16] The only place where this choice of devices seems to be almost neutralized is in the plural. Frequently, the singular subject will be rendered using the clitic cases, while the same sentence with a plural subject will display the encliticized inflected 3rd person plural pronoun *phow*.

(i) kawi -nam-ya? k'aye dasey khemna
child-spec-A self wash fut.mod
"The child must wash itself"

kawiya-nam phow k'aye dasey khemna
child.pl-spec+3p.A self wash fut.mod
"The children have to wash themselves"

(In this example, the *-ya* immediately following *kawi* is a rare vestige of what may have been a plural inflection, persisting now in only a few nouns.) This is a statistical neutralization only, in that it is possible to use the clitic *ya?* after notionally plural nominals as in *hayu-diley-ya?* [dog-all-A clitic] "all the dogs".

nals must receive inflectional case (pronouns, kinship terms, proper nouns); (2) common nouns denoting animate entities may occur in compound nominals with pronominal heads, thus receiving the inflectional case associated with pronouns.

The following table shows in general terms the mapping between the nominal classes and the case instantiation systems, along with the marking typology they represent.[17]

Table 4. Overlapping case paradigms

Pers.Pron.	Kinship	Proper N.	Comm. N.+Hum.	Comm.N.+Anim.	Comm.N.-Anim
Inflection (Nom/Acc)			(via pron.cltc heads)		
			Clitic (Erg/Abs)		(limited)
			Unmarked (Neutral)		

In Chapter Six it will be demonstrated that there is a semantically and pragmatically based interpretive distinction associated with the alternation of the *inflectional allomorphs* of the A-case and the P-case categories for certain intransitive Subjects. The availability of the enclitic pronominal head strategy enables common nouns to participate in this interpretive domain.

Moreover, as this brief description has hinted, the choice of encoding strategy may also have something to do with definiteness, specificity, etc. Because the personal pronouns are inflected for number (and gender in the third person singular) the reference of a noun phrase headed by a personal pronominal is more highly constrained than the corresponding bare noun stem, marked only by a case clitic:

[17] The first person singular paradigm is largely suppletive. However, the Obl inflectional suffix is present. Also, the status of the case markers in the Proper Noun paradigm is unclear. However, their markedness patterns are the same as the inflectional nouns, thus I will put them in the same row.

(28) dakosa? dakosa?-nam -mo:w
"a young man/some young men" "the young man"

4. Case category and allomorph realization for some basic functions

In the following sections I will describe how some different constructions call for the employment of one or another case category--A, P or Obl. In this and the next two chapters, a principal concern will be the description of case category assignment to various grammatical functions, especially as it is determined by semantic and pragmatic factors. For the time being, I will explicate how certain oblique roles and functions are instantiated in the inflectional and clitic case paradigms, where allomorph choice does not involve any semantic alternation beyond that associated with the features of the nominal subcategories.

4.1. Marking of arguments in a transitive clause

The case marking of subjects, although relatively straightforward in some instances, is nevertheless contingent upon the class of the nominal and the semantics of the verb in a significant percentage of cases. The next chapter covers these contingent patterns; here I will briefly introduce the unproblematic pattern associated with nominals that display the inflectional case allomorphs.

Specifically, all Subject nominals which receive inflectional case (whether they are from the inherently inflected categories such as pronominals, or whether they are compound NPs with pronominal heads)[18] display the A case in *all* transitive clauses, all copular constructions and many intransitive clauses (cf Chapter Six). All Direct Object inflection-marked nominals display the P case inflection.

The examples which follow exemplify the range of cases which are unprob-

[18] For all rules and regularities to be described henceforth, all nominals case marked with an inflection act the same, whether the inflection is intrinsic to the nominal (as with pronouns, kinship terms and proper names) or is part of an encliticized personal pronoun.

lematic.

(29) mo:w madahad-el k'a:
3sm.A NCBR's wife-P leave
"He left his wife."

(30) mu: ba- su? k'otam-a
there 3's mo's sis. swim-pres
"(Someone's) aunt is swimming there."

(31) dakol dašoya?-nam +man na
wild young wom.-spec-3sf.A COP
"The young woman is wild."

4.2. Constructions which call for Oblique case

In this section, several uses of the Oblique case will be described--the expression of Benefactive arguments, and objects of postpositions.

4.2.1. Benefactives

This is the most straightforward of all case assignments in the language. In all instances, the Oblique form of the nominal is used to indicate the role of Beneficiary. In both case paradigms, both inflectional and clitic marked, the Oblique marking is obligatory.[19]

Using the frame sentence "She made it for ___", oblique forms for the entire range of nominals were elicited, as in the following example.

(32) dakosa?-nam-yaču? man mul dod-e
youngman-spec-Obl 3sf.A dem make-pres
"She made it for the young man."

What kind of rule assigns Oblique case to Benefactive arguments? We can assume that there is a lexical rule which adds a benefactive argument to the valence of a number of semantically compatible verbs. The case assignment, since it is exceptionless and straightforward, can be made a part of this lexical rule.

[19] I was unable to elicit a benefactive example in which the beneficiary was inanimate. Presumably, if this were possible, the unmarked form of the Oblique would be used.

Table 5. Oblique case marking of benefactive argument			
Inflectional Case			
Category	Obl CASE	Category	Obl CASE
1 Sing.	khe	Refl.clause bound	k'aye khe
1 Plur.	ya?	Refl.non.cl.bd.sg	ti?
2 Sing.	mi?	Refl.non.cl.bd.pl	tiya?
2 Plur.	ma?	Interr.'who'	ciba?
3 Sing.F.	ma:da?	Older sister	bade?
3 Sing.M.	mo:wa?	Mo.older.sis.	basu:?
3 Plur.	phowa?	Kelly	Kelly-wi?
3 NCBR Sg.	ti?	dog+inflec.pn.	hayu-nam+mo:wa?
3 NCBR Pl.	tiya?		
Clitic Case			
demonstrative pronoun		mul yaču?	
Interr.pn 'which one'		hel yaču?	
young man		dakosa?(nam) yaču?	
child		kawi (nam) yaču?	
bird		c'it (nam) yaču?	

It should be clear that we intend this case assignment to depend on the introduction of a particular grammatical function: an oblique object with a particular semantic character. In other words, this case assignment is not statable simply on the semantic role of beneficiary: it is not appropriate just in case an argument is construable as benefitting from some action, as, say, the Subject of a verb in English like "benefit", or "receive".

This case assignment rule will turn out to be the most straightforward of all the rules to be posited. The only wrinkle involves the two Obl case allomorphs for the 1st person singular (as listed in Table 1b): *khe ~ to?*. Only the first member of the alternation may be used for the benefactive. The use of an elaborated nominal paradigm, with slots for environments that trigger particular case allomorphs, will provide a notation for distinguishing among the available allomorphs within a particular case category.

4.2.2. Objects of postpositions

In general, postpositions marking both obligatory and optional arguments of verbs govern the Obl case. The class of nominals which take inflectional case straightforwardly display the appropriate Oblique form (which a few minor exceptions, described

below).

4.2.2.1. Arguments of the postposition marking Source[20]

Using the frame sentence "I got word from ___", the case used to mark the object of the postposition *tukhe*, (roughly "from") was elicited for the same range of nominals described above.[21]

(33) mo:wa? tukhe ?a: čano šow?-ye
3sm.Obl from 1s.A word hear -perf
"I got word from him."

(A) Inflection-taking nominals as objects of *tukhe*

In the context of this postposition the Oblique case was required for inflectional classes, as described for the Benefactive. However, several small differences emerged. The first person singular and the clause bound reflexive forms were different from those used for the Benefactive, and the category of proper names diverged from the norm in that no marking, P-case or Obl, was allowed. We might state this as an allomorphy in the class of proper names, in which an unmarked variant coexists alongside the marked Obl form.

[20] The postposition *tukhe* marks Source. The postposition *tuh* which probably forms the base of this postposition, invariably signals a Source argument. The postposition *khe*, possibly related to the future/modal marker *khe*, may be interpreted as signalling 'path' (Fillmore, 1977; Talmy, 1985).

[21] These examples might provoke some to wonder whether marking patterns are sensitive to the relative ranking of other arguments in the clause, i.e. whether the presence of a pronoun would influence the marking of a common noun etc. I have found no effect of this sort, and the frame sentences above represent a distillation of a variety of examples of the construction.

Table 6. Obl Object of postposition *tukhe*

Inflectional cases

1.sg	to?	Refl.clause bound	ti?
1.pl	ya?	Refl.non.cl.bd.sg	ti?
2.sg	mi?	Refl.non.cl.bd.pl	tiya?
2.pl	ma?	Interr.'who'	čiba?
3.f.sg	ma:da?	Older sister	bade?
3.m.sg	mo:wa?	Mo.older.sis.	basu:?
3.pl	phowa?	Kelly	Kelly
		dog+inflec.pn.	hayu-nam+mo:wa?

The marking of proper nouns is the only anomalous feature of this chart. In general, when an argument is marked with Oblique case for the inflection-taking nominals, the proper nouns follow suit.

(34) mi? tuh mo:w ma- dahad-el k'a:
you.Obl pp 3sm.A NCBR's wife.P left
"He left his wife because of/for you."[22]

(35) Kelly wi? tuh mo:w ma- dahad-el k'a:
Kelly.Obl PostP 3sm.A NCBR's wife.P left
"He left his wife because of/for Kelly."

(36) du:mata tuh mo:w madahad-el k'a:
other woman PostP 3sm.A NCBR's wife.P left
"He left his wife because of/for another woman."

These idiosyncratic allomorphs of the proper nouns are governed by the particular postpositions under discussion. They will be considered to be cases of syncretism (e.g. the surface identity of the A case and the $\text{Obl}_{\text{tukhe}}$ case for proper nouns).

(B) Common nouns as objects of *tukhe*

The clitic taking class of nominals can be characterized generally in the following way: (with the exception of the stem meaning "child", which must be followed by the clitic *yačʷu?*) the bare stem could be followed in almost every case by the postposition

[22] These examples can be subsumed under the role of Source as the argument glossed with a "for" phrase in English is construed as a reason.

directly, with no marking:

(37) dakosa? tukhe "from a young man/some young men"
c'it tukhe "from a bird/some birds"
xale tukhe "from a tree/some trees"
* kawi tukhe *"from a child/children"

The marked allomorph of the Obl case category, the clitic *yačv?* can optionally be added when the nominal is [+animate]. In general, the case marker is also optional when the stem is restricted by the specifier *nam.* However, in several (but not all) cases, when the specifier is added, the Obl clitic case marker is required:

(38) dakosa? nam yačv? tukhe "from the young man"

hayu nam yačv? tukhe "from the dog"

Aside from these few exceptions a general statement is possible--in the domain of common nouns, objects of the postposition *tukhe* occur either in the unmarked alternant, or are marked with the Obl case clitic.

(C) Common nouns with demonstrative enclitic heads

It is in the domain of postpositional object marking that we find a preference for the third strategy for marking the class of nominals which takes clitic case. Previously we have seen that a noun stem may (1) be marked with a clitic case, (2) be followed by an inflected personal pronoun clitic (as long as it is a [+animate] noun stem) or (3) be followed by an enclitic demonstrative pronoun *mul* which takes the clitic cases (and which displays two other Obl variants signalled by vowel changes). When [-human] nominals are objects of certain postpositions they tend to appear with the enclitic form of the demonstrative pronoun *mul.* As seen in Table 3, this demonstrative has three forms in the Oblique, one taking the clitic *yačv?*, one undergoing a vowel change, *mil,* and one with added vowel length and final consonant loss. It is the second option which is preferred for the objects of spatial postpositions. As was the case with nominals that took enclitic personal pronouns, (e.g. *hayu-nam-mo:w*), this option requires that the nominal bear a specifier.

(39) hayu-nam mil dakhe ?a: čano:d -e
dog spec dem.Obl about 1s.A talk -pres
"I talked about the dog."

*hayu mil dakhe ?a: čano:d e
dog dem.Obl

*hayu-nam yačču? mil dakhe ?a: čano:de
dog-spec clitic.Obl. dem.Obl

The specifier is immediately followed by the enclitic pronouns *mil*, or *mu:*. The choice between the two is determined by the denotation of the nominal in combination with the verbal frame. The clitic *mil* may be used for inanimate objects (and discourse deixis) and *mu:* may be used for locations in space or time.[23] The examples below show the pronouns as enclitics and as independent objects of postpositions.

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[23] In fact, *mu:* may follow a nominal without a postposition governing it, thus marking it as a location. When it occurs alone as an argument or adjunct, it is glossed as a distal deictic, "there", in opposition to the proximal deictic *mi:* "here". (The following example may be interpreted either as a complete clause or a relative clause.)
(i) ?al c'ikanam mu: ?a: sima miṭi-ṭhe
dem basket-spec loc I sleep -rem.past
"I used to sleep in that basket"
"That basket where I used to sleep..."
The pronoun *mil* is found independently as an object argument only infrequently. There its oblique status has some interpretive consequences (e.g. lack of total affectedness) frequently found to be associated with oblique-marked objects in other languages:
(ii) mo:w mul ma?a "He ate it."

(iii) mo:w mil ma?a "He ate at/nibbled at it."

(iv) nan man maṭhe mil kamat khe šan
and she her mo. dem angry fut.mod know
and she knew her mother would be angry about it.

(40) xale -nam - mil yow mul man čima -y
tree-spec-dem. under dem she sit-perf
"It's under the tree that she's sitting."

(41) lamesa -nam-mil diyi man čima
table-spec-dem next to she sit
"She's sitting next to the table."

(42) mil tuh man dịthale
dem from she sick
"Because of that she got sick"

(43) šanenam mu: tuh phow philaku?u
*mil
*mul
sweat lodge+spec+dem from they left.coll
"They went out from the round house"

(44) mu: tuh čadil mo:w duhu
there from far 3sm.A left
"He went far away from there."

(45) mu: tuh man dịthale
dem from she sick
"From that time on she was sick"

4.2.2.2. Objects of the Postposition Marking 'Content'

The postposition *dakhe* is used to mark the 'content' arguments of verbs like *čanon* "to talk about" or *čanomaṭu* "tell a story about".[24] Using the frame sentence "They talked about X", this elicitation of instances of representative members of the nominal hierarchy revealed that marking of objects of the postposition *dakhe* follows almost exactly the pattern found with *tukhe*, i.e. use of the Oblique case, except for the fact that the proper nouns here do not diverge from the inflectional classes, being obligatorily marked with the proper noun allomorph of the Obl case, *wih*:

[24] Not all verbs of this semantic type allow their 'content' role to be marked in this way. For example, the verb *ṭhabačhin*, "(group) to gossip" takes a direct object.

(46) Kelly wi? dakhe mo:w čanod-e
K Obl about 3sm.A talk -pres
"He talked about Kelly."

Again the marking of common nouns with the clitic *yaču?* is optional. Common nouns more frequently occurred either as bare stems with no case marking, or as specified stems with the enclitic pronoun *mil*, than with the clitic *yaču?*.

4.3. Summary of rules for Postpositional assignment of Oblique case

Although I have reviewed only two Postpositions, the behaviors noted in these sections seem to be generalizable to all other postpositions I have studied. In spite of a few idiosyncratic allomorphs, in general, postpositions govern the Oblique case category for their objects. For inherently inflected elements, the Oblique case is chosen for insertion from the appropriate lexical paradigm. For common [+animate] nouns, to the bare or specified noun stem speakers may (optionally) add the clitic *yaču?*.

5. Conclusion

I have introduced here essentially three descriptive dimensions necessary to the representation of case in this language:

(1) Case categories: A, P, and Obl;

(2) Allomorphs of case categories governed by class of nominal: (i) inflectional suffixes, (ii) clitics and (iii) unmarked forms;

(3) Lexically governed allomorphs within nominal class: cf. e.g. $Obl_{Benefactive}$ and Obl_{tukhe} for the class of proper nouns.

Because the third type of alternation is fairly idiosyncratic, and because each of these choices is governed by some lexical rule or lexical element such as a postposition, perhaps the clearest way to represent the range of alternations is to create slots in a nominal paradigm for every environment.[25]

Table 7. Examples of two partial paradigms		
Case Categ.	**1st Pers. Sg.**	**Proper noun**
A case	?a:	Kelly
P case	to:	Kelly tuh
Obl-BEN	khe	Kelly wi?
Obl-tukhe	to?	Kelly
Obl-dakhe	to?	Kelly wi?

I will proceed from here with the analysis of alternations in government of case category, associated with the grammatical function of Subject. At the end of Chapter Seven, a summary will be given of the rules and regularities of case marking described here and in the next two chapters.

[25] The existence of three options for the expression of case categories no doubt raises interesting questions for explicit theories of the mapping between the lexicon and morphosyntax. However, I will not be able to pursue these questions here.

Chapter Six: Subject Case Marking Alternations

1. Introduction

As described in Chapter Five, the case category canonically associated with transitive and many intransitive Subjects is the A case. However, many verbs in Northern Pomo allow their Subject arguments to be marked *either* with the A case *or* with the P case (the case associated with Objects of transitive verbs).[1] While there are a number of languages in which some subset of (usually intransitive) verbs invariantly mark their Subjects like the Objects of transitive verbs, "fluid S-marking" systems of this type, which allow either case for the Subject of one verb, are rare (Dixon, 1979).

In this chapter I will discuss two sorts of Subject case alternations. Each is relativized to one of the case marking encoding strategies, inflectional or clitic. Briefly, they are as follows:

(1) *For nominals marked with inflectional case:*

For a significant class of verbs (all of which denote states of affairs in which the Subject referent is experiencing some kind of subjective sensation, affecting the nervous system, the mind, the digestive system, etc.) [+human] Subjects can in general be marked with either the A or the P case. Within this general pattern, a number of subpatterns can be observed in which the distribution and interpretation of the A/P alternation varies with the *person* of the Subject. This variation will be shown to be motivated by the semantics of the predicates in combination with the discourse pragmatic dimension of *point of view*.

[1] McLendon (1978) gives a detailed description of the patterns of case marking found in Eastern Pomo, covering both certain aspects treated in the last chapter, and the patterns described in this chapter. My attention to these issues was initially prompted by McLendon's work.

(2) *For nominals marked with clitic case or unmarked:*

For nominals which are [+animate] and which may be marked with the clitic *ya?* or the zero allomorph from the neutral paradigm, there is an alternation between the clitic and the unmarked allomorph which is determined by the combined factors of humanness/animacy and verbal semantics.

Nominals which ordinarily do not receive clitic marking, (those that denote [-animate] entities) may be assigned clitic case under certain circumstances, to be described in section (3).

1.1. Typological and theoretical issues

A number of recent works have been concerned with the proper analysis of Subjects which receive non-canonical case marking or which evince non-canonical agreement patterns.[2] Perhaps the most significant discussion has been on the topic of the appropriate level of analysis at which to explain the phenomenon (which ranges over a

[2] There is a wide range of terminology associated with languages that display such alternations. When there is a thoroughgoing surface marking pattern shared by Ss (Subjects of intransitives), and Os (Objects of transitives) as against the marked As (Subjects of transitives) the term *ergativity* is most frequently employed. Languages like Northern Pomo have been designated as *split-ergative* (Dixon, 1979). However, languages that evince some degree of semantic motivation for the marking patterns that associates Ss and Os have traditionally been called Active (Sapir, 1917) or Agent/Patient (Chafe, 1970; Delancey, 1981). These names reflect the assumption that a unitary semantic dimension explains the surface pattern of subject marking. The label "Active/Stative" indicates a belief on the part of the analyst that an underlying verbal semantics of stativity is associated with the Object-marked Subjects. "Agent/Patient" marking reflects the assumed importance of an underlying participant role division. I will refrain from choosing one of these labels, since the data will reveal that both of these semantic dimensions may be at work, as well as others.

In a different tradition, verbs whose Subjects bear surface markings of Direct Objects are frequently called Unaccusative predicates (Perlmutter 1978, 1980; Harris, 1982; Rosen, 1985; Postal, 1986); The original explicator of this notion, David Perlmutter, has developed a syntactic analysis in which Unaccusative predicates govern as a lexical property a Direct Object and no Subject. I will occasionally use the term *Unaccusative* in this chapter to refer to the class of predicates which commonly turn up across languages with non-canonically marked Subjects, but I do not intend by this use to imply either acceptance or rejection of Perlmutter's account in any particular language.

When Subjects share surface markings of Indirect Objects they are frequently called Inversion predicates, dative Subject predicates, or Indirect Subject constructions (Harris, 1982; Klaiman, 1981.) All of the data in this chapter involve Subjects receiving Direct Object case marking. However, a number of the predicates involved are frequently found on lists of Inversion predicates in other languages. I will not make any distinction between the two semantic categories from this point on.

number of surface categories, e.g. case, agreement, and auxiliary selection). A number of analysts have argued for the syntactic nature of the non-canonical Subject marking, particularly within the tradition of Relational Grammar. Recent works have argued for the importance of lexical semantics of verbs in explaining the alternations (Centineo, 1986; Van Valin, 1986; Klaiman, 1981). These explanations have all tended to presuppose that there is a unique explanation for all instances of the Subject marking alternation within a language. A number of them additionally imply that there is a unique explanatory factor *across* languages.

One of the purposes of this chapter will be to add to the data base which bears on these questions, by presenting data from a language in which lexical semantics *and* the semantic features of nominal participants *co-determine* the distribution and interpretation of Subject morphological case. It will emerge from the description that (a) semantically motivated Subject case alternation is not a unitary phenomenon in this language, rather it is *locally* determined, relative to the particular verb and Subject instantiated in a particular sentence; and (b) discourse pragmatic considerations must also be taken into account when specifying the distribution and interpretation of the A and P cases in this language. Moreover, it will be apparent that in this language, there is no evidence to motivate a purely syntactic account of these case alternations.

Section 2 will cover alternations of type (1), those pertinent to nominals receiving inflectional case. Section 3 will present the facts about alternations of type (2), those marked with clitic case allomorphs.

2. Subject case alternations and verbs of subjective experience

As discussed in the previous chapter, all inflectionally case marked Subjects of transitive verbs, and a large number of Subjects of intransitive verbs (including most verbs of motion and conscious action) must appear in the A case. (The following examples are reintroduced from Chapter Five.)

(1) mo:w ma -dahad-el k'a:
3sm.A NCBR's wife-P leave
"He left his wife."

(2) mu: ba- su? k'otam-a
there 3's mo.sis. swim-pres
"(Someone's) aunt is swimming there."

(3) phow tha?-ye
3pl.A play.pl-perf
"They played"

This is true independent of the person or number of the Subject. However, within the intransitive paradigm there is a large number of verbs which govern either the P case or both the A and the P case for their Subjects. This simple statement, however, does not convey the complex nature of the alternation. This fairly large class of verbs splits into approximately five subclasses, each with its own patterns of distribution of the two cases.

The following table summarizes in a simplified fashion the case marking behavior of these five verb classes and the class of active intransitives.[3]

Table 1. Case Patterns by Verb Class

Verb Class	1st Person		3rd Person	
	A-Case	P-Case	A-Case	P-Case
Invariant P-marking	*?a: miboh *I bloated	to: miboh Me bloated	*mo:w miboh *He bloated	mo:wal miboh Him bloated
Person-Split	*?a: bayu:čˇi *I understand	to: bayu:čˇi Me understand	mo:w bayu:čˇi He understand	*mo:wal bayu:čˇi *Him understand
Oblig.SUBJ=SELF	*mo:wal ?a: da: *I love him	mo:wal to: da: Me love him	*mo:wal man da: *She loves him	mo:wal ma:dal da: Her loves him
Fluid-S 1	?a: phiṭhikčˇi I belched	to: phiṭhikčˇi Me belched	man phiṭhikčˇi She belched	ma:dal phiṭhikčˇi Her belched
Fluid-S 2	*?a: t'ac'ama *I turned red	to: t'ac'ama Me turned red	man t'ac'ama She turned red	ma:dal t'ac'ama Her turned red
Active Intransitive	?a: k'otama I swim	*to: k'otama *Me swim	man k'otama She swim	*ma:dal k'otama *Her swim

Before going on to describe the detailed semantics and pragmatics of the five verb

[3] The English translations may strike some as unaesthetic. I have provided them to give readers a transparent, familiar schema to hang onto as they plough through the complicated data in this chapter.

classes shown in Table 1, I will address two important hypotheses about data of this kind, i.e. data in which at least some Subjects display the surface characteristics of Objects.[4] First, in any such language it is possible to assume that the surface features of Objecthood encode the actual Objecthood of the nominal at some level of representation. In other words, a syntactic explanation must be considered. Second, if a syntactic analysis is rejected, and a lexical semantic explanation is proposed, several dimensions of lexical semantics might be suggested as determinative. The most commonly adduced of these involves the hypothesis that the participant roles of Agent and Patient are determining the case or agreement splits. In the next two sections I will consider each of these hypotheses; finally, I will present a detailed explication of the five verb classes with a proposal for a third type of explanation.

2.1. Syntactic explanations of the A/P case alternation

Any explanation of the data under consideration in terms of grammatical functions is going to be completely contingent upon the working assumptions of the descriptive and theoretical framework. In theoretical frameworks which assume the existence of transformations or multiple levels of syntactic representations, such as Government-Binding Theory or Relational Grammar, the explanation of Object-marked Subjects has frequently consisted in positing an initial level of representation in which such Unaccusative verbs govern a Direct Object and no Subject. At another level of representation, these inital Object nominals are represented as Subjects (cf Perlmutter, 1978, Postal, 1986; Rosen, 1985).

Obviously, in such treatments, evidence of Subject properties does not constitute a falsification of the Unaccusative analysis. If such nominals display Subject

[4] In the domains which I will be concerned with in this chapter, the distinction between the distinguishing and encoding functions of case becomes somewhat vacuous. No matter whether one considers the motivation for the A/P alternations to be syntactic or semantic, there don't seem to be any distinct predictions made by one or the other view. I will not pursue the ramifications of the facts in this chapter for either view at this point.

behavioral properties, it is because some syntactic process or rule has conferred upon them some crucial property of Subjecthood (either Subjecthood as a syntactic primitive, as in a Relational Grammar treatment, or movement to the structural position [NP,S] as in a GB account.) A monostratal lexical theory like LFG does not allow these options.

> (...) these relation-changing rules are not applied in the syntactic derivation of individual sentences They merely express patterns of redundancy that obtain among large but finite classes of lexical entries and presumably simplify the child's language acquisition task. Indeed, just as our formalism admits no rules for transforming c-structures, it embodies a similar prohibition against syntactic manipulations of function assignments and function/argument mappings:
>
> (12) *Direct Syntactic Encoding*
>
> No rule of syntax may replace one function name by another.
>
> (Bresnan 1982:180)

In a framework which posits principles like these, there are only two possible explanations[5] for the case marking patterns found in Northern Pomo, to be described below. Either the P-case marked nominals are indeed Objects, and case marking rules are to be stated solely in terms of grammatical function, or the P-case marked nominals in these constructions are Subjects, and case marking may be determined by some factor other than grammatical function. Thus, in a framework like the one being assumed here, in which there are no syntactic relation-changing rules, and grammatical functions are primitives, evidence of Subject behavior takes on a new importance: it constrains the class of possible explanations much more significantly.

[5] In this account I am not principally concerned with constructing a mechanism for the correct case assignment; rather I am concerned to discover as fully as possible the factors underlying it. A successful discovery of the explanatory (semantic and pragmatic) factors will then inform our perspective on

In the following section I will limit myself to considering the significance of the Subject properties displayed by the P-case marked nominals only for a lexicalist framework such as LFG.

2.1.1. Control in Adverbial Control Clauses

The two obligatorily controlled adverbial adjuncts described briefly in Chapter Three form the context for one set of behavioral properties that reflect Subjecthood of the controller.

2.1.1.1. Two Types of Controlled Adverbials

The two clause types are exemplified below. With the exception of an occasional emphatic reflexive, these must be subjectless.

(4) *-v̂n*: Adverbial; temporal overlap between subordinate and main clause

[diwi-nam-mo:w, [du:šuk mu: miti-n] [čadi-n]
coyote-spec-3sm.A quietly there lie -Acomp watch-Acomp

nan ?awe: tuh ?awe: mil khe ?a: č'a: da?ade hin hi]
conj oh my, ohh dem postpos 1s.A one want COMP say

"Coyote, quietly lying there, watching, said 'Ohh my, oh, I want one of those!"

(5) *-hI*: Adverbial; subordinate clause temporally anterior to main clause

[[sikit-hI] man k'alay]
choke -Acomp 3sf.A die

"Having choked, she died."

There are two relevant properties associated with these constructions. First, only the Subject of the subordinate clause is controlled, i.e. construed as having the same referent as the main clause. Direct Objects in the subordinate clause cannot be so controlled. Second, the controller in the main clause must itself be a Subject. Let us look at some examples of the first sort involving verbs with P-case marked arguments. Subjects of verbs from all five classes can be *targets* of control in this construction.

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what a lexical entry contains, and how that information is expressed in the morphology and syntax.

(6) [[balay banema+n] man čima+či]
bleed+Acomp 3sf.A sit+semlf

"Because[6] she was bleeding she sat down"

(7) [[mo:wal nis-hI] man k'o mo:wal ba?ol-inha]
3sm.P abhor-Acomp 3sf.A neg 3sm.P call-neg

"Having abhorred him, she didn't call him"

(8)[[ho mit'a:-n] ba-?e k'o daw šitha-nha]
(3sm) heat feel -Acomp (3's) father neg door open-neg

"Feeling heat, her father didn't open the door."

Subjects of verbs from all five classes may also be *controllers* of the Subject function of these adverbial clauses.

(9) mini:-na-n [7] ma:dal mikik-če
pregnant-cop.-Acomp 3sf-P faint-semlf
"Being pregnant, she fainted."

(10) ša-nam ma?a-?-hI mo:wal dithale
fish-spec eat-semlf-Acomp 3sm.P feel sick
"Having eaten the fish, he felt sick."

(11) kuhum ha?ak-an mo:wal balay bane-w-či
root cut -Acomp 3sm.P bleed-dir -semlf
"While trimming roots he began to bleed."

(12) mul šo:wč-in ma:dal xamal-c'iko:ma
dem hear -Acomp 3sf.P inside-flutter
"Hearing that, she felt upset, jumpy."

2.1.1.2. Are Adverbial Adjunct Controllers Really Subjects?

It would seem that if control of adverbial adjunct Subjects is indeed a property of Subjects, then these P-case marked arguments are Subjects. However, recall that we observed that the unexpressed arguments of impersonal passive clauses also displayed

[6] Many examples containing the *-ŷn* suffix are glossed with a logical connective. This is not entailed by the use of the suffix, but is a result of general processes of inference depending on the nature of the actions denoted by the verbs. If the informant provided a causal gloss I will use it.

[7] The second syllable of the stem *mini*, 'pregnant', bears stress. Sometimes this seems to be indicated by length, at other times by intensity. This is also the case with certain other stems. I do not fully understand the conditions for the alternation. It may be that this is one alternant of the derivation of adjectives in predicative function.

this property (Chapter Three).

(13) phi?ela?-an (*phow) ma:dal mako-ya
seek.pl-Acomp 3p.A 3sf.P find-pass

"Searching, they found her."

(14) phi?ela?-hI (*phow) ma:dal mako-ya
seek.pl-Acomp 3pl.A 3sf.P find-pass

"Having searched, they found her."

Recall also that at that point, it was suggested that there may be an alternative to the analysis in which control is stated in terms of grammatical functions. If we want to say that the unexpressed argument of an impersonal passive is not a Subject, yet account for its ability to control the unexpressed Subjects of these adverbial clauses, we might state the condition on control in terms of a hierarchy of thematic roles. Control of adverbial adjuncts would accrue to the argument of the verb which ranks most highly on some version of the subjectivalization hierarchy (Fillmore, 1968 and others). This solution (proposed recently to account for aspects of case marking and verb derivation in Tagalog by Carrier-Duncan (1985)) is indistinguishable in most cases from the result of an application of the regular thematic role-grammatical function mapping principles discussed in the section on Causativization in Chapter Three. That is, the most highly ranked argument on the thematic role hierarchy will become the Subject anyway. But in the case of the unexpressed 'underlying Subjects' of impersonal passives, this approach allows us to characterize the class of all possible controllers of these adjuncts.

However, this approach does not tell us anything about the status of the P-case marked arguments of the five verb classes above. If the thematic hierarchy account of control is correct, these arguments could be Objects, and as long as they were the only or the most highly ranked member of their clause, they could be controllers. Is there any other property which would group the P-case marked arguments of these verbs with regular transitive Subjects, and distinguish them from the unexpressed arguments

of IPs?

2.1.2. Control of *ti?* Reflexives

Recall that in an impersonal passive clause, the unexpressed argument cannot be an antecedent for the potentially non-clause-bounded *ti?* anaphors *within its own clause.*[8] The first example shows the pattern of binding associated with an Actor Subject of a transitive clause.

(15) mo:w ma:dal ti? kami:sa hoh
3sm. A 3sf.P NCBR.Obl shirt give

"He$_k$ gave her$_j$ his$_k$,*her$_j$ shirt"

(16) * ti? hayu-nam čaban-?a
NCBR.Obl dog-spec kill-pass

* "They killed their (own) dog."

What is the status of the five verb classes with P-case marked arguments with respect to this property? Simply put, the P-case marked arguments of all five verb classes may function as antecedents to one of these anaphors in their own clause. (In all cases below, the P-case marked pronoun to the immediate left of the verb determines the interpretation of the NCBR form *ti?*.)

[8] The unexpressed argument of an impersonal passive *can* control one of these elements occurring *outside* its own clause, a fact which will be discussed in the next chapter.

Fluid S_1 Verbs

(17) ti? kawi hohtuh mo:wal šinu:či
NCBR.Obl child in front of 3sm.P drunk-semlf

"He$_j$ got drunk in front of his$_j$ kid."

(18) ti? kawi hohtuh mo:wal phithikči
NCBR.Obl kid in front of 3sm.P belch-semlf

"He$_j$ belched in front of his$_j$ kid."

(19) ti? hayu dakhe ma:dal dine
NCBR.Obl dog about 3sf.P remember/think of

"She$_j$ thought of her$_j$ dog."

(20) ti? sapa:ta nam mili mo:wal c'eday-či
NCBR.Obl shoe spec Postpos 3sm.P slip-semlf

"He$_j$ slipped with his$_j$ shoes."[9]

["He slipped because his shoes were slippery"]

Fluid S_2 Verbs

(21) ti? kawi hohtuh mo:wal manu:m-a
NCBR.Obl kid in front of 3sm.P cripple-pres

"He$_j$ got crippled in front of his$_j$ kid."

(22) ti? kawi hohtuh ma:dal šič'uk-či
NCBR.Obl kid in front 3sf.P hiccup-semlf

"She$_j$ hiccuped in front of her$_j$ kid."

(23) ti? čaw-tuh ma:dal kasil-i
NCBR.Obl house-postp 3sf.P be cold -pres

"She$_j$ was cold in her$_j$ house."

(24) ti? phik'a tuh mo:wal yat-ye
LoG.Obl basket Postpos 3sm.P vomit-perf

"He$_j$ vomited on his basket$_j$."

[9] The postposition *mili* in (20) is a contraction of the demonstrative pronoun *mil*, often found cliticized onto the end of a noun phrase, and the instrumental postposition *wih*.

Invariant P-marking Verbs

(25) ti? sapa:ta tuh ma:dal balay bane:l-a
NCBR.Obl shoes postpos. 3sf.P blood-run down-pres

"She$_j$ bled on her$_j$ shoes."

(26) ti? kawi hohtuh mo:wal xamal c'iko:ma
NCBR.Obl kid in front of 3sm.P insides flutter

"He$_j$ became upset and jumpy in front of his$_j$ kid."

SUBJ =SELF Verbs

(27) ti? hayu čo: mo:wal mik'u:ma
NCBR.Obl dog postpos 3sm.P lonely

"He$_j$ was lonely for his$_j$ dog."

(28) ti? hayu mo:wal xa:phit'a:
NCBR.Obl dog 3sm.P pity

"He$_j$ pities his$_j$ dog."

So in all relevant cases[10] we can see that the property of binding the *ti?* forms within the same clause distinguishes canonical Subjects (A-marked) and non-canonical Subjects (P-case marked) from the unexpressed arguments of impersonal passives (as well as from the P-case marked Object arguments of impersonal passives and regular P-case marked Objects, as shown in Chapter Three).

In summary, according to all available syntactic tests of Subjecthood in this language, the P-case marked putative Subjects of these verb classes are all indistinguishable from canonical A-case marked Subjects of both transitive and intransitive clauses. Within a theory that does not require relation-changing rules to explain surface case marking, it is therefore possible to search for another explanation for the non-canonical marking of Subjects.

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[10] I have not given examples from the Person-split verbs, because here the third person Subjects are always A-case marked, thus predicted to be controllers of the *ti?* forms, and the first person Subjects, always P-case marked, are not suitable binders for the *ti* pronouns because the latter are third person forms.

2.2. Lexical semantic explanations of the A/P case alternation

The volitional/non-volitional distinction

Perhaps the simplest lexical semantic hypothesis regarding a system in which some Subjects bear the superficial characteristics of Objects is that these Subjects lack some semantic feature or property which the Subjects of transitive verbs have. Here I will briefly examine how the volitional and non-volitional participant roles map onto the two case categories in this language.

As discussed briefly in Chapter Five, the analysis of these data does not require a commitment to any particular inventory of semantic or thematic roles (or to the supposition that there are independent entities called semantic roles which can be listed and named; cf. Ladusaw & Dowty, 1985). However, for the present purposes I will use two cover terms for the two most general classes of participant roles.[11] The first, 'Undergoer', will be used to denote the class of roles which do not have the features of volitionality and control, two of the main features associated with the semantics of agentivity (Delancey, 1981; Chafe, 1976). I will use the cover term 'Actor' to talk about those roles which do have the prototypical agentive properties of volitionality and control.

Limiting discussion to the participant roles associated only with Subjects, the simplest hypothesis is this: the A-case signals that the Subject is an Actor and the P-case signals that the Subject is an Undergoer. At first inspection, this seems to be sup-

[11] Foley and Van Valin (1984), who have developed the use of these terms, give the following impressionistic definitions of the categories as a whole: The Actor is "the argument of the predicate which expresses the participant which performs, effects, instigates or controls the situation denoted by the predicate" (1984:29). The Undergoer is the argument expressing the participant "which does not perform, initiate or control any situation but rather is affected by it" (ibid.). I will not be adhering strictly to their apportionment of basic-level thematic roles to these macro-roles. For example, they include in the category "Actor" the following roles: Agents, Effectors (non-volitional performers of actions), and some Locatives. For my purposes, some Effectors will be treated like Undergoers. In any case, the most general categories may be somewhat useful here, but the lower level decisions about inclusions in each category will not add to the analysis.

ported by examples like the following.

(29) ?a: šinu:-č-ade
1s.A be drunk-prosp
"I'm going to get drunk"
[statement of intention]

(30) to: šinu:-č-ade
1s.P be drunk-prosp
"I'm going to get drunk"
[prediction about effects of current behavior]

In the first case the speaker is essentially warning of her intention to become inebriated. In the second case, the speaker is expressing the realization that the alcohol she is consuming is starting to affect her.

However, in examining this hypothesis, it is important to establish whether the A-case/Actor, P-case/Undergoer correspondence holds in general, or merely in particular cases.

It is easily seen that *in general*, i.e. outside of the class of verbs that allow fluid-S marking, it is not true that when the Subject of a certain verb is marked with the A case inflection that that Subject is an Actor. The following list of verbs, which do *not* allow the A/P alternation, but instead require A-case marking, nevertheless have Subjects which we could easily imagine to be Undergoers; at the least they are not good examples of conscious, volitional Actors.

(31) A-marked SUBJ (non-alternating) :

DIE, SEE, SLEEP, LOSE,
DROP, MAKE A VERBAL ERROR....

Neither do the Subjects of predicate adjective constructions allow the A/P alternation. (In languages which display ergative case or agreement patterns that seem to be based on a semantics of Agency, the predicate BE often patterns with non-agentive verbs.)

(32) dakol man na 'She is wild.'
wild 3sf.A COP

bic'uc'ay phow na 'They are small.'
small-pl 3pl.A COP

Moreover, within the class of verbs that *do* allow the A/P alternation, use of the A case does not *necessarily* signal control and volition.

(33) mo:w is -i
3sm.A sneeze-pres
"He sneezed." [not necessarily on purpose]

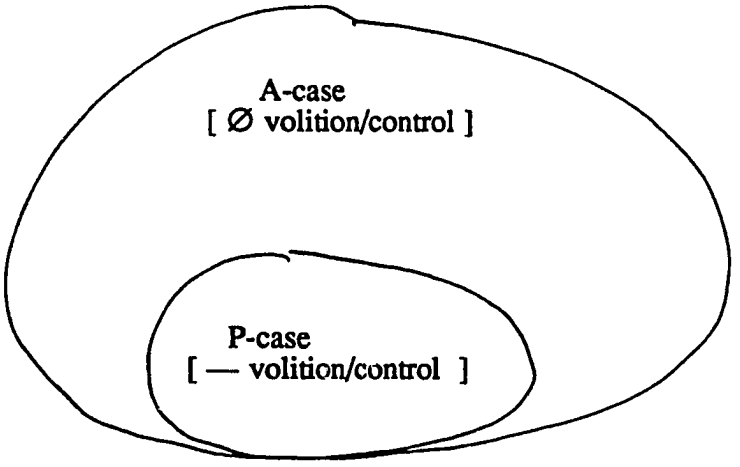
(34) mo:wal is -i
3sm.P
"He sneezed."

Clearly, the A-case inflection cannot be said to reliably signal any information about the participant roles of the nominals it marks. Its use outside of the A/P alternation does not always indicate volition or control; neither does its presence within the verb class allowing the alternation. We can conclude that the A case is semantically *unmarked*, it does not convey any information about volition, control, agentivity, etc.

The P-case, however, does have a restriction on it. It never occurs on a NP associated with a volitional, controlling participant role.[12] This holds true both inside the fluid-S verb class and outside of it in the lexicon generally. Looking at the lexicon as a whole then, we can see that the inflectional suffixes signalling the A and P-case are not in a binary opposition, Actor versus Undergoer (or some variant), rather, the A and the P-case are in a Jakobsonian privative opposition.[13] This opposition will enter into our understanding of the interpretation of the Fluid-S case patterning later on.

[12] The reader is reminded that the current section is strictly limited to consideration of nominals marked with *inflectional* case. A somewhat different statement must be made for nominals marked with *clitic* case. See Section 3.

[13] A slightly different privative opposition in fluid-S case marking (in Batsbi) is described in Holisky, 1986.



There is then a semantic restriction on the use of at least one of the two cases.

This difference in the semantic potential of the two cases cannot be exploited outside of the class of verbs which allow an alternation of A and P-case. As the next example shows, when a verb is not part of the Fluid-S class, the subject's A-case cannot be changed to the P-case, even when the semantics associated with the verb and its modifiers might be expected to call for such a change. For example, even for the Subject of a verb like "make a verbal error" (which could certainly be imagined to have a thematic role of Undergoer associated with its subject), in the presence of an adverb that explicitly asserts that the action is done in a non-agentive manner (unconsciously, unknowingly), the P-case is impossible.

(35) mašon ?a: / *to: habaša:či? -i
unknowingly 1s.A / *1s.P misspoke -pres
"Unknowingly I made a verbal error."

Again, the point of these examples is that the A and P case alternation is meaningful only in the context of a particular set of verbs. Moreover, semantic roles conceived of as groupings of participant properties (e.g. active, volitional properties and non-controlling patient-like properties) do not map clearly onto the A and P-cases as a binary opposition, either within the relevant verb classes or outside of them. Of course, the previous examples do not display the full semantic range of the A/P-case alternation.

In what follows it will become clear that Actor/Undergoer semantics is involved in some instances of the A/P alternation, but that this dimension does not in any sense provide a general explanation or account of the phenomenon.

States, activities, accomplishments and achievements

Centineo (1986) shows that a different lexical semantic dimension can successfully explain the unaccusative facts of Italian. Her explanation centers on the Vendler class of verbs: when the the auxiliary *essere* is selected, the Subject is the argument of a stative predicate in logical structure. Thus state, achievement and accomplishment predicates which contain embedded state predicates all allow selection of *essere*, while activity predicates select *avere*.

Unfortunately, this aspect of lexical semantics does not provide an explanation of the Northern Pomo facts either: while the verbs which allow the non-canonical marking of Subjects tend *not* to be activity predicates, there are nevertheless a few of these (e.g. 'hiccup (iterative)'). Moreover, while many of the relevant verbs are states and achievements, (e.g. 'be cold', 'become crippled') there are many other state and achievement predicates which do not allow non-canonical Subject marking.

Having shown that a complete account cannot simply consist in a syntactic analysis (at least within the given assumptions of direct syntactic encoding), or in an analysis that relies on Actor/Undergoer or Aktionsart semantics, it remains to show what principles do organize the data. The next sections will describe the patterns of distribution and interpretation associated with the A and P cases for each of the five verb classes.

2.3. Invariant P-marking verbs

A small set of verbs require that their subjects be marked with the P-case, for all tenses, and all person/number combinations.[14]

[14] Most of these verbs seem to be compounds of a verb and an incorporated body part. These verbs

VERB	SUBJ CASE
balay-banem 'bleed' blood-flow	P
šina:-čam 'occur to' head - jump	P
thana:-čam 'automatically execute a hand - jump motion with great manual dexterity and flair'	P
xa: -čam 'say unthinkingly' mouth -jump	P
xamal-c'iko:m 'feel upset' insides-flutter	P
miboh 'be bloated'	P

(36) man mo:wal dac'apči-da to: xamal-c'iko:ma
3sf.A 3sm.P slap -Acomp 1s.P 'feel upset'-pres
"When she slapped him, I felt upset"

Given that there is no variance in the case-marking patterns of these verbs, we might begin by stipulating that their subjects are P-case marked as part of their lexical entries.

Sample lexical entry for Invariant P-marking verbs

[balay-banem] V 'bleed' < SUBJ >
θ = 'Undergoer'
[SUBJ's CASE = P]

2.4. 'Fluid-S' verbs : choice of A or P-case

These Fluid-S verbs differ from the Invariant P-case verbs in that these verbs allow speakers to choose A *or* P-case for the subject, depending on various semantic and pragmatic factors to be discussed below. We will see that these factors include the person of the Subject and the speaker's choice regarding the discourse pragmatic

may be lexicalized versions of the body-part Incorporation process discussed in Chapter Seven. I will not discuss this further here.

parameter of *point of view*. First I will discuss the Fluid-S_1 Class, introducing the relevant semantic and discourse pragmatic distinctions. Next the verbs of Fluid-S_2 class will be discussed, and finally the remaining two classes will be introduced.

2.4.1. Semantics of P-case Marking within the Fluid-S_1 Class

I have divided the Fluid-S verbs into two groups based on the values of two parameters: (1) whether or not an interpretation of Subject volition and control may be associated with the A-case; and (2) its patterns of distribution with respect to the person of the Subject.

With respect to the first dimension, Fluid-S_1 verbs do allow an interpretion in which the Subject participant is volitional and controlling. With respect to the second, Fluid S_1 verbs allow A or P-case marking for 1st and 3rd person subjects.

2.4.1.1. The interpretation of control/volition within the Fluid-S_1 class

Examples (37)-(40) exemplify the first dimension. Examples (38) and (40) are both declarations of control and volition, while (37) and (39) are not. (Remarks in double quotation marks inside square brackets are comments by the informant. These are often necessary for a complete and contextualized interpretation.)

Table 2. Fluid-S_1 Verbs

1st person SUBJ = A or P	3rd person SUBJ = A or P
šinu?	'be drunk'
phithik	'belch'
phe:phe:	'break wind'
šu?u:či?	'forget'
xa?an (with complement)	'dream'
dine	'think of/remember'
c'edayči	'slip with body'

(37) to: k'o šinu-čade-nha
1s.P NEG drunk-prosp -NEG
'I am not going to get drunk.'
["I don't seem to be getting drunk.']

(38) ?a: k'o šinu-či-nha -khemna
1sA neg drunk -semlf -NEG -fut
'I will not get drunk.'
[" I'm not about to get drunk."]

(39) to: phithik-čade
1s.P belch-prosp
"I am going to belch."
["(uh oh) I'm going to belch."]

(40) ?a: phithik-čade
1s.A belch-prosp
'I am going to belch.'
["I'm going to belch, so there."]

However, presence of the A-case with Fluid-S_1 verbs does not necessarily signal volition and control. Before turning to other possible interpretations, let us examine the environments which favor the Actor interpretation. Notice that all these sentences involve future actions. Crosslinguistically, future 'tenses' commonly have their source in expressions previously associated with intention or desire (Lyons, 1977). The future tense here, as in many languages, has a deontic modal interpretation which is available just in case the verbal action is one which can be construed as being controllable by the subject. The presence of future tense marking probably contributes to the preference in these cases for an agentive reading.

However, it is worth pointing out that the relationship between future tense and the apparent linking of A-case with intentional action is not an invariant one; rather, it must be mediated by the presence within the verbal lexical semantics of the feature of volition. (41) shows that if a particular verb is not a member of the lexical class that allows the A/P alternation, then the presence of future tense will not be sufficient to trigger A-case marking. With a verb like "bleed", a member of the invariant P-marking verb class, future tense cannot induce the A case.

(41) * ?a: balay-banem-khemna
1s.A bleed -fut
"I'm going to bleed."

Here, if one wishes to express volition and control over the act of bleeding, periphrastic means must be resorted to.[15] The possibility of either an agentive or non-agentive participant role for the Fluid-S_1 verbs suggests that they might have lexical entries like the following. This is a fairly crude way of representing the fact that the semantic role of the Subject of this verb has two facets.[16]

(42) Sample lexical entry for Fluid-S_1 Verbs

[phiṭhik] V 'belch' < SUBJ >
θ = 'Actor' OR 'Undergoer'

2.4.1.2. Interpretations of Subjective Expression and the A/P alternation

When the sentence is past tense, we get an interpretation that opposes the A and P-cases in a different way: The P-case is associated with an expressive function which will be elaborated upon below, and the A case is associated with what intuitively seems to be an affectless, reportive mode. The examples below contrast the future tense and the past.

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[15] Here we must be clear that there are two independent dimensions of speakers' knowledge at work: real world knowledge and grammatical knowledge. We know that in at least some instances the action of belching is under our conscious control. A consciously controlled belch is still a perfectly good example of a belch. We also know that bleeding, is usually not under conscious control. In order to consciously produce the outcome of bleeding, we have to take an intermediate step, like cutting ourselves. These are facts about the world and the workings of the human body and nervous system. They are not facts about language. We can easily imagine a language that would allow the same surface marking of Subjects for agentive, controlling interpretations of both verbs.
However, in this language they are not treated in the same way. Here the second dimension of speakers' knowledge comes in. It is a fact about Northern Pomo that the first verb allows the meaningful alternation of A and P-case, but that the second does not. It may or may not be the intrinsically less controllable nature of bleeding that motivates its invariant P-case marking.

[16] In these cases, we might just as well posit two lexical entries, one in which the verb selects an Actor and which selects an Undergoer. Specific suggestions about the form of the solution in the lexicon will come later.

(43) mo:wal to: šu?učí?-khemna
3sm.P 1s.P forget-refl-fut
'I will forget him (through lack of interest).'

(44) mo:wal ?a: šu?učí?-khemna
3sm.P 1s.A forget-refl-fut
'I will forget him (through force of will).'

(45) to: mul k'onam šu?učí?-ye
1s.P dem. thing forget-perf
'I forgot that thing.'
["an exclamation: Oh! I forgot!"]

(46) ?a: mul k'onam šu?učí?-ye
1s.A
'I forgot that thing.'
["You're telling someone who has asked you where something is that you forgot that thing."]

What is the nature of the contrast in (45) and (46)? Typologies of language function typically distinguish at least the propositional or descriptive function of language from the expressive or emotive function.[17] The former encodes information that can generally be asserted or denied, and which may be objectively verifiable. Expressive uses of language are generally neither verifiable nor falsifiable since they originate in the internal experience of the speaker. Many researchers have discussed the usefulness of a linguistically encodable category sometimes called 'mode', in which distinctions between subjective expression and objectively-based reporting are made. Banfield (1982) and Kuroda (1973) give a wide range of examples of the contrast between reportive, 'objective' discourse and expressive, 'subjective' uses of language within the grammars of particular languages.

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[17] See Lyons (1977) for a discussion of the major works in this area, and references. Many of the philosophical antecedents for these current views are cited in Banfield (1982).
Of course, my brief description of expressive functions of language glosses over many difficult questions. Many subjectively expressive utterances are also propositional or descriptive uses of language. The central examples of expressive language (epithets, evaluative predicates, exclamatives, and various idiomatic expressions--"Well, I never!" etc.) are fairly clearly disjoint from the central examples of propositional language. However, there is a large grey area in between, where various predicates with a high component of subjectivity may fall into either category. The central claim of this section could be seen as being that certain verbs may have as a lexical property the feature [+expressive]. This then has a number of derivative consequences.

To make the contrast in (45) and (46) clearer, I will temporarily leave the class of Fluid-S_1 verbs, and draw on an example from the Fluid-S_2 class. These verbs do not have the potential for an agentive reading, yet they also allow the A/P alternation.

(47) ?a: dithale
1s.A be sick-pres
'I am/was sick.'
["If somebody asked you why you weren't at the meeting, you would just tell them 'Oh, I was sick.'"]

(48) to: dithale
1s.P
'I am/was sick.'
["I'm really feeling sick."]

In this minimal pair also, the A-case is used for the objective, reportorial mode, whereas the P-case signals the subjective, expressive mode.

2.4.2. Point of view and the SELF

At this point it will be useful to explore a bit more deeply some of the constructs related to the expressive, subjective mode. The development of certain primitives is necessary for the discussion which will follow regarding the A/P case alternation and the semantic contribution of *first and third person.*

Many researchers, in linguistics as well as literary analysis, have found it useful to make reference to a notion of 'point of view', that is, a schema which portrays any experience as being intrinsically centered on a particular experiencer--which structure may be reflected in language produced to depict the experience. In order to be able to talk about the above contrast in a more precise way, I will introduce a term here that has been used to talk about center of point of view (Fillmore, 1977; Kuno, 1976; Banfield, 1982). The notion of center of viewpoint is a complex one; for the purposes of this chapter we can think of it as the individual who is at the physical and emotional deictic center. Following Banfield (1982) I will call this the SELF. This term can be used to refer to the entity who is the source of evaluative predicates and epithets, the experiencer of states and processes denoted by sensation predicates

(Kuroda, 1973) and the anchor for social and other sorts of deixis.

As many people have observed, the unmarked center of viewpoint (spatial, temporal, affective and social) is first person or the speaker. Each person has privileged access to his/her own internal experience, perceptual, emotional, physiological, etc. Thus we can make the following equations.

(49) Center of 'point of view' = SELF (Banfield, 1982)

Default SELF = First person/Speaker

How does the notion of point of view and the SELF bear on the expressive function of language? For our purposes here, it will suffice to say that the unmarked occasion of subjective expression involves the speaker or first person, the unmarked SELF. This is a natural result, since the expressive function of language is largely to give expression to subjective aspects of experience, those aspects which the first person has privileged access to.

This raises a question pertinent to the current investigation: under what conditions and for what reasons could a speaker represent a situation from the perspective of a third person? In particular, given the inaccessibility of any but our own internal experiences, can we ever use language in its expressive function on behalf of a third person? The relevance of this to the current analysis should be obvious. If the use of the P-case marking ascribes some sort of expressive function to the utterance, what does it mean to use it with a third person Subject? Here we will introduce the notion of *deictic shift*, or third person center of point of view (3POV) (Lyons, 1981; Anderson & Keenan,1985).

When might speakers wish to portray an experience from the point of view of a third person? Even though we as speakers do not have access to the internal states and experiences of third persons, we often talk as though we do. There are many communicative contexts in which we might want to do more than report on someone's internal state from the standpoint of external observer. For example, we may wish to

portray the inner experience of a character in discourse contexts such as narrative; we may wish to represent their thoughts as in the literary genre of *style indirect libre* or 'represented speech and thought' (Banfield, 1982). We may wish to speak of someone snidely or affectionately, or in a way that suggests we are intimates. The representation of the point of view of a third person has many interesting interactional facets which will not be touched on here. The striking fact about the linguistic phenomena reported by the researchers previously mentioned is that many languages provide explicit means of marking this communicative mode. The next chapter will be concerned with another device for expressing third person point of view.

2.4.3. First and third person and the A/P alternation

For now, let us explore the expression of this in the domain of the A/P-case marking alternation. To begin, we have defined a discourse primitive, the SELF, (Banfield, 1982) which contains or comprises the central focus of consciousness. We have implicitly presupposed that there is an unmarked discourse mode in which interlocutors are generally subject to the rule of what we could call the epistemological norm: each speaker only has access to the internal states of him/herself. We have assumed that in this situation, the default center of point of view is the speaker.

Unmarked situation:

1st PERSON = SELF
3rd PERSON ≠ SELF

3rd PERSON = SELF in marked discourse contexts;
e.g. narrative, 'represented speech and thought', casual discourse with affective content, ...

These basic pragmatic givens play a role in the array of interpretations associated with the A and P-case markers. To return to the Fluid-S_1 verbs, the contrast just discussed explicates the interpretation of sentences (50) and (51), where the 3rd person subjects do not have to be construed volitionally.

(50) dakosa?nam-mo:w phiṭhikčˇi
yng. man-3sm.A belch -semlf -pres
'The young man belched.' [volition not necessary]

(51) dakosa?nam-mo:wal phiṭhikčˇi
3sm.P
'The young man belched.' [non-volitional]

Let us assume that the speaker is in one of the discourse contexts which sanction shift of deictic center or 3POV. Therefore, the P-case conveys subjective expression on behalf of the third person Subject. (Here Kuno's notion of *empathy* (1976) could also be usefully employed.)

Since neither utterance requires the imputation of volitionality to the Subject, what is the A-case adding to the interpretation? Simply that the utterance is not being represented from the perspective of the Subject, but is merely being reported by the Speaker.

Examples (52)-(54) provide further examples. In McLendon (1978) there is reported a contrast between the verb "slip" with an A-case marked Subject, interpreted to mean "slide purposefully", and the same verb with a P-case marked Subject, interpreted to mean "slip accidentally". In the following examples, we see that person considerations add to the complexity of the picture in Northern Pomo. In the first person, the Agent/Patient contrast reveals itself. In the third person, the agentive interpretation is available but not necessary when the Subject is marked with the A-case.

(52) mu: yah c'eday -I
there 1pl.A slide -pres

"We slide there."
["We're deliberately playing"]

(53) mu: yal c'eday -I
there 1pl.P

"We slip there."
["When we go that way, at that spot we slip."]

(54) mu: phow c'eday -I
there 3pl.A

'They slide/slip there.'
["Not necessarily on purpose."]

Why should the reading of Agency be so available in the case of the first person, and so remote in the case of the third person? The reason essentially involves the second part of the condition stated above: in the default case, the third person is not the SELF, and conversely, constitutes the perfect material for an objective report. On the other hand, since the first person *is* the default center of subjective expression, it is relatively odd to treat a first person Subject as the topic of an impartial report. Therefore, the first interpretation associated with first person Subjects of Fluid S_1 verbs is that of Agency.

Notice, however, that it is *possible* for a first person to simply report on him/herself, as in example (47), just as it is possible to interpret third person A-case marked Subjects of these verbs as Actors. Before moving on to further examples of this kind, let us summarize what we know about the Fluid S_1 verbs.

Table 3
Fluid-S_1 verbs: Interpretations -- Case x Person

	1st person SUBJ	3rd person SUBJ
A CASE	1) [+volition/control]	1) Reportive, 'evidential'
	2) Reportive, dissociates 1st p. and SELF	2) [+volition/control]
P CASE	Subjective expression	'Empathy', Representation of 3's point of view

In this table we see represented the fact that the A-case allows two possible interpretations, one agentive and one not. Notice also that the interpretations associated with the use of the P-case require that the sentence express something about the subjective experience of the entity denoted by the subject NP. How can the relationship between case choice and pragmatics be encoded in the grammar such that the results in the table above are derived? One possible approach is a lexical rule of case assignment which has a pragmatic condition associated with it. This rule would assign P-case, and would apply only to verbs of the Fluid-S class. It has as a condition on its application the requirement that the subject be center of point of view.

(55) SUBJECT CASE-MARKING RULES:

(1) SUBJ NP ---> [+ P case] / V [+Fluid-S] & <SUBJ = SELF>

(2) SUBJ NP ---> [+ A case] / elsewhere

Levinson (1983:128) argues that pragmatic conditions associated with lexical items or grammatical morphemes are instances of Gricean conventional implicatures. Unlike conversational implicatures, these are not cancellable, and are associated with a particular piece of morphology or a word or phrase. I will have occasion to discuss the notion of 'conventional implicature' later on in Chapter Eight. Here I will simply

assume that a feature which has discourse pragmatic consequences may be included as part of a lexical rule.

Presumably, verbs of the Invariant P-marking class, and any other verbs whose case is stipulated as a lexical property would not need to undergo a general rule of case marking, i.e. the default case in rule (2) will be assigned just in case no other case-assignment strategy was sanctioned. The 'cascade' arrangement of case marking rules will be discussed in the summary to the section on case marking.

How would Rules 1 and 2 apply to yield the interpretive and distributional facts displayed in Table 3? Take the Fluid-S_1 verb 'become drunk', in the context of having a third person subject. This verb class has at least two possible thematic roles associated with it, one ACTOR, one UNDERGOER. If we choose the Undergoer role, the P-case-assigning rule is available, since the semantics of the participant role does not clash with the semantic condition on the use of the P-case, viz., that it not be assigned to a subject which is [+volitional], [+control]. However, in normal discourse, the pragmatic condition on the rule will not be satisfied, since ordinarily first person, not third, is SELF, or center of point of view. Therefore, in normal discourse, where the rule is blocked, the elsewhere case, rule (2), assigns the A case. The reportive interpretation which may be associated with third person, A-marked subjects thus derives from all the factors just described as an implicature. That is, nowhere do we need to say that A-case = reportive. Rather, since the special conditions associated with the P-case were not met, an implicature results. The implicature is that the unmarked situation holds, namely, the speaker is *reporting* on the state of affairs surrounding some third person. Notice that a different implicature results if the Subject is first person.

Now let us assume that the context is one in which the speaker wishes to represent the event of getting drunk from the third person's point of view. In such a mode the pragmatic condition on rule 1 is satisfied, the rule applies, and we get a P-

case marked third person subject, with the concomitant empathetic point of view.

Finally, let us assume that instead of choosing the Undergoer thematic role, we choose the Actor role. What would block the rule of P-case assignment? The semantic constraint on the P-case itself: that it cannot be associated with a volitional, controlling thematic role.

In the top row of Table 3, we see that the two interpretations available for A case are ordered differently for first and third person subjects. Why should it be that, on the one hand, when the informant interprets a sentence (out of context) containing a Fluid-S_1 verb with a first person subject and A case marking, she assigns it a volitional reading, and on the other hand, when she interprets the same sentence with a third person subject she most frequently assigns it the reportive reading? The reportive interpretation in the case of first person implies a dissociation of the speaker from SELF, a dissociation which is quite marked, given the default point of view parameters. Likewise, the interpretation of agentivity with a verb like 'belch' or 'forget' involves an imputation of an internal process that is not accessible to any but the experiencer. And since in the default case the speaker does not have access to third persons' internal processes, the unmarked interpretation of A case is reportive.[18]

These interpretation preferences are not grammatical facts--rather they are interpretive tendencies which are products of the interaction of semantic and pragmatic factors discussed so far. Here is one case where elicitation of judgements out of context reveals something of the complex interactions underlying the surface distribution of grammatical elements.

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[18] In this study I have not discussed the contributions of tense and aspect to the interpretation of A and P-case-marked subjects of Fluid-S verbs. This question awaits further study. Suffice it to say that the effects of various tenses and aspects on the interpretation will interact with the semantics of particular verbs.

2.5. Semantics of P-case-marking within the Fluid-S_2 class

Fluid-S_2 verbs, like Fluid-S_1 verbs, show variation in subject case-marking. Fluid-S_2 verbs differ from Fluid-S_1 verbs in that they never allow an agentive or 'Actor' role to be associated with the subject. However, they always allow A-case with third person subjects, and a few of them occasionally allow A-case with first person. Like the Fluid-S_1 verbs, all of the verbs in this class denote states or processes that have an effect on the subject's nervous system, gastro-intestinal system, or mental state. Obviously, the experiencers of these states and processes have privileged access to knowledge of their occurrence. As such, they are prime candidates to show the effects of the pragmatic principles associated with viewpoint.

(56) to: šič'uk'-khemna
1s.P hiccup-fut
'I'm going to hiccup.'

* ?a: šič'uk'-khemna
1s.A
'I'm going to hiccup.'

(57) mo:w yatta
3sm.A vomit-pres
'He vomited/is vomiting'

(58) mo:wal yatta
3sm.P vomit-pres
'He vomited/is vomiting'

(59) man lok'-a
3sf.A fall-pres
'She fell.'
["You saw her fall. You might say this if you're reporting it to someone."]

(60) ma:dal lok'-a
3sf.P
'She fell.'
["She fell but you didn't necessarily see it; you are telling about it later."]

Table 4. Fluid-S Verbs$_2$

1st person SUBJ = P*	**3rd person SUBJ = A or P**
manu: (manum)	'become crippled'
sič'uk'	'hiccup'
t'ac'	'turn red'
madayči	'slip with foot'
c'o?ot'am	'urinate'
kasil	'be cold'
is	'sneeze'
k'elu:	'cough'
nis (2-place)	'abhor, be disgusted by'
xa?an (state; 1-place)	'dream'
bak'uci (state; 1-place)	'be annoyed (with people)'
bit'a: (+S complement)	'enjoy internal sensation'
ho-mit'a	'feel hot'
lok'	'fall'
baču:	'be tired'
yat	'vomit'
dithal	'be sick,in pain'

*A few verbs seem to allow A-case for 1st person

(61) Sample lexical entry for Fluid-S$_2$ Verbs

[nisi] V 'be disgusted by' < SUBJ, OBJ >

SUBJ's θ = 'Undergoer'
OBJ's θ = 'Source'

The following examples along with the informant's commentary show how the A/P alternation is interpreted with respect to this class of verbs. As the lexical entry above shows, there is no 'Actor' role available to be associated with the subject.[19] However, the case alternation in this paradigm does signal information about point of view.

[19] By the statement that Fluid-S$_2$ verbs do not have an Actor role associated with them, I do not mean to claim that Pomo speakers cannot imagine a world in which, say, hiccupping could be done volitionally. Rather, I am claiming that it is a property of the verbs in this class that if the action is done agentively, other morphological means than case-marking must be resorted to if the speaker wants to express that agentivity. Perhaps this is due to deep inherent properties of the events and states denoted by the verbs, but I will not take a position on this.

(62) mo:wal man nisi
3sm.P 3sf.A abhor-pres
'She can't stand him.'
[possible answer to 'Why won't she see him?']

(63) mo:wal ma:dal nisi
3sf.P
'She can't stand him.'
["She really feels that he is disgusting."]

(64) man c'o?ot'am-ade
3sf.A urinate-prosp
'She is going to urinate.'

(65) ma:dal c'o?otamade
3sf.P
'She is going to urinate.'
["You would say this if you KNEW she was going to urinate."][20]

In Table 5 interpretations of the A and P-case by person are given. Case marking rules 1 and 2 apply as before: a third person subject of a Fluid-S_2 verb can be marked with the P-case as long as the pragmatic condition, Subj=SELF, is satisfied. If it is not, the A case is assigned as the default case for subjects. The reportive connotation of A case is derived by implicature: the P-case could have been assigned, since the verb is of the Fluid-S type, so its failure to be assigned must be a consequence of the other condition on the rule not being met.

[20] This comment was offered spontaneously by my informant. I take this statement to be pragmatically motivated: it speaks to a pragmatic precondition on the felicitous utterance of this sentence. Since the use of the P-case entails that the speaker is representing the utterance from the point of view of the Subject, and since the cues to incipient urination are all internal to the Subject referent, it is a marked utterance from the epistemological standpoint (as are all of these). Thus, the emphasis on the speaker's certainty refers to the general pragmatic precondition on the use of the P-case, namely, you have to have a good reason to use it. If this good reason is not, for example, the role of omniscient narrator in a narrative discourse, then the speaker might feel constrained to have first hand knowledge of some sort before using the P-case.

Table 5
Fluid-S_2 verbs: Interpretations--Case x Person

	1st person SUBJ	3rd person SUBJ
A CASE	1) Rare; dissociates 1st and SELF	1) Reportive ,'evidential'
P CASE	Subjective expression or unmarked.	'Empathy', Representation of 3's point of view

Only a few of the verbs in this class seem to allow first person subjects to be marked in the A case (e.g. example (47) with the verb *dịthale*). It seems likely that the explanation for this has to do with the default center of point of view. The usual center is first person. The rarity of A case with first person is simply a reflection of the fact that with verbs like the ones in this class, it is relatively difficult to come up with discourse pragmatic contexts in which the first person and SELF are dissociated, i.e. in which the speaker is 'reporting on herself' from the perspective of an outside observer.

2.6. Evidence for the pragmatic condition on P-case-marking

There is independent evidence for the pragmatic constraint attached to case-marking Rule 1, i.e. that the Subject must be center of point of view. The first type of evidence consists of the non-clause-bounded reflexives to be discussed in Chapter Eight. These anaphoric elements have what is called a logophoric function--they "distinguish reference to the individual whose speech, thoughts, or feelings are reported or reflected in a given linguistic context, from reference to other individuals" (Clements, 1975). For the purposes of this discussion, we can say that the controller of ti- and ma- logophoric forms is 3rd person SELF or center of point of view.

The following two examples show that when the logophoric pronouns are present, implying that the sentence is being uttered on behalf of a third person Subject, or from

his or her point of view, the P-case is sanctioned. When they are not used, the entire utterance can be seen as an objective report on an externally observable event.

(66) eee- ba-phane mo:wal phašil -kan mo:w yatta
excl 3.poss- daught. 3s.P poison -Acomp 3sA vomit

'Hey--because his$_j$ daughter poisoned him he$_j$ vomited'

In this example, the adverbial adjunct contains the non-logophoric ba- prefix instead of the logophoric ma- prefix, and the independent pronoun mo:wal instead of the logophoric form based on the ti- stem. The subject of the main clause verb 'vomit' is marked with the A case, and the whole sentence is simply a report about a current event.

(67) **ma-** phane **titi** phašil-kan **mo:wal** yatta
NCBR.poss-daught NCBR-P poison-Acomp 3sm.P vomit

'Because his$_j$ daughter poisoned him$_j$ he$_j$ vomited.'

In example (67) ba- has been replaced by ma-, the mo:wal has been replaced by titi, and the subject of the higher verb is now marked in the P-case.[21] Examples (68) and (69) show the prototypical usage of these elements: in the complement of a verb of indirect discourse such as 'say'. Both the subject of 'vomit' in (69) and the subject of 'be tired' in (70) are marked with the P-case.

(68) **ma-**phane **titi** phašil-kan **titi** yatta hin **mo:w** he
NCBR.poss- daught NCBR.P poison-Acomp NCBR.P vomit COMP 3sm

'He$_j$ said that because his$_j$ daughter poisoned him$_j$ he$_j$ vomited.'

(69) **titi** baču hin **mo:w** he.
NCBR.P tired COMP 3sm.A say

'He$_j$ said that he$_j$ was tired.'

Thus, both the P-case on third person subjects and the presence of logophoric pronouns indicate the environment of third person point of view.

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[21] The pragmatically mediated interconnectedness of the morphologically unrelated systems of case and NCBRs became clear to me in the elicitation of these sentences. I asked the informant if the ba- prefix in example (66) could be changed to the ma- prefix. She said yes, it could, and proceeded to give me example (67), changing the prefix, spontaneously changing the adverbial clause object to a logophoric form, and the case-marking on the main clause subject to P-case.

Evidence of a different sort is found in connection with the system of Northern Pomo evidentials. In this language, evidentials are verbal inflections which are clearly tied to speaker's point of view. They can only be used by the speaker, as an indication of the source of evidence for the speaker's assertion. They are thus diametrically opposed to the sorts of grammatical elements which mark third person point of view.

In the evidential mode one must provide an indication of the observational basis for what one asserts as fact. If the expression of internal experience from the point of view of a third person is a speech act which transcends the usual restrictions on evidence, we might predict that grammatical expressions of third person viewpoint would not cooccur with evidential inflections. In the Chapter Eight I show that the logophoric pronouns do not cooccur with the evidentials. In (70) we see that, in the context of a speaker-based evidential, which indicates the reportive mode, the use of P-case with Fluid-S verbs is dispreferred with third person Subjects. This is due to the clash in discourse mode: one element is reportive and the other is inherently non-reportive, or expressive.

(70) ?* mul k'onam ma:dal ši?u:či?-na tilna
dem thing 3sf.P forgot - EVID DUBIT.
'I guess she forgot that thing.'
["No, I don't think it was said that way."]

2.7. Understanding lexicalization patterns: two more verb classes

The notions I have made reference to so far can be helpful in understanding the existence of a few other verb classes that are not Fluid-S, yet which display non-canonical case marking. Their case marking patterns are related to those described above in non-random ways.

2.7.1. Person-Split Verbs

There is a class of verbs in which first person Subjects are always marked in the P-case, and third person Subjects are always marked in the A-case. The "Person-split"

verbs denote mental and emotional states.

Person-split verbs

1st per. SUBJ = P	**3rd per. SUBJ = A**
k'uc'i	'be annoyed with'
xa:pit̩'a:	'pity'
bayu?	'understand'
šow?*	'hear'

mo:wal to: xa:pit'a:
3sm.P 1s.P pity
"I pity him."

*The first person of 'hear' may appear in the A case, but frequently does not.

(The second argument, the object of pity or annoyance, is always marked in the P-case.) One way of looking at this pattern is to see these verbs as having lexicalized the epistemologically unmarked case: first person as center of subjective experience, third person as observed participant with inaccessible mental and emotional experiences. Again, it is necessary to emphasize that this is a lexicalized pattern. A verb like nisi ('to be disgusted by') is certainly not significantly different from the members of the Person-split verb class, and yet it allows third person subjects to appear in the P-case. The Invariant P-marking verbs as described in section 2.3 could also be seen as a case of lexicalization, across the board, of the non-actor, experiencer participant roles associated with the verbs in that class. The arbitrary hand of the lexicon can be seen in all of these verb classes, drawing distinctions that we cannot predict, but can only reason about in a post hoc fashion.

2.7.2. Obligatory SUBJ=SELF Verbs

Finally, there is a small class of verbs which have two stem forms, one ending in the sequence a:or and one ending in the sequence a?ad.[22] These are verbs like 'think'

[22] The surface differences may be interpreted as reducible to the presence or absence of the (lexical-

and 'want'. The former stem class requires the P-case on all subjects. The latter stem class requires the A-case on all subjects. The long vowel, P-case marked forms occur overwhelmingly with first person subjects. Their translation into English is the same as that of the -a?an forms, i.e. they denote the same mental states or processes, but the long vowel forms seem to convey a greater degree of subjective involvement on the part of the subject.

For example, consider the case of da: or 'want'. There is no verb 'love' apart from the two forms of the verb 'want'. The long vowel form is used to convey the state of being in love with, or desiring someone greatly; as we would expect, the form used to denote a heightened internal experience governs the P-case. (The other stem form is used both for circumstances in which an object or person is liked or wished for, and with sentential complements.) The example below is one of the few instances I have found where the long vowel form of the verb 'want' is used with a third person subject. Note that this is an environment of third person viewpoint, as signalled by the use of the logophoric pronouns.

(71) ...phowal titi da: ...
3pl.P NCBR.P want
'...he wanted them all'
(from Coyote story in which he is gazing lustfully at a group of women playing in the river)

The analysis I propose to give these verbs relies on the pragmatic condition previously associated with the morphological rule of case-marking. These verbs, the long vowel stems, must have the same pragmatic condition satisfied as a lexical property. Since these verbs must satisfy the pragmatic condition Subject = SELF in all cases, i.e. satisfaction of the condition is a lexical property, they will always be assigned the P-case. Thus we do not have to stipulate that they are assigned the P-case as part of

ized) progressive aspect morpheme, *v̂d*. The long verb stems can be analyzed as a root, e.g. *da*, followed by the Reflexive affix *-v̂?*. The reduction of the sequence V?V to V: [always realized with low pitch and sometimes creaky voice] is fairly general; e.g. "mother's older sister" *su?* plus Oblique case (here *u?*) *su?+u?* --> [su:?].

each lexical entry. Their expressive character is a lexical property. The A/P-case marking rules are anchored to these verbs that share a semantics that in some way allows for the expression of subjective experience, and the case assignment is a result of this lexical rule of case-marking.

[SUBJ = SELF] Verbs

t'ah	'think'	[SUBJ CASE = P] [SUBJ = SELF]
[cf. t'a?an	'think'	(SUBJ CASE = default; A)]
da:	'love,want'	[SUBJ CASE = P] [SUBJ = SELF]
[cf. da?an	'want'	(SUBJ CASE = default; A)]

(72a) mo:wal to da:
3sm.P 1s.P love
"I'm in love with him, I want him"

(b) mo:wal man da?ad-e
3sm.P 3sf.A want
"She loves him, wants him."

(73a) čiba: mul na to: t'ah
who.A dem COP 1s.P think
"I wonder who that is."

(b) čiba: mul na man t'a?ad-e
who.A dem COP 3sf.A think-pres
"She's wondering who that is."

(74a) ma:dal to xa:pit'a:
3sf.P 1s.P pity
"I feel sorry for her."

(b) ma:dal ?a: xa:pit'a-?-ad-e
3sf.P 1s.A pity -refl-prog -pres
"I'm feeling sorry for her."

(75a) to mik'u:m-a
1s.P lonely
"I'm lonely."

(b) ?a: mik'u:m-a?-ad-e
1s.A lonely
"I'm feeling lonely."

(76a) ma:dal kasil-i
3sf.P cold -pres
"She's cold."

(b) man kasil-a?-ad-e
3sf.A cold -pres
"She's feeling cold."

(77a) ho mit'a:
heat feel bodily
"feel hot"

(b) ho mit'a -? -ad
heat feel bodily-refl.-prog
"feel heat from external source"

2.8. Interim Summary

In summary, in Northern Pomo the A/P alternation with Subjects that display *inflectional* case effects two sets of contrasts--one semantic: volition and control versus the absence of these qualities; and one pragmatic: expressive versus reportive language, or alternatively put, center of subjective experience and point of view versus externally observed object of the speaker's report. In this analysis, very little needs to be said about the 'meanings' of the cases themselves. Their significance emerges from interactions of the verbal semantics and principles of discourse pragmatics, always constrained by the arbitrary nature of lexical processes. [23]

[23] Again at this point we can observe that these data may be construed as supporting either the 'dis-

A pragmatic condition on a lexical rule of case-marking is required. The same condition turns out to be useful in specifying the lexical properties of another, semantically related but non-Fluid-S set of verbs.

One compelling characteristic of the data as described so far is its local nature: the distribution and interpretation of the A/P alternation is entirely contingent on the character of particular verbs. The semantic characterization of this class of verbs can only be post-hoc; be that as it may, the following is my attempt to characterize the class of verbs which allow non-canonical inflectional case marking of subjects:

> The class of verbs which allow non-canonical inflectional case marking of Subjects are verbs whose verification or falsification within sentences (as part of the verification or falsification of the sentence as a whole) depends on evidence that is relatively less accessible to observers than to the Subject/experiencer.[24]

Finally, we can observe that choice of case marking depends at least partially on factors extrinsic to the verbal semantics. Although the verb class semantics form the anchor point for the whole phenomenon, and are crucial to the statement of the observed facts, we must also mention the relation of the speaker to the event or state of affairs denoted by the predicate, i.e. as encoded in the person of the Subject. This is unusual: previously, most treatments of unaccusative-like phenomena limited explanation to the predicate. Here, reference to the sentence as a complete unit, after lexical insertion, seems to be required.

There are other reflexes of the sentence-level character of case distribution in this

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tinguishing' or the 'encoding' function of these case categories. The significance of the case alternation is partially a function of the verb class, which would seem to support the 'distinguishing' perspective: with respect to each context, considered as a whole set of factors, the alternation may distinguish several different dimensions. However, there is a uniformly non-agentive semantics to all instances of P-marked Subjects, a fact which supports the invariant encoding view. I will return to this issue later.

[24] The only "exception" to this rule (i.e. the verb which would be expected to appear in this class and does not) is the verb "to see" *čadi*. First person and third person subjects of this verb always appear marked in the A case. I have no explanation for this. It might be possible to construct a post hoc explanation relying on notions of evidentiality, but I will not develop this here.

language. In Appendix A are three additional syntactic and semantic domains in which the the lexical character of the alternation is apparent: the behavior of the case alternation in WH-questions, in construction with negation, and in impersonal passives. In each case, the unpredictable and idiosyncratic character of lexical processes in combination with sentence-level considerations is apparent.

3. Subject case clitic/zero alternations

The alternations described at length above concern Subjects with human referents, and these are characteristically expressed by nominals which take inflectional case suffixes. There is also a Subject marking alternation found in the clitic and neutral paradigms. Animate non-human entities and humans are referred to by the use of nominals marked with case clitics, or by unmarked nominals, as described in Chapter Five.

Among the eligible nominals (noun phrases headed by a common noun), there is variation between the use of the A case clitic *ya?* and an unmarked nominal, as seen below.

(78)	misaxala-nam	ya?	kala-y	(79)	misaxala-nam	kala-y
	snake	-spec A	die -perf		snake -spec	die-perf
	"The snake died."				"The snake died."	

This alternation differs from that described in Section 2 in several ways. The A/P alternation involved the assignment of case *category*; this clitic/zero variation involves the alternation of *case allomorphs*. There is no evidence that the zero alternant in these instances is associated with the P case.[25]

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[25] All tests for Subjecthood discussed previously yield similarly clear results here: zero-marked NPs are indistinguishable from A-case clitic marked Subjects.

Unless otherwise indicated, when a noun phrase requires the zero case allomorph, it is judged to be a constraint on the expression of the A case category, not an alternation between the A case and the (normally also unmarked) P case category. This inference is based on two kinds of facts: first, the noun phrase cannot be marked with the P case clitic *yačul*, and second, other nominals which are marked with inflectional case allow only the A case clitic.

As is always the case with syncretism, particularly when the allomorphs are zero allomorphs, there may be alternate interpretations. The interpretations in this chapter are conservative.

Moreover, the A/P inflectional case alternation had a clear function in that domain--it distinguished subjective expression from objective report, among other things. This alternation does not distinguish two clear semantic alternants. That is, for any two sentences like (78) and (79), there is no consistent interpretive difference that I have been able to isolate. However, if one looks across sentences, it appears that there is a clear gradient effect: certain environments or combinations of verb type and nominal entity favor or disfavor the use of the A case clitic.

The conditions determining the distribution of the clitic and the zero allomorph are not converses of each other. Rather, the distinction is a privative one. However, this privative opposition differs from that discussed in section 2 in several ways: recall that there it was claimed that the A case inflection is semantically unmarked: i.e. it seems not to require any presupposition about or restriction on the semantic role of the nominal marked with it. In Jakobsonian terms, the grammatical feature 'A case inflection' does not *code* any semantic property. By virtue of the marked semantic nature of the P case inflection, which codes absence of agentivity, the use of the A case inflection may *implicate* Agency. Similarly, with respect to verbs of subjective experience, the P case codes SUBJ=SELF, as discussed previously. By virtue of this fact, the A case can implicate the 'objective mode' in clauses containing these verbs. In the domain of clitic case, the relationship between the cases is not the same. First, the use of the A clitic case *ya?* encodes some property or confers some semantic property on the nominal that bears it, as will be discussed below. The absence of the clitic does not seem to encode *or* implicate any semantic property. Second, the property or properties encoded by the A case clitic seem to be much less distinct than those encoded by the A/P alternation. So the question is this: what semantic property is the A case clitic encoding? The following sections will show that in many cases, the distribution of the clitic is codetermined by the semantics of the predicate in combination with the inherent properties of the nominal referent, *as these are construed by the*

speaker. Thus here, just as in the A/P alternations in the inflectional paradigm, case alternations are at the discretion of the speaker.

To discover the significance of the use of the A case clitic, I will examine the following areas: (i) general patterns of occurrence of the two forms; (ii) the few verbs which seem to require the *absence* of the A case clitic, and the use of the zero allomorph; (iii) the verbs which require the *use* of the A case clitic; and (iv) occasions when it can be extended to [-animate] Subjects.

3.1. General distributional patterns

While there are exceptions, Subjects of transitive verbs virtually always receive the A case clitic. The variation between the A case clitic and the unmarked A case allomorph appears largely in the intransitive paradigm. While I have not done any actual text counts, impressionistically it seems clear that Subject nominals denoting humans are more frequently marked with the A case clitic than Subject nominals denoting non-humans, and nominals denoting humans and animals are far more likely to be marked with the A case clitic than nominals denoting inanimate entities. The [-animate] nominals receive the A case clitic only in certain circumstances, to be discussed below.

So, while a human subject of a transitive verb will virtually always be marked with the clitic *ya?*, the non-human animate Subject of a transitive verb will less frequently be marked. And, as we might expect, while human Subjects of intransitive verbs are sometimes unmarked, an inanimate Subject of an intransitive verb is virtually always unmarked.

These facts suggest that the A case clitic is coding some properties associated with sentient, active participant roles. However, it is not immediately clear what they are. The following examples show that the A case clitic is completely optional with a number of different verb types. There is a greater tendency for Subjects of activity

verbs to be marked with it, but even in these cases it is optional.

(80) ma:dal hayunam (ya?) thiya?-a
3sf.P dog -A fear
"The dog fears her."

(81) be: ma?a-ba? -ka -mi: misaxala-nam (ya?) sima miti
dem food-grow-CAUS-dem snake -spec A sleep lie
"The snake is asleep in the garden."

(82) kaweyo-nam (ya?) ma: thih miti
horse -spec A ground pp lie
"The horse is lying down on the ground."

(83) misaxala -nam (ya?) k'ala:
snake -spec A dead.
"The snake is dead."

(84) mul -(ya?) k'ala:
dem A dead
"It's dead."

(85) dakosa? -nam (ya?) k'alay
young man-spec A die
"The young man died."

(86) misaxala-nam (ya?) k'adoy-mulu-?-u
turn -dir -refl -pres
"The snake turned over."

(87) dakosa?-nam (ya?) k'adoy-mulu-?-u
"The young man turned over"

(88) misaxala-nam (ya?) šik'ot' dačet ša:
snake -spec A mouse catch know
"The snake knows how to catch mice"

(89) misaxala-nam (ya?) k'ala:n ma:l-k'ado: -ye
die -Acomp roll down -perf
"Dead, the snake rolled down the hill"

Because of the optionality of the clitic *ya?*, and because there is no interpretive difference that correlates with its use or absence in these sentences and others like them, it is clear that no simple notion of agentivity will suffice to constrain the distribution of the A case clitic. A closer look is required to determine just exactly what

semantic properties trigger or facilitate the appearance of the A case clitic.

3.2. A-case clitic unavailable

The examples above indicate that presence or absence of the A case clitic does not correlate with volitionality or control of participant role. There is a small class of verbs where the A case clitic is not acceptable. The membership of this class might lead one to think that at least some characteristics associated with conscious, volitional action might be determinative of the use of the clitic *ya?*. Since these verbs involve no component of conscious, willful action, the restriction against its use implies that it may be encoding just such properties.

The verb "be sick/feel sick", *dịthal*, allows either A or P *inflectional* case, but does not allow the A case *clitic*. Only the unmarked clitic option is available:

(90) hayu-nam (*ya?) dịthal-e
dog -spec (A) be sick -pres
"The dog is sick"

(91) man dịthal-e
3sf.A be sick -pres
"She is sick"

The verb *baden* "to grow" allows only the A case *inflection*, but does not allow the A case *clitic*.

(92) kwi mul man (*ma:dal) bade: d-e
3sf.A (*3sf.P)
"She grew quickly."

(93) kwi hayu bic'u+nam (*ya?) bade: d -e
quickly dog small +spec (*-A) grow-prog-pres
"The puppy is growing quickly."

The copular element, *na*, requires the A case inflection, but does not allow the use of the A case clitic (except in a few cases to be described immediately below.)

(94) dakol man (*ma:dal) na
wild 3sf.A (*3sf.P) COP
"She is wild"

(95) dakol kawi-nam (*ya?) na
wild child-spec A COP
"The child is wild."

(96) kawiya-ba-nam (*ya?) ?al na
child -male-spec A this COP
"This is the boy."

In certain circumstances the the A-case clitic may be used in constructions like these, but then it has a special interpretation that clearly is outside of the scope of the predication. In general, nominals may appear with A-case clitics in copular constructions with no predicative complement just when they are interpreted as Agents of *some contextually given action*:[26]

(97) hayu-nam ya? ?al na
dog -spec A this is
"This is the dog (that did it)."

(98) A: Something has been bothering my garden.

B: c'it-ya? ?al na
bird-A this is
"It's a bird (that has been bothering your garden)."

A: What is that out there?

B: c'it ?al na
bird this is
"It's a bird."

This use of the A-case clitic is not possible with other verbs:

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[26] This frame provided an interesting piece of evidence regarding the semantics associated with the clitic *ya?* and speakers' metalinguistic awareness thereof. The speaker was asked why the sentence
(i) bi̱a-nam ya? ?al na
bear spec A this is
"This is the bear."
was acceptable, and the same sentence with the NP *šaphanam-ya?*, "the leaf-A" was not. She replied: "The bear could be the one that would hurt you; the leaf couldn't--you just keep those things in mind you know." Thus, the presence of the *ya?* marker in copular constructions is not limited *only* to cases in which some elliptical modification is intended. It may also mark inherent potency or agency.
(ii) bi̱a-nam ma̱to na
bear spec big COP

(99) * bita-nam-ya? dithale
bear-spec-A sick
"The bear is sick."

In this example use of the A-case clitic cannot be interpreted to mean "That big bear that did X is sick". In other words, the 'zero modifier' interpretation of the clitic seen in example (97) above is not available unless the predicate is a copula.[27]

Of course, the restriction against the A case clitic cannot be seen as purely motivated by semantics, it must be viewed as an idiosyncratic property of these lexical items. There are many other verbs (as in the examples above) which are stative, or which have Patient Subjects, or which do not allow volitional readings, where the A case clitic *is* allowed. However, these verbs may indicate at least the direction in which we might look for an answer about the coding value of *ya?*.

3.3. A-case clitic preferred

Further evidence is provided by the fact that certain verbs virtually require the A case, even with [-human] Subjects. In general, verbs that involve some kind of directed mental activity require the A case clitic. Again, its absence is not judged ungrammatical, but its use is heavily preferred.

(100) c'itnam -ya? phidew da?ad-e
bird-spec+A fly-dir want-pres
"The bird wants to fly."

(101) c'itnam yo phidi? to: t'ah nante xamal ča phidi
bird-spec south fly 1s.P think but return north fly
"I thought that the bird flew south, but it came back (north)."

"That bear is big"

(iii) bita-nam ya? mato na
bear spec A big COP
"That bear is *really* big"

[27] There are no 'raising' type predicates in Northern Pomo so this is the only example of the phenomenon I have found.

(102) hayunam ya? (*∅) ma?a dakhe dineka
dog-spec A food about think
"The dog thought about food."

These suggest that the key to understanding the patterns of clitic case have to do with a scale of sentience and related properties, along which both predicates and nominals can vary. Yet this scale is relevant to the clitic case marked nominals only. The nominals marked with inflectional case are already 'too sentient' to vary in this dimension. Thus the divergences between the inflectional case marked nominals and the potentially clitic case marked nominals in marking patterns for particular verbs is not surprising: each system has its own motivations for alternations.

Along these same lines, even the verbs which have isomorphic distributions of A and P case categories as expressed both by the inflectional and clitic case paradigms do not necessarily elicit the same judgements as to the significance of the alternation. For example, the point-of-view discourse pragmatic effect associated with the A/P alternation in case inflection is not found with the A/P clitic alternation. The contrast between examples (103) and (104) below is neutralized in examples (105) and (106).

(103) mo:w bačv̆u:
3sm.A tired
"He (looks, seems) tired"

(104) mo:wal bačv̆u:
3sm.P tired
"He's feeling tired (+empathy)"

(105) dakosa?nam ya? bačv̆u:
young man A
"The young man is tired."

(106) dakosa?nam bačv̆u:
"The young man is tired."

3.4. Inanimate referents and the A case clitic.

Finally, the distribution of the A case clitic in the case of inanimate Subjects is a clue to what the clitic contributes to the meaning of the sentence. In general, inanimate Subjects do not receive the A case clitic, but appear unmarked. However, if the clause is transitive and the verb has a relatively large effect on the Object argument, it may be used.

(107) c'u -nam (ya?) xale ho -dila:
arrow-spec (A) tree two -split
"The arrow split the tree in two."

(108) phit'am -nam mul (ya?) data?-nam-ma:dal is-ta-ka
flower-spec-dem (A) old woman-spec-3sf.P sneeze -mev-caus
"Those flowers made the old woman sneeze."

(109) dano-nam (ya?) hosoha pidu
the hill A smoke belch
"The volcano belched smoke."

(110) xa -nam (ya?) to: šič'uk +ka
water-spec (A) 1s.P hiccup -caus
"The water made me hiccup"

In the case of intransitive verbs, the use of the clitic seems to be sanctioned in a clause that denotes a scene in which the Subject is in motion. Moreover, the motion may present the appearance of willful, conscious motion. Contrasts like the following emerge: Upon being asked whether the A-case clitic was possible in (113), the speaker replied that no, that (the clitic) was really only used for things that were alive. When asked why (previously collected) example (112) was good, given this animacy requirement, she explained that obviously, when you saw the leaf flying up it would just look like it was leaping up on its own. The next two examples are of the same type.

(111) šaphanam (?* ya?) xal padima
leaf-spec A river floating
"The leaf is floating in the river right there."

(112) šapanam ya? ?uwyal pidewči
leaf -spec A upward fly-dir-semlf
"The leaf flew up."

(113) mul ya? yax xa -mu: čankan
demon. A strong water-loc jumping
It (the basket) fast in the water bouncing

(114) xabe-nam (ya?) ma:l k'ado:-ye
rock-spc A hill.Obl roll-perf
"The rock rolled down the hill."

Not any type of motion will result in an acceptable environment for the use of the

A case clitic. The A case clitic is ruled out in the following example, perhaps because the motion must be construable as being analogous to an action that could be undertaken voluntarily by a sentient being:

(115) xale-nam (*ya?) mali -č -i
tree -spec A burn -semlf -pres
"The tree ignited."

Finally, the most striking examples of this are cases where the A case clitic is ruled out for noun phrases denoting animate entities but is sanctioned by noun phrases denoting inanimate entities.

(116) kabay-nam -ya? mu: bači
onion-spec -A there grow-semlf.
"The onion grew there."
[said pointing to onion, sense is "well, look at that, the darn thing is growing!"]

(117) misaxala-nam (*ya?) maṭo ba -či
snake -spec (*A) big grow-semlf
"The snake grew big, expanded"

The first example would be uttered if you had not looked at the onion plant for a long time, and then, returning, had noticed that it had grown--the impression would be that it had just sprung up out of nowhere, of its own accord. On the other hand, assigning the A case clitic to the nominal denoting the snake might suggest that the snake grew bigger of its own accord--since it has the capacity for willful action (at least to a greater extent than the onion plant does) the A case clitic can encode real sentient planning or will, something that the verb does not allow..

These examples suggest that the content of the A case clitic is being calibrated against the inherent properties of the nominal referent. In other words, the appearance of volitional motion is enough to sanction the A case clitic for an onion plant, but is not sufficient to warrant it for a human baby, as seen in the next example.

(118) ma-the -? tuxa? kawi-nam (*ya?) daka:-d-e
NCBR's mother.-Obl towards child-spec *A crawl-prog-pres
"The baby crawled towards its mother."

The informant remarked that "someone might say *kawinam-ya?*, (baby-A case clitic) but I wouldn't." (This is typical of the gradient sorts of judgements rendered regarding the clitic cases--some are clearly not possible, others are dispreferred, some are possible, but not expressed that way until requested, etc., while judgements on the case of inflectional categories is always clear.)

Examples like these are finally then not describable simply by reference to verbal semantics. Neither are they describable solely in terms of the inherent properties of nominals. It is an individual's decision to superimpose (or not) a schema of prototypical agency or sentience over an event frame. The semantics of the verb must allow such a superimposition, but the speaker's conception of the intrinsic characteristics of the nominal limits the interpretation of the Subject's participant role.

4. Summary

In this chapter data have been presented which directly address certain larger questions concerning unaccusative phenomena: the marking of Subject arguments with the canonical surface characteristics of Objects. It has been shown that in Northern Pomo, such phenomena are rich in semantic and pragmatic contrasts, and that there is no evidence to support an analysis which presupposes that the relevant contrasts are at the level of grammatical relation status.[28]

From a typological perspective, it appears that there are three levels at which one can describe or explain the structure of the Northern Pomo case-marking system:

(1) The fact that there exist three separate systems, the inflectional, the clitic, and the unmarked, and that these pattern accusatively, ergatively, and neutrally (respectively), reflects, in the very structure of the case marking component, the importance of the animacy hierachy in this language. Following Silverstein (1976), it

[28] For a further discussion of one additional piece of evidence, the behavior of these verbs with respect to impersonal passivization, see Appendix A.

is commonly assumed that case marking splits of this sort that correlate with dimensions of the animacy hierarchy iconically reflect through morphological markedness the semantic markedness of the denoted entity in a particular participant role. For example, an inanimate entity is less likely to be an agent and a topic than a human is. Therefore, the nominal denoting the human will be morphologically and semantically unmarked in the transitive subject role (which is prototypically agentive and topical) while the nominal denoting the inanimate entity will be morphologically and semantically unmarked in the transitive Object role (prototypically a patient or a theme). However, to gain a full understanding of the workings of case in this language it is also necessary to look at contrasts *within* these morphological paradigms.[29]

(2) Within the *inflectional* case paradigm, the Subject A/P alternation has the potential to indicate at least two contrasts: (i) volition/nonvolition and (ii) inherent expressivity and point of view.

(3) Within the *clitic* case paradigm, the alternation on Subject nominals of the A case clitic and the zero allomorph reflects the inherent properties of the nominal Subjects, as interpreted by the speaker, in interaction with the lexical semantics of the verbs. In other words, the potential for semantic significance has limits imposed by both the characteristic properties of nominal referents, and the characteristic properties of verbs.

Overall, the interpretation of the *configuration* of a system, as in (1), is *static*. On the other hand, the constrasts in (2) and (3) are *dynamic*: they can be manipulated by the speaker. The *discretionary* nature of the alternations, whether of case category or case allomorph, is a striking property that is shared by both systems. The speaker

[29] This is particularly true since the Silverstein analysis predicts that the more unlikely an entity is to appear in a particular participant role, the more likely it is to receive surface marking. Here, the opposite is true: the entities more likely to enter into the Actor/Topic role are more likely to receive the clitic marker.

has a great deal of choice about how to manipulate these contrasts.

In another dimension, the configurations of (2) and (3) are also similar, in that both involve an interaction of verbal semantics and the characteristics of entities denoted by certain types of nominals. However, the contrasts are different: at the high end of the animacy hierarchy, the relevant inherent properties of individuals include accessibility of internal experience to the speaker. Nominals that receive their marking in the clitic and neutral paradigms are distinguished according to their capacity for some sort of sentient action. This sort of division of properties is not particularly surprising. It would not be difficult to construct a folk theory of 'the chain of being' in which entities with whom one shared intersubjective experience would be denoted in one way, and entities outside of that sphere (either through lack of means of communication) or lack of consciousness in general, would be referred to in another way.

At the end of Chapter Seven, I will review the case marking rules and patterns discussed here, and show how they fit into the case marking system as a whole.

Chapter Seven: The Marking of Possession

1. Introduction

A discussion of the marking of possession deserves a place in this work for several reasons. First, from a purely structural standpoint, the marking of possession comprises a significant subportion of the case marking system being described here. Second, in this language, the semantic and pragmatic concomitants of membership in a particular nominal class (as those classes were set out in Chapter Five) shape the grammatical expression of possession. Third, these facts form an interesting contrast with those in the preceding chapter, since here it is the actual existential categories of *human* and *non-human*, *animate* and *non-animate*, which are determinative of grammatical expression. Recall in Chapter Six that the semantic/pragmatic interpretation of case alternations was limited and determined by the formal device chosen to instantiate case; although these devices correlate with animacy rankings, there is significant overlap between nominal classes and case marking devices, and the semantic categories encoded or distinguished by case must be seen as delimited by the forms chosen to encode the case. Within the domain of possession, on the other hand, the choice of case form is determined by the animacy class straightforwardly.

This chapter will cover the following domains: first I will discuss the structures associated with the expression of possessed kinship relations. Next the constructions associated with regular alienable possession will be discussed, followed by the syntactic and semantic regularities associated with inalienable possession of body parts--a construction with a 'possessor ascension' alternant.

2. Kinship possession

There is a formal distinction in the domain of possession between the marking of kin possession and the marking of every other sort of the possession. Kinship stems

may be prefixed with one of three pronominal prefixes, *mi-*, *ba-* or *ma-*, depending on the person and number of the possessor. Speech act participants, 1st singular and 2nd persons, are all indicated by the prefix *mi-*. 1st person plural possessors are indicated by *ma-*. Third persons may be cross referenced by either the prefix *ma-* or the prefix *ba-*. The former is part of the set of long-distance anaphors to be discussed in Chapter Eight.[1]

(1) "Older sister" *de:*

1st person sg.	?a: mi -de:	"My sister"
2nd person sg.	mi -de:	"Your sister"
3rd person sg.	ba -de:	"His/her sister"
	ma -de:	"His/her sister(reflexive)"

In addition to these pronominal prefixes that cross reference possessor person and number, an independent possessor nominal may occur to the left of the possessed kinship term, such as *phowa?* in example (2).

(2) phowa? ba-ka? thinda me? mul daṭa?-nam na-y
3p.Obl 3's-mo's.mo. evid.prt adv. dem old lady-spec COP -perf
"That old lady is their mother's mother."

Table 1 provides examples of kinship possession with all of the relevant nominal categories. The case form of the independent possessor nominal varies with person/number and nominal class. The third person pronoun possessors are represented in parentheses, since the preferred form is a zero. Use of the Oblique pronominal seems to carry contrastive value.

Notice that the stem (here, "maternal grandmother", *ka?*) must be prefixed with one of the three possessive prefixes, even when an independent possessor nominal is expressed. The only occasion on which a kinship term stem appears without the inflectional prefix is in the vocative form, a category unique to kinship terms (e.g. *ka?day*, "Grandmother!").

[1] I will assume that the prefix *ma-* found with 1st person plural possessors is homophonous but not identical with the anaphoric 3rd person prefix *ma-*.

Table 1: Kinship Possession		
Poss.	**Poss's maternal grandmother**	**Poss. Case Form**
1st sing.	?a: mika?	A (inflc)
1st. plu.	ya? maka?	Obl(inflc)
2nd. sing.	mika?	n.a.(zero)
2nd. plu.	ma? mika?	Obl(inflc)
3 sing.fem.	(ma:da?) baka?	Obl (inflc)
3 sing.mas.	(mo:wa?) baka?	Obl (inflc)
3 plu.	(phowa?) baka?	Obl (inflc)
Non-clause.bd.refl.	ti? baka?	Obl (inflc)
'his sister'	bade: baka?	A (inflc)
Sam	Sam baka?	A (inflc)
'Michelle's sister'	Michelle bade: baka?	A (inflc)
the young man	dakosa?+nam baka?	Obl (unmarked)
	dakosa?+nam+yaču? baka?	Obl (clitic)

The idiosyncrasy of the possessor cases in this table (a seemingly random distribution of A case and Oblique case) suggests that these variations do not represent a case *category* alternation, but rather a case *allomorph* alternation. This requires that the first singular pronoun, kinship terms, and proper names all have an Oblique variant which is homophonous with the A case allomorph. This would allow the assignment of Obl case to all possessors. Each nominal lexeme would then contain a slot in its paradigm for the actual case allomorph associated with *kinship possession.* This subcategorization of the possessor relation is necessary because of the fact that the Oblique case allomorph of proper names, kinship terms and first person pronoun is not used for any other kind of possession, whether of alienably or inalienably possessed objects. There is independent motivation for this move, since the lexical paradigms for proper names mention this unmarked Obl stem allomorph as necessary for the object

of the postposition *tukhe* (Chapter Five).

3. Alienable possession

All other types of possession may be marked simply by positioning the Oblique form of the possessor nominal to the left of the possessed nominal. The possessed nominal is the head of the construction, in that it determines the choice of case marking device for the entire nominal. The possessor is always marked with the Oblique form--the form suffixed with *-v̂?* in the inflectional classes and the enclitic *yačv̌u?* for the rest of the paradigm. When the possessor is animate, either the oblique inflectional form, the Oblique clitic *yačv̌u?*, or the unmarked (neutral) form of the Obl case category are used to mark the possessor, which invariably precedes the possessed and may not be separated from it.

(3) hayu -nam yačv̌u? ya: -nam
dog -spec Obl bone-spec
"The dog's bone"

(4) čv̌on wi? hayu-nay k'ala:-kan mo:w mina
John Obl dog-spec died -Acomp 3sm.A cried
"Because John's dog died, 3sm.A cried"

(5) ma:ta yačv̌u? phik'a-nam
woman Obl basket-spec
"a woman's basket"

(6) khe phik'a -nam
1s.Obl basket -spec
"my basket"

(7) Lišv̌ina-wi? khupima? tuh kal nam phow maxa
caterpil.head-Obl necklace pp bead spec 3p.A steal
"They stole beads from Lišv̌ina's necklace."

(8) kaweyo -nam yačv̌u? bat'anam man dasey
horse -spec Obl blanket-spec she wash
"She washed the horse's blanket"

(9) mi? šeʔemay-nam to: ho-m
2s.Obl bow-spec 1s.P give-IMP
"Give me your bow"

(10) ma? si:yan -nam to: poʔo -m
2.pl.Obl skin-spec 1s.P give.pl.IMP
"Give me your (pl) skins"

3.1. Animacy restriction on Possessive Construction

One striking fact about the marking of possession in Northern Pomo is that it does not extend metaphorically to the domain of inanimate objects, such as is found in English. In English, both genitive constructions used to express possession for animates are extended freely to inanimates, as is the use of the verb "have". A similar extension, of the clitic *yačuʔ*, is strikingly absent in Northern Pomo. Recall that the A case clitic *yaʔ*, associated with sentient beings, may be used with nominals denoting inanimate entities just so long as the entire clause denotes a state of affairs with sufficient activity that the inanimate entity *appears* animated. There is no corollary use of the Obl case clitic *yačuʔ* for the expression of possession or association.

Instead, the association between two inanimate objects is expressed by either the unmarked form of the 'possessor', or through compounds (in which the "possessed" head follows the "possessor" modifier). Infrequently, the oblique forms of the demonstrative pronoun *mul* may be used (note that the order of possessed and possessor may be reversed here).

(11) mul xale-nam-mil me? šapha č'abat' mičo -ʔ-ye
dem tree-spec-dem.Obl adv. leaf brown turn -semlf -PERF
"That tree's leaves turned brown."

(12) dak'o:-nam phik'a-nam -mil dic'a: na
rim -spec basket-spec -dem.Obl break COP
"The basket's rim is broken."

(13) dišiy dabo:ma?-nam -mul šiṭ'ay na
black oak acorn cap-spec-dem twisted COP
"That acorn's cap is deformed."

(14) lameta xa -nam
glass mouth -spec
"The rim of the glass"

(15) kako nam mu: so: baṭhe na
field-spec loc. clover abundant COP
"That field, clover is abundant."
(cf. "That field has lots of clover.")

We might treat all of the cases discussed above as instances of a *genitive construction*, the semantics of which is a function of the nature of the possessed entity and the possessor entity, and which interpretation may be further constrained by the contribution of the clitic case markers.

Genitive construction: MODIFIER HEAD
[+Oblique]

In other words, the genitive construction in which the modifier is animate, and is marked with the clitic *yaču?*, signals a relation of possession by virtue of the sentient being's ability to possess something. The genitive construction in which both head and modifier are inanimate may only be a spatial or conventional association, not possession.

4. Body part possession and the Possessor Ascension construction

Within the semantic domain of body part possession, there exists an alternate to the canonical expression of possession. As the following two examples illustrate, the non-canonical sentence differs from the standard expression in the following ways: (i) the possessor nominal is no longer marked with the Oblique case, rather it appears in the P case, (ii) the possessor and the body part nominals no longer need be adjacent; (iii) the body part term preferentially occurs adjacent to the verb, and (iv) the specifier *nam* is dispreferred.

(16) man mo:wa? ?e: nam šibol-e
3sf.A 3sm.Obl hair spec pull -pres
"She pulled his hair."

(17) mo:wal man ?e: šibol-e
3sm.P 3sf.A hair pull -pres
"She pulled his hair."

There are a number of accounts in the linguistic literature of similar phenomena; these have been called "Possessor Ascension" (PA) or "Possessor Raising". The constructions bear this name due to the fact that in general the possessor of the NP "ascends" out of the NP to become a direct dependent of the predicate.

At least one account has taken the semantic and pragmatic consequences of the construction into consideration (Croft, 1985). Most of the analyses (Aissen, 1977; Davies, 1985; Bell, 1985) focus on the syntactic nature of the phenomenon, specifically its instantiation within the framework of Relational Grammar. This framework centrally features a number of relation-changing rules of syntax in a multi-leveled syntactic representation. It is quite congenial to the statement of the syntactic regularities associated with the PA construction.

In a framework which does not countenance syntactic relation-changing rules (see statement in Chapter Six regarding direct syntactic encoding in LFG) the two sentences above might be related by means of a lexical rule. The statement of such a rule for Northern Pomo will require an investigation of the semantic aspects of the construction, and in this case, certain discourse pragmatic features. This section will comprise a description of the phenomenon, and will show that an account of the observed facts in Northern Pomo must consider both semantic and pragmatic factors.

4.1. Basic syntax of Possessor Ascension

In Northern Pomo, whenever an Absolutive[2] argument consists of a possessed body part, there exists an alternate form of the sentence in which the possessor is a

[2] As is the case in other languages which display PA, the host is restricted largely to Absolutives

direct dependent of the verb, and the body part appears to verge on being incorporated into the verb. As the two sentences following illustrate, PA in this language involves a change in case marking: the possessor, marked with the Oblique case, appears instead marked with the P case. This is true in all cases I have found so far.[3] Schematically, the change is as follows:

Embedded Possessor: [[Possessor]$_{Obl}$ body part]+case (NP) PREDICATE

Possessor Ascension: [Possessor]$_{P}$ (NP) [body part] PREDICATE

(18) mo:wa? xama(nam) v̌caxa
3sm.Obl foot(spec) cut/infected
"His foot is cut/infected."

(19) mo:wal xama v̌caxa
3sm.Obl foot cut/infected
"His foot is cut/infected."

The specifier is dispreferred, and the body part noun is most frequently found adjacent to the verb.

(Subjects of intransitives and Objects of transitives). In this language Objects of certain postpositions may also be hosts:

(i) man [mo:wa? xama]-tuh yat-ye
3sf.A 3sm.Obl foot -on vomit-perf
"She vomited on his feet."

(ii) man mo:wal xama -tuh yat-ye
3sm.P
"She vomited on his feet."

However, not all such sentences are acceptable. More descriptive work remains to be done in this area.

[3] A number of languages which have PA display evidence that the raised possessor ends up marked like an indirect object, or a "3". In this language, beneficiaries, possessors and Source and Goal objects of certain postpositions are all marked with the Oblique case. Thus Northern Pomo seems to diverge from the trend (although Tzotzil possessors also end up as direct objects (Aissen, 1980)).

(20) mo:wal xama (?nam) čaxa
3sm.P foot(spec) cut/infected
"His foot is cut/infected."

(21) Mary tuh ?a: ?uymo (*?nam) dikel-ye
M -P 1s.A face spec wipe-PERF
"I wiped Mary's face."

(22) Mary tuh ?a: ?uymo dikelye
M -P 1s.A face wipe-PERF
"I wiped Mary's face."

Because the body part term virtually always ends up adjacent to the verb, I will make the hypothesis that the predicate-formation process is a (perhaps loose) form of incorporation.[4] Some body part-verb pairs are highly conventional, while others are almost certainly new creations. Nevertheless, part of the analysis here will presuppose that some process like this is plausible.[5]

Possessor Ascension is sanctioned in passive constructions such as (24):

(23) mo:w ma:dal ša: phaley-ka
3sm.A 3sf.P arm burn -caus
"He burned her arm."

(24) ma:dal ša: phaley-ka -ya
3sf.P arm burn -caus -pass
"(They) burned her arm."

It also appears to be acceptable when the verb is reflexivized:

(25) k'aye man ša: phaley-ka-?a
self 3sf.A arm burn -caus -refl
"She$_j$ burned her$_j$ arm."

Before discussing the semantic and pragmatic conditions that attach to this proposed rule of body part incorporation, it is important to say as much as possible about

[4] Clearly, a real explication of this phenomenon as a process of word formation would have to make reference in a detailed way to the inventory of word formation processes in Northern Pomo. I will not do that here, so these remarks on the status of the adjacent body part noun should be taken as suggesting a course for further analysis.

[5] The range and productivity of nominal compounds in English may be a good analogue for this process.

the grammatical relation borne by the body part possessor in this new construction. Unfortunately, not all of the facts are clear on this.

When the host noun phrase (which contains the possessor as a modifier) plays the role of Direct Object, the corresponding 'ascended' possessor in the PA sentence bears all the signs of being a Direct Object itself. Unfortunately, there are no straightforward tests for Direct Objecthood in Northern Pomo known to me at this time. The use of the P case, as discussed in the conclusion of Chapter 6, is hardly a diagnostic.

When the body part is the Subject of an intransitive verb, the status of the possessor in the corresponding PA sentence is not clear. The few tests that are available (see Chapters Three and Six) yield equivocal results. For example, if we set up a sentence with a *ti-* form in the subordinate clause, embedded in the clause which contains the ascended possessor, we find that the possessor nominal cannot control it. Instead, the regular pronoun *ma:dal* must be used, as in (26).

(26) šeːkʼoː maːdal ʔaː čadi -da maːdal ʔey xacʼe na -mi
first time 3sf.P 1s.A see -Acomp 3sf.P hair black COP-emph.
"Her$_j$ hair was black when I first saw her$_{j,k}$."

(27) * šeːkʼoː titi ʔaː čadi -da maːdal ʔey xacʼe na -mi
first time 3s.P.NCBR 1s.A see -ADV 3sf.P hair black COP-emph.

Similarly, when we test for the possessor's ability to control the anaphoric kinship possession prefix *ma-*, we find that again it is not grammatical; the independent form *ba-* must be used.

(28) šeːkʼoː ʔaː **ba**-ṭi-l čadi -da maːdal ʔey xacʼe na -mi
first time 1s.A 3's sis.P see -ADV 3sf.P hair black COP-emph.
"Her$_j$ hair was black when I first saw her$_{j,k}$ sister",

(29) * šeːkʼoː ʔaː **ma**-ṭi-l čadi -da maːdal ʔey xacʼe na -mi
* "Her$_j$ hair was black when I first saw her$_{j,k}$ sister"

On the other hand, the Oblique possessor form *ti? is* available for control by the putative Subject (raised possessor) of the comparative construction below in (31).

(30) ti? kaweyo-nam mil ?anu mato man na
NCBR.Obl horse-spec dem.Obl compar big 3sf.A COP
"She$_j$ is bigger than her$_j$ horse is."

(31) ti? kaweyo xama -nam -mil ?anu thiy ma:dal xama na
NCBR.Obl horse foot -spec -dem.Obl compar. big 3sf.P foot COP
"Her$_j$ feet are bigger than her$_j$ horse's feet."[6]

This is a confusing result, in that the opposite pattern was discovered in the case of the unexpressible subjects of impersonal passives (see Chapter Three): here the unexpressed argument could control the *ti-* reflexives outside of its clause, but could not serve as antecedent to *ti-* forms within its own clause. I concluded on the basis of these data that the best test for Subjecthood in this language was control of the *ti-* pronoun within the same clause. *Outside* the clause the possibility of logophoric or discourse-based control is available. However, here the control is sanctioned within a clause but not between clauses. There is no reason to consider the comparative clause to be anything but a monoclausal structure, and the adverbials in (26-29) are certainly independent clauses.

I am unable to present a solution to this puzzle at this time. Further work is necessary before a complete syntactic analysis of the construction is possible.

4.2. The semantic and pragmatic preconditions for use of Possessor Ascension

A semantic account of the relation between a sentence with PA and a sentence without is somewhat more difficult to state than the relation between, say, two verbs which are related by the lexical rule for Causativization or Reflexivization. The reason for this is obvious: the relation between them must be mediated by the semantics of possession, a semantics which may vary according to the nature and properties of both the possessor and the possessed, and which moreover may be affected differently by

[6] The difference in the adjectives glossed "big" results in the shape and dimensions of the objects being compared. See discussion of similar facts in Chapter Two.

different predicates. Thus, any attempt to state a constant relationship between a sentence with PA and a sentence without will have to be stated at a level of generality such that a wide range of predicates and types of possession may be accomodated. Moreover, PA and non-PA sentences are not quite truth-conditionally equivalent: in one special case, the meaning of PA and non-PA sentences are not equivalent. This also will be accounted for in the discussion below.

First I will state and label some of the basic semantic relations that will be important in this discussion, then I will state a single pragmatic constraint on the use of the PA construction. This will be followed by a demonstration of how all the facts of interpretation and distribution may be derived from these semantic and pragmatic relations and constraints, either directly or by implicature.

(A) Semantic components of Northern Pomo PA sentences

1) There is a relation, *Poss*, that holds between a possessor, *Pr* and a possessed object, *Pd*. In the case of a possessed body part, we can call this relation $Poss_{bp}$.

2) There is a semantic relation of predication, *R*, that holds between a predicate and its Absolutive argument.

3) If the Absolutive argument of some predicate P is a NP consisting of a head noun which denotes a body part, modified by a possessor, then for every instance of the relation *R* between the predicate and the body part (P(bp)), there is a relation *R'* between the predicate and the possessor of the body part (P(Pr)).

R' exists by virtue of the relation $Poss_{bp}$. There are several aspects of $Poss_{bp}$ which allow us to adduce the relation *R'*. First, it is obviously the case that an intact nervous system makes any impingement on a body part perceptually accessible as an experience to the possessor. Second, any affect on a body part beyond basic physiological sensations will still, due to the normal undetachability of a body part, have consequences, pragmatic, social, or otherwise, for the posses-

sor. If someone ties an anchor to my leg, my whole self is constrained. If someone paints a sign on my back, my whole person must deal with the consequences. In view of this relation between body part and possessor, any relationship *R* between a predicate and a body part Absolutive argument will normally entail a derivative relationship *R'* between the predicate and the body part possessor.

The nature of *R'* will vary with two factors: the nature of the predicate and the nature of the relation between the body part and the possessor.[7]

These definitions and observations allow a rough statement of the correspondence between the PA and the non-PA sentences. For any predicate P, there is another predicate P_{bp}, which incorporates a body part. Its thematic structure is the same as P, i.e. if P has an Agent argument, P_{bp} also has an Agent argument. If P has a Theme argument, or a Patient argument, P_{bp} also does. However, the predicates P and P_{bp} are not identical in their fine-grained semantic structure: the relation between P and the Absolutive argument of P is *R*, while the relation between P_{bp} and the Absolutive argument of P_{bp} is *R'* as defined above. As stated above, the nature of *R'* will depend upon the semantic content of P and the nature of the relation between the incorporated body part and the possessor.

It is important to emphasize that the relation between the possessor and the predicate is mediated by the body part. In some simple cases, this looks like an easily computed entailment. If I cut someone's arm, it is entailed that I cut them. However, with many other verbs, there is no easily stated entailment, yet some other, less direct entailment does exist. In other words, the relation *R'* is *not* simply the result of the meaning of the verb predicated of the possessor. For example, in the following sentence, the propositional content of the sentence consists of an assertion that someone's toe fell off. The predicate "drop" when predicated of a person simply means that the

[7] For example, the phenomenological character of one's relationship with the solar plexus is quite different than that with one's thumbnail, or hair.

person fell down, or fell off something. The meaning of the PA version of this sentence does not entail that the person indicated by the pronoun fell down. Rather, it is being claimed that it means something like the following: whatever the consequences are of one's toe falling off, that misfortune was visited upon this person.

(32) mo:wa? xamabu:sa-nam lok'a
3sm.OBL big toe spec fall/drop
"His big toe fell off"

(33) mo:wal xamabu:sa-nam lok'a
3sm.P big toe spec fall/drop
"His big toe fell off"

(B) Pragmatic consequences of PA

Without a great deal more textual analysis it is not possible to determine the discourse status of the raised possessor--thus, for the time being, I will assume that the discourse pragmatic consequences of/motivation for PA is the following: When *R'* is more relevant or central to the discourse than *R*, (i.e. when the derivative semantic predication that accrues to the possessor of the body part in virtue of the relation between a body part and its owner is more newsworthy, important, mentionable, etc. than the direct semantic predication relation that exists between the verb and the absolutive argument) then Possessor Ascension is appropriate.

4.3. The distribution and interpretation of PA sentences

In this section I will describe the preference conditions for this construction, as well as the interpretive consequences of its use. These conditions and consequences will be seen to fall out from the semantic and pragmatic statements (A) and (B).

4.3.1. Predicates which require PA when possessors are [+human]

There are a number of predicates, mostly those which have an effect on a patient-type argument, for which the PA version is preferred. That is, when the consultant is asked to produce a sentence with a possessed body part and one of these

predicates, she spontaneously renders it in the PA version, and when asked whether the non-PA version is alright, says that it is not acceptable. (However, the non-PA versions are not ungrammatical, simply ruled out for reasons to be discussed below.)

(34) ba-de: thinda ma:dal/*#ma:da? ʔuymo daṭoy
3's oldr.sis.A evid.prt 3sf.P/*#Obl face paint
"Her older sister probably painted her face."

(35) mo:wal/*#mo:wa? xama diṭhal-e
3sm.P /*# Obl foot hurt -pres
"His foot hurts."

(36) ma:dal/ *#ma:da? ʔuymo c'amo: čima
3sf.P/ *#3sf.Obl face fly sit
"A fly is sitting on her face."

(37) hosaha ta mito ʔuy diṭhal -e
smoke Q 2s.P eye hurt -pres
"Is the smoke hurting your eyes?"

(38) *# hosaha ta mi? ʔuy -nam diṭhal-e
smoke Q 2s.Obl eye -spec hurt -pres
"Is the smoke hurting your eyes?"

When the subject is non-human, this preference is not observed.

The preference for PA structures with human possessors is purely a result of the non-linguistic property of humanness versus nonhumanness; it is not a consequence of the choice of inflectional versus clitic case coding. In Chapter Six it was argued that choice of case encoding strategy (clitic or inflectional) determines what set of semantic contrasts may be accessed, irrespective of the animacy features of the relevant nominal. Here, the pragmatic concomitants of those features are *directly* influencing the choice of construction. The following examples show that either clitic or inflectional case marked subjects require the PA construction if they denote humans.

(39) ma:dal mo:w ?uymo dac'apčˇi
3sf.P 3sm.A face slap-semlf
"He slapped her face."

(40) *# ma:da? ?uymo mo:w dac'apčˇi
3sf.Obl face 3sm.A slap-semlf
"He slapped her face."

(41) Con tuh man ?uymo dac'ap -a
John P she face slap -pres
"She slapped John's face."

(42) *# Con wi? ?uymo man dac'ap -a
John Obl face she slap -pres
"She slapped John's face."

(43) hayu yačˇu? ?e: kawinam ya? šˇibol -e
dog Obl hair child+spec A pull -pres
"The kid pulled the dog's hair."

(44) hayu yačˇul kawinam ya? ?e: šˇibol -e
dog P child+spec A hair pull -pres
"The kid almost pulled the dog's hair out."

(45) kawi+nam+ya? hayu+nam+mo:wa? ?e:+naml šˇibol -e
child+spec+A dog+spec+3sm.Obl hair+spec pull -pres
"The kid pulled the dog's hair."

(46) hayu+nam+mo:wal kawinam+ya? ?e: šˇibol -e
dog+spec+3sm.P hair
"The kid pulled the dog's hair out."

(47) kawi+nam ya? kawi du:+nam ?uy phaba:čˇi
kid+spec A kid other+spec eye hit+semlf
"The kid hit the other kid in the eye."

(48) * kawinam ya? kawi du:nam yačˇu? ?uy phaba:čˇi
Obl
*"The kid hit the other kid's eye."

I have stated above that the use of the PA structure indicates that for some reason *R'* is ranked more highly than *R* on the scale of mentionability, or relevance, putting aside for the present the precise characterization of such a scale. We might conclude that for predicates which have a strong effect on their patient, the effect on the possessor is deemed to be more important than that on the body part itself. As the analysis

in Chapter Six revealed, the the internal experience of another human being forms an important cultural category, as reflected in the extensive grammatical effects associated with 3rd person point of view.

4.3.2. PA non-obligatory or avoided.

A number of other predicates, as mentioned above, do not require the PA construction. In each case, we can see (post hoc) that the consequences of the predicate for the possessor are not *necessarily* intrinsically more relevant or important than those for the body part, nor do they seem to be conventionally considered to be so.

In the following example, the contribution of the predicate is clear: when the predicate results in a significant effect on the Absolutive argument's referent, the PA construction is virtually obligatory. When the predication involves something that may be relatively isolated in its effects, it is optional.

(49) *khe ?uy dithale
1s.Obl eye hurt
"My eye hurts."

(50) to: ?uy dithale
1s.P eye hurt
"My eye hurts."

(51) khe ?uynam šikišiki -m-a
1s.Obl eye-spec twitch-aspect
"My eye is twitching"

(52) to: ?uy šikišikima
1s.P eye twitch
"My eye is twitching."

In many cases, the speaker will seem to prefer the non-PA construction for these verbs. There are a number of reasons why this might be so. For example, the speaker may wish to focus simply on the body part, that is, limit the predication to the body part, avoiding the implications of asserting *R'* of the possessor.

(53) mo:wa? xama tiyiš na
3sm. Obl foot ugly Cop
"His feet are ugly."

In this example, the speaker may not wish to extend the force of the predicate to the entire person of the possessor, or, alternatively, it may be that in fact the relation *R'*, in this case, the extent to which a person is ugly by virtue of the fact that his or her feet are ugly, does not hold of the possessor. The person's only unattractive feature may be his feet.

In the next example, a less obvious category of predication is involved: we do not usually think of having blue eyes as conferring any global property on a person; however, in this case the individual with the blue eyes was the great-grandchild of an Indian, and the child of a woman with significant Indian heritage. Another, unrelated Indian woman was commenting on how white the child looked. The response, which limited the predication to the eyes, was an implicit answer that although some of her features were white, the child was Indian.

(54) kawi yačču? ?uy c'axat'? -ay na
child clitic.Obl eye blue-pl COP
"The kid's eyes are blue"

In the following two examples the alternation between the PA and non-PA constructions provides a particularly clear instance of the communicative effect of ranking *R'* over *R*. The parenthesized remarks are the consultants attempts to explain the distinction.

(55) mi? ?e:-nam k'edi phit'a
you.Obl hair-spec good appear
"Your hair looks nice."
("Would mean that its color, or something about it (the hair) was pretty.")

(56) mito ?e:-nam k'edi phit'a
you.P hair-spec good appear
"You look nice with that hairstyle."
("Would mean it LOOKED pretty on her, not particularly the color, just that it looked nice.")

As we might expect, when the body part is modified, indicating its more topical status, the non-PA encoding is frequently chosen. Even in cases which ordinarily require the PA structure (e.g. when the possessor is human, and the predicate is one which has a significant effect on the absolutive argument's referent) the non-PA structure is possible when the body part is modified.

(57) bade:l ?uy xac'em-ka-ya
oldr.sis.P eye black-caus-pass
"Somebody blackened the older sister's eye."

(58) bade? /bade:l thawilo? ?uy xac'em-ka -ya
oldr.sis.Obl / P left eye black-caus-pass
"Somebody blackened the older sister's left eye."

So with respect to the two sets of predicates just described, we can see that in both cases the choice of the PA or non-PA construction is due to factors that affect the ranking of *R'*: in one class of cases the predicate is one which affects the possessor of the body part in a straightforward and culturally significant way, in which case *R'* ranks higher than *R* and PA is obligatory (at least for human possessors). In the other class of cases: (i) the predicate is one which does not necessarily affect the possessor of the body part; (ii) and/or the speaker wishes to avoid drawing the entailments of *R* for the possessor, thus attributing to the possessor some property or experience that is undesirable, and/or (iii) for some reason local to the discourse, the relation *R* is more important or relevant, vis a vis this utterance, than *R'*.

4.3.3. Implicatures which derive from obligatory PA.

Another class of cases further illuminate the semantic and pragmatic components of this subdomain of possession. When a predicate from the class which requires the PA construction for human possessors is found within a *non*-PA structure, certain implicatures become available. These implicatures can be seen as straightforwardly related to the set of conditions which surround the interpretation of the PA structure.

Implicature A:

The relation $Poss_{bp}$ does not hold, i.e. the possessor and the body part are not linked.

This results in an interpretation where the body part is detached:

(59) mo:wa? šˇa: man phaley -ka
3sm.Obl arm she burn-caus
"She burned his arm."
["Sounds like his arm is detached."]

This interpretation is not necessary to the non-PA construction--it is an implicature available under certain conditions. This, however, is the only area in which the two constructions may be truth conditionally non-equivalent. Because of the fact that the PA construction *requires* the relation *R'* to hold between the possessor and the predicate, if the link of possession is broken by the limb being detached, it seems that the PA construction becomes unavailable.

The other major class of implicatures arises when the speaker intentionally violates the pragmatic condition on the PA construction, in a context where a human possessor and a predicate of significant effect would warrant its use:

Implicature B:

The speaker refuses to rank *R'* as more important than *R*, in order to demean the experience of the possessor--this is a politeness implicature, specifically, the non-PA version of the sentence is considered belittling and rude.

(60) ti? xama dithal - kan mo:w khemane -nha
NCBR.Obl foot hurt -Acomp 3sm.A dance-NEG
"He's not dancing because his foot hurts."
[belittling]

4.3.4. Non-human possessors of body parts

When the possessor of the body part is not human, the honorific requirement that the PA structure be used is not in force. What are the interpretations associated with the construction in this case? At first glance it seems that in PA sentences the non-human possessor is interpreted as being more affected by the predicate than in sentences without PA.

(61) hayu yačʊ? ?uy mo:w xabe wih baneh
dog Obl eye 3sm.A rock inst. hit
"He hit the dog's eye with a rock"

(62) hayu yačʊl mo:w xabe wih ?uy bane
dog P 3sm.A rock inst. eye hit
"He smashed the dog's eye with a rock"
(The eye was destroyed)

(63) hayu yačʊ? ?e: kawinam ya? šibole
dog Obl hair child+spec A pull
"The kid pulled the dog's hair."

(64) hayu yačʊl kawinam ya? ?e: šibole
dog P child+spec A hair pull
"The kid almost pulled the dog's hair out."

This is one natural consequence of the pragmatic condition on the construction, (B) above. In other words, if use of the PA structure indicates that the relation *R'* is deemed more important or relevant than *R*, then for many predicates, it may be ranked as more important or mentionable because the propagation of the effect from the body part to the entire being is particularly strong or complete.

4.4. General issues

The analysis proposed here may be extended to a number of languages with far more extensive use of the PA construction. Moreover, it makes certain predictions

regarding languages in which the construction is not limited to body part possession.

First, since the construction depends upon the relation *R'*, that is, the relation between the predicate and the possessor, then the construction should arise first in any particular language within a class of cases of possession where the implications for the possessor of any state of affairs predicated of the possessed object would be particularly straightforward. Inalienable possession of all types is the logical domain for such a construction to begin with. Because body parts have both a direct physiological link with their possessor as well as a social link, this may be the strongest candidate to trigger such a construction.

Second, it has been claimed (Croft, 1985:46) that in general PA constructions are limited to benefactive or malefactive relationships between the raised possessor and the verb. The analysis proposed here is more general: *any* implications for a possessor of a particular predicate-(possessed) argument pair may be brought into focus if the conditions (pragmatic, social/cultural, personal, etc.) warrant it. In general, of course, we notice and mention consequences that will have advantageous or negative consequences for us. A particular language might limit the class of *R'* relations that trigger PA to only benefactive ones. However, the semantic structure underlying the construction in universal terms should not necessarily be limited to benefactive or malefactive entailed consequences for the possessor.

Another fact we would like this account to address is the seeming restriction of the construction cross-linguistically to Absolutive hosts. Croft (1985:47), taking the benefactive/malefactive restriction as basic to the construction, explains the preponderance of Absolutive hosts ("direct objects and nonagentive subjects", p.47) by assuming that only these arguments may be affected by a predicate, either benefactively or malefactively. (There is also a suggestion that transitive Subjects are primarily agents, and cannot be expressed in Oblique form: p.48, fn 8.)

The analysis here presents a different perspective on the conspicuous absence of raised possessors from transitive Subjects. Agentive subjects will be ruled out by this account in the following way: the PA construction exists to bring the consequences of the predicate for the possessor into special focus for any number of reasons. What would a sentence with an active subject that contained a possessed body part look like after Possessor Ascension? To construct an example in English, the sentence "His fist contacted the bear's face", would emerge as "He contacted the bear's face with his fist." In other words, the non-existence of transitive subject hosts of PA may be due to the fact that in these cases, the possessor/possessed pair breaks up into the natural parsing of agent and instrument, a pair with a prior form of expression.[8]

Moreover, in Northern Pomo, possessed body parts are strongly dispreferred as transitive Subjects. In the following examples, the body part *must* be expressed as an instrument, marked with the instrumental postposition.

(65) * mo:wa? xama phik'a-nam mac'a:
3sm.Obl foot basket-spec break
*"His foot broke the basket."

(66) xama wih mo:w phik'a-nam mac'a:
foot INSTR 3sm.A
"He broke the basket with this foot."

If this regularity turns out to be general, it may be possible to see the animacy hierarchy working in yet another domain of the grammar, the preferred linking patterns between grammatical functions, thematic roles, and nominal expressions.

5. Summary of possessive marking

One of the goals of this description has been to construct a description which will allow one to see the source of various semantic and pragmatic interpretive effects, thus

[8] It is perhaps another consequence of the importance of this pair that in this language we find a large set of instrumental prefixes on verbs, signalling the body part that mediated the action of the root verb. Thus a complete typology of these constructions would contrast PA constructions, Croft's "indirect object lowering" constructions, and incorporated instrument constructions.

avoiding the assignment of abstract diacritics and constraints to lexical items or rules, and instead relying on various sorts of implicature to derive the observed patterns and interpretations. The statement of the case marking rule for possession is fairly simple. In elicitation of paradigms the Oblique case is always acceptable for the genitive modifier in the construction described above, so the basic rule of case marking for possessors will simply state the following relationship.

Case rule for Possession/Genitive modifier

Nominal --> [+Obl case] / [[$_{\text{Modifier}}$___] [HEAD]]$_{\text{Genitive construction}}$

This will cover all basic cases of possession, both alienable and inalienable, and further will cover the genitive construction with inanimate modifiers discussed briefly in Section (3.1).

Because of the idiosyncrasies shown in the environment of kinship possession, where different nominal types require different allomorphs of the Oblique case category, the subcategories of the possessive/genitive construction will constitute environments in the nominal paradigm.[9]

We do not have to create a case marking rule for 'raised' possessors per se, since the relation of possession found in the PA construction will be encoded in the lexical rule that allows incorporation of body parts.[10] It may be necessary to stipulate that the possessor target of the relation *R'* in that construction be marked with the P inflectional case. This rule will then be another entry in the short list of lexical rules which require some mention of case.

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[9] Still, we might ask, where in the grammar is the case marking information just introduced to be coded? A rule of case marking for possession is not the province of any predicate. Possession traditionally presents a problem for configurational accounts of case-marking, since the case choice is not governed by an argument-taking predicate or typical case-assigner. I will simply assume that the grammatical function of Possessor (or possibly even simply Genitive) determines (at least) one slot in the nominal paradigm of any nominal lexeme and that other stipulations regarding this role's instantiation in constituent structure will be needed.

[10] Because I have not yet found sufficient evidence to argue for the syntactic structure of the Possessor Ascension clause, and the grammatical relational status of its arguments, I will not formulate the lexical rule relating the PA verbs with their corresponding regular verbs.

6. Conclusions regarding the Northern Pomo case marking system

The last three chapters have covered a wide range of case marking phenomena. In this section I will attempt to indicate how they all might work together, relying on a 'cascade' of rules and case assignments. Each case assignment function may be treated as a lexical process.

6.1. Inflectional and clitic case paradigms

(1) Inflectional case

All nominals which require inflectional case (pronouns, kinship terms, etc.) will have lexically listed nominal paradigms containing case-inflected forms for a number of environments. These will include the case categories, A, P and Oblique, as well as a number of subenvironments which call for a particular Oblique allomorph. The idiosyncrasy displayed in Chapter Five provides the motivation for an extended paradigm such as the example below.

[Kinship stem]

A
P
Vocative
Oblique:
  Benefactive
  Possessive (kinship)
  Possessive (default)
  Object (tukhe)
  Object (dakhe)
  Object (tuh)
  Object (yow)
  ....

(2) Clitic case

As described above, virtually every noun phrase headed by a noun stem from nominal classes 4 - 6 (common nouns) may either be marked with one of the three case clitics (depending on the case category requirements of the larger construction) or may remain unmarked. It would be possible to simply list a clitic and a zero allomorph for every noun stem in the lexicon. However, this would not capture the variability in use

of these clitics across constructions, a variability that seems to be semantically motivated.

The interpretive consequences of the variation, as described in Chapter Six, suggest that each clitic might require a (somewhat attenuated) lexical semantics of its own, which would characterize its contribution to the interpretation of the sentence. For example, the facts concerning this speaker's use of the *ya?* A case clitic indicate that it is called for when the speaker wishes to represent the scene called up by the sentence as involving a sentient, self-motivated entity. No doubt many aspects of the 'Actor' prototype *may* be involved in any one instance. None seem to be criterial, as the examples in Chapter Six demonstrate. (Recall for example that there is no implication of volitionality when the A case clitic is used to mark the subject of the verb "die".) Let us crudely label this subtle complex of family relationships as [+sentient]. What this stands for is a whole complex of properties of states of affairs and individuals which may or may not be congruent with any particular pairing of a nominal and a verb.

The following is a rough indication of the information which might be included in a lexical entry for the clitic *ya?*. It includes a morphosyntactic subcategorization frame which restricts the use of the clitic case markers to noun phrases headed by a noun of classes 4-6. Moreover, this noun phrase must instantiate an argument that has been assigned a particular case category by virtue of some lexical rule or larger construction and moreover the noun phrase must denote an individual entity with the characteristic of "sentience".

(67) {ya?} clitic HEAD=N(class 4-6) $]_{NP}$ +___ / [+A case; +SENTIENT]

We may assume that the variable character of this, due to the complex nature of the characteristics labelled "sentient", would also lead to a great deal of inter-speaker variation.

Similarly, the other clitics may have related entries, so that all three together constitute a sort of paradigm frame: the case markers minus the host.

(68) {ya?} clitic HEAD=N(class 4-6) $]_{NP}$ +___ / [+A case; +SENTIENT] ("active")

{yačul} clitic HEAD=N(class 4-6) $]_{NP}$ +___ / [+P case; +SENTIENT]

{yaču?} clitic HEAD=N(class 4-6) $]_{NP}$ +___ / [+Obl case; +SENTIENT]

I have shown that all three case clitics require that the host nominal denote a sentient entity (with the exception of the metaphorical extensions to [+inanimate] Subjects). However, the claim is that at least the A case clitic carries with it a connotation of more than simple sentience. An overlay of self-motivation and consciousness seems to inhere in the clitic itself. In certain noun-verb combinations, it seems to highlight power or agressiveness (cf. footnote 26 in Chapter Six). This is not simply a reflection of the semantic roles characteristically associated with Subjects, since these same semantic roles may receive no case marking with no appreciable interpretive difference. The clitic adds something to the interpretation, something that (as the reader will have seen) is difficult to characterize in a straightforward way. This I will indicate by a diacritic on the lexical entry. The full explication of this feature awaits further work.

Recall that the A and the P case clitic may both be extended metaphorically to inanimate objects. The same is not true of the Obl case clitic. We might indicate this by a diacritic on the Obl clitic, but the chances are that another speaker, or this speaker in another setting, might allow such an extension. Therefore, until further research suggests that it should be otherwise, I will simply leave the conventions regarding the metaphorical extension of these clitics unexpressed in the grammar.

6.2. Lexically introduced case category choices

(1) If we allow a lexical rule for introduction of Beneficiary arguments, we may associate case marking for these arguments with that rule. The case marking rule will simply state that the forms must be marked with a (non-zero) allomorph of the Oblique

case.[11]

(2) The lexical entry for each postposition may list the entire paradigm of Oblique forms that it governs for its objects, or only the exceptions. Alternatively, each nominal paradigm may contain a slot for the case allomorph required by each postposition. This does not seem to be a matter of much import, but the fact of idiosyncrasy is worth noting. The class of Postpositions (or subclasses of nominals) may still be targets of a redundancy rule which indicates their government of the Oblique case.

(3) Possessors are case marked as part of the 'genitive construction'. An interpretation of possessor semantics may accrue to [+animate] nominals , and these may be marked with the Obl clitic *yačʷu?*.

(4) A rule of predicate formation involving incorporation of body parts constitutes the basis of the "Possessor Ascension" construction. Its semantics is described in the preceding sections. The Absolutive argument of the new predicate (the possessor) is marked with the P case.

(5) A large set of verbs of subjective experience are case marked subject to a discourse pragmatic condition: if their Subject argument is center of point of view (SUBJ=SELF), they must be marked with the P case. Otherwise, they receive the default case as specified below. The resultant implicatures (volitionality, objective report, etc.) are described in detail in Chapter Six.

(6) Subjects and Objects which have not been otherwise marked are assigned the A and P cases respectively.

The assignment of A, P and Oblique cases is thus statable in terms of grammatical functions, and moreover can be subsumed under the description of lexical processes. Since grammatical functional status of nominals does not change outside of the action of lexical rules in the framework being assumed here, this is a desirable

[11] It remains to be seen whether we wish to account for the unacceptability of zero allomorphs of common nouns by some semantically motivated feature or principle, or whether this is an arbitrary fact.

result.

Chapter Eight: Non-clause-bounded Reflexives

1. Introduction

In the last chapter we looked at one grammatical subsystem, Active case marking, which was sensitive to the position of the speaker relative to the point of view embodied in the utterance. In this chapter we will examine another grammatical subsystem, a set of non-clause-bounded reflexives, (NCBRs)[1] which exhibits in the same set of contrasts.

There are several distinct questions to pursue with respect to these forms.

(1) What is the class of possible antecedents for these reflexives?

(2) Are they obligatory within some domain or set of domains? If so, how are these domains specified?

(3) What patterns of disjoint reference are displayed in the corresponding set of regular pronouns?

(4) What are the most illuminating ways to represent the above sorts of facts and distributions?

After introducing the set of elements to be examined, I will begin by looking at

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[1] Various names have been used in the literature to discuss this type of system, among them "cross-clause reflexives" (Nichols, 1983), "long-distance anaphors" and "logophoric pronouns" (Clements, 1975; Hyman and Comrie, 1981). Following Maling (1984), I will use the term non-clause-bounded reflexives (NCBRs). I will refer to these elements as NCBRs even when they are being used inside the same clause as their antecedent.

These elements do not always have a logophoric function. From the beginning I would like to keep separate the discourse function of logophoricity and the syntactic fact of licensed long-distance antecedents.

My informal statement that two elements are *in the same clause* can be interpreted in Lexical Functional terms as both elements sharing a *clause nucleus*. A clause nucleus is the F-structure equivalent "of a simplex sentence....it is the minimal f-structure which contains both a SUBJ and a PRED as function names" (Neidle, 1982:405). The arguments of embedded verbs (e.g. as in functionally controlled XCOMPs) are *not* in the same clause nucleus as its SUBJ, OBJ, etc.

the behavior of the NCBRs within the same clause as their antecedent, followed by an examination of their across-clause behavior. We will observe that the characterization of the class of antecedents is different for within-clause than for across-clause usages. After investigating the nature of the differences, we will turn to the question of disjoint reference. The chapter concludes with a discussion of the options available for representing these facts within an account such as that presented so far.

2. The Set of Non-Clause-Bounded Reflexives in Northern Pomo

There are two classes of elements to be presented here. One is an anaphoric member of the set of prefixal possessors, found affixed only to kinship term stems, the other is a set of analytic (i.e. not affixal or incorporated) anaphoric[2] elements, inflected for number and case.

Table 1. Possessive prefixes

Interpretation	Prefix	Pfx+Stem
Speech-Act Participant (1st&2nd)	mi-	mi-phane "your daughter"
		?a:-mi-phane 1's daughter "my daughter"
3rd sg.& pl.	ba-	ba-phane 3's- "his/her/their daughter"
3rd sg.&pl. NCBR	ma-	ma-phane "NCBR's daughter"

[2] My use of the term *anaphor* here is limited to lexical elements such as reflexives and reciprocals which do not possess the property of independent reference.

The first prefix is deictic, the second has the properties of regular pronouns, and the third is anaphoric, i.e. referentially dependent on its binder. (Properties of the binder will be explored below.)

Table 2. Third Person Pronouns and **ti-** Reflexives

	A	P	OBL
3sg.m	mo:w	mo:wal	mo:wa?
3sg.f	man	ma:dal	ma:da?
3 pl.	phow	phowal	phowa?
NCBR sg.	tiyi	titi	ti?
NCBR pl.	tiya	tiyal	tiya?

2.1. The NCBR Possessive Prefix with Same-clause Antecedent

Unlike the *ba-* third person possessive prefix, the *ma-* prefix must have an antecedent.

(1) ba-phane ba?ol-e
3's -daughter call-pres
"(his,her,their) daughter called."

(2) * ma-phane ba?ol-e
3NCBR's -daughter call-pres
* "(his,her,their) daughter called."

This antecedent must be a Subject.[3]

(3) *mo:wal ma-phane ba?ol -ye
3sm.P NCBR's- daugh.A call-perf
*'His$_j$ daughter called him$_j$.'

(4) mo:w ma-phane-l ba?ol-ye
3sm.A NCBR's -daughter-P call-perf
"He$_j$ called his$_j$ daughter."

(5) ma-phane? dakhe mo:w phow-al čano maṭuh
NCBR's-daught.Obl about 3sm.A 3p.P story-tell
"He$_j$ told them$_k$ a story about his$_j$ (*their$_k$) daughter."

Within a minimal clause, unexpressible arguments of Impersonal Passives are not controllers of the *ma* prefix.

(6) * ma-phanel ba?ol-?a
NCBR's -daught.P call-pass
*"(NCBR's) daughter was called."

However, the *ma-* prefix *is* licensed by a Subject that receives no surface expression for discourse reasons. This language allows Subjects and Objects of tensed clauses (and even some Objects of postpositions) to be omitted if the intended referent has already been introduced into the discourse. [4]

(7) ma- phanel ba?o:l-e[5]
NCBR's-daughter.P call-pres
"(Def. Ref.$_j$) called (Def.Ref.$_j$'s) daughter.

As we might expect, use of the *ba-* prefix on a non-Subject argument results in an obligatory interpretation of disjoint reference between the Subject and the prefix. When the *ba-* prefix is found affixed to a Subject, reference is free, i.e. may be determined by factors inside or outside of the sentence. (Discussion of the mechanisms whereby disjoint reference is derived will be postposed until the final section.)

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[3] The order of the Subject and Object arguments here is not significant.

[4] The actual conditions under which this is possible seem to be wide-ranging. They are still under study.

[5] This verb is sometimes produced with a slightly longer stem vowel when marked with the present tense/aspect suffix.

(8) man ba- phanel ba?ol-ye
3sf.A 3's-daughter.P call-perf
"She$_j$ called (his, her, their)$_{*j}$ daughter."[6]

(9) mo:wal ba-phane ba?ol-ye
3sm.P NCBR's daught.A call.perf
'His$_{j,k}$ daughter called him$_j$.'

2.2. The NCBR *ti-* Forms With Same-clause Antecedents

When one of the *ti-* forms occurs within the same clause as its antecedent the antecedent must be a Subject.

(10) mo:w ma:dal ti? kamisa hoh
3sm.A 3sf.P NCBR.Obl shirt give(long obj.)
"He$_j$ gave her$_k$ his$_{j,\ *k}$ shirt."

(11) mo:wa? / *ti? kanema?-ya? mo:wal ditha? -ka
3smOBL / *NCBR.Obl relative.A 3sm.P hurt-caus
"His$_{j,k}$ relatives hurt him$_j$."

Recall that in the last chapter we found that the unexpressible argument of an impersonal passive is not a possible antecedent for a *ti-* form in its own clause.

(12) * tiya? hayu čaban-?a
NCBR.pl.OBL dog kill-pass
*"(They$_j$) killed their$_j$ dog."

However, like the *ma-* prefix, the *ti-* anaphor *is* licensed by a Subject that is available at the lexical level but receives no surface expression for discourse reasons.

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[6] Sentence (8) is not open to the interpretation that she called the daughter of both her and her husband, i.e. "She$_j$ called their$_{i+j}$ daughter." It is difficult to tell whether the *ma-* prefix is open to an interpretation of overlapping reference ("She called their daughter" where "she" is a proper subset of "their"). This is because kinship possession creates certain entailments that cannot be factored out. For example, for anyone of whom it can be said "She called her own daughter", it must also be true that "she called their daughter" where "their" = "she" and her husband (assuming he is the father of her child).

(13) ti? hayu phabah
NCBR.s.Obl dog hit w/ hand
"(Def. referent$_j$) hit his/her$_j$ dog."

As discussed in Chapter Five, the Oblique form of the *ti-* reflexives can instantiate any grammatical function that other Oblique-marked nominals can--Objects of Postpositions, Benefactives, Possessors, etc. Whenever the Subject of the sentence is construed as being coreferent with an expression instantiating one of these functions, the Oblique form of the *ti-* paradigm must be used. Not surprisingly, a regular pronoun in any of these positions is necessarily disjoint in reference from the Subject.

(14) mo:wa? hohtuh mul mo:w čadih
3sm.Obl in front of dem. 3sm.A see
"He$_j$ saw it in front of him$_k$."

The P-case marked form and the A-case marked form of the *ti-* anaphors never appear in the same clause with their antecedents. The former is precluded from use in canonical reflexive sentences as described in Chapter Three.[7]

(15) man k'aye čaxa -?-a
3sf.A SELF cut -refl-pres
"She cut herself just now"

(16) * man titi čaxa-?-a
3sf.A NCBR.P cut-refl-pres

Of course, the A-case marked form is not found within a clause since A-case marked elements are always Subjects, and then the anaphor would not be bound by a Subject. We will return to this issue below, when we consider how the binding properties of particular elements should be represented in the lexicon.

The examples in the next section (of NCBRs being used as long-distance ana-

[7] There are two possible reasons for this. Recall that the element *k'aye* was difficult to categorize. If it is a pronominal (and not just an adverb) then its existence blocks the need for the P-case marked *ti-* form. However, if it is just an adverb of some sort, then the canonical reflexive verbs may be seen as intransitives, in which case there would be no need for the P-case marked *ti-* form. In any case, the result is that only the Oblique form *ti?* is found in the same clause as its antecedent.

phors) show clearly that the universal condition on bound anaphora applies to these forms (Reinhart, 1983). That is, the antecedent must be structurally superior to the anaphor. We might ask at this point whether the Subject antecedent condition is not simply a reflex of a more general superiority condition.[8] The answer is that it does not seem to be, as the following examples show. The P-case marked Objects below (corresponding to the semantic arguments of Recipient and Goal) can never appear in the Oblique case, or as Objects of postpositions. According to standard assumptions about the structure of verb phrases, these Objects should be superior to (both c-command and f-command) the Oblique NCBRs in their clauses.

(17) mo:w ma:dal ti? kami:sa hoh
3sm.A 3sf.P NCBR.Obl shirt give
'He$_k$ gave her$_j$ his$_{k,*j}$ shirt'

(18) ba-ka? mo:wa? ti? dakhe čano matuh
3's- g.mo.A 3sm.Obl NCBR.Obl about story tell
'The grandmother$_j$ told him$_k$ a story about herself$_{j,*k}$'

In addition, the fact that unexpressible arguments of impersonal passives cannot control these elements argues for the necessity in this case of specifying that the binder within a minimal clause must be a Subject. Now let us turn to an examination of the constraints on the use of these forms outside the clause containing their antecedent.

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[8] Against the advice of some, I have decided here not to choose an explicit formulation of "structurally superior". As far as I can tell, using standard assumptions about phrase structure, all of the sentences discussed in this chapter would fit into an analysis that read some version of c-command for "structurally superior" above. (A c-structure node α c-commands a c-structure node β iff α does not dominate β and every node that dominates α also dominates β.)
It would also seem that the facts reported here are describable using a projection of the notion of c-command into the domain of f-structure. F-command (Bresnan, 1982:334) is a relation on F-structures: "For any occurrences of the functions α, β in an f-structure F, α *f-commands* β if and only if α does not contain β and every f-structure of F that contains α contains β."
Since particular theories of binding often require special definitions of c-command, I have chosen to simply present the data without arguing for a particular version. Interested readers should be able to apply their own analyses to these data.

2.3. NCBRs with Cross-clausal Antecedents

In this section we will see that NCBRs used outside the clause containing their antecedent have different properties than those just described. I will show that this correlates with a discourse function which these elements are serving in such cases. This function is essentially that described by Clements (1975) for a system of long-distance reflexives in Ewe (a Niger-Congo language). Clements' description of *logophoricity* [9] centers on the notion that the relevant set of pronouns in that language "distinguish reference to the individual whose speech, thoughts, or feelings are reported or reflected in a given linguistic context" (1975:141). In Ewe, Clements reports that the use of the logophoric forms is obligatory when coreference is intended between the subject of a verb of speech or thought and an expression in the complement clause of such a verb. These pronouns can occur optionally in various non-complement constructions, and can even occur separated from their antecedent by sentence boundaries.

The NCBRs in Northern Pomo occur almost invariably in complement clauses of verbs of speech and thought.

(19) tiya phila:ku-khe hin phow heh
NCBR.A leave-FUT comp 3p.A say-pres
"They$_j$ said they$_j$ would leave"

(20) phow phila:ku-khe hin phow heh
3p.A leave-FUT comp 3p.A say-pres
"They$_j$ said they$_k$ would leave"

[9] The term "logophoricity" was introduced by C. Hagège, also an Africanist, in 1974. It originates in the observation that in these languages the complements of verbs of speaking is the central context which conditions the use of these forms.

(21) mo:w ma:dal titi sip'u:n-ka [10] da?ad-e
3.sgm.A 3.sgf.P NCBR.s.P kiss -comp want-pres
"He$_j$ wants her to kiss him$_j$."

(22) mo:w ma:dal mo:wal sip'un-ka da?ad-e
3.sgm.A 3.sgf.P 3.sgm.P kiss -comp want-pres
"He$_j$ wants her to kiss him$_k$."

(23) [[ma-phane mo:wal ba?ol -khe hin] phow mo:wal bayi?-mu?u
NCBR's-daught.A 3sm.P call-FUT comp 3p.A 3sm.P promise-refl.pl
"They$_j$ promised/agreed with him that their$_j$ daughter would call him."

If there are two candidates for controller (i.e. two subjects of verbs of speech or thought) then either may be the controller.[11]

(24) [[[tiyi duhu-nam] man maxoye?-khe hin] mo:w he]
NCBR.A leave-SPEC 3sf.A regret-FUT comp 3sm.A say
"He$_j$ said she$_k$ would regret SELF$_{j,k}$ leaving."

However, these elements are optional in adverbial constructions.

[10] The vowel length alternation in the verb *sip'un* is not yet fully understood. At times it appears to be in free variation.

[11] I will not take up here the interesting question of whether two controllers in one sentence might *each* control a *different* instance of a logophoric form in clauses subordinate to them. It seems to be the case that this is allowed. However, it may be that only in elicitation contexts would this ever happen. Banfield (1982) has a nice discussion of the difficulty of determining the limits on multiple centers of point of view within one passage in written texts.

(25) tiyi xale yow čima-da man khebe:d-en
NCBR.sg.A tree under sit -Acomp 3.sgf.A sing-PROG
"She's$_j$ singing while she's$_j$ sitting under the tree."

(26) man xale yow čima-da man khebe:d-en
3sf.A tree under sit -Acomp 3.sgf.A sing-prog
"She's$_j$ singing while she's$_{j/k}$ sitting under the tree."

(27) mo:w tiya? kaweyo maxa-kan phow mo:wal phalat'lat'ači
3sm.A NCBR.pl.Obl horse steal-Acomp 3p.A 3sm.P beat up
"Because he stole their$_j$ horse, they$_j$ beat him up."

(28) mo:w phowa? kaweyo maxa-kan phow mo:wal phalat'lat'ači
3sm.A 3p.Obl.horse steal-Acomp 3p.A 3sm.P beat up
"Because he stole their$_{j,k}$ horse, they$_j$ beat him up."

They are preferred (but still optional) in purpose clauses and relative clauses.

(29) ti? diyi čima-ka-khe mo:w ma:dal mayu:či
NCBR.Obl next sit-caus-FUT 3sm.A 3sf.P flirt
"He$_j$ flirted with her to get her to live with/sit with him$_j$."

(30) man [tiyi phik'a k'edi-ka-y] (mul) daka? -ka
3sf.A NCBR.A basket good-caus-perf (dem) lost -caus
"She who fixed the basket lost it."

Here, in the context of cross-clausal referential dependencies, we can see clearly the necessity of a superiority condition between the antecedent and anaphor. Therefore, in the following example, although the third person pronoun in the adverbial clause is a Subject, it cannot serve as antecedent for the reflexive in the main clause.

(31) *[[mo:w k'otam-da] tiyi ma:dal čadi]
3sm.A swim-Acomp NCBR.A 3sf.P see
*As he$_j$ was swimming, he$_j$ saw her.

Similarly, in coordinate and conditional structures like the following, neither the *ti-* forms nor the *ma-* prefix are licensed (no matter which conjunct they occur in) presumably because the proper structural configuration does not obtain between the

antecedent and the anaphor.

(32) mo:w/ *tiyi mul čadi-hala mo:w / *tiyi mul dineka-male
he /*NCBR.A dem. see-optative he/*NCBR.A dem. remember-mod
"If he_j had seen it, $he_{j,k}$ could remember it."

In the following coordinate structure, notice that the *ma-* prefix on the lexeme "aunt" in the leftmost conjunct is controlled by a Subject in its own clause, and is obligatory. The prefix in the second conjunct cannot be controlled by the Subject pronoun in the first clause, since the superiority condition does not obtain, so the *ma-* prefix is ruled out here.

(33) mo:w **ma**-su?ul phik'a dika nan **ba-** su? mo:wal phik'a dika-mi
3sm.A NCBR's- aunt.P basket give conj 3's- aunt.A 3sm.P basket give-EMPH
"He_j gave his_j aunt a basket and $his_{(j)}$ aunt gave him a basket."

(34) * mo:w ma-su?ul phika dika nan **ma-** su? mo:wal phika dika-mi
NCBR's

2.3.1. Are cross-clause controllers necessarily Subjects?

Recall that the NCBRs cannot occur in impersonal passive clauses when the intended antecedent is the unexpressible argument of the impersonal passive. We have assumed that this is because the unexpressible argument is not a Subject, and these antecedents require Subjects.

The following example shows that these NCBRs can occur inside of an impersonal passive, as long as their antecedent is outside that clause.

(35) [titi čawde -ya -khe] man tiya?a
NCBR.P arrest -pass -FUT she fears
"She_j is afraid she_j will be arrested."

More striking, and more central to our attempt to characterize the class of controllers in non-clause-bounded contexts, is the fact that the unexpressible argument of a impersonal passive *can sometimes* control a *ti-* reflexive, as long as that reflexive is in another, subordinate, clause. The following example illustrates this long-distance con-

trol in a purpose clause. However, the next example shows that for some reason the understood Actor argument of "find" *cannot* be construed as the antecedent of the *tiya?*.

(36) ti? diyi čima-ka-khe ma:dal mayu?-ya
NCBR.Obl next sit-caus-FUT 3sf.P flirt-pass
"(Somebody)$_j$ flirted with her to get her to live with him$_j$."

(37) man tiya? hayu -nam diyi wan -da ma:dal mako-ya
3sf.A NCBR.plObl dog -spec with walk-Acomp 3sf.P found-pass
"While she was walking with their$_j$ dog, they$_j$ found her."

At the present time, I have no explanation for the unacceptability of the unexpressible argument as antecedent for *tiya?*. The consultant has told me that even if the group were looking for her because she had stolen their dog, the sentence would still be unacceptable. More work is needed on the structure of these sentences before any conclusions can be drawn.

Confusingly, the unexpressible argument *can* control an anaphor inside the impersonal passive, as long as the verb contains the causative morpheme *ka*, which, as described in Chapter Three, creates a functionally complex predicate.

(38) tiya? diyi phow ma:dal čima -ka
NCBR.Obl next 3p.A 3sf.P sit -caus
"They$_j$ sat her next to them$_j$."

(39) tiya? diyi ma:dal čima-ka -ya
NCBR.Obl next 3sf.P sit -caus -pass
"(They$_j$) made her sit next to them$_j$."

Presumably, the postpositional phrase is part of the embedded XCOMP (controlled grammatical function) and is therefore considered to be in a different clause.[12]

In Chapter Three it was suggested that in order to capture the class of possible controllers of adverbial and purpose adjunct Subjects, we needed to make use of the

[12] Whether this generalization should be stated at the level of functional structure or surface syntactic structure is not a problem I will consider here.

notion of a semantic role hierarchy, the same one which would be used to map the semantic arguments of a predicate into the grammatical functions of Subject, Object, etc. The special lexical assignment of the null function to the unexpressible argument of an impersonal passive precludes the regular assignment of Subjecthood in the case of these derived verbs, but in general the hierarchy assigns semantic arguments to GFs in all other cases.

Here, we seem to need the same sort of principle. Inside a clause, the unexpressible argument cannot control a *ti-* anaphor or the anaphoric possessive prefix *ma-*. If the anaphor is outside of the impersonal passive clause, it can.

So far, then, aside from example (37), we have two sets of facts, one for same-clause anaphor-antecedent pairs, one for cross-clausal anaphor-antecedent pairs. The former require a 'real' Subject, the latter can be controlled by the highest ranking semantic argument of a higher predicate. Let us explore further the differences between the two domains.

3. Logophoricity and 3POV

We have seen that the NCBRs are obligatory when in the same clause as their antecedent. They are optional when outside the clause of their antecedent (although in certain verbal complements they appear close to obligatory.)

(40) [[**ma**-phane k'otam-da] mo:w ma-su?-ul ba?ol-e]
NCBR's-daugh.A swim-ADV 3sm.A NCBR's-aunt.P call-pres
"While 3's$_j$ daughter was swimming, he$_j$ called his$_j$ aunt".

(41) [[**ba**-phane k'otam-da] mo:w ma-su?-ul ba?ol-e]
3's-daugh.A swim-ADV 3sm.A NCBR's-mo's sis.P call-pres
"While 3's$_{j,k}$ daughter was swimming, he$_j$ called his$_j$ aunt".

Examples like the following appear to be on the border between same-clause and cross-clause environments. At times, the consultant will allow coreference between the *ba-* prefix in the relative clause and the Subject of the matrix clause; at other times she

insists that for coreference to hold, *ma-* must be used.

(42) **ma**-phane šˇa daˇce-nam mo:w ma:dal hoh
NCBR's-daught. fish catch-SPEC 3sm.A 3sf.P give
"He gave her a fish that his$_j$ daughter caught."

(43) **ba**-phane šˇa daˇce-nam mo:w ma:dal ho
3's-daught.A fish catch-spec 3sm.A 3sf.P give
"He gave her a fish that his$_{j,k}$ daughter caught."

What triggers the use of these elements? A complete account of the NCBRs will specify the factors that condition the appearance of these elements cross-clausally.

Two questions arise--(1) is the conditioning factor essentially syntactic or is it discourse based? I will argue that the use of these elements involves a grammaticization of the phenomenon of deictic shift discussed in Chapter Six. These are third person forms whose use is determined by the Utterance-Speaker's (U-Speaker's) desire the represent the content of the utterance from the third person referent's point of view. (2) Is this domain of 3POV significantly different from descriptions of logophoric domains? Particularly in much of the Africanist literature on logophoricity, an assumption is made that these pronouns are centered on the phenomenon of reported speech. This view implies that the domain in which these elements are found is primarily a lexical property of particular verbs. Are the NCBRs in Northern Pomo best described in terms of lexical governors of the 3POV domain? I will argue that they are not.

The following questions will guide the course of the rest of this section.

(1) How is the binding domain for NCBRs determined? Does it correspond to an autonomous principle of discourse structure that is independent of particular lexical items? Are there lexical items that are conventionally associated with this discourse mode?

(2) Is it possible or necessary to posit any syntactic structural correlate or projection of this discourse domain?

(3) Does it have other grammatical consequences?

3.1. Conditioning factors of NCBRs

We can show that the dimension that determines the presence of the NCBRs affects the category of *ti-* forms and the possessive prefix *ma-* equally. Although neither the *ti-* forms nor the *ma-* possessive prefix are obligatory outside the clause containing their antecedent, if one is used and the environment for the use of the other is met, the other must also be used. Otherwise, an interpretation of disjoint reference will result. For example, in the sentence below, if the *ti-* form is used to instantiate the expression denoting the subordinate clause Subject, creating a referential dependency with the main clause Subject, the *ma-* prefix must be used to express the possessor of the kinship term "daughter", if this individual is to be construed as identical to the other two.

(44) [[ma-phane titi k'otam de?-da] man šah kanen-ka]
[[NCBR's-daught. NCBR.P swim take-Acomp] 3sf.A fish bite.caus
"When her$_j$ daughter took her swimming, she$_j$ fished."

(45) [[ba-phane titi k'otam de?-da] man šahkanenka]
[[3's daught. NCBR.P swim take-ADV] 3sf.A fish bite.caus
"When 3's$_{*j}$ daughter took SELF$_j$ swimming, she$_j$ fished."

If the *ba-* prefix is used instead, a reading of disjoint reference results. The significance of this is that these elements must have the same relationship to the conditioning factor.

A syntactic view of these elements, i.e. a view that is concerned primarily with the specification of the syntactic environment in which they can occur, can state only that they are optional in most cross-clausal contexts, and that they are virtually obligatory in the complements of some verbs. In some languages (e.g. Mapun, see Frajzyngier, 1985) this approach is supported by the reportedly limited distribution of logophoric forms. They are said to never occur outside of complements of verbs of

speech. In other languages, where both verbal complements and adverbial adjuncts allow NCBRs (e.g. Icelandic, see Maling, 1983) a bit more difficulty is encountered in stipulating syntactic feature assignments in these cases.

A discourse-based view sees the NCBRs as obligatorily conditioned by a dimension which is independent of syntax, 3POV. This view has several substantive consequences. First, it predicts that semantic and pragmatic factors, not syntactic ones, will determine the distribution of these elements, as long as the basic syntactic constraints on bound anaphora are met.

Second, it predicts that when NCBRs do *not* occur in contexts where they might, hearers accomodate and infer a shift back to default point of view. The following text provides an example of this.

"Annoyed with the relatives"

bo: ča?-nam-mo:w ti? waleyka-to:do-nam-mul dithal-kan
west person-spec-3sm.A NCBR-Obl sheep-male-spec.dem. sick-Acomp

?al-to? mihil-tuh ča? phom, phowal titi daha-ka tihin
dem-pp south -pp people live, 3p.P NCBR.P help-caus comp

mo:wal weno? ?u:xa-wi phatolka-khe
3sm.P medicine needle-pp stab-FUT

nante phow k'o da?a?-anha-n k'o yehe-ta thin
conj 3p.A NEG want -NEG -Acomp NEG do-mev. NEG

mo:wal daha-nha-kan mul, mo:w mil phowal k'uca?ad-e
3s.P help NEG Acomp dem. 3s.A dem.Obl 3p.P annoy-pres

'That person out back$_j$, because his$_j$ ram was sick, asked
those people living south of here to help him$_j$ give him$_R$
a shot. But they, not wanting to, didn't do anything...
(their) not helping him$_j$, that is what annoyed
him$_j$ about them.'

This text can be divided into two parts: the body of the narrative, in which the events are being represented from the point of view of the man with the sick ram (the Speaker's husband); and the last sentence, a commentary from the perspective of the Speaker. The main verb of the last sentence, "feel annoyed", is certainly a potential

'logophoric' verb. However, since this is the opinion of the Speaker--her "evaluation" or attempt to convey the point of the narrative (Labov (1972))--the NCBRs are not used in this sentence.

3.1.1. NCBRs and verbs of speech and thought

In order to distinguish the syntactic or lexical feature approach from the discourse domain account, it is useful to look at what each would say about the central class of 'logophoric' verbs. The syntactic/lexical treatment would assign features to these verbs, stipulating that their complements are obligatory domains of binding for the NCBRs. An account which focusses on the principles underlying the discourse dimension of 3POV will have a different slant. Instead of positing lexical features on predicates and complementizers, the relevant observations will be how the lexical semantics and pragmatics of particular verbs stand with respect to the semantic and pragmatic dimensions of point of view phenomena.

The following Northern Pomo data present a case where a syntactic featural approach would miss the important facts. Even with the central exemplar of a logophoric verb, i.e. "say", there are contexts in which the NCBRs are not obligatory in the complement, and in which the regular pronouns, which usually must be disjoint in reference from the Subject, or SPEAKER, can be construed as coreferent with it.

(46) phow phila:ku-khe hin phow he
3p.A leave -FUT comp 3p.A say-pres
"They$_j$ said they$_j$ would leave"

This example requires explication, but its explication will lead to a much clearer picture of the relationship between 'logophoric' verbs and the discourse domain which conditions the use of the NCBRs.

The context in which example (46) leads to an interpretation of coreference can be constructed by inference from the following response. My informant, when asked whether (46) could be used grammatically if the interlocutors knew that the "sayers"

and the "leavers" were the same people, said that yes, that sentence would be fine, but it would "be like you [the utterer of the sentence] heard it third-hand or something." In other words, the utterer of the sentence did not hear the Subject-referents saying that they would leave, she heard a report from someone else to that effect.

In order to understand why second-hand (or "third-hand") knowledge would lead to avoidance of the NCBRs, and to place this fact within the larger context, we must make the following suppositions. These will form the basis for our model of the discourse domain of 3POV.

(A) There is a discourse mode which we may call third person point of view (3POV). Essentially this is equivalent to what has been called "deictic shift". The center of experience is not the default, first person or SPEAKER, but has been shifted to a third person.

(B) The discourse mode of 3POV is of a very marked character from an epistemological perspective, as discussed in Chapter Six. Therefore, it is interactionally of a very marked character. It is usually held to be a precondition of assertions that the speaker making the assertion has evidence to back it up.[13] It takes special circumstances for a speaker to report or express experience from the point of view of another individual, to whom the speaker cannot have direct access. This form of discourse, then, requires some **justification.**

Let us consider the last point, justification of the use of 3POV. This justification can take several forms.

Probably the least marked context for representing something from the point of view of a third person involves the U-speaker reporting the speech of another person. This type of report involves the least departure from the epistemological norm. Other

[13] Cf. Searle (1969); Grice (1975); Sweetser (1987). Although the assumptions I make here are not controversial, a truly complete discussion of this area would require reference to a growing literature on the topic of folk models of speech and evidence.

things being equal, an utterance constitutes a report or expression from the point of view of the utterer. By extension, we can assume that if I am merely reporting someone's speech, I am only one step removed from his point of view. That is, I am not unjustified in assuming that his words reflected his point of view, and others will not consider me to have crossed any normal evidential boundaries.

By virtue of mentioning that the Reported Speaker said these things, I have justified my depiction of the contents as being from his perspective--I have shifted the default center of point of view from first person to third person in an orderly way.

In fact, we may see the use of a verb of speaking with a third person Subject as a sort of evidential. Here the U-Speaker has not necessarily accepted as true the words of the 3rd person Speaker, but he is granting that at least the 3rd person Reported Speaker probably thinks they're true and veridical. For these reasons, we might predict that if a language has anaphoric forms that reflect a shift of deictic center to 3rd person, it will have them in complements of verbs of saying.

In light of this, let's go back to the informant's response to example (46). She said that the sentence was grammatical, and allowed an interpretation of coreference, but that one might say the sentence in such a way only if one were reporting something one had heard "third-hand". This makes sense, by the following assumptions and inferences.

1) The NCBRs used cross-clausally conventionally implicate 3POV.

2) 3POV must be justified; one possible justification is the use of a verb of speech as an evidential--since the Reported Speaker said X, X reflects his point of view, and the U-speaker is merely reporting on his saying X, which he is entitled to do since he heard the Reported-Speaker say X.

3) If U-speaker did *not* use the 3POV elements in this context (complement of verb of speaking) which conventionally allows their use, and yet we know (by independent means) that the two pronouns are coreferent, then by implicature, we

can infer that some other aspect of the context was not met. The link in the chain of inferences that did not hold was the U-speaker's presence at the actual utterance of the reported Speaker.

Thus the verb "say" is not a hard and fast case of a NCBR domain. Rather, the nature of evidence and subjective experience is such that one can most easily portray others' perspective through reporting their words.[14] >From this perspective, the use of direct quotation (discussed below) is even more "objective" and grounded in the norms of evidence.

This approach allows us to clearly delineate the class of verbs of speaking--their relationship to the norms of evidence as described above--from verbs of belief, thought or feeling. These are one more level removed from the norm of evidence when used with a third person Subject. Since we can have *no* direct evidence of a 3rd person's beliefs or desires, the assertion by an Utterance-Speaker that a 3rd person believes or thinks something (without further modification) involves an epistemological leap.

This leap has the following consequence: since the U-speaker has committed herself to representing the propositional contents as being seen from the point of view of the 3rd person Subject by using verbs of cognition or emotion, there is no way to cancel the requirement for 3POV. I was unable to find a context in which my informant would accept a sentence like "He wants her to call him" without use of the NCBRs.

Finally, there are cases of 'naked' 3POV. Examples like (25) use none of the usual 'logophoric' verbs to mediate the point of view shift. These deictic shifts are of a marked character. According to the assumptions put forth above, they would need to

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[14] Sentences containing a report of two third person speakers, such as

(i) tiyi duhu-khe hin man he hin Čon he
NCBR.A leave-Fut comp 3sf.A say comp John say
"John$_j$ said that she$_k$ said he$_j$/she$_k$ would leave."

allow the NCBR to be controlled by either superordinate Subject. Here the U-speaker is using verbal reports recursively.

be justified by being embedded in the appropriate discourse context.[15] For example, a narrative context, or an affective use of 3POV (to humiliate or create intimacy with an interlocutor) would sanction their use.

We may conclude that 3POV is a discourse mode that is independent of any particular verb, but which has a special relationship to a certain set of verbs by virtue of the epistemological status of those verbs. This view is quite different from one which assumes that the logophoric domain is an essentially syntactic domain. This view predicts that any structural correlates of the logophoric use of NCBRs (e.g. mood markers, complementizers, etc.) will be grounded in semantic and discourse pragmatic considerations.[16]

There are several aspects of the description of NCBR distribution that this view helps us explain. First, it helps us explain the apparent optionality of the NCBRs outside of a minimal clause. Second, it explains why we find the patterns of disjoint reference that we do. Before explicating the latter, let us briefly consider whether other aspects of the grammar reflect this discourse dimension.

3.2. Other reflections of 3POV

Usually, NCBRs are discussed as instances of anaphora, i.e. elements that must get their reference from somewhere in the linguistic context. I have equated 3POV with deictic shift. This opens up a new set of questions. Is it really useful to talk about deixis here? Deictic systems are characterized by the existence of a central point of reference. In direct discourse, the U-Speaker is the deictic center, the reference point to which deictic elements of time, space, and person are anchored. The 'shifter' categories of first and second person derive their interpretations from the identity of

[15] It is worth noting that the third instantiation of 3POV, unmediated by verbs, will present certain problems in elicitation contexts.

[16] This is not to say that some languages have not grammaticized such distinctions, so that a syntactico-lexical feature analysis would be well motivated. The current description has taken as its task only an account of this language.

the U-speaker and interlocutors. We can see the deictic 'subsystem' of 3POV as having its own set of shifters, the NCBRs, elements whose reference changes depending on the deictic center. Since the 3POV system exists inside of an actual context of utterance, in which the U-speaker is present, we might ask what deictic elements, usually anchored to the U-speaker, shift with the use of NCBRs within 3POV. The answer to this question will give us a language particular characterization of the 3POV deictic subsystem.

To investigate the possibilities in this domain, it will be useful first to consider the relationship between direct discourse, indirect discourse and direct quotation. The patterns of deictic shift in these cases can then be compared to deictic shift in 3POV discourse.

3.2.1. Direct discourse, direct quotation and indirect discourse

I will use the term 'direct discourse' to mean language used directly, not mediated by verbs of communication and thought. The traditional distinction between a direct quotation and indirect discourse is stated in terms of the presence or absence of a subordinating conjunction, concordance of person and tense, and shifted deixis.

(47) Mary told me yesterday at the station, "*I will* meet *you here tomorrow.*

(48) Mary told me yesterday at the station *that she would* meet *me there today.*

(Banfield, 1982:25)

Yet the regularity of the relationship between the emphasized items is deceptive. Many grammatical phenomena can be found in direct discourse, and hence in direct quotation, that cannot be translated into indirect speech. Examples are such things as 'root transformations', non-embeddable expressive elements like WH-exclamatives, interjections, subjectless imperatives, direct address forms, etc.

(49) She said "what an idiot! get away from me!"

(50) *She said that what an idiot, get away from her.

In the direct quotation complement clause, the deictic center is shifted from the U-speaker to the Reported Speaker (the Subject of "say") in all dimensions: emotional/subjective; spatial, temporal etc. All elements which have the U-Speaker as their usual reference point are anchored instead to the Subject of the verb which licenses direct quotation. Now in this case, the verb "say" itself *is* crucial in establishing the total shift in deictic center.[17]

There is an extensive literature on the topic of the literary use of deictic shift to accomplish 3POV. Fillmore (1976) and Banfield (1982) contain descriptions of the wide range of constructions and expressions that characterize a mode of written language called "style indirect libre", or "represented speech and thought". This mode is distinct both from direct quotation and indirect speech. In it, as Banfield shows in detail, the writer's viewpoint is effaced, and the subjective experience of the third person is expressed.[18]

In order to characterize the oral discourse mode of 3POV in Northern Pomo, we must ask what deictic elements (including elements that signal subjective expression) shift to the new 3rd person reference point in addition to the NCBRs? The examples below show that in the shift from direct discourse to direct quotation in Northern Pomo, all elements of direct discourse (mapped into the complement of "say") are shifted to the Subject as new deictic center.

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[17] A new addition to the class of verbs of direct quotation is the current use of "go". As far as I can tell, "go" in the sense of "say" requires a direct quotation, and more than this, a direct quotation with some attempt to actually imitate the persona of the reported Speaker:
(i) So she goes "Awwww, not ye...t!"

[18] Banfield argues that the grammatical and stylistic choices that convey this mode of expression could only evolve within a written language. While the data in this chapter clearly show that this limitation is not necessary, it is certainly the case that many more elements of the language are shifted to 3rd person center of viewpoint in the literary mode than in the linguistic mode. Ongoing speech production is a very different communicative context than the artful production of written prose, and we might expect a much narrower range of shifted elements in spoken 3POV.

(51) bo: tuh ?a: duhu-khe
here from 1s.A leave-FUT
"I will leave from here."

(52) bo: tuh ?a: duhu-khe hin mo:w he
here from 1s.A leave-FUT comp 3sm.A say
"He said 'I will leave from here'."

(53) mu: tuh mo:w duhu-khe hin hi-ya
there from 3sm.A leave-FUT comp say-pass
"It is said that he will leave from there."

The shift from direct quotation into indirect discourse involves the usual sorts of shifts involving spatial terms and choice of person.[19] Notice that in direct *and* indirect quotation in Northern Pomo, we find the use of the complementizer *hin*.[20] Thus, presence or absence of a complementizer cannot be diagnostic of the discourse mode of indirect discourse *or* 3POV.

The following two examples show the transfer into direct quotation of a set of *evidentials*, elements that explicitly encode the source of evidence for the U-Speaker's assertion.

(54) ?a:-mi-the khebe:d-enhe
1s.Poss-mother.A sing.prog.-EVID
"My mother is singing (I hear)."

(55) ?a: mi-the khebe:d-enhe hin mo:w he
1s.Poss-mother.A sing.prog.-EVID comp 3sm.A say
"He said 'My mother is singing (I hear)'"

---

[19] I do not mean to imply here that the mapping from direct quotation to reported speech is simple. Both in literary and in spoken language there is a vast range of subtle effects in viewpoint achievable by use of various types of deictic shift. My description of the modes of 3POV and direct quotation in Northern Pomo will only cover a fraction of the expressive potential of the language.

[20] As in many languages, this element is clearly related to the main verb "to say". It is probably an inflected form consisting of the stem *he* and the adverbial suffix *ŷn*.

(56) mo:w mito khamat' -don -do
3sm.A 2s.P angry -make -EVID
"(It's said,generally known) he made you angry."

(57) mo:w mito khamat' -don -do hin man he
3sm.A 2s.P angry -make -EVID comp 3sf.A say
"'(It's said,generally known) he made you angry' she said."

The system of evidentials forms a particularly interesting case with regard to the investigation of deictic shift. Before we investigate their privileges of occurrence in indirect discourse and 3POV, let us briefly review the facts about this class of inflectional morphemes.

3.2.1.1. Northern Pomo Evidentials[21]

These verbal inflections indicate the speaker's relationship to the proposition expressed with respect to the category of evidence. In the examples below, the speaker is asserting the occurrence of the event denoted by the verb stem, and is supplying in addition the basis of evidence for the assertion.[22]

I. **-Vnhe** AFF $]_{Vstem}$——
[↑ MOOD=EVID]

['Speaker hears sounds of activity denoted by host V.']

(58) man khebe:d -enhe
3sf.A sing - EVID
'(I hear) she is singing'
'(I heard) she was singing just now'

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[21] This section does not constitute a complete description of the entire set of evidentials in Northern Pomo. There is also an inferential evidential, used to indicate that the speaker is inferring the truth of the expressed proposition from visible evidence. This is homophonous with the copular element *na*.
(i) phatay ma na na "You must be weak."
weak you are evid
There are also rarely used inflectional suffixes which may or may not have evidential meaning. Work is in progress.

[22] The evidential meaning is enclosed in parentheses in the gloss because this is not an aspect of the sentence's interpretation that is ever explicitly included in translations, although it may be inquired about, and is easily accessible to the speaker as a category for discussion.

II. -do AFF]$_{Vstem}$——
[↑ MOOD =EVID]

['Speaker hears reports from others of occurrence of event denoted by host V']

(59) mo:w ma:dal khamat' -don -do
3sm.A 3sf.P angry -make EVID
"He made her angry (I hear tell)"

Use of these elements is firmly grounded in the realis mode. That is, these elements cannot be used for potential events. They are called for when the speaker asserts the truth of a proposition denoting a past or present state of affairs. Although the evidential may be followed by the Perfective suffix, it cannot be followed by the future suffix or by a modal that conveys potential.

(60) mo:w duhu -do -y
3sm.A leave -EVID -perf
"He left, (I heard tell)."

(61) *mo:w duhu -do -khe
3sm.A leave -EVID -FUT
≠ "He left, (I will hear tell)"
≠ "He will leave, (I hear tell)"

(62) *mo:w ma:dal khamat' -don -male -do
3sm.A 3sf.A angry -make -MOD -EVID
≠ "He can make her angry (I hear tell)."

We can categorize these elements as part of the system of mood markers in the language. Below is a lexical entry for the inflectional mood marker for 2nd person imperative. Of course, the imperative and the evidentials never cooccur.

III. -Vm AFF]$_{Vstem}$——
[↑ MOOD = IMP]

(63) da:wak-am
-IMP
'Go out!'

None of the mood markers can be negated. This is one aspect of their distribution which makes it clear that they are not verbs. Another is the fact that the evidentials

never cooccur with an explicit first person pronoun, i.e. they do not determine a Subject argument as a verb does (Example (66)).

(64) *mo:w k'o duhu -do -nha
He NEG leave -EVID -NEG
≠'I didn't hear tell that he left'

(65) *man k'o khebed-enhe-nha
3sf.A NEG sing -EVID-NEG
≠"I didn't hear her singing."

(66) man kheben ?a: k'o šowči-nha
3sf.A sing 1s.A NEG hear -NEG
"I didn't hear her singing."

3.2.2. Cooccurrence Restrictions in 3POV

With these facts in mind, let us return to the question posed earlier. To what extent does the 3POV deictic shift allow elements that are usually anchored to the speaker to be shifted to the new reference point, the 3rd person center of point of view?

The next two examples show that with respect to person and spatial deixis, the default deictic center of first person, or U-Speaker, can coexist with the 3POV deictic subsystem.

(67) bo: tiyi be?diwe?-da ma?ama?a-khe hin mo:w he
here NCBR.A this eve.-loc food-eat-FUT comp 3sm.A say
"He$_j$ said he$_j$ would eat here this evening."

(68) ?a-mi-phane titi k'a:-nam mo:w maxoye
1 poss-daugh.A NCBR.P leave-SPEC 3sm.A regret
"He$_j$ regrets that my daughter left him$_j$."

In other words, some categories of deictic elements do not transfer to the 3rd person deictic center. Evidentials are another such category that is rigidly tied to the first person, U-speaker deictic center. The next examples show that in 3POV evidentials are disallowed on the verb heading the complement of the verb "say". Notice, however, when the verb "say" is construed as a verb of direct quotation, that evidentials *are*

allowed on a verb in its complement.

(69) man duhu-do hin mo:w he
3sf.A leave-EVID comp 3sm.A say
"He said '[I hear tell] she left'"
≠Speaker hears that he said that she left.

(70) * man ti? hayunam bila: -do hin mo:w he
3sf.A NCBR.Obl dog buy -EVID comp 3sm.A say-pres
* " He_j said that she bought his_j dog he_j heard."

The evidential can appear on the verb "say" itself, when it is the highest verb, even when the NCBRs are used. This verb is not inside the domain of 3POV. Hence it can be linked to the default deictic center, the Speaker.

(71) tiyi duhu hin mo:w hi -do
NCBR.A leave comp 3sm.A say -EVID
"[I hear tell] he_j said that he_j left."

These examples show that the evidential morphemes cannot be embedded in an indirect discourse complement which is 3POV. [23]

Is this a syntactic fact or a discourse-pragmatic fact? We have seen that an evidential can occur on the highest verb, even if NCBRs are used, if that verb is the verb "say". Strikingly, when the NCBRs are used to convey 3POV in a context unmediated by a verb, such as (73) below, the evidentials cannot be used on the matrix verb. Here the matrix verb is also outside of the 3POV domain, like "say" in (71), as evidenced by the regular pronoun found as its subject. (If the presence of NCBRs indicates a syntactic domain, then the antecedent, always a regular pronoun or full NP, is presumably outside its scope.)

[23] More strikingly, neither can they be embedded in an indirect discourse complement which is not 3POV. However, this too can be given a semantico-pragmatic explanation. Here, the speaker is essentially using the verb of speaking as an evidential. She is reporting (possibly in the evidential mode as shown in (71) above) that someone else uttered something. Thus an evidential on the embedded verb would be ruled out because the information contained in the embedded clause was not not something that was learned through a medium encoded by an evidential suffix like these, e.g. aural or hearsay evidence. Rather, it was learned through hearing them speak.

Here it must be the case that the discourse pragmatic dimension of 3POV clashes with the U-Speaker-based evidential mode. If the U-speaker is representing some experience from the perspective of a third person, unmediated by a verb like "say", then the U-Speaker is necessarily not in the reportive, Evidential mode.

(72) man xale-yow čima-da man khebe:d-enhe
3sf.A tree-under sit-ADV 3sf.A sing-EVID
"[I hear] she's singing while sitting under the tree."

(73) tiyi xale-yow čima-da man khebe:d-en[24]
NCBR.A
"She's singing while sitting under the tree."

(43)* tiyi xale-yow čima-da man khebe:d-enhe
NCBR.A EVID
*"[I hear] she's singing while sitting under the tree."

(74) *ma -phane k'otam-da mo:w šah kanenka-do
NCBR's daught. swim -Acomp 3sm.A fish -EVID
*"I heard tell that while his$_j$ daughter was swimming he$_j$ was fishing."

Evidentials are then clearly incompatible with the discourse domain of 3POV. Any explicit representation[25] of discourse structure will then have to make a distinction between elements that are necessarily anchored in the current speech situation (or an embedded representation of it in a complement of direct quotation) such as evidentials and first person pronouns, and elements that are anchorable to the deictic subsystem of 3POV.

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[24] It is not clear whether the inflection on this verb is an instance of the progressive morpheme, or whether it is the nearly homophonous (vowel quality difference only in some environments) adverbial suffix which marks the non-finite controlled adverbial adjuncts discussed in the last chapter. The latter is the most frequent verbal inflection in stories, as in this example from a Coyote story.

(i) xa-mo phade:d-en c'ika-da miti-n kawi dode-?-en
water-in floating-Acomp basket-loc lie -Acomp baby make-refl-Acomp
"...Floating in the water, lying in the baby basket,
having made himself into a baby..."

[25] For the purposes of this work it does not matter whether the representation is a formalization with no explicit claim to cognitive veridicality, such as Hans Kamp's Discourse Representation Theory, or a framework which posits cognitive structures to represent domains of opacity and transparency of reference such as the Mental Spaces model of Gilles Fauconnier.

It appears that such effects are also observable in the domain of verbal inflection which expresses tense/aspect distinctions. The examples below show that while all tense/aspects markers can appear in embedded *direct quotation* complements of the verb "say", the suffix {-ye} indicating past/perfective is barred from occurrence in an embedded *indirect* discourse complement of the verb "say". This may indicate that the perfective suffix participates in the evidential contrast too.

(75) the?-day ?a: duhu-y hin mo:w he-y
mother-VOC 1s.A leave-perf comp 3sm.A say-perf
"'Mother! I left.' he said."

(76) *tiyi kaweyo-nam bila:-y hin mo:w he
NCBR.A horse-spec buy-perf comp 3sm.A say
*He$_j$ said he$_j$ bought the horse.

(77) mo-da tiyi mo:la -čan hin mo:w he-y
hole-LOC NCBR.A crawl-prosp comp 3sm.A say-perf
"He$_j$ said that he's$_j$ going to crawl into a hole."

These facts bring us back to the question raised at the beginning of this chapter, namely, must we represent the domain of 3POV in this language as a morphosyntactically demarcated structural domain? The answer seems to be that we need not. The cooccurrence patterns and restrictions are all semantically transparent and can be motivated by the same underlying principle.

Other descriptions of NCBRs in languages like Icelandic and Ewe have attempted to characterize a morphosyntactically demarcated domain in which these elements occur. Most frequently, particularly in the case of Icelandic, Subjunctive mood marking is identified as the governor of the domain within which these elements occur. Recently, however, Sigurðsson (to appear) has suggested that Subjunctive mood is a marker of a dimension which is independent of that which triggers the NCBRs, but which is highly correlated with it. In his analysis, Subjunctive mood[26] is a reflection of [—Primary EGO's point of view] (this is roughly equivalent to [—SPEAKER's POV].) NCBRs on the other hand are conditioned by [+Secondary EGO's point of

view]. This is roughly equivalent to 3POV. In any case, we can see that the argument follows the same lines as the present one. Discourse dimensions determine the distribution of NCBRs *and* mood marking (in the case of Northern Pomo, the restriction on indicative tenses and evidential moods in the domain of 3POV.)

Finally, let us briefly return to these two examples, discussed previously. Recall that the argument concerning (46) (here repeated as (79)) revolved around the fact that the U-speaker had not heard the R-speaker first hand, and so was not entitled to use the NCBRs that reflect 3POV. However, notice that the NCBRs are sanctioned in (78), and here the speaker is relying explicitly on hearsay. What is the difference?

(78) tiyi duhu hin mo:w hi -do
NCBR.A leave comp 3sm.A say -EVID
"[I hear tell] he_j said that he_j left."

(79) mo:w duhu hin mo:w hi
NCBR.A leave comp 3sm.A say
" He_j said that he_j left."

In (78) she explicitly cites the opinion of others by using the evidential, whereas in (79) there was no source of evidence cited. These two examples show how deeply an understanding of this complex phenomenon depends on discourse pragmatics, folk models of communication and evidence, and verbal semantics and pragmatics. I do

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[26] The categories of subjunctive and indicative moods seem commonly to be tied with shifts in perspective, even when the language lacks pronominal means to signal these. This example from Fauconnier 1985, illustrates how the use of mood may signal something about the Speaker's perspective (or in Fauconnier's terms, the "reality space"). In French the Subjunctive is commonly described as being associated with irrealis contexts of various sorts. Here, use of the indicative in (B) signals that the dress being referred to is a particular dress that exists in the experience of the *speaker*. (A) contains a subjunctive version of the verb *être* in the relative clause, and this maintains the subjunctive mood of the entire complement clause. Here the dress does not necessarily exist in reality, it is in the "wish space" of the *Subject*. This is a small illustration of the power of mood markers to structure discourse and point of view.

(60) Marie veut que Gudule *mette* une robe qui *soit* jolie.
subjunctive subjunctive

(61) Marie veut que Gudule *mette* une robe qui *est* jolie.
subjunctive indicative

"Marie wants Gudule to wear a dress that is pretty."
(Fauconnier, 1985:33)

not wish to say that a description of these data which relies on syntactic feature passing could not work, but one which did work would likely be cumbersome, full of stipulations about the opacity of certain verbs, and would not add to an understanding of the phenomenon.

3.3. Interim Summary

So far we have seen that

(1) The set of non-clause-bounded anaphoric elements have basically two distributions.

(A) Within a minimal clause they are bound by the Subject, and they are obligatory. They do not necessarily signal any kind of discourse function.

(B) Cross-clausally, (outside of the clause containing their antecedent) their antecedent may be the highest ranked semantic argument associated with the verb, whether or not it is the Subject. Moreover, the use of these forms is governed by a discourse category, the third person point of view mode. In this mode, the NCBRs are claimed to be obligatory. There is no invariant structural (morphosyntactic or syntactic) indicator of the presence of this dimension, but it is indirectly evidenced by the presence of certain elements (e.g. P-case marked Subjects, cf. Chapter Six) or absence of various other grammatical elements (e.g. evidentials and indicative tense/mood markers).

(2) The domain with respect to which statements of binding are made has consequences for the interpretation of regular pronouns. Specifically, within the minimal clause, regular pronouns are always disjoint from the Subject. Across clauses, regular pronouns only display obligatory disjoint reference from nominals which are controllers of NCBRs, i.e. nominals which denote the individual who is center of 3POV.

(3) Logophoricity, the phenomenon whereby specialized elements are found in com-

plements of verbs of speech, may be a subpart of a more general phenomenon. Languages will differ in the extent to which they allow the evidentially unsubstantiated use of 3POV. This suggests that if a language contains a mechanism for the encoding of 3POV, and its use is sanctioned *outside* of complements of verbs of saying, its use will be sanctioned inside such complements.

4. Complementarity and pragmatically induced disjoint reference

There is one area of research in systems of anaphora which the characterization of the discourse domain of 3POV may shed some light on. This is the area of disjoint reference. We will now turn to this issue, and provide an account of disjoint reference both within a minimal clause and within a 3POV domain.

Across languages it has been widely observed that within a minimal clause regular pronouns are disjoint in reference with nominals that are structurally superior to them. Complementarity of distribution is expected to hold within a minimal clause between regular pronouns and anaphors. Yet rarely is the general relationship between binding conditions on anaphors and the disjoint reference behavior of regular pronouns explicitly questioned or discussed.

Throughout the history of anaphora studies within generative grammar, the complementarity of anaphor and pronoun within a minimal clause is taken as a central fact to be accounted for. The complementarity is written into the grammar in the form of rule ordering and/or disjunctive domain of rule application (e.g. Lees and Klima (1963) using transformations and Jackendoff (1972) using interpretive rules). Currently, binding principles A and B of GB theory are essentially an attempt to give this empirically observable tendency an axiomatic status.

Recently, a different approach has emerged, one which relies on speakers' knowledge of the range of options available in the grammar, and the implicatures that arise when particular forms or structures are used or avoided. A similar notion did

surface briefly in one of the earliest papers on anaphora in the generative tradition, Lees and Klima (1963). In passing, they remark that:

> We might suppose that when the subject and the object of a sentence are identical the object must be the corresponding *-self* form... Such a rule *would then correctly explain why one understands that there are two people involved when one hears the sentence* (10) He sees him. [emphasis mine]
>
> (Lees and Klima, 1963, p. 18)

Fleetingly expressed here is a view of interpretation which presages the recent pragmatic approach to disjoint reference. Reinhart (1983) holds the view that disjoint reference is basically due to semantically and pragmatically driven inferences, which depend on the hearer's knowledge of available but unused options for coreference. It is unneccessary in this view to add a rule of disjoint reference to the grammar.

> [The pragmatic inference which leads to judgments of disjoint reference]...needs, crucially, to consider the availability of the bound anaphora interpretation for non-R-pronouns under the conditions proposed here. The relevant principle is the broader aspect of the 'manner' maxim [Grice, 1975]... be as explicit as the conditions permit.
>
> (Reinhart, 1983:76)

Briefly, the principle operates in the following way: if a speaker intends two expressions to corefer, and a particular structure appropriate to the intended utterance allows the bound-anaphora interpretation,[27] then that structure is used, unless the speaker has some reason to avoid the bound anaphora interpretation.[28] The hearer, conversely,

[27] According to Reinhart, a structure allows the bound-anaphora interpretation (an element is interpreted as a bound variable in the semantics) if the structural relation of c-command holds between the pronoun or anaphor and its antecedent.

[28] Reinhart's communicatively-based account (relying on Kasher, 1976) predicts that if the bound anaphora and coreference interpretations have different meanings or usages, then the speaker may wish

takes into consideration the possibilities for bound anaphora provided by the structure the speaker is using. For example, if the speaker produces the sentence "He thinks that Felix is a genius", the hearer infers that the speaker did not intend coreference, since the sentence "Felix thinks that he is a genius" would have allowed the bound anaphora interpretation. The notion of "the structure the speaker is using" may be problematic. However, for the purposes of this work the important aspect of R's analysis is that a choice within a context, whether the choice is of a lexical item or a structure, creates the basis for an implicature about the intended interpretation of a related form or structure.[29]

In approaches like this, complementarity between regular pronouns and bound lexical anaphors is to be expected, since disjoint reference completely depends upon the existence of a corresponding set of options for *co*-reference. If the context (syntactic or otherwise) contains features which condition the use of the bound lexical forms but these forms are not used, an implicature is created: coreference is not intended.

4.1. NCBRs and Disjoint Reference

The problem of complementarity and non-clause-bounded reflexivization has not been examined from this point of view. As Sigurðsson (to appear) has noted for Icelandic, and Clements (1975) for Ewe, NCBRs differ from clause-bound reflexives in that they are not in strict complementary distribution with pronouns. That is, a sentence which contains non-clause-bounded reflexives displays the expected anaphoric relationship between the NCBRs and their antecedent. However, a structurally identical

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to avoid the expression of one or the other meanings. In the *speaker's* avoiding the meaning/connotation by avoiding the structure, the conditions for the *hearer's* inferences about the alternative structure have changed. As examples she offers sentences put forth by Evans (1980) as puzzles for the theory of anaphora: "*Only Felix voted for Felix*" (coreference) has different truth conditions than the sentence which would otherwise be the unmarked rendition of bound anaphora "*Only Felix voted for himself.*"(bound anaphora). Thus the particular semantic interpretation of the bound anaphora in the latter case, triggered by "only", sanctions the coreference in the former case, where it would normally be ruled out.

[29] Doubtless the issues of choice and implicature need a great deal of investigation if this framework is to prove useful. However, such investigation is beyond the scope of this chapter.

sentence without NCBRs, but with regular pronouns, can have the same reading--coreference between the pronouns and the antecedent. Theories which take the complementarity of anaphors and pronominals as a given have no natural account for such languages. Pragmatic approaches such as the one outlined above have greater flexibility in accounting for such data. The description of the discourse domain of 3POV given earlier in this chapter will form the basis for an account of NCBRs which maintains complementarity. That is, I will claim that complementarity does hold for the above cases, only it is complementarity which holds discourse context constant, instead of holding structural domain constant.

My proposal will involve a specific hypothesis about the relationship between elements which trigger disjoint reference judgements and elements which act as bound anaphors with specific binding conditions lexically specified. This hypothesis was prompted by a proposal made in Anderson (1982), one of the few published accounts which explicitly poses as a question the *general* relationship between disjoint reference and binding conditions. Anderson points out that there is a substantive connection between the occurrence of disjoint reference interpretations of regular pronouns and the conditions on use of reflexives. He concludes that the conditions which trigger disjoint reference interpretation of regular pronouns are dependent in some way on the binding conditions on elements without independent reference. In Icelandic, all long distance reflexives must have subject antecedents. This condition is mirrored in the disjoint reference behavior of regular pronouns. When these are disjoint in reference they must be 'subject-free' in the relevant environment. Anderson concludes that

> The range of parametric variation allowed in the binding theories of particular languages admits of [the two binding conditions Anderson proposes for Icelandic] as conditions on elements without independent reference, but requires that the disjoint reference condition applying to pronominals be the inverse of another condition in the grammar.... (A) language...which does not

have a 'subject-sensitive' condition on reflexives could not have a subject-sensitive disjoint reference condition on ordinary pronominals. (p. 18)

Anderson suggests that the disjoint reference conditions for a particular language will be limited by the binding conditions on anaphors found in that same language. I would like to pose the somewhat stronger hypothesis:

For every binding condition on an anaphor there will be a corresponding disjoint reference effect on regular pronouns.

In support of this I will compare the Northern Pomo data discussed so far with data from an unrelated language that has long-distance reflexives. We will see that the disjoint reference patterns in each language differ from each other, but that in both cases they depend on the constraints and conditions on lexical anaphors in those languages.

4.2. What is the domain of disjoint reference?

Outside of Anderson's discussion of Icelandic[30] the implicit assumption of theories of anaphora has been that the domain within which anaphors are bound is the same domain within which pronominals are free, i.e. the domain of disjoint reference.

We have seen that there is no invariant morphosyntactically demarcated domain within which anaphors are bound, thus there is no way to demarcate the domain within which regular pronouns are interpreted as disjoint in reference. Yet disjoint reference effects can be observed. We have seen that the NCBRs are obligatory just in case the speaker is trying to represent the 3rd person's point of view. There are no syntactic contexts that require the NCBRs. Their presence is always triggered by discourse con-

[30] A paper in progress by Joan Bresnan, Per-Kristian Halvorsen and Joan Maling, "The syntax of bound anaphora", also directly addresses the question of the relationship between bound anaphors and disjoint reference of regular pronouns, but concludes that complementarity is an accidental property of anaphoric systems. The approach I am arguing for maintains that complementarity is a product of a deeply embedded interpretive property based on markedness.

siderations. The following two sentences (reintroduced from the last chapter) illustrate that disjoint reference of regular pronouns is only obligatory if the entire utterance is in the 3POV mode. In the first sentence, the pronominal possessive prefix *ba-* may corefer with the subject of "vomit". In the second sentence, it may not.

(80) eee-- ba- phane mo:wal phašil-kan mo:w yat-ta
Exclam. 3's daught.A 3.sgm.P poison-Acomp 3sgm.A vomit-mev.
"Hey! Because $his_{j/k/n}$ daughter poisoned $him_{j/k/n}$ $he_{j/k/n}$ vomited."

(81) ma- phane titi phašil-kan mo:wal yat-ta
NCBR's- daught.A NCBR.sg.P poison-Acomp 3sgm.P vomit-mev
"Because $his_{k,*j}$ daughter poisoned him_{j} he_{j} vomited."

Even the verbs (such as "want") which seem to require the NCBRs in their complements to signal coreference of an embedded argument with the Subject, can be seen as reflexes of the evidential status of these verbs with respect to the 3POV frame.

So, complementarity does not hold with respect to syntactic structure, but with respect to discourse structure. In other words, in a discourse context of an objective report, like that in (80), regular pronouns are open in reference. In the same syntactic structure, within a different discourse context of 3POV, such as in (81), the regular pronouns display disjoint reference effects. In order to preserve complementarity, we need to define a domain for the obligatory use of the non-clause-bounded reflexives that is based on discourse parameters.

Let us look more closely at an example of the selective nature of disjoint reference. In (82) we see a sentence containing a complement-taking matrix verb, and an adverbial adjunct modifying that complement.

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[30] A pragmatic account of disjoint reference would predict that if the interpretation associated with the NCBRs (including all its pragmatic concomitants and connotative values) was for some reason to be avoided, then the use of regular pronouns could indicate coreference. We have seen that this is the case with the verb "say" as discussed at length above.

Example (46) provides evidence that disjoint reference in these cases is a conversational implicature (or something like it). Whereas the pragmatic function of the long distance reflexives is uncancellable and detachable, and hence may best be thought of as a conventional implicature (Grice, 1978) the disjoint reference implicature is cancellable, given the correct contextual parameters.

(82)[[man šˇa-kanenka-haw] ma- su? k'otam] Kelly čˇad-e
3.sf.A fish-catch-Acomp NCBR's-aunt.A swim K. see-pres
"Kelly$_j$ saw [her$_j$ aunt]$_k$ swimming before she$_{*j/k/n}$ fished."

In the clause headed by the verb 'swim', the ma- prefix indicates that the matrix subject is a logophoric antecedent. The regular pronoun *man* in the adverbial clause headed by the verb 'fish' cannot have the matrix subject as its antecedent. So the regular pronoun is only disjoint in reference from the antecedent of the logophoric pronouns, not from every superordinate subject. A logophoric antecedent may be designated pragmatically (exophorically) or may be implicated strongly by the meaning of a verb, but it is this entity that regular pronouns are disjoint from.

4.3. Non-logophoric long distance reflexives in Ingush

The hypothesis that for every binding condition there will be a corresponding disjoint reference condition predicts that non-clause-bounded reflexives *without* a logophoric function should produce different disjoint reference effects in the corresponding regular pronouns. In Ingush, a language of the Northeast Caucasus, non-clause-bounded reflexives do not have any logophoric function (Nichols, 1984). They are obligatory in almost every type of structure and require that their antecedent be a superordinate subject.

Table 3. Long distance reflexives in Ingush (Nichols, 1984, ms.)

	1st	1stREFL	3rd	3rdREFL
Nom.	swo 'I'	sie 'myself'	yz 's/he'	šˇie 'himself/herself'
Dat.	suona	sejna	cunna	šˇi:na

What are the disjoint reference conditions for regular pronouns? Simply that every regular pronoun is disjoint from every superordinate subject.

(83) Cunna xov, šie ču-jie-ča cuo š:ga telefon tuoxarg-jolg
he-DAT knows 3sgREFL in-come-CV s/he ERG 3sgREFL-ALL phone call-AUX

"He$_j$ knows that she$_k$ will call him$_j$ when she$_k$ gets home."

Since every subject could trigger the use of a non-clause-bounded reflexive, every instance of a regular pronoun appears against this background, and constitutes a choice not to use such a form. Thus in Ingush, the disjoint reference condition for pronouns is dependent on the conditions governing the binding of anaphors. In fact it is its inverse, as we would expect of an implicature.

The only exception is in (84), a certain type of purpose clause, where for some mysterious reason, the everywhere-obligatory 3rd person non-clause-bounded reflexives are optional. As we would predict, only in this domain are the regular pronouns not disjoint from superordinate subjects.

(84) cuo kiniška ji:ca:d a:z yz {cun} bierašta dieš arg-dolaš
he-ERG book-NOM bought I-ERG it-NOM {his} children-DAT read-AUX
{si:}
{REFL}

"He$_j$ bought a book for me to read to his$_j$ children."

In Ingush the binding domain must be the maximal clause. A regular pronoun must be disjoint in reference from every Subject within the maximal projection of its predicate. No discourse-based specification must be made for the use of the NCBRs, and no discourse-based restriction emerges in the disjoint reference behavior of regular pronouns.

4.4. Anaphoric reference to 3rd person addressee in Mapun

Another example which fits nicely into the conceptual framework proposed thus far comes from Mapun, a Chadic language (Frajzyngier, 1985). These data illustrate the role played in disjoint reference of the range of elements which may act as reference points in the deictic subsystems described here.

In this language, there are two sets of bound anaphora which occur in complements of verbs of communication.[31] One is bound by the reported speaker, a third person, one is construed to stand for the *addressee* of the reported utterence, also a third person.

Logophoric forms in Mapun (Frajzyngier, 1985:24)

	A	B		C
	subj./obj.	subj.	obj.	subj.
3m.sg	*i wur*	*'di*	*'din*	*gwar*
3f.sg	*war*	*'de*	*'de*	*paa*
3 pl.	*mo*	*'du*	*'dun*	*nuwa*

The pragmatic approach to disjoint reference predicts that in logophoric complements the regular pronouns, set A, should be disjoint in reference from both the reported speaker and the reported addressee when these are third person. Outside of these complements, reference relations between the set A pronouns and superordinate NPs should be unconstrained. This is exactly what happens.

So in this language the existence of a set of bound anaphors for *both* the reported speaker *and* the reported addressee forms the background against which the choice of a regular pronoun is to be interpreted.

5. Conclusions

The questions posed at the beginning of this chapter now have the following answers.

(1) There are two classes of possible antecedents for the NCBRs, and these classes of antecedents must be relativized to two particular domains. The NCBRs are obligatory in each of these domains.

[31] Frajzyngier does not report any other use of these forms. Although other Africanists (Clements, Hyman and Comrie) mention cases in which no verb of saying is present, Frajzyngier implies that these are truly logophoric in the original sense of the term.

Within a minimal clause, the NCBRs must have a Subject antecedent.

Within a 3POV domain, the NCBRs may have as an antecedent the highest ranking nominal (as determined by the lexical entry for the clause's argument-taking predicate) in some superordinate clause.

(2) These binding domains exist independent of individual lexical items or morphological boundary markers. The minimal clause, as previously defined, relies on the notion of the minimal structure containing an argument-taking predicate and its arguments plus simplex (non-clausal) adjuncts. The 3POV domain is defined over some version of a discourse representation. It can be seen as a deictic subsystem, with the 3rd person controller of the NCBRs as its deictic center, or reference point. Only certain semantic categories are shiftable to this reference point. Included in the set are the prefix which indicates the kinship relation (the *ma-* prefix), case marking which reflects subjective, internal experiences (see Chapter Six). Most categories anchored to the Utterance-Speaker do not shift, such as evidentials, tense, spatial deictics and first person markers.

Notice that the Ingush data presented above indicate that we need more than just these two domains for a cross-linguistically viable account of NCBRs. In that language we need to distinguish a syntactic domain, the *maximal* clause, within which the NCBRs are bound.

(3) If we specify the nature of the domain, and the nature of the binder within the domain, then within any of these binding domains, disjoint reference is derivable via implicature, as a pragmatic account of disjoint reference (Reinhart, 1983) would predict. In Northern Pomo, regular 3rd person pronouns are disjoint in reference with the Subject of their own clause. They are also disjoint in reference with the NP that denotes the center of 3POV. In Ingush, every regular 3rd person pronoun is disjoint from every superordinate Subject. In Mapun, regular 3rd per-

son pronouns are disjoint in reference from the reported speaker and reported addressee of all verbs of speech. The disjoint reference patterns of regular pronouns in languages with non-clause-bounded reflexives seem to reflect directly the factors involved in the use of the non-clause-bounded reflexives themselves. If a NCBR serves a logophoric function then the distribution of disjoint reference interpretations for regular pronouns will reflect that. If a system of non-clause-bounded reflexives has no logophoric function, then disjoint reference will be determined only by the structural domains within which the NCBR is obligatorily used, and only with respect to members of the set of possible antecedents.

How can these relations be encoded? First, we can take as basic the existence of elements without independent reference. The NCBRs all fall into this class. Thus, each form in the paradigm will have lexically encoded its number and case. The *ma-* prefix will be encoded as a possessive marker on a particular lexical class of stems. Each will also be marked [—independent reference] or perhaps [+binder]. This is all we need to state about the NCBRs in this language.

Independently, we need to state the existence of at least one of the binding domains described so far. We have seen that at least P-case marking and evidential inflections are also sensitive to the domain of 3POV. The reference point around which the domain revolves is the third person center of point of view. This is a natural configuration. Where is it in the grammar? It is neither a lexical nor a syntactic entity--we would probably want to represent it within the description of discourse structure. This would also be the logical place to encode the categories of direct quotation and direct discourse with the deictic configurations that these require.

We may also state the existence of a binding domain at the level of the minimal clause. This is a syntactic binding domain. In Ingush we would have to state the existence of a maximal clause binding domain with a Subject as its reference point.

How do we tie the lexical items without independent reference into these configurations? A general principle of semantic interpretation associated with these lexical items may state: the interpretation of an item without independent reference must be done with reference to a binding domain and its referential center.[32]

With this machinery in place, disjoint reference will only result in the case where the speaker had the option of using an element without independent reference and did not take this option.

As this account shows, disjoint reference effects encompass more than just the syntactic level of linguistic description: the effects will be sensitive to whatever factors determine the distribution of bound anaphors. It makes the prediction that within a given language there will be as many disjoint reference conditions as there are positively specified binding conditions on anaphors. These observations support a theory in which disjoint reference effects are accomplished by *inferences* at various levels--inferences based on the availability and use conditions of elements without independent reference.

[32] This system of interpretation may be isomorphic to that required for the interpretation of first and second person pronouns within a speech situation.

Conclusions

I will not include in these brief conclusions a list of the grammatical phenomena I have described. Rather, I would like to make a few metatheoretical observations that these data suggest.

(1) In Northern Pomo it is evident that the semantic/pragmatic category of point of view is pervasively represented in the grammar. It appears as a feature of verbs (and indirectly as a property of evidential morphology), but it also inheres in the nominal hierarchy, due to the differing epistemological statuses of speakers (first persons), third persons, and non-human beings. These status differences are non-linguistic; however, in constructing analyses of the distributions and interpretations of a number of different grammatical subsystems, one arrives at them in a natural and unavoidable way. The complex dependencies found in Northern Pomo between lexical, syntactic, semantic and discourse pragmatic facts, all interpreted against a background of cultural schemata, provide a great deal for the grammarian to think about.

The findings of this disseration regarding point of view may shed light on a typological fact about active systems in general. In several of the languages considered to be central examples of the active or agent/patient type, such as Wichita, Lakhota, Tsova-Tush (Batsbi) and Lhasa Tibetan, the marking strategy (verb agreement, case-marking or auxiliary choice) is limited to first person, or to first and second person. Dahlstrom (1983) has noted that in languages which display some sort of active marking strategy as well as another sort, either accusative, ergative or neutral, the active strategy will outrank any other strategy on the NP hierarchy. That is, if there is an active strategy, first person pronouns will display it, if anything does. In many cases, only first persons display this type of marking. The data reported here suggest that these facts may be

motivated historically by pragmatic considerations-- the epistemology of subjective experience and point of view. Northern Pomo, one of the few languages which display the fluid-S strategy, shows such principles actively working, determining speakers' interpretations and inferences.

(2) The role played by a number of semantic and pragmatic factors (and the corresponding lack of importance of syntactic factors) in the determination of morphological case marking speaks to two issues in particular. One is the value of going beyond a simple characterization of a language as "Agent/Patient", or "Split Ergative" etc. The other is the prematurity of any account which assumes that, cross-linguistically, a surface marking device like subject case choice is merely evidence for the syntactic status of the nominal.

(3) In a number of subsystems described here, the extent to which the interpretation of some element is dependent upon contributions of meaning from the entire sentence is striking. Although verbal semantics is central to many aspects of what has been described here, the semantic and pragmatic status of nominals is also a consideration in many cases. The choice of the Possessor Ascension structure depends on a computation that involves interactions and dependencies between the nature of the possessor, the body part, and the predicate. The interpretation of the "multiple event" aspectual suffix (whether it distributes over times or individuals) can be fixed by the speaker's knowledge of the 'real-world' relation between the subject and the verb, as well as the grammatical function the predicate is playing. Perhaps most striking, the choice of a grammatical marker like morphological case may depend in this language on the person of the subject, due to the evidential and epistemological constraints on the relationship between the speaker and the subject. Again in this case, the semantics of the verb and the status of the nominal referent must both be computed in order to determine the

choice of surface marking, and interpret its function.

(4) In describing a number of the phenomena included in this dissertation (the A/P subject case alternation; the distribution of possessor ascension sentences; the interpretation of the multiple event aspect suffix; and the disjoint reference behavior of logophoric and regular pronouns) it has been necessary in each case to make use of some version of the notion *implicature*. In a few cases it was necessary to refer to *conventional implicature*, a pragmatic condition on the interpretation of a lexical item which is one of that item's lexical properties (Grice, 1975; Levinson, 1983). However, the more important notion in the characterization of these phenomena is something that might be called *grammatical implicature*. This is the process by which a hearer understands the implications of what a speaker said *in terms of a background of other possible encodings as narrowly constrained by the grammar*. I have barely approached this topic in the dissertation, but it seems to me to be among the most interesting domains that remain to be explored through investigation of the structure of Northern Pomo.

Appendix A: More on the A/P Case Alternation

1. Introduction

In Chapter Six I suggested that the A/P case alternation for inflectionally marked nominals was a function of inherent properties of nominal referents and verbal semantics, in complex and subtle interaction. In this appendix I wish to present some puzzling data that suggest the importance of sentence level factors--negation, interrogative mood and impersonal passivization. Each bears on a different aspect of the phenomenon. From the perspective of theoretical discussion regarding unaccusativity, the findings on impersonal passivization are perhaps the most interesting. However, I have included all three here, since my research in this area has not yet proceeded far enough to draw any firm conclusions about the motivations for the alternations to be presented here.

2. Sentence negation and the A/P alternation

I have argued that the A/P alternation is a phenomenon associated with a particular class of verbs, roughly, those which denote some event or state of affairs that is primarily within the epistemological purview of the experiencer. When a speaker utters the sentence "Mary is cold" in Northern Pomo, using the P-case, she is both asserting that Mary is cold, a descriptive act, and conveying something about the internal experience, an expressive act. What happens when one of these verbs is used in a sentence with an operator such as negation? What would it mean to say that "Mary is not cold" using the P-case for the Subject "Mary"?

It turns out that the interpretation of sentential negation with a P-case marked Subject depends on the verb that heads the predicate.

In one small group of verbs, there is a conventionalized interpretation associated

with the joint use of the P-case and negation. This is an interpretation I will call the 'failed attempt' reading.

(1a) mo:w k'o yatinhay
3sm.A NEG vomit-NEG-perf
"he didn't vomit"

(b) mo:wal k'o yatinhay
3sm.P
"he tried to vomit but he couldnt"

(2a) mo:w k'o phithi:kanhay
3sm.A NEG belch-NEG-perf
"He didn't belch"

(b) mo:wal k'o phithi:kanhay
3sm.P
"he tried to belch but couldn't"

The same contrast is found with the verbs *c'o?otam*, "to urinate"; *šinu?*, "to get drunk"; and a few others. Notice that some of these verbs are from the Fluid-S_1 class, others are from the Fluid-S_2 class. This interpretation is not available for other Fluid-S verbs even though some of those verbs denote events which could be controlled by the Subject referent, for example "falling". Here, the usual interpretive alternation is available: that the P-case marked Subject was undergoing an experience and the speaker is expressing this on his behalf or from his perspective.

(3) mo:w ma:-k'ayda k'o lok-al-anha
3sm.A ground-steep NEG fall-dir-neg

"he didn't fall over the cliff."

(4) mo:wal k'o ma:kayda lokalanha
3sm.P

"He didn't fall over the cliff, he escaped from that fate"

Why should these verbs in particular have this particular conventionalized reading? And what role is the P-case playing here? In the examples above that involve the 'failed attempt' reading we might say from one perspective that the Subject is being cast in an agentive role--that of the 'Tryer'. Since the P-case is [-Agentive], what can we say about this?

Perhaps these examples, since they are obviously conventionalized (as evidenced by the fact that the interpretation does *not* freely extend to other verbs) can be seen as a sort of lexicalization (i.e. fixing, conventionalization) of the negated verbs. How can this be represented?

Let us suppose that the lexicalization of a negated verb has a distinct interpretation from one in which the negative has sentential scope. Paraphrasing informally, we want to characterize these 'failed attempt' negated verbs as being predicated of their Subjects like nonnegative verbs. We want the negation to be internal to the verb in some sense:

SUBJ (Not V) instead of *Not (SUBJ (Pred))*.

However, this is not enough. How can we specify the lexical semantics of these verbs such that the correct predictions are made about assignment of the P-case and its interpretation? The P-case marked Subjects of the unnegated verbs are all conscious experiencers of the process the verb denotes. How can these P-case marked Subjects be conscious experiencers of a state or process that doesn't happen?

A potential answer to this sheds light on why these particular verbs undergo this 'negative absorption'. Taking an informal look at one example, *c'o?otam*, "to urinate", we can ask ourselves what it might mean to be a conscious experiencer of "not urinating". We are *usually* in the state of not urinating, and are usually *not* conscious of the fact that we are in this state. The only time that this might come to consciousness in a compelling way is when one wishes to urinate but cannot.

We can conclude that it is a fact about the bodily processes denoted by these 'failed attempt' verbs that contributes to their conventionalization. This differentiates verbs like "urinate" from a verb like "fall", for which it is much harder to imagine a semantic whole, "not falling" that an individual could be conscious of in an immediate and intense way.

Moreover, when one asserts of another person that he or she tried to belch, urinate, etc. one is engaged automatically in the epistemologically marked mode of 3POV, as discussed earlier. This fits with our characterization of the semantico-pragmatic interpretive consequences of the P-case marking rule. We can thus assume

that the P-case marking here reflects the Subject's internal experience of failure, not of trying, and the entailed agentivity of trying presents no problem to the featural analysis of the P-case ([-Agency]).

This brief discussion of a regularity in one small lexical neighborhood shows once again that the interpretive effect of the P-case marking is a product of the interaction of the semantic restriction on the inflectional case category, the lexical semantics of the verb, and the discourse pragmatic dimension of point of view.

3. WH-Questions

The P-case is associated with the function of expressive language; we have been able to explicate its use focussing principally on declarative sentences. How would its effects be realized or constrained in a non-declarative context such as a WH-question, where the identity of the Subject is being questioned? If the speaker of the sentence does not have a particular individual in mind, what could it mean for the Subject to be the center of point of view, or the SELF? When we take a look at this domain, we see that here also, particular sub-classes of the Fluid-S verbs are differentiated, although in a less transparent way than with negation.

3.1. A brief description of Wh-question formation

The question clitic *ta* (vowel usually completely reduced) immediately follows the questioned constituent. I will not describe here the syntax of this construction. The following examples give a sample of some of the factors to be considered. Generally, the material to the right of the clitic is presupposed.[1]

[1] However, it is unclear to what extent all the material found in the leftmost position is not presupposed. I will not discuss the pragmatics and semantics of questions any further at this point.

(5) ta man me? phik'a šibu - t -ye
Q 3sf.A Adv. basket weave -mev-perf

"Did she make baskets?"

(6) man ta me? phik'a šibu -t -ye
3sf.A Q Adv. basket weave -mev-perf

"SHE made baskets??"

(7) k'o ta phow k'oh mo:w čadi
thing Q 3p.A drink 3sm.A see

"What did he see them drinking?"

(8) šu?u? -na-n ta ma min he
crazy -COP-adv Q 2s.A dem say

"Do you say that (talk that way) because you're crazy?"

(9) čiba:l hayunam-phow tha?-mo? ta man čadi
who.P dog -3p.A play.coll-refl.pl Q 3sf.A see

"Who did she see the dogs playing with?"

(10) čiba:l ta hayunam-ya? tha?-mo? man čadi
who.P Q dog -A play.coll-refl.pl 3sf.A see

"Who was it that she saw the dog playing with?"
["Who was the dog playing with, she saw?" -first informant paraphrase]

(11) čiba: ta hayunam-ya? than čadi
who.A Q dog -A play see

"Who was it that saw the dog playing?"

The WH-elements as described in Chapter Five are inflected for case. Example (12) shows this element in an embedded question and (13) shows that these WH-elements are not used for indefinite reference.

(12) čiba:l mo:w da?an ?a: ša:
who-P 3sm.A love 1s.A know

"I know who he loves."

(13) bo: ča? čawhu na
here person house-enter COP

"Somebody came in here"

3.2. The A/P alternation in questions.

Do verbs which allow the A/P alternation in declarative sentences allow the same alternation in WH-questions? If P-case assignment merely reflected thematic role assignment, or were simply assigned idiosyncratically to certain verbs, we might expect that it would be preserved in WH-questions. However, we have seen that P-case assignment has certain discourse pragmatic consequences. How could we expect these to interact with the environment of WH-questions?

First we must ask what properties of that environment will be relevant to the distinctions we have made so far. Consider the function of a WH-interrogative. At the simplest level (ignoring rhetorical questions, echo questions, etc.) these accomplish the function of questioning an interlocutor about the identity of some individual, object, time, manner, etc. Notice that in the following examples true information-seeking WH-questions are incompatible with the expressive function of the (b) utterances.[2]

(14) (a) *Who is what a great guy?
*Who is such a great guy? [OK as echo question]

(b) What a great guy he is!

(15) (a) *Who is just gonna plotz at the news?

(b) My parents are just gonna plotz at the news!

(16) (a) *Who almost died laughing at that movie?

(b) I almost died laughing at that movie.

These facts and the analysis of case put forth in the preceding sections suggest that this may be an interesting area to look at. What follows is in no way a complete investigation of the area, much less an explanation. However, the following facts are worth recounting, since they reinforce the point made earlier in several different ways--subtle lexical semantic and pragmatic properties interact with larger contextual

[2] This is not to say that there is no context such that an information-seeking WH-question could felicitously contain some expressive element. However, these examples illustrate at least that the ordinary functioning of WH-questions is not on the same plane with the expressive function of certain elements.

factors to produce striking effects.

There is no general pattern that is discernible at this time. The following verbs allow only A-case in WH-questions.

P-Case Marking disallowed in WH-questions:

iṣ	sneeze
šinu?	get drunk
c'o?otam	urinate
yat	vomit
phiṭhik	belch
phe:phe:	pass wind
mac'un	weaken
lok	fall
ši?u:či?	forget
dine	remember (cf. dineka = remember)

(17) man lok ?a: čadi
ma:dal
3sf.A/P fall 1s.A see-pres

"I saw her fall."

(18) čiba: lok ta ma čadi
*čiba:l
Who.A/*P fall Q 2s.A see

"Who did you see fall?"

(19) čiba: / *čiba:l c'o?otam +ye
who. A / who.P urinate+perf

"Who urinated?"

The following, shorter list contains verbs that do *not* allow A marking in WH-questions.

A-marking disallowed in WH-questions:

mik'u:m	be lonely
kasil	be cold
ditha?	be injured, hurt
k'uc (1-place only)	be annoyed

These all allow A-case in declarative sentences, although they tend to favor the P-case.

(20) ma:dal / man kasil-i
3sf.P / 3sf.A be cold-pres

"She is cold."

(21) v̌iba:l /*v̌iba: ta kasil-i
who.P /*who.A Q be cold-pres

"Who's cold?"
["Could be said to someone walking out the door to a picnic with an armload of sweaters."]

The verbs which allow only A case are all processes, and the verbs which allow only P-case are states. I have no clear idea why this pattern should go the way it does.[3]

In the rest of the cases we have looked at, the alternation between A and P-case which is found in declarative sentences is preserved in WH-questions.

(22) v̌iba:l ta t'ac'am -a
Who.P Q turn red -pres

"Who turned/is turning red?"

v̌iba: ta t'ac'am -a
Who.A Q turn red -pres

"Who turned/is turning red?"

I have no explanation at the present time for these facts. I have assumed that a complete account of the lexical semantics of these verbs (which I have not given, obviously), will reveal that a crucial aspect of their semantic structure involves the normal epistemological status of the experience of the process or state denoted by the verb. It seems that here those facets of meaning are interacting with the pragmatic

[3] Suitable only for a footnote is the following hypothesis. The A case is associated with objective reports. The first list contains a preponderance of verbs which involve clear, observable kinds of evidence that the process has occurred, e.g. substances, smells, fallen bodies, etc. If a speaker is asking who has undergone a particular process of this nature, the chances are that they have some sort of evidence in view, and are thus speaking from that evidence, in the objective mode. The states in the second list are not observable to the same degree. When one inquires as to who is in one of these states, one is making an epistemological leap into inquiry about the unverifiable. Thus the A case would be less appropriate than the P case. Unfortunately, all such explanations are post hoc and predictably unsatisfying. It may be that all such work in the fields of the lexicon will be similarly unsatisfying, full of inexplicable potholes.

contexts within which we use WH-questions. The fact of variation itself lends support to this account, in spite of the absence of a theory of lexicalized perspective.

Following is an example in which the lexical semantics and pragmatics of the verb seem to clash completely with the features of WH-interrogation.

Recall that the "SUBJ=SELF" verbs (those in which the stem ends in the long vowel (underlyingly V?V)) have as a lexical property the specification that the Subject is the center of point of view, or the SELF. These require the P-case. The long forms of these verbs, ending in *ad*, require the A-case. The long forms can be WH-questioned, as in the following example.

(23) čiba: kasila?-an -kan ta ?al ma kapo:ta phe:-d -e
who.A cold-prog-Acomp Q dem 2s.A coat carry-prog-pres

"Who is feeling cold so that you're carrying coats?"

Some of the long-vowel short forms can also be questioned. However, at least one short form cannot be WH-questioned.

(24) * čiba:l ta kasil t'a:
who.P Q cold feel.expr

*"Who's feeling cold?"

Perhaps this is because the verb stem *t'a:* is so inherently expressive that using it in a context where the function of the utterance is completely non-expressive is impossible.

Notice that when the subject is second person, a yes/no question is sanctioned, but here the inquiry is interactionally configured so that the inherent empathy is expressible.[4]

(25) ta mito kasil t'a:
Q 2s.P cold feel.expr

"Are you feeling cold?"

[4] In fact, in general the second person allows the A/P alternation in places where the third person may allow only the A case. In these situations, the use of the P-case with the 2nd person creates an in-

In summary, although we have no real explanation for the distribution of A and P-case among the Fluid-S verbs in WH-questions, it is at least plausible to assume that the lexical semantics and pragmatics of the verbs involved in interaction with discourse pragmatic factors is again responsible for the effects we see.

4. The Unaccusative Hypothesis and Impersonal Passivization

One of the most compelling qualities of the Unaccusative Hypothesis as advanced by Perlmutter and his colleagues is that it explains, within the RG framework, a widely observed phenomenon, namely that unaccusative verbs do not undergo impersonal passivization. The explanation for it is that a law of UG, the "1 Advancement Exclusiveness Law" (1AEX) which stipulates that only one advancement to 1 is allowed per clause, conflicts with the stratal configuration of unaccusative predicates in the context of an impersonal passive relational network. An impersonal passive is one in which a dummy 2 is introduced, which advances to 1, putting the initial 1 en chômage. If an unaccusative predicate consists of only an initial 2, the dummy 2 cannot be introduced until the unaccusative 2 advances to a 1 through unaccusative advancement, because of the condition on stratal uniqueness (only one instance of a particular term is allowed in any one stratum). If the dummy 2 then advances, putting the unaccusative 1 en

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timacy (either affectionate or insulting) by virtue of the interactional stance taken by the speaker. The speaker is presuming to portray the internal experience of the interlocutor. My own experience with this consists in being addressed in either of the two ways. For example, (b) below will be the case marking my informant uses if she is simply checking to see if I have understood something. If she says (a), she is usually poking fun at me, or occasionally expressing sympathy.

(a) ta mito bayu:ci̯
Q 2s.P understand
"Do you understand?"

(b) ta ma bayu:ci̯
Q 2s.A understand
"Do you understand?"

Although anecdotal, evidence like this is not out of place when the distinctions in question are so intimately bound up with discourse pragmatic phenomena. Particularly when one is studying an unwritten language which lacks a robust speech community, and which one does not speak natively or otherwise, observations such as these must serve as a poor substitute for other sources of evidence, such as literature or conversational data.

chômage, two advancements to 1 have taken place and the 1AEX will be violated.

How do these facts bear on the data from Northern Pomo? An account like the ones proposed for unaccusative verbs in various languages in the RG framework would predict that since P-case marking indicates initial Objecthood, verbs with P-case marked Subjects should not undergo impersonal passivization. Now, testing this in a language with Fluid-S marking poses an obvious problem. Since the impersonal passive in N. Pomo does not allow surface expression of the 'underlying subject', there is no way to tell whether that nominal is P-case marked or A-case marked. It could be that the Fluid-S verbs have two entries, as suggested above, and that only the A-case version of the verb stem would undergo impersonal passivization. The prediction remains that at least the invariant P-case marking verbs and probably also the SUBJ=SELF verbs (the forms without the progressive suffix) should not undergo impersonal passivization. If the other verbs do appear in that construction, but these do not, the syntactic relational unaccusative account is supported.

What is predicted by the lexical functional account as we might compose it, namely that these are Subjects whether or not they bear the P-case? There seems to be no basis for a prediction. Since impersonal passivization is a lexical rule, the only thing which could disallow a particular verb in the construction is if it did not have a Subject, or if some hitherto undetected lexical property of the verb conflicted with some hitherto undetected lexical property of the impersonal passive.

4.1. Impersonal Passives and the A/P alternation

Of the various verbs that allow their Subjects to be marked with the P-case, some do undergo impersonal passivization and some do not. Following are some examples preceded by two examples of regular non-P-marking verbs in the impersonal passive construction.

(26) mu: k'aye čaban-ta-mu? - ya
dem self kill -mev-refl-pass

"That's where they kill themselves."

(27) mu: kal-nam don-?a
there bead-spec make-pass

"There beads are made."

Fluid S_1 Verbs in the Impersonal Passive construction

(28) min nakan šinu -?-ya
dem COP-Acomp drunk-semelf-pass

"That's why (they) got drunk."

(29) min nakan phiṭik-?a /phiṭik-či-ya
dem COP-Acomp belch -pass / belch-semelf-pass

"That's why (they) belched."

(30) mu: c'eday-či-ya
dem slip -semelf-pass

"There (they) slipped."

(31) * min nakan mul dine-ya
dem COP-Acomp dem remember/think of -pass

* "That is why (they) thought of that."

Notice that the last example is ungrammatical.[5] We should also note that none of the previous grammatical examples requires a reading in which the unexpressed arguments are acting agentively, although this verb class does allow such an interpretation.

[5] It is worth pointing out that the judgements of my informant were very clear in all these cases. The unacceptable sentences were clearly and immediately ruled out as bad; none of the bad sentences were judged to be "sayable, but not very good Pomo"; they were simply not sayable. This is all the more perplexing, since I have no intuitions about why some of each class should be acceptable and others not.

Fluid S_2 Verbs in the Impersonal Passive Construction

(32) *min nakan manum-?a
dem COP-Acomp crippled-pass

* "That is why (they) got crippled."

(33) * min nakan šičuk-?a
dem COP-Acomp hiccup -pass

*"That is why (they) were hiccuping."

(34) * min nakan kasil-?a
dem COP-Acomp cold-pass

*"That is why (they) were/got cold."

(35) min nakan ba -k'uci-ya
dem COP-Acomp person-annoy-pass

"That is why (they) were annoyed at people."

(36) * min nakan ho-mit'a
dem COP-Acomp heat-feel

*"That is why (they) felt heat."[6]

(37) mu: me? maday-?a
dem Adv slip-pass

"They slipped there"
["they didn't think it was icy and so they slipped"]

(38) mil mul dithal-?a
dem dem feel sick-pass

"That's when she started to feel sick"

(39) mil mul dithal -ko?-ya
dem dem feel sick-coll -pass

"That's when they started to feel sick (the flu)"

[6] This verb is also in the [SUBJ=SELF] paradigm by virtue of having a corresponding long form, *ho-mit'a-ad*, although third person subjects can sometimes be marked with the A case in this unsuffixed form.

(40) mil mul yat-?a
dem dem vomit-pass

"That's when he/they started to throw up"

mil mul yat-ta-ya
dem dem vomit-mev-pass

"That's when they all started heaving"

Invariant P-case Marking Verbs

(41) * min nakan balay-banem-?a
dem COP-Acomp blood-flow-pass

* "That is why (they) bled."

(42) * min nakan mibo-ya
dem COP-Acomp bloat-pass

*"That is why they got bloated."

(43) min nakan xamal-c'iko:m-?a
dem COP-Acomp insides-flutter-pass

"That is why (he/they) felt upset, jittery."

Person-split verbs

(44) min nakan mul bayu:č̆i -ya [7]
dem COP-Acomp dem understand-pass

"That is why (they) understood it."

(45) min nakan kuc'i-ya
dem COP-Acomp annoyed-pass

"That is why (they) were annoyed."

Since the Person-split verbs are always A-case marked in the third person, an account which held that case marking maps directly to GFs would predict that these should be OK, since the unexpressed argument of an impersonal passive seems always to be interpreted as a third person. In fact, this is the only class where all (three) verbs were passivizable.

[7] The forms *bayu:č̆-?a* and *bayu:č̆'a* are also acceptable here.

SUBJ = SELF Verbs

(46) min nakan mik'u:ma?-ya
dem COP-Acomp lonely -pass

"That is why (they) were lonely."

Corresponding suffixed form:

(47) min nakan mik'u:ma?-an-?a
dem COP-Acomp lonely -prog-pass

"That is why (they) were feeling lonely."

(48) min nakan mul xa:-phit'a:-ya
dem COP-Acomp dem pity -pass

"That is why (they) pitied him, it."

Corresponding suffixed form:

(49) min nakan mul xa:-phit'a?-an-ya [8]
dem COP-Acomp dem pity -prog -pass

"That is why (they) pitied him, it."

(50) * min nakan ho-mit'a:-ya
dem COP-Acomp heat-feel -pass

"That is why (they) felt hot."

Corresponding suffixed form:

(51) * min nakan ho-mit'a?-an-ya/?a
dem COP-Acomp heat-feel -prog -pass

* "That is why (they) felt hot."

There is no apparent explanation in terms of the five verb classes, since the property of allowing impersonal passivization cross-cuts four out of the five classes.

An RG account such as the one we are describing, in a framework where incompatibility with impersonal passives is seen as a syntactic fact, would have to deal with the above data in the following way: all verbs that cannot undergo IP must be unaccusative verbs. All verbs that can appear in the construction are not unaccusatives. Therefore, nothing can be made of the case-marking patterns that accompany each

[8] The form *xa:phit'a?an-?a* is also acceptable here.

verb class, at least nothing with any consequence for the grammatical relations involved.

A lexical functional account has no explanation for these facts either. However, since it does not make the assumption that surface case is a direct reflection of grammatical function status, verbs that do not undergo impersonal passivization are simply a set of lexical exceptions to this rule. In lieu of a real motivation for this cooccurrence restriction, it is just as well not to be tied to a claim that these verbs have a particular property which is not manifested anywhere else.

Within the constraints of this theory, we would have to look for an explanation for these facts in the same place we looked to explain the variety of facts reported in the first section, namely, in the lexical semantics and pragmatics of the verbs involved, as individual entities. At this point I see no unifying property to the verbs that do not undergo IP.

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