On The Classification of Predicates in Nłe?képmx (Thompson River Salish)

by

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ABSTRACT

In this thesis I discuss the semantic basis of the morphological form of predicates in Nłe?képmx, a Northern Interior Salish language. Intransitive and transitive use of roots in Nłe?képmx is morphologically marked; intransitives use a set of primary affixes and transitives use a set of transitivizers. I document the behavior of these morphosyntactic affixes with a subset of the predicates of Nłe?képmx to determine what is optional, what is obligatory and what is blocked. I link this to an analysis of argument structure of predicates and subsequently create a classification of predicate types.

I present an overview of the intransitive and transitive morphology of Nłeképmx in Chapter One. In Chapter Two I discuss current literature regarding the syntactic and semantic diagnostics of unaccusative and unergative verbs. I create a semantic classification of the set of roots, and discuss the behavior of roots with morpho-syntactic affixes to determine the diagnostic potential of the affixes. In Chapter Three I discuss the potential of an intransitive-transitive classification of roots.

The data show that there is an unergative and unaccusative distinction in the language, specific aspectual morpho-syntactic diagnostics distinguish unaccusatives and causative and desiderative distinguish unergatives. The traditional analyses of Salish languages as having a majority of unaccusative roots and no underlying transitives is confirmed.

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DEDICATION

For Dorothy Ursaki,

Laurence C. Thompson and M. Terry Thompson,

and the brown-eyed girls

Hana and Amy

INTRODUCTION

Nłe?képmx (also known as Thompson River Salish, or Thompson in the linguistic literature) is a Northern Interior Salish Language spoken in an area of British Columbia bounded by the communities of Spuzzum, Lytton, Merritt and Kamloops.

Comprehensive documentation and initial theoretical work has been done on N4e?képmx by Laurence C. and M. Terry Thompson working primarily in conjunction with the late Annie York of Spuzzum (Thompson and Thompson 1980, Thompson 1985, Thompson and Thompson 1992). Other published work includes an analysis of narratives and other work on discourse by Steven M. Egesdal (Egesdal 1992), a comparative study of subordination in Salish that includes N4e?képmx data, and other work by Paul D. Kroeber (Kroeber 1991). Continuing work on prosodic phenomena is being done by Mandy Jimmie (Jimmie, to appear).

At the local level, the language is being taught in an adult Basic Education class in Lytton by Mamie Henry (Mestanta Technical Institute), and in Merritt by Mandy Jimmie (Secwépcmc Centre). A book of stories and biographical information has been compiled by Darwin Hanna (Hanna to appear).

This work is based on data from a number of sources produced by Thompson and Thompson: a grammar 'The Thompson Language' (1992), drafts of a Thompson-English dictionary (1979 and 1990) and an English-Thompson list (1987), and a text "Push-Back-Sides-of-His-Hair" (1990). These materials were supplemented by consultation with Dorothy Ursaki (originally of Spences Bridge and now of New Westminister - henceforth DU). The database under discussion is therefore characteristic largely of the Spuzzum and Spences Bridge dialects. This work has benefitted from additional discussions with Mandy Jimmie and Nora Jimmie of Merritt (Field Methods, University of British Columbia (1987-88)), and Beatrice Hanna of Langley (originally of Lytton).

The focus of this thesis is a discussion of the semantic basis of transitivity alternations in N4e?képmx. Intransitive and transitive use of roots in N4e?képmx is morphologically marked; most intransitives use a set of primary affixes, and virtually all transitives use a set of transitive extensions in combination with a transitive morpheme. Roots do not take all possible intransitive and transitive derivational affixation. The purpose of this work is to document which derivational affixes are allowed with a set of predicates to determine what is optional, what is obligatory, and what is blocked. It will then be determined whether this can be linked in a principled way to an analysis of the argument structure of predicates. This will lead to a classification of predicate types.

In Chapter One, I present an overview of the intransitive and transitive morphology of Nłe?képmx. Chapter Two contains a discussion of current literature regarding syntactic and semantic diagnostics of unaccusative and unergative verbs. I apply the semantic diagnostics to a set of Nłe?képmx roots, and discuss the behavior of roots with a set of morpho-syntactic diagnostics to determine if they can elucidate underlying structure. Nłe?képmx signals changes in event structure by adding morphology. I assume that argument structure can be derived from an interaction between the Thematic Hierarchy and an Aspectual/Causal Hierarchy. The thematic structure of a root is invariant, but there can be multiple event-structure possibilities for a given thematic structure. The argument structure determines which argument fills deep structure object and deep structure subject. In Chapter Three I discuss the potential of an intransitive/transitive classification of roots in Nłe?képmx. Chapter Four contains conclusions and recommendations for future work.

My primary set of data is the subset of roots in N4e?képmx that can appear as free form intransitives in a main sentence. This group of roots cross-cuts the broad semantic categories found in the literature. I document the morpho-syntactic processes available to this subset of roots and compare the behavior of a set of bound roots.

CHAPTER ONE

1.0 Overview of Nłe?képmx Morphology

Nłe?képmx¹ (henceforth Nł) words are created using a lexicon of roots, lexical suffixes and a finite set of derivational affixes and pronominal affixes.

Thompson and Thompson $(1990, 1992)^2$ have documented aproximately 2000 of the roots in N4. Roots are the content morphemes of the language expressing concepts, processes, events, and states. They are comparable to English nouns and verbs. However, it is important to note that in Salish languages there is no clear consensus of a noun-verb distinction corresponding to the distinction found in English (Kuipers 1968, Kinkade 1983, Demers and Jelinek 1984, Hess and van Eijk 1985, Thompson and Thompson

For reference, the core set of the Thompson's morphological markings is reproduced here.

In a complex form in N4e?kepmx,

Marker	denot	tes a	(n)
--------	-------	-------	--------------

[]	infix
	underlying root
1	surface stem of a root
-	non-reduplicating suffix
•	reduplicating suffix
=	lexical suffix (lexical forms incorporated into the stem/base)

A double set of markers (-= or --) signifies secondary derivation.

Thompson and Thompson (1990, 1992) use [...] in the gloss to mark explanatory material such as context, and (...) to denote optional material, usually an implied object.

^{1.} N/4e?kép=mx is the native term for the language in use in the Lytton-Spences Bridge area (Darwin Hanna pc). Thompson and Thompson (1992) note that there is no single term that encompasses the entire speech community, "although n4e?képmx is sometimes extended for that purpose". The term "designates the people of the central part of the territory" (Thompson and Thompson 1992:1). The prefix n- is a locative, =mx is a lexical suffix meaning 'people'. The stem is "etymologically obscure" (Thompson & Thompson 1992:1)

^{2.} Because much of the data I am using is from these existing sources, for the sake of uniformity I use the phonemic transcription, parsing strategies and set of morphological markings laid out in Thompson and Thompson (1992). Language materials in use at band schools in Lytton and a forthcoming collection of stories use a phonemically based spelling system created by Randy Bouchard. Thompson and Thompson (1992:197-198) contains a table comparing the two spelling systems.

1992). A more neutral term for the discussion of lexical forms in N¹ is predicate.

All roots³ can be used to create predicates. The majority of roots express actions, events or states. With the exception of the small set of seventy-four free form roots⁴ (see Appendix 1) which have a main intransitive form without affixation (but allow stative and out of control affixes), roots require primary affixation to create simple intransitives. All roots combine with the set of derivational transitivizers to create transitive predicates.⁵ Reciprocal and reflexive forms are complex intransitives that are

The following Thompson and Thompson (1992) set of abbreviations for morpheme glosses is used:

MDL	middle suffix	RLT	relational
INC	inchoative	ST	stative
AUT	autonomous	LCL	locative
DRV	directive	NOM	nominalizer
CAU	causative		

Where the underlying form of transitivizers and pronominal affixes is masked by phonological processes and third person is a zero morph (Section 1.2) the surface breakdown of forms does not always conform to a morpheme by morpheme gloss. Rather than use zero morphemes in the transcription I employ the combinations 3\3, 3\1sg. 1sg\2pl etc. to designate what pronominal object and subject are.

4. There is a set of forms that I consider more nominal, which brings the number of free forms up to aproximately one hundred of the two thousand items documented in the database. I will deal with a subset of free forms. This set is comprised of the forms that were known to Dorothy Ursaki and accepted as free form intransitives.

5. There are phonological processes that mask the underlying forms of affixes. This is especially relevant in the case of transitive predicates which contain concatenations of the transitivizers (directive -n-t-, indirective -xi-t-, causative -s-t-, and relational -min-t-) and pronominal affixes.

In these combinations, the loss of vowels in unstressed syllables leads to the loss of the transitive morpheme /-t/ or to the simplification of resultant clusters, and to effects on the /-n/ of the directive and relational suffixes.

For the purposes of this discussion it is important to note that in general,

n,n', n,s,x^w t --> 0 ts --> c cs --> c tt --> t and continued

^{3.} Throughout this work I will use \sqrt{CVC} - to denote a bound root. Free forms and surface derived forms will have no marking on them.

formed on transitive stems.

There are roots that have limited productivity. For example, forms such as q^wzém 'moss' and tínx 'sinew' allow only a minimal number of derived (nominal) forms. There is no consistent morphological means of distinguishing between nominals and predicate in Nł.⁶ These more nominal forms will not be discussed in detail in this work.

1.1 The Pronominal System

Salish languages can be described as pronominal argument languages (Jelinek 1984, 1985).⁷ Predicates are complex forms with obligatory affixal or clitic marking of verbal arguments. Nominals corresponding to the verbal argument suffixes are optional. Adjoining nominals can be marked as direct, oblique or locative.⁸ Although there is much variation, preferred word order is VOS (Kinkade 1990: 341, Matthewson 1993: 2-3).

In N¹, intransitive forms mark a single argument, although often a second is implied. A nominal corresponding to subject is marked with the direct marker /e/ or / $\frac{1}{4}$ /, an implied object (unmarked on the predicate) is marked with the oblique marker /te/

n> 0	m,m' s,t
	X
n> e	before a homorganic obstruent
nņ> ne	
	(Thompson & Thompson 1992:35-43)

See Thompson & Thompson (1992) for a more complete overview of phonological processes.

6. One means of distinguishing nominals from predicates is that all nominals require a middle affix to form an active predicate, whereas not all active and stative roots do.

7. See Mattina (1993) for another point of view.

8. Locatives will not be discussed in this work.

or $/\lambda$ 'e/, as in 1-2:

- 1. $q^{w}c \cdot jc e tmix^{w}$ $\sqrt{move \cdot OC 3} DIR earth$ It is an earthquake
- λ'áł-t kn to c'íλ' √sticky-IM 1sg OBL pitch I got stuck up with pitch

Transitives mark two arguments, which surface as syntactic subject and object. Both are

marked with a direct marker, as can be seen in examples 3 and 4.

- q'áy'-e-s e s/núk'^we?-s shoot-DRV-0-3\3 DIR NOM/friend-3psv he shot his friend
- n/k^wən'-cém-s e q^wu? LOC-√poison-DRV\10b-3 DIR water the water poisoned me

Ditransitive predicates are associated with two objects, one of which is not overtly

marked on the predicate. Direct marks what in English glosses would correspond to the

indirect object, as in examples 5 through 7:

- q^wéc'-ne to s/ła?x=áns √fill-3\1sg OBL NOM-/eat I filled him up with food
- 6. u?ex pték^wł-xə-ne tə s/ptékł-s AUX √story-IND-3\1sg OBL NOM/story-3psv. I am telling it for him, his story (347c)
- 7. má§-x-t-x^w e smúłec to s-/zélt-s √smash-IND-2sg. DIR woman OBL NOM-/dish-3psv. you smashed the woman's dish

This is a characteristic of all Salish languages (Mattina 1993).

The N₄ system of pronominal affixation can express a maximum of two arguments on the predicate. Intransitives in simple (main) clauses are marked by the use of indicative enclitics to mark person and number of the single argument (Example 2). Transitives and ditransitives utilize sets of distinct subject and object suffixes in VOS order (Examples 3 through 7). There is a separate set of suffixes that mark indefinite subjects, in what have been termed 'passive' or 'indefinite' forms, used in conjunction with the regular set of object affixes. There is also a set of genitive/possessive pronominal markers used with nominals and to express arguments of predicates in nominalized subordinate clauses. The pronominal paradigms relevant to the discussion are summarized in Table 1 below.

Intrans Clitics	sitive	Transitive Suffixes		
(Indicative)		Object	Subject	Indefinite Subject
Sg.				
1.	kn	-sém -sey/ -si	-(é)ne/-n	-séy-me -si-me
2.	k ^w	-s(í) -nx ^w	-(é)x ^w	-s(í)-t,
P1.				
1.	kt	-éy/ -i -(e)t	-ém -i-t	-éy-t
2.	kp	-úym/-im	-(é)p -im-et	-úym-et,
Gen				
3.	0	0	-(é)s, -es	-0-(é)m

 Table 1: Personal Pronominal Markers

(Thompson 1985:407)

1.2 Simple Intransitive Predicates

The majority of roots in N¹ are bound forms (Examples 1-4, 5, and 7) that never surface in unsuffixed form. Only a minimal set of the 1800-2000 roots documented by

Thompson and Thompson (1990, 1992) are free form intransitives.

The basic template for intransitive bases and primary/secondary affixation⁹ in N⁴ is presented in the following table, along with relevant examples. Material in parentheses is optional.

Table 2: <u>Template for Simple Intransitive Predicates</u>

(PREFIX)-[\/ROOT(\REDUP.)=(LEXICALSUFFIX)]_stem-(1/2 AFFIXATION)

?es- stative (ST)	·VC out-of-control (OC)	-əp/[-?-] ¹⁰ inchoative (INC) -t immediate (IM) -óyx autonomous (AUT)	-mémn desiderative (DESID)
		-əme middle (MDL)	

Examples of Simple Intransitive Predicates

<u>STATIN</u>	<u>/E</u>
8.	?es-péw-t
	ST-√swell.up-IM
	swollen
OUT O	F CONTROL
9.	?e q ^w áz·z kn
	ANT √sweat ·OC 1sg
	I might sweat (342c) ¹¹
INCHO	ATIVE
10.	vn-áp
	√shiver-INC
	shiver, feel cold, chilly

^{9.} I discuss only a subset of affixes that create intransitive forms in N_{τ} . These are the most relevant to the discussion because their use is regular and they are common in the data. There are a number of other aspectual affixes but examples of their use is limited, although they are productive. See Thompson and Thompson (1992) for a complete overview.

^{10.} The alternates for Inchoative distinguish between strong (stressed) roots /-?-/ and weak (unstressed) roots /-p/. Because glottalization in N4 can come from a number of sources, my discussion of inchoative will focus primarily on forms created from weak roots with the suffix /-p/, although see Section 2.53 for some examples with /-?-/.

^{11.} Examples that have numbers in parentheses are elicitation forms from DU. The number refers to their listing in my field notes. Examples from other consultants have initials. 'Sf' stands for suggested form.

IMMEDIATE 11. péw-t √swell.up-IM swell up, swollen **AUTONOMOUS** 12. péw-ix √swell.up-AUT [of snake, toad] puff up, swell up MIDDLE 13. ?ú?e-me √lullaby-MDL sing lullaby FREE FORM 14. x^wesít kn √walk 1sg.cl I walked (221) DESIDERATIVE 15. x^wesit-mémn kn √walk-DESID 1sg I want to walk

1.2.1 Primary Affixes

This section deals with the most productive and common subset of the aspectual and other affixes that create intransitive forms in N¹. These are primary affixes, because they affix directly to the root or to stems (created by roots and lexical suffixes)¹² to create intransitives.

Many bound roots potentially take all primary affixes and transitivizers. Some may have a second set of transitive derivations based on a single primary affix, as illustrated below:

16.

Intransitive form 16.a. kł-śp √separate-INC 3 it came apart

^{12.} I will not discuss the nature of lexical suffixes in this work. See Thompson and Thompson (1992) for an overview of these forms.

Transitive forms 16.b. k4-st-és √separate-CAU-3\3 someone separates things

16.c. kə4-p-st-és √separate-INC-CAU-3\3 someone manages to detach something

There is a small set of roots, as in 17, that allow only one primary affix; all other derivation is based on this base rather than on the root.

17.

Intransitive forms 17.a. ?e/?úy-m' AFF/√laugh-MDL laugh, smile

17.b. ?e/?uy-m-úł AFF/√laugh-MDL-habitual always laughing

Transitive form 17.c. ?e/?úy-m-s-c AFF/.laugh-MDL-CAU-3/3 make someone laugh

Thompson and Thompson (1992) divides intransitive affixes into two groups reflecting aspectual function and 'voice' (defined as "specifying varying relationships between states and actions and their subjects (1992:99)). These can be regarded as distinguishing affixes that mark agentivity. They classify primary affixes as plus, minus, or unmarked for the feature of agent control depending upon whether they affect the agency of a root's arguments (See Chapter Two for further discussion).

Aspectual affixes are discussed as referring to static (henceforth stative) or dynamic events. Stative aspects have an emphasis on a resultant state rather than on a change of state. Immediate /-t/, as shown in 18 through 20, designates states and actions that have just gone into effect, and impending states or action. It can also designate general characteristics of things.

18.	а.	b.	с.
	√?íq'-	?íq'-t	?íq'-m
	√scrape.skin	√scrape-IM	√scrape-MDL
		scraped off	to scrape hair off deerhide
		[hair of buckskin]	•
19.	√ník'-	ník'-t	ník'-m
	√cut	√cut-IM	√cut-MDL
		get cut	cut s.t.
20.	?íx-	?íx-t	?íx-m
	√scratch/stripe	√scratch-IM	√scratch-MDL
		be scratched/ make scratch noise	make a stroke/ stripe
		make selaten noise	surpe

Stative /?es-/ designates completed actions and states where the event

precipitating the change of state is more remote, as shown in 21 through 23. Statives are also used for descriptives, including permanent qualities of objects and for stating possession.

21.	а.	b.	с.
	√puys-	?es/púys	púys-t-x ^w
	√kill	ST-√kill 3	√kill-TR?-3/2ag
		he's been killed	you kill him
22.	√kół-	?es/káł	
	√separate	ST-√separate	
		detached	
23.	√ λ'úk^w	?es/x'úk ^w	
	√burst	ST-√burst	
		already burst	

Many free form roots can also be found with alternate intransitive forms created with stative /?es-/.

24.	a.		b.
	?úq ^w e?		?es/?úq ^w e?
	√drink 3		ST-√drink 3
	he is drinking		he is drunk
25.	а.	b.	с.
	?écq ^w kn wi?	?écq ^w -t	?es-/?écq ^w
	√bake 1sg EMP	√bake-IM	ST-√bake
	I baked	(just) baked	(already) baked (410a1)

It is possible to get combinations of the stative aspects.

26.	а.	b.
	√?íyəx ^w -	?es/?íyx ^w -t
	√pit.steam	ST-√pit.steam-IM
		it is already steamed

Inchoative /-?-/ or /-əp/ is one of the dynamic aspects. The two allomorphs are conditioned by root strength; /-?-/ is infixed into strong roots (underlying stress) and /-əp/ is suffixed to weak (no underlying stress) roots. This affix marks a developing or changing event that occurs without the intervention of an agent. Noises, natural phenomena, and some involuntary bodily processes are often marked by inchoative.

27.	a.	b.	с.
	√k4-	kł-śp	?es/ká∳
	√separate	√separate-INC 3	ST-√separate
		it comes apart	apart, off, detached
28.	a.	b.	с.
	√péw-	p[?]éw	péw-ix
	√swell	√swell-INC	√swell-AUT
		begin to swell	[of toad] swell, puff up

Free form intransitives are not found with inchoative alternates.

<u>Middle /-əme/</u> marks states and activities in which there is an agent subject. Middle forms tend to be continuing or progressive. It is the most common primary affix, and is used to create an intransitive from what would be considered nominal forms (see Appendix 1). With many middle intransitives there appears to be an implied non-specific object. In other cases there is a reflexive reading. Many characteristic functions and activities of animates and objects are middle intransitives. Some examples of derivations with the middle affix are:

- 29. √k4=ékst-m √separate=hand-MDL 3 he lets go (of something)
- 30. √c'k-эm
 √push-MDL 3
 he pushes/propels himself
- 31. Ín-эm
 √ring-MDL 3
 [bell] rings, [clock] strikes

Free form roots (with minor exceptions) do not allow middle affixation.

<u>Autonomous /- $\overline{-}$ yx/</u> references actions controlled by a specific agent (usually +human). It also marks lexical items related to posture and movement, and to some inanimate states (dynamic).

32.	а.	b.	С.
	√q ^w éc-	q ^w c-íyx	q ^w c·śc e tmíx ^w
	√move	move-AUT 3 move about, set out [person]	√move-OC DIR earth earthquake
33.	а.	b.	
	√cáq ^w -	cáq ^w -ix	
	√red/brown	√red/brown-AUT 3	
		[berries] turn red, ripen	L

Free form roots do not take autonomous affixation.

<u>Out of Control /-VC-/</u> indicates that an event or a state has developed without an obvious cause, spontaneously or with the intervention of an agent that is not 'in-focus' in the discourse. It can also have an 'exceptional volition' reading, where the act has taken persistence or requires a special skill on the part of the protagonist. This reduplicative affix is quite productive in Salish languages (Carlson and Thompson 1982). In N¹ it adds to both agentive and patient-oriented roots. When it is added to strongly agentive roots, it usually results in an intransitive with an 'exceptional volition' agent reading. Thompson and Thompson (1992) note the significance of out-of-control creating a non-volitional patient form with some agentive roots (1992:57). I will return to this point in Chapter Two. Some forms that exemplify the split are:

- 34. 4a?x=án[·n]s kn √eat[·OC] 1sg (+ctl) I manage to eat (agent oriented out-of-control form)
- 35. téw·u kn
 √sell.to 1sg (+ctl)
 I get sold (something), someone sells me something (patient oriented)

The out of control affix is quite productive and is used with both bound and free form roots.

A single secondary affix, <u>desiderative /-mémn/</u> is presented in this work. This suffix attaches directly to roots, is not found in combination with the primary affixes, and is never used as a base for lexical suffixation. Therefore I designate this a secondary affix. As can be seen in the examples below, desiderative marking primarily creates intransitive forms with the semantics of 'want X'.

x ^w esit-mémn kn √walk-DESID 1sg	I want to walk (235sf)
nes-mémn kn √go-DESID 1sg	I want to go
naq ^w -mémn kn √steal-DESID 1sg	I want to steal (265 sf)
	x ^w esit-mémn kn √walk-DESID 1sg nes-mémn kn √go-DESID 1sg naq ^w -mémn kn √steal-DESID 1sg

These forms can be transitivized by adding the transitive /-t/ or by adding causative or indirective suffixes. There are no data on relational use (see Section 2.5.7).

1.3 Transitive Predicates

Transitive predicates are created by the addition of an extension (-n- directive,-scausative, -min- relational, or -xi- indirective) in sequence with the transitive affix (-t- TR) to a stem.¹³ In this work these combinations are referred to as transitivizers and can be considered to be unitary forms (i.e. (-n-t-) = directive). Some combinations of extensions are possible; these are min-xit, min-st, xi-st. The two argument positions are marked by pronominal suffixes following the transitivizer. The transitivizers are listed below in Table 3.

1.3.1 Transitivizing Suffixes

Table 3: Template for Transitive Predicates

[BASE]-(EXTENSIONS)-TRANSITIVE-OBJECT-SUBJECT¹⁴

-n	-t-	DRV ¹⁵
-S	-t-	CAU
-xi	-t-	IND
-min	-t-	RLT
-min-s	-t-	RLT CAU
-xi-s	-t-	IND CAU
-min-xi	-t-	RLT IND

The formation of a <u>directive transitive</u> (DRV) with /-n-t-/ denotes a transitive with a subject (Agent) and a direct object (Patient/Theme). These forms usually indicate intentional punctual actions. This transitivizer is barred from attaching to some roots (for example, roots like q?ém '[of baby] nurse'). With other roots it forces a change in semantics (for example, zoq^w 'die', analyzed as a patient-oriented root by Thompson and

^{13.} There is a closed set of roots that may occur with just the transitivizer /-t-/. However, reflexive and reciprocal forms based on directive transitives of these roots often have the full extension /-n-t-/.

^{14.} See Table 1.

^{15.} Abbreviations will be defined below.

Thompson (1992), becomes zoq^w-e-s 'kill something'. Some examples of roots with directive are:

- 39. ?úq^we?-ne I drank it (MJ24b)¹⁶
 √drink-DR-3/1sg
- 40. k^wis-e-s drop something, let fall intentionally, throw down √fall.drop-DRV-3/3
- 41. $c' = q'^{w}$ -t-es he writes it [a letter] $\sqrt{write-TR-3/3}$

<u>Causative transitives</u> (CAU) created with /-s-t-/ are the most common of the transitive predicates. In general, in the case of roots with a clear actor in the corresponding intransitive form, the causative transitive reads that there is someone affecting that actor. In forms where there is a non-agent in the corresponding intransitive form, the causation reading, as can be seen in the forms below. Some forms allow both readings, as can be seen in examples 44a and 44b.

42.	?úq ^w e?-s-t-p √drink-CAU-0-3/2pl	you people give him something to drink (cause him to drink), give/serve drinks to someone
43.	nés-s-t-x ^w √go-CAU-3/2sg	you were able to take him along (MJ26a)
44.a.	k ^w í(s)-s-c √fall.drop-CAU-3/3	drop something accidentally
44.b.	k ^w ís-s-cm-s √fall.drop-CAU-10bj-3/3	she caused me to fall

The <u>indirective transitivizer</u> (IND) of the form /-xi-t-/ has also been referred to in comparative Salish literature as a benefactive or applicative (Mattina 1993, Carlson 1980, Kinkade 1980, Thompson and Thompson 1980), and can be compared to the

^{16.} MJ = Mandy Jimmie.

English preposition 'for'. It marks ditransitive predicates where the object pronoun refers to an indirect/oblique object and there is an unrealized implied object.

45.	?úq ^w e?-x-c √drink-IND-3/3	drink a beverage belonging to someone, somebody drank some drink of yours (MJ24e)
46.	k ^w ís-xə-ne √drop.fall-IND-3/1	I dropped it to him (intentionally)
47.	c'əq' ^w -xi-t-és √write-IND-3/3	he writes [a letter] to/for someone

Forms created with the <u>relational transitivizer</u> (REL) /-min-t-/ have semantics that are very hard to pin down. Thompson and Thompson describe it as refering to 'objects toward which the subject is moving, or in relation to which the action is accomplished' (1992:73). It provides transitives for many stems that cannot otherwise be transitivized. The meaning of predicates created with /-min-t/ are often abstract.

48.	cəq'-mín-s	he ran into him (NJ531)
	√hit/throw-REL-3/3	

49. ce?x^w-mín-s be happy to see someone, appreciate/ be grateful for something √happy-REL-3/3 (p36D)

Some combinations of transitivizers are possible. Causative occurs with indirective

and relational. Relational and indirective can combine as 'min-xit' but not as 'xit-min'.

Combinations with directive are not allowed.

50.	nés-min-s-t-x ^w √go-REL-CAU-TR-3/2sg	you were able to bring it there (MJ26b)
51.	nés-xi-t-s-t-x ^w √go-IND-CAU-3/2sg	you brought it there for him (MJ26d) ¹⁷
52.	ce?x ^w -mí-x-c √happy-RLT-IND-TR-3/3	congratulate someone (about something), appreciate/ be grateful for something

^{17.} This form is problematic because it contains two instances of the transitivizer t and no reduction of the vowel in -xi-.

1.4 Complex Intransitives: Reflexives and Reciprocals

Reciprocals and reflexives in N⁴ have complex internal structure. They are lexical forms, as they are based on transitive affixes, but take the intransitive clitics to mark the (linked) single argument. The template for the structure of complex intransitives is given below in Table 4 with accompanying examples.

Table 4: <u>Template for Complex Intransitives</u>

[BASE]-(EXTENSION(S))-TRANS.-RECIP./REFL. CLITIC

-n-	-t-	-wáx ^w /-sut
-min-	-t-	
-xi-	-t-	
-8-	-t-	
-min-s-t-		

Examples of Reciprocal forms:¹⁸

53.	k ^{,w} ux ^w s-e-t-wáx ^w √jealous-DRV-TR-RECIP 3	be jealous of each other
54.	xək-s-t-wáx ^w √know-CAU-TR-RECIP 3	know each other
55.	zu-min-t-wáx ^w √take care of-RLT-TR-RECIP 3	help each other (NJ21) ¹⁹
56.	xc-xit-wáw'x ^w kt √bet-IND-RECIP 1pl	we bet for one another, placed bets for one another (14a)
57.	?es-zu-min-s-t-wáx ^w √take care of-RLT-CAU-TR-RECIP 3	take care of/guide one another
58.	témən kas 4uk' ^w -min-s-t-wáw'x ^w kp √hook-RLT-CAU-TR-RECIP	don't you remember each other? 2pl (18d, MJ15)

^{18.} All my examples are of reciprocals for ease of comparison. Reflexive forms are very common. See Thompson & Thompson (1992).

^{19.} NJ = Nora Jimmie.

1.4.1 Re-transitivized Predicates

Reflexive and reciprocal intransitives can serve as the base for the addition of the relational and causative transitivizers. As the examples below show, causative is the most commonly used re-transitivization. There do not appear to be any re-transitivizations based on causative reflexives or reciprocals in the data base, nor could this combination be elicited. Below in Table 5 is the template of the structure of re-transitivized forms with accompanying examples.

Table 5: <u>Template for Re-transitivized Forms</u>

[BASE]-EXTENSION-TR.-RECIP.(/REF).-EXTENSION-TRANS.-OBJECT-SUBJECT

-n	-t	-wáx ^w	-S	-t
-min	-t	-wáx ^w	-S	-t
-xi	-t	-wáx ^w	- S	-t
-n	-t	-wáx ^w	-m	-t

Examples of Re-transitivized Reciprocals:

59.	x(ə)c-e-t-wáx ^w -s-t-x ^w √bet-DRV-TR-RECIP-CAU-TR-3/2sg	you bet with him
60.a	λ'q' ^w -e-t-wáw'x ^w √fight-DRV-TR-RECIP 3	to fight each other (19a)
60.b	λ'q' ^w -e-t-wáw'x ^w -s-cm-s √fight-DRV-TR-RECIP-CAU-TR-1sg/3	he made us fight each other, it was his idea that I fought this person (19b)
61.	nək'-n-t-wáw'x ^w -s-cm-s √exchange-DRV-TR-RECIP-CAU-TR-1sg/3	that person caused me to change something with him (MJ22)
62.	?∮ək' ^w -min-t-wá'x ^w -s-cm-s √hook-RLT-TR-RECIP-CAU-TR-1sg/3	someone caused us to remember each other (MJ16)
63.	xəc-xi-t-wàw'x ^w -s-t-é-s √bet-IND-TR-RECIP-CAU-TR-1pl/3	he made us bet against each other (14d)
64.	λ'q' ^w -c-t-wáw'x ^w -m-t-íyxs √fight-DRV-TR-RECIP-RLT-TR-3/3pl.emph	two people fighting over one person (19c)

65. ?nək'-n-t-wáw'x^w-min-s √exchange-DRV-TR-RECIP-RLT-(TR)?-3/3 particular thing (MJ23)

someone was able to trade/exchange a

There was one questionable form elicited that re-transitivized with the indirective, but this form also requires a causative. It was problematic in a number of ways: in terms of stress, in the vowel in the indirective not being reduced, and because there was no coalescence of /t-s/. I could not duplicate this form in elicitation with my primary consultant.

66. nək'-n-t-wáw'x^w-xit-s-cm-s he caused me to change something for him √exchange-DRV-TR-RECIP-IND-CAU-1-3.ag (MJ22a)

Re-transitivization is a productive process, but not a commonly used one. Consultants prefer to give nominalized bi-clausal forms of the type:

67. ?exe john pəłču an-s/náq^w my stealing was John's work (267a) √work PSV-NOM-√steal

The pronominal arguments marked on the re-transitivized forms often differ from what is expected. For example, in 60.b and 62, one might expect the object to be plural. With respect to the semantics of retransitivized forms, semantic judgements by consultants are not as clear as for plain reflexives and reciprocals. Note also that in examples 56 versus 63, reference of the indirective changes from benefactive to malefactive.

1.5 Discussion

This overview of the morphology of N⁴ predicates raises a number of points. In the creation of intransitives there is a distinction between bound roots that require primary affixation and roots that surface as free form intransitives. The latter (with minor exceptions) do not take the majority of primary affixes (immediate, autonomous, middle, and inchoative) but specific roots do allow the stative /?es-/ and out of control affixation. These points will be discussed in Chapter Two.

Looking at the productivity of transitivizers it can be seen that causative and relational are different in nature from directive and indirective. Thompson and Thompson (1992) records causative as the most commonly used transitivizer. Intransitive stems (root plus primary affix) are usually transitivized with causative or relational; directive transitivization of these forms is exceptionally rare, indirective transitivizations are only slightly less so. The data from re-transitivized forms in the examples above also show causative to be generally productive. Relational has a different nature from that of causative. It is not used as regularly, although it has a greater range than directive and indirective. These points will be addressed in Chapter Three.

CHAPTER TWO

2.0 Intransitive Forms of N4e?képmx Roots

2.1 Introduction

In theory, the difference in productivity of the intransitive affixes in N_{1}^{1} can be linked to differences in underlying argument structure of lexical items. Indeed, there has been a great deal of cross-linguistic work (Perlmutter 1978, Perlmutter and Rosen 1984, Grimshaw 1987, Levin and Rappaport 1989) documenting and discussing what is termed the split-intransitive hypothesis, a syntactic distinction between two classes of intransitive forms. Originally articulated as the Unaccusative Hypothesis (Perlmutter 1978) the split distinguishes between *unaccusative* and *unergative* classes of lexical items. This distinction is stated in terms of argument structure, as an unergative has a single agent argument, and an unaccusative a single patient argument. This translates into a configurational difference (unergatives have a subject generated at deep structure, unaccusatives have a deep structure direct object) that has ramifications for the syntactic behavior of these forms at the clause and sentence level. There are language-specific syntactic processes serving as diagnostics to distinguish between the two classes of intransitives. It has been noted across languages that lexical items that are recognized as unaccusative and unergative tend to separate into regular semantic classes.

In this chapter I discuss the literature on semantic and syntactic diagnostics for unaccusativity with particular attention to Gerdts' (1991) discussion of unaccusativity in Halkomelem Salish. I apply the semantic diagnostics to the set of N⁴ free forms to distinguish two general classes of roots that are potentially unergative and unaccusative. I discuss the intransitive and transitive behavior of these roots to determine the diagnostic potential of the transitive affixes and to determine if semantic classes match with morphological marking.

2.2 Unaccusative and Unergative Intransitives

Semantic diagnostics of unaccusative versus unergative predicates distinguish either agentivity (for example, actor volitionality) or inherent lexical aspect (for example, the nature of and limits on the event specified by the predicate). Languages can vary with respect to which parameter governs the split. Across languages, unergatives generally refer to lexical items of volitional action, manner of motion with protagonist control (for example 'run'), manner of speaking and involuntary bodily processes, or atelic activities (events with no clear endpoint). The semantic classes that are associated with unaccusative are non-volitional actions, states (existing or happening), motion verbs with no inherent protagonist control (for example 'roll'), and psychological predicates. Telic activities (events with defineable endpoints) such as verbs of motion with inherently specified direction (for example, 'arrive') and predicates of duration also tend to be unaccusative. (Grimshaw 1987, Levin and Rappaport 1989, Grimshaw 1990, Gerdts 1991:230)).

Syntactic diagnostics of unaccusativity are processes that distinguish between unaccusatives and unergatives on the basis of their configuration. Passive is a diagnostic in some languages, as it may apply to unergatives but not to unaccusatives. Other syntactic diagnostics, such as auxiliary selection in Romance languages and there-insertion in English, are considered to mark unaccusativity.

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There is however, evidence that the syntactic-semantic link is not a simple one. There is the potential for *unaccusative mismatches*. A syntactic mismatch means that syntactic diagnostics are actually sensitive to a specific semantic feature rather than an argument configuration based on the correspondence between a set of features. Levin and Rappaport (1989) refer to Zaenen's (1988) discussion of Dutch, revealing that prenominal perfect participles in Dutch modify telic intransitives rather than all unaccusatives as a class. Zaenen also shows that impersonal passivization in Dutch functions to distinguish verbs with protagonist control rather than the class of unergatives. This type of result has led some researchers to consider that unaccusativity is not a unified phenomenon and therefore there is no need for a syntactic distinction between intransitives.

Semantic mismatches have been discussed by Rosen (1984), who notes that across and within languages lexical items of the same semantic class can vary with respect to their unaccusative and unergative properties. For example, she finds that the verb translated as 'die' in Italian is unaccusative, but in Choctaw it is unergative. Within the class of bodily process roots in Italian, some exhibit unergative behavior and others unaccusative behavior.

These conflicting data show that syntactic configuration cannot be universally predicted on the basis of general semantic class, and that syntactic diagnostics must be carefully chosen to ensure that they indicate the entire class of unaccusatives rather than a single semantic feature. Yet, I follow Gerdts (1991) who claims that 'lexical semantics can serve to suggest the class of a verb, with syntactic diagnostics verifying its assignment to a particular class'.

Gerdts discusses Halkomelem (Coast Salish) (henceforth Hk) data with respect to two syntactic tests, desiderative and causative, that show there is some basis for proposing that the unergative/unaccusative distinction is relevant to the grammar of the language. Gerdts considers the morphological processes of causativization to be an indicator of Causative Clause Union, a highly constrained rule in Hk requiring the downstairs clause to be unergative. According to her analysis, desiderative morphology marks multi-predicate clauses, where the suffix marks the addition of a predicate that inherits the argument structure from the main predicate. This rule requires that the 'cognizer' referent of the desiderative is the subject of the main predicate. Her results show that unergatives allow both causative and desiderative constructions, while unaccusatives split into three subclasses: a group of process verbs that allow desiderative, with a shift in semantics to a 'future' meaning, a group of state verbs that allow causatives, with a shift in semantics to a 'resultative' meaning, and a group of mixed process and state verbs that allow neither of the two constructions.

In the second part of the paper Gerdts presents evidence from derived statives (addition of stative morphology) and derived processes (addition of inchoative morphology). This evidence confirms her conclusions that causative and desiderative together provide a syntactic test for distinguishing unergatives and unaccusatives and that event structure plays a role in the classification of intransitive predicates in Hk.

Gerdts cites Hukari (1976) as noting that 'the overwhelming majority of Halkomelem roots are unaccusative (1991:237). Thus her data are composed of roots

with primary affixation that appear as surface unergatives and unaccusatives.

One of the purposes of this paper is to observe the workings of causative and desiderative affixation in N¹ to see if the processes are comparable to Hk. It is noteworthy that in N¹ the desiderative marker is a secondary affix that adds directly to the root or to stems formed with lexical affixation. I do not consider desiderative a primary marker, because although it is in complementary distribution with the primary affixes, it does not appear inside lexical suffixes, as they do. These forms are intransitive and can be transitivized with the set of transitive affixes. In Hk, the desiderative affix forming intransitive forms is attached outside the transitive affix /-t-/.

2.3 Semantic Features of N4e?képmx Roots and the Notion of Control

Thompson and Thompson (1992) consider roots in N⁴ to be underlyingly intransitive, with the majority being unaccusative or patient-oriented in nature. Rather than selecting a set of 'unsystematically selected intransitive verbs that [potentially] involve suffixation' (Gerdts 1991: 237) I have chosen as my database for this study the subset of roots that can stand as free form intransitives. I chose this set on the assumption that primary affixes might signal a change in argument structure, and therefore confuse the issue of root argument structure.

This set of forms can be split into general classes according to the semantic diagnostics cited above. This analysis can be motivated using evidence from the Thompson and Thompson (1992) and Thompson (1985) analysis of the feature of control in N¹. Thompson and Thompson discuss 'patient-oriented' and 'agent-oriented' roots in N¹ using the term *control* to characterize roots and some derivational affixes. The

distinction indicates whether the subject of a predicate is in volitional control of the action expressed by the root/stem.¹

A brief summary of Thompson and Thompson (1992) and Thompson (1985) follows. The semantics of control correspond to a subject's degree of control over an action or an event. Out-of-control entails an action that is accidental, spontaneous, accomplished after much effort, or as a result of luck. Control marking means that the subject is agent and acting with purpose or volition. Variations can specify that the subject is acting with 'self-interest', or have other idiomatic meanings. All roots, lexical suffixes, and grammatical affixes are either control, non-control or unmarked. Pronominal suffixes and clitics are never marked. This is therefore a lexical feature of roots and grammatical suffixes. The N¹ predicate with its combination of control-marked roots and affixes is marked control or non-control according to a dominance hierarchy which specifies the relative strength of the constituents. Intransitive and transitive predicates depending on the combined control status of their constituents, are either unmarked, marked for control, or marked out-of-control. The majority of roots in N⁴ are assumed to be non-control. Thompson and Thompson (1992) give a number of fifty control roots in N¹. However, perusal of all sources found thirty one bound and free forms (see Appendix 2). The analysis of control distinguishes the workings of the agentive component (but not the aspectual element) discussed in the literature on the unaccusative/unergative distinction.

In N⁴ intransitives there is no pronominal distinction made between lexical items

^{1.} This use of the term control is not the configurational control of Government & Binding Theory.
classified by Thompson and Thompson (1992) and Thompson (1985) as patient-oriented

and agent-oriented, as shown below:

PATIENT

- qlil kn ... √angry 1sg (patient) I was rather angry
- ...xíyq' kn √faint 1sg (patient)
 ...I fainted [yesterday\other context] (389a)
- wúx^wt √snow 3 (non-agent) it is snowing (257a,370a)

AGENT

- pték^wł kn u?ex
 √narrate 1sg (agent) AUX
 I am telling a story (347)
- x^wesít kt √walk 1pl (agent) we walked/travelled
- 6. shéw kn
 √yawn 1sg (non-patient)
 I yawn (280a, 333)

To a large extent, I believe the distinction between unergative and unaccusative intransitive predicates can be associated with the distinction made between control and non-control roots, as shown in examples 1 through 6. This gives partial support to the analysis of an unaccusative/unergative distinction; what is needed is evidence that the aspectual part of the equation is also relevant in N4. I propose that the control features of roots and derivational affixes as documented in Thompson and Thompson (1992) and Thompson (1985) should be linked to agentivity, and may be subsumed into a distinction between unaccusative and unergative use of predicates. Although the two systems do not match precisely, for example involuntary bodily process roots are often non-control, and

there is a single weather root that is marked control, it will be seen that these particular root classes do not pattern with the agentive and stative forms which make up the bulk of the data set.

In the following sections I propose to use the semantic categories from the crosslinguistic literature on unaccusatives and unergatives, making special reference to Thompson and Thompson's notion of control to classify a representative subset of the roots of N¹.

2.4 Preliminary Semantic Classification of Intransitive Roots

The following tables present preliminary semantic groupings of free forms and a selected set of bound forms. The semantic criteria for this classification are 1) agentivity as determined by the Thompson and Thompson (1992) analysis of control, 2) obvious states and the telic/atelic distinction. The distinction will be motivated in the following sections by applying a variety of morpho-syntactic tests (Sections 2.5.1-2.5.8).

Table 6 and table 7 group the free and bound forms in two sets under the major headings of Unergatives and Unaccusatives according to the semantic criteria given above, with sub-headings for subsets. These tables will be revised on the basis of the evidence from the morpho-syntactic tests and a final table will be presented in the Discussion.

2.4.1 Free Forms

In Table 6 I give an initial listing of potential unaccusative and unergative forms.

Table 6: Preliminary Semantic Classification of Free Roots

A. UNERGATIVES

Agentive Actions (atelic, +control)

1	2	3	4	5	6
x ^w esít	?úq [₩] e?	nés	náq ^{?w}	nóx ^w	tax
walk	drink	go	steal	run.animal	paddle
7	8	9	10	11	12
míłt	q?ém	p'ánt'	k ^w úce	k ^w úme	aávt
visit	[infant] nurse	return	descend	ascend	reach,top
			to water	to water	× 1
13	14				
q'amín	kán				
throw	help				
Agentive Actio	ons (atelic, no cont	rol marking c	ited)		
15	16	17	18	19	20
s ^w óvt	náa ^W	twén	m'on'	i) Vév	26ca ^W
sleep	watch	back up	give	stop	bake
P		out up	8	brop	cuno
21	22	23			
kéze?	nték ^w ł	20 7áx			
tell a lie	tell a story.	get dressed			
	be a lie	be a storytelle	er		
Involuntary Bo	dily Processes (tel:	ic, -control, ac	<u>ctor)</u>		
24	25	26	27		
wék'k'	25 ?á.sve	shéw	méc'x		
vomit	sneeze	vawn	blink		
(-ctl)	(-ctl)	Juni			
B LINACCUS	ATIVES				
<i>D</i> . 01110000					
State or Chang	ge of State (telic)				
1	2	3	4	5	6
zóa ^w	k ^w ís	xíva'	nz'é∳	v'e	a ^w nóx ^w
die	fall	faint	worthless	feel good	sick
				0	
7	8	9	10	11	12
xáni	4axi	∮vúk ^w	mág'	xív	cúk ^w
hurt	cold	bumped into	satiated	go ashore	finished
		I I I I I I I I I I		0	

13 ¢áx ^w wound.heals ³	14 ptúk ^w ooze	15 x'y'áq ² break	16 ≿'áq' tumble.down	17 c'ék' ^w shine	18 የlúx ^w bang/noise
19 c'lóx ^w hot weather/ food	20 pl'úx ^w punctured	21 c'ók' exhausted	22 lpúx ^w have a hole thr	rough	
Weather (atelic, in	animate state	<u>e)</u>			
23 wúx ^w t snow Psychological Pred	24 x ^w ák ^w frost <u>icates (states</u>	25 tekł rain (+ctl)	26 X'ax ^w ús hail		
27 páq ^w u? afraid	28 ^{S^wyíxm jealous}	29 qəlil angry			

2.4.2 Bound Forms

For comparative purposes, the set of bound form roots listed in Table 7 has been chosen. This set can be broken down into unergatives and unaccusatives, but there is a third set of forms. These are unanalyzed at this point because they appear to have an active reading. They are not however listed as control roots.

^{2.} The dictionary form of this root is λ 'm'áq.

^{3.} DU allows this root only with an inanimate referent. In Thompson & Thompson (1990) the root can refer to a healer.

Table 7: Preliminary Semantic Classification of Bound Roots

A.UNERGATIVE

Agentive Action (bound control roots)

1	2	3	4	5	6
√?ús-	√k ^w én-	√x'éx-	√n'(é)-	√pîlex-	√púys-
discard	grasp	joke	give	inform/tell	kill
7	8	9	10	11	12
√púyt-	√qál-	√qə4-	√cú(n)-	√4ím-	√téw-
lie down	bite	cheer	say	cut brush	sell to
13 √cúł- point					
Bodily Processes					

14	15	16	17	18	19
√x ^w úc'-	√tkéy-	√súp'-	√c'ék-	√x ^w ic'-	√qáz-
eject/vomit	urinate	breathe	itch	defecate	sweat

B. UNACCUSATIVES

State or Change of State (no control marking)

1	2	3	4	5	6
√péw-	√q ^w éc-	√qáz-	√λ'ək ^w -	√łáx ^w -	√mé∳-
swell	move	startle	burst	escape	rest
7	8	9	10	11	12
√k ^w á§-	√ x 'áz-	√xáw'-	√tey-	√k'ém-	√k4-
crazy	lazy	thirsty	hungry	stealthy	separate (unmarked for ctl)
13	14				× /
√k' ^w álc'-	√céq ^w -				
curve	brown/red				

Psychological Predicates

15	16
√c'éx-	√zéw'-
shy/shame	annoy (-ctl)

C. UNANALYZED FORMS

1 √yʕ [₩] -	2 √ciq-	3 √?ax ^w -	4 √łэ́q ^w -	5 √ník'-	6 √?íx-
nide 7	aig 8	sweep	put on top	cut/slice	scratch
√4ep- extinguish	√4eq- sit (plural)	√cew- reach			

In the remainder of the Chapter I discuss the behavior of these roots with the set of primary affixes, the causative and the desiderative. The results from this analysis will corroborate the semantic classification of bound and free roots. It will also show that the unanalyzed set (Table 7, Set C) which at first would appear to be active-agentive, in fact pattern with the unaccusatives.

2.5 Morpho-Syntactic Diagnostics

I begin with the primary affixes and their behavior with free roots and bound roots. The first of these is the middle suffix.

2.5.1 Middle

In Capter One, it was shown that middle marks events in which there is an agent subject. It is the most common primary affix, and many middle intransitives appear to imply a non-specific object. In other cases there is a reflexive reading. Middle is marked for control. Given this characterization, I would assume the middle affix to be marking agency. Free forms differ primarily from bound forms in that (with a few exceptions) they do not take the middle affix.

Grammaticality judgements by DU show that of the free forms listed in

Table 6 only three take a middle form.⁴ All these forms have a semantic change associated with them, as can be seen in the examples below.

7.	c'ek' ^w -m wi? √shine-MDL 3 PCL	she lit her lamp
8.	x ^w ák ^w -m √frost-MDL 3	make something frosty [object or glass]
9.	nés-əm kn √go-MDL 1sg	I brought some with me

Of the bound roots listed in Table 7, bound control ditransitives accepted the

middle suffix.⁵

10.	píləx़-m √inform-MDL	inform (someone about something)
11.	cún-m √say-MDL	speak for someone (to somone for a purpose)/ choose a spouse
12.	téw-m kn √sell.to-MDL 1sg	I am selling (something to someone)(404b)
13.	cúł-m kn √point-MDL 1sg	I pointed, indicated (something to someone)

Two middle forms were grammatical for the control root $\sqrt{4}$ im-, as can be seen below.

14.	4ím-əm kn √cut.brush-MDL 1sg	I cut brush (230)
15.	4ím-p-m ⁶ √cut.brush-INC-MDL	to cut brush (275)

^{4.} The dictionary listing for two forms allowed middles, méc'x 'blink' (to wink at someone), and \$4x,^w 'heal' (shaman specializing in marital relations) but these were not accepted as grammatical by DU.

^{5.} These include forms that are listed in the dictionary as free forms, but which were not accepted by DU without primary affixation.

^{6.} This form is the only example of a predicate with two primary affixes on it, and as such is an exception to the rule of mutual exclusivity for all primary affixes except stative and immediate, which can occur together.

These results, and those in 10 and 13 are expected given the agentive-active nature of these roots.

Of the bound involuntary bodily process roots the majority take middles with the characteristic agentive reading.

16.	x ^w úc-əm kn √vomit-MDL 1sg	I threw up (247b)
17.	tkéy'-m	to urinate

√urinate-MDL

Some bound involuntary bodily process roots, however, were ungrammatical in the middle form. These forms allow only an inchoative form or an out-of-control-form.

18.	*cí? ^w -m √bleed-MDL 3	make something bleed (*326b) ⁷
19.	u?ex kn c[·?]ís ^w 1sg √bleed-INC	I am bleeding (326a)
20.	*qáz-m √sweat-MDL	sweat
21.	?e qáz∙z kn √sweat-OC	I might sweat (342c)

The unanalyzed items listed in Table 7 easily took the middle form, as exemplified below.

This appears, at this stage, to show that these forms are indeed active-agentives.

22.	yî ^w -ám √hide-MDL	hide (something)
23.	cíq-m √dig-MDL	dig (somthing)
24.	?áx ^w -m √sweep MDL	sweep (something)

^{7.} This form is listed as grammatical in the dictionary.

25. 4ép-m extinguish [fire/light] √extinguish-MDL

Of the forms listed as bound state and psychological predicates, few in the database had middle alternates except the following four forms. Note that the middle of only two of these forms has an implied object, c'éx-m 'shame' and xáw'-m 'thirsty' do not have this characteristic reading.

26.	k∳-ám √separate-MDL	subtract
27.	cáq ^w -m √brown/red-MDL	paint (something) red
28.	c'éx-m kn √shame-MDL 1sg	I am ashamed/shy (96)
29.	xáw'-m √thirsty-MDL	thirsty

The rest of the bound states had no elicited data or were ungrammatical.

- 30. *qóz-m √startle-MDL
- 31. *téy-m (327b) √hungry-MDL

The results of this section are inconclusive. The middle affix applies to activeagentives (the bound ditransitive control forms), involuntary bodily processes, and the unanalyzed set. There are also examples of middles with the bound states and psychological predicates. I conclude that the small number of middles in this set of bound forms is due to an elicitation gap, because middle is documented as a productive form in the language. Therefore, the middle affix does not provide conclusive evidence for an unergative/unaccusative split in N¹.

2.5.2 Autonomous

The autonomous suffix references actions that are controlled by a specific agent, although it also attaches to some inanimate states (dynamic). Autonomous is considered to be marked non-control.

Data on autonomous forms were not extensive, but free forms from a range of semantic classes were deemed ungrammatical by the consultant, as the following show.

- 32. *x^wesít-ix √walk-AUT
- 33. *shéw-ix yawn-AUT
- 34. *4yúk^w-ix √bumped-AUT
- 35. *pl'úx^w-ix √punctured-AUT

Bound forms often take an autonomous affix, as can be seen from the range of forms from the active, stative, and unanalyzed sets.

36. joke, jest λ'éx-ix √joke-AUT 37. xá4-ix to cheer oneself up √cheer-AUT 38. ∳q^w-íyx mount a horse √put on top-AUT 39. yf^w-íyx hide oneself √hide-AUT 40. péw-ix [of snake, toad] puff up, swell up √swell.up-AUT 41. k∳-íyx get away from a situation √separate-AUT

42.	k' ^w əlc'-íyx	[road] curves sharply
	√curve-AUT	

- 43. cáq^w-ix to turn red of own accord √brown/red-AUT
- 44. k'ém-ix sneak along √stealthy-AUT
- 45. mé ix take a rest $\sqrt{rest-AUT}$

No involuntary bodily process roots or psychological predicates were elicited with the autonomous affix. Autonomous appears to apply across the board, therefore it is not a useful diagnostic of an unaccusative/unergative distinction.

2.5.3 Inchoative

Inchoative marks a developing action that occurs without the intervention of an agent. Inchoative is considered to have non-control marking. Given its nature as an aspectual marker, and its lack of effect on agency, the inchoative has potential to be an aspectual diagnostic of an unaccusative/unergative distinction.

Free form intransitives are not found with inchoative alternates, with the exception of the one stative form listed below.

46. he c'é[?]k^w it might shine (409) √shine.[INC] 3

There are no data regarding the use of inchoative with bound control (agentive) roots. Bound involuntary bodily processes that take inchoative are:

47.	u?ex kn c[·?]íſ ^w 1sg √bleed-INC	I am bleeding (326a)
48.	xn-áp √shiver-INC	shiver, feel cold

It can be seen from the following forms that inchoative can be used as a primary affix with the set of questionable roots:

- 49. y^{°w}-э́р disappear √hide-INC
- 50. ⁴q^w-óp landed there √put on top-INC

It is common with stative bound forms.

- 51. kə‡-э́p it came apart √separate-INC
- 52. $ci[\cdot?]q$ red $\sqrt{brown/red-INC}$
- 53. $q \Rightarrow z \Rightarrow p$ to be startled $\sqrt{startle-INC}$
- 54. *x*'k^w-*ip* burst √burst-INC

The use of inchoative presents the first set of data that the aspectual element distinguishes between roots in N¹. The examples in 47 through 54, from the unanalyzed set and the bound statives, show that: (1) The unanalyzed forms are patterning with the states (Examples 49-54), and, (2) Involuntary bodily processes do not pattern with the other agentives. The inchoative creates a change of semantics to non-control in examples 57 and 58. It is also of note that there is no inchoative use possible with the agentive free forms, and that there is a complete gap of data for the agentive bound forms. It appears, therefore, that inchoative applies only to unaccusative roots, which is evidence that the questionable set of forms are unaccusatives. As this affix is aspectual in nature, this is evidence that the aspectual element is important to a distinction between roots in N¹.

2.5.4 Immediate

Immediate designates states and actions that have just gone into effect, and impending states or action. It is unmarked for the feature of control. As such, it is a second potential aspectual diagnostic.

There was a single immediate free form accepted as grammatical from a range elicited of DU.

55. x^wák^w-t it is frosty √frost-IM

As can be seen, with the bound roots immediate is a common alternate for the unanalyzed set:

- 56. ník'-t get cut $\sqrt{\text{cut/slice-IM}}$
- 57. ?áx-t just now swept √sweep-IM

and stative roots:

- 58. péw-t swell up, swollen √swell.up-IM
- 59. zéw'-t tired of something √annoy-IM
- 60. téy-t kn I am hungry (327a) √hungry-IM 1sg

The majority of these forms also have alternate intransitives with other primary affixes, as will be seen in the discussion. The use of the immediate affix provides corroborative evidence for an unaccusative/unergative split. All forms have a patient reading; therefore, like inchoative it is diagnostic for unaccusativity.

2.5.5 Stative

Stative designates accomplished actions and states with a remote cause. It is considered to be unmarked for control (Thompson and Thompson 1992).

Statives elicited with free form roots showed that grammaticality of forms varied within each semantic grouping:

61.	*?es/x ^w esít ST-√walk	(385b sf)
62.	*?es/nés ST-√go	(405b sf)
63.	?es/?úq ^w e? ST-√drink 3	drunk
64.	?e(s)/shéw ST-√yawn 3	yawning
65.	*?es/xíyq' ST-faint	(389f sf)
66.	*?es/xáni ST-√hurt	(384f sf)
67.	?es/zóq ^w ST-√die 3	already dead
68.	?es/q ^w nóx ^w ST-√sick 3	be sick
69.	*?es/ptúk ^w ST-√ooze	(390h sf)
70.	*?es/c'lóx ^w ST-√hot.weather	(419h sf) t/food
71.	?es/x'yáq ^w ST-√break 3	already broken [rope, string] (262 sf)
72.	?es/plúx ^w ST-√puncture	it is punctured (383c sf)

All psychological predicates and weather roots tested as ungrammatical in the stative

form. Bound control roots regularly take a stative alternate with a corresponding shift to a patient reading:

73.	?es/k ^w én ST-√grasp	it has been taken
74.	?es/púys ST-√kill	already killed
75.	?es/púyt ST-√lie.down	lying down
76.	?es/∳ím ST-√cut.brush	[of brush] already trimmed
77.	?es/cúł ST-√point	it is pointed out

The questionable set (78-79) and statives (80-83) show a corresponding shift:

78.	?es/cíq ST-√dig	already dug
79.	?es/łép ST-√extinguish	[of fire] extinguished/out
80.	?es/kół ST-√separate	detached
81.	?es/cáq ^w ST-√brown/red	red
82.	?es/zéw ST-√annoy	already tired
83.	?es/x'úk ^w	already burst

ST-√burst

Stative appears with causatives and other derived forms, so there is no evidence for the order of attachment of this form. It may be a late process, as Gerdts (1991) suggests. I have no explanation for why stative does not appear with some free forms, but does appear with others. It is of note that with the bound control forms stative creates a

patient form (recall there was no evidence for inchoative or immediate use with these forms). Stative does not appear to be a diagnostic in the same way as inchoative and immediate, because it applies both to agentive and non-agentive forms. However, its use with the bound control forms may be analyzed as evidence that at some level these forms are unaccusative as well.

2.5.6 Out-of-Control

04

W . .

This reduplicative affix indicates that an event or a state has developed without an obvious cause. It is quite productive and adds to both agent- and patient-oriented roots. Recall that it is marked non-control, because when it is added to agentive roots, it gives an exceptional volition agent reading in some cases and a non-volitional patient reading in other cases.

Out-of-control forms were limited in the data. However, agentive forms that took out-of-control had the characteristic exceptional energy required or non-volitional reading, depending on the semantic requirements of the form, as in:

...

04.	x [~] esit+ət √walk-OC	manage to walk
85.	?es/?úq ^w [·oq ^w] e? ST-√drink-OC	get a drink somehow
86.	nés∙əs √go-OC	manage/ are enabled to go
87.	míc[·əc]e?q √sit-OC	manage to get up
88.	nóx∙ox ^w √run-OC	animal is forced to run
89.	twép∙əp √back up-OC	move backwards inadvertently, get moved back

90.	λ'éy∙i	be stopped, come to a halt
	√stop-OC	

The state roots pattern in the same way.

91.	zóq ^w ∙oq ^w	murdered
	√die-OC	

92. $\int^{w} yix[\cdot ax]m$ -me-t-m have someone get a little jealous of one jealous-OC-RLT-3/indef sub.

Two forms appeared to alternate between the agentive and non-agentive readings.

93.	^w óy[∙i?]t √sleep-OC	manage to go to sleep/get put to sleep
94.	cúk ^w ∙uk ^w √finish-OC	it got finished (with difficulty)/someone finished it

There were exceptional control and stative free forms that were ungrammatical with an out-of-control affix. These were k^{w} úce 'descend to the water'(412i), kwúce 'ascend to the water (413i), and pz'éł 'worthless' (398n).

The bound control roots,⁸ show the same pattern, as the agentives and states, as

can be seen in:

95.	?ús∙əs √discard-OC	be discarded (out-of-control)
96.	k ^w én∙n √grasp-OC	taken by someone (uncontrolled)
97.	púy[∙i]s √kill-OC	get killed or beaten up (out-of-control)
98.	cún∙n √say-OC	be talked about (out-of-control)
99.	téw∙u kn √sell-OC 1sg	I have been sold something (despite resistance) (out-of-control)

^{8.} This includes forms that Thompson & Thompson (1992) designate as +control, and the +control free forms in their data that DU would not accept as grammatical without the middle primary affix.

So did the rest of the bound roots of the unanalyzed set, listed below. Note that one of these forms (example 100) has the exceptional volition reading more characteristic of agentive forms.

100.	4q ^w ∙óq ^w √put on top	manage to mount
101.	4ép∙əp √extinguish	someone else has put it [a fire] out
102.	kł∙ół √separate-OC	removed by someone
103.	céq ^w ∙oq ^w √brown.red-OC	come to be red inappropriately
104.	méł∙əł √rest-OC	put to pasture, laid off
105.	cíq∙əq √dig-OC	dug up (by someone)

Given the fact that the out-of-control affix applies to free and bound forms alike, it is not a diagnostic of unaccusativity versus unergativity. The distinction that Thompson and Thompson (1992) note between exceptional volitional and patient readings for agentive free form roots appears to be merely a factor of the root semantics pushing a particular reading, as the bound agentives take an out-of-control reading where an exceptional volition reading would be expected. Out-of-control has no effect on the argument structure of a root.

2.5.7 Desiderative

The next set of morpho-syntactic processes I compare are desiderative and causative. These two diagnostics were chosen on the basis of available comparative work in Hk (Gerdts 1991). Gerdts shows that these two tests serve as a diagnostic for an

unaccuisative/unergative distinction in Hk. I apply them to the data to determine if the same results apply in Nł. First I will consider the desiderative data. Recall that the desiderative is a secondary affix that attaches directly to roots. It is unmarked for control. Desiderative is a productive process in Nł, but is not one of the more common formations (like causative, directive, or middle). There is a tendency for the consultant to use a clausal formation in the same form of the English gloss.

To recapitulate Gerdts (1991), unergatives in Hk allow desiderative with the typical gloss of 'want X'. Some unaccusative process verbs allow desiderative, with a shift in semantics to a future meaning, and some process verbs disallow desiderative. State verbs never take the construction.

Desiderative forms were easily elicited, as were grammaticality judgements. A majority of free form agentives were grammatical, as can be seen in:

106.	x ^w esit-mémn kn √walk-DESID 1sg	I want to walk (235sf)
107.	nes-mémn kn √go-DESID 1sg	I want to go
108.	naq ^w -mémn kn √steal-DESID 1sg	I want to steal (265 sf)
109.	nox ^w -mémn √run-DESID 3	[bird, horse] wants to run
110.	tax-mémn kn √paddle-DESID 1sg	I want to paddle (242 sf)
111.	*?uq ^w e?-mémn kn √drink-DESID 1sg	I want to drink (271 sf) (DU: would somehow mean liquour)

Involuntary bodily process root ranged in grammaticality according to their semantics, as 112 through 115 show:

11 2 .	we X'k'-mémn kn √vomit-DESID 1sg	I want to throw up (248a)
113.	shew-mémn √yawn-DESID 3	feel like yawning, begin to yawn
114.	?*?ə∙sxe-mémn kn √sneeze-DESID 1sg	I want to sneeze (246 sf)
115.	*mec'x-mémn kn √blink-DESID 1sg	I want to blink (298b sf)

There were two exceptional free form states that took the desiderative. These are listed

in 116 and 117:

116.	zoq ^w -mémn √die-DESID 3	he is near death, wants to die (310 a,b)
117.	u?ex xan'i-mémn √hurt-DESID 3	it is dangerous, he is asking to get hurt (348c sf)

The rest of the states were ungrammatical in the desiderative, as can be seen in:

118.	*k ^w is-mémn √fall-DESID 3	to want to fall(313b sf)
119.	?*xiyq'-mémn √faint-DESID 3	to want to faint (389 sf)
120.	*q ^w nox ^w -mémn √sick-DESID 3	to want to be sick (350b sf)
121.	*maq'-mémn √satiated-DESID 3	to want to be satiated (3971 sf)
122.	*∮ax ^w -mémn √heal-DESID 3	wound wants to heal (351e sf)
123.	*X'y'aq-mémn √break-DESID 3	string wants to break (262a sf)
124.	*c'lox ^w -mémn √hot-DESID 3	weather wants to be hot (419e sf)
125.	*îlux ^w -mémn √noise-DESID 3	noise wants to be made (416e)

126.	*c'ək ^w -mémn √shine-DESID 3	want to shine (409e)	

127. *plux^w-mémn want to be punctured (383) √puncture-DESID 3

No data were elicited for psychological items. It is noteworthy that the only evidence of the second future reading found in Hk was with the weather roots. Three of the weather forms had an inceptive/future reading to the desiderative form. The others were ungrammatical.

128.	wux ^w t-mémn √snow-DESID	it looks like snow (257b sf)
129.	tek∳-mémn √rain-DESID	it looks like rain (253 sf)
130.	γap-mémn √dusk-DESID	becoming dusk (372)

Transitive desideratives are created by adding transitive /-t-/ directly to the desiderative affix. Indirective and causative are also possible transitivizers. There were no data regarding relational use.

131.	x ^w esit-mémn-ne 4 sqáqxa? √walk-DESID-TR-3/1 DIR √dog	I want to walk the dog (239)
132.	tax-mémn-ne∮sčəq'áw∮ √paddle-DESID-TR-3/1 DIR √boat	I want to paddle the boat (243 sf)
133.	x ^w esit-mémn-s-t-m √walk-DESID-CAU-3/1pl	we want him to walk (236sf)
134.	x ^w esit-mémn-xə-c-n te sqáqxa? √walk-DESID-IND-3/1sg OBL √dog	I want to walk your dog for you (237)

Some transitivizations of acceptable desiderative intransitive forms were ungrammatical.

135.	*naq ^w -mémn-s-ne	I want him to steal (266a sf)
	√steal-DESID-CAU-3/1	

It is of interest that while desiderative constructions in Hk and N4 are similar in that in

both languages desideratives can be both transitive and intransitive, they differ in that in Hk the desiderative morphology is added to a base which includes the transitivizer, whereas in N¹ the desiderative suffix becomes part of the base that transitivizers are added to.

The desiderative appears to distinguish actor-events. Except for the examples of zóq^w 'die' and xáni 'hurt', which are grouped semantically and morpho-syntactically as patient-oriented forms, desiderative is only grammatical with agentive roots and some of the bodily process forms. Only some bound involuntary bodily process roots are ungrammatical. Once again, involuntary bodily processes are not patterning with agentives as a unitary group. It is of particular note that, apart from the two exceptions of 'die' and 'hurt' listed above, desiderative never suffixes to states. Weather roots (one of which is documented by Thompson and Thompson to be control) are an anomalous set as they form desideratives with future semantics. Desiderative morphology is then a diagnostic of unergativity in N¹.

2.5.8 Causative

In N¹, causative is the most productive of the transitivizers. As was seen in the introduction, it is the transitivizer most commonly used to transitivize primary affixed roots and to re-transitivize complex intransitives. The results of elicitation show that it applies nearly across the board. There are some exceptions to this productivity. Causative does not occur with ?écq^w 'bake', náq^{?w} 'steal'(267 sf), m'én 'give', twép 'move backwards', záx 'get dressed', Slúx^w 'noise', $\sqrt{\chi}$ 'əz- 'lazy', máq' 'satiated'⁹ (397i sf) and the

^{9.} The root máq' does not take any transitivizers.

weather roots $x^{w} ak^{w}$ 'frost', tékł 'rain', $\lambda' ax^{w} us$ 'hail', and Sáp 'dusk'. There is, however, a causative form based on the weather¹⁰ root 'snow' in the database (see example 136) that shows that if an appropriate context and protagonist can be found a causative is not blocked.

136.	wux ^w t-s-t-és	[Coyote] makes it snow (this form was rejected by
	√snow-CAU-3/3	by DU (257c sf))

The set of items to which causative does not apply is not a unitary one, and the forms should be considered idiosyncratic.

Causative, therefore, is not selective in what semantic classes (and, by logical extension, syntactic classes) it applies to. Therefore it cannot be used in conjunction with desiderative to distinguish unaccusatives in the same way as in Hk.

However, the interpretation of causative transitivization in N¹ with agent-oriented and patient-oriented roots can be shown to distinguish semantic classes.

With actor-activity roots causative has a straight causal reading, as in:

137.	x ^w esít-s-c √walk-CAU-3/3	help someone to walk, take someone for a walk
138.	noș ^w -s-c √run-CAU-3/3	force an animal to run
139.	táx-m-s-cm-s √paddle-RLT-CAU-1	he made me paddle (270) sg-3
Two	involuntary bodily p	rocesses, in 140 and 141, take causative.
140.	wé λ'k'-s-cm-s √vomit-CAU-1sg-3	he caused me to vomit

^{10.} The weather roots do not take directive or indirective forms. They often have relational forms with indirect subject pronominals.

141.	shew-s-t-és	they made us yawn (and they kept talking) (281 sf)
	√yawn-CAU-1pl/3	

The bound form control roots also appear to have this causal reading:

142.	púyt-s-c √lie down-CAU-3/3	put someone to bed

143. ?es-t/xə4-əs-cém-x^{w11} you cheered me up ST-QLT-\cheer-CAU-1sg-2sg

However, with the majority of state roots, as Thompson and Thompson (1992) have documented, there is an accidental reading to causative activity.

144.	zóq ^w -s-c √die-CAU-3/3	kill someone accidentally
145.	q ^w nóx ^w -s-c √sick-CAU-3/3	do something that indirectly results in making someone sick
146.	xán'i-s-cm-s xə?ə √hurt-CAU-2sg-3	he hurt me accidentally
147.	⁴yúk ^w -sm-s √bump.into-CAU-1sg-3	he accidentally bumped me (381b)
148.	ptúk ^w -st-əne √ooze-CAU-3/1sg	I (accidentally) caused it (my sore) to ooze (390d)
149.	λ'yəq ^w -st-éne √break-CAU-3/1sg	I accidentally broke the rope (379b)
150.	z λ'áq-s-c √tumble-CAU-3/3	he made it fall down (accidentally)
151.	pl'ux ^w -st-ə-ne √puncture-CAU-3/1sg	I punctured it accidentally (383a)
152.	(?e) xíyq'-s-cm-s xó?ə √faint-CAU-1sg-3	thats what made me faint (389c2) (no animate cause allowed)
153.	c'lóx ^w -s-cm-s √hot-CAU-1sg-3	it makes me hot

^{11.} The form listed in the dictionary is q54 'cheer'. DU is unfamiliar with this form.

One state root has two sets of causatives, one with the accidental reading and one with the straight causal, as in:

154.	k ^w 1-st-əne √fall-CAU-3/1sg	I dropped it accidentally (314)
155.	k ^w ís-s-cm-s	she caused me to fall

The directive form of this root is:

√fall-CAU-1sg-3

156.	k ^w ís-e-s	drop something intentionally, let fall intentionally
	√fall-DR-3/3	

One patient-oriented root does not take the accidental reading.

157.	c'ék' ^w -sə-ne wi	I shone a light on his face (intentionally) (409)
	√light-CAU-3/1sg	

Psychological predicates do not take the accidental reading. Some have two sets of

forms.

158.	^{°w} yíxm-s-cm-s u?ex √jealous-CAU-1sg-3	he makes me jealous (358)
159.	qlíl-s-əne √angry-CAU-3/1sg	I made him angry
160.	páq ^w u?-s-cm-s √afraid-CAU-1sg/3	he scared me (300) or he is afraid of me (302)
161.	páq ^w u-sə-ne √afraid-CAU-3/1sg	I am afraid of him (303)

In the following section, I tabulate these results and discuss them.

2.6 Discussion

The data from the primary affixes inchoative, autonomous and middle show only that free forms do not take these affixes and bound forms do. It is important to remember that all bound forms do not take all primary affixes. This thesis makes no attempt to distinguish the reasons why bound roots differ in this respect.

From their behavior with primary affixes, the fact that they appear to allow all primary affixes, and the fact that the agency of the predicate changes with affixation, the following forms that were the unanalyzed set should be grouped with the state predicates. I review the behavior of these roots with primary affixation below in example 162. In example 163 I show comparative affixation with a set of state roots.

162.	а	b	С	d	e
i.	√yî ^w - √hide	√ciq- √dig	√?ax ^w - √sweep	√łáq ^w - √put on top	√ník'- √cut
<u>MIDD</u> ii.	<u>LE</u> y ^{çw} -óm √hide-MDL hide s.t.	cíq-m √dig-MDL dig s.t.	?áx ^w -m sweep-MDL sweep s.t.	-	ník'-m √cut-MDL cut s.t.
<u>AUTO</u> iii.	<u>NOMOUS</u> yî ^w -íyx √hide-AUT hide oneself	-	-	∮q ^w -íyx √put on top-AU mount a horse	- J T
<u>INCHO</u> iv.	<u>DATIVE</u> yî ^w -áp √hide-INC disapppear	-	-	∳q ^w -óp √put on top-IN landed there	c
<u>STATI</u> v.	<u>-</u>	?es/cíq ST-dig already dug	-	-	ník'-t √cut-IM get cut

IMMEI	DIATE		
vi.		?áx-t √sweep-IM just been swept	
<u>OUT-O</u> vii.	<u>F-CONTROL</u> 	- 1	<pre>\$q^w.óq^w - √put on top-OC manage to mount</pre>
163.	a	b	c
i.	√kə‡- √separate	√cáq ^w - √brown.red	√péw- √swell
<u>MIDDI</u> ii.	<u>LE</u> kł-óm √separate-MDL subtract	cáq ^w -m √brown.red-MDL paint (s.t.) red	8 -
<u>AUTO</u> iii.	NOMOUS kł-íyx √separate-AUT get away from s.t.	cáq ^w -ix √brown.red-AUT turn red of own accord	péw-ix √swell.up-AUT [of snake, toad] puff up, swell up
<u>INCH(</u> iv.	DATIVE kł-э́p √separate-INC it came apart	ci[?]q ^w √brown.red red	p[?]éw √swell-INC begin to swell
<u>IMME</u> v.	<u>DIATE</u> -	5051	péw-t √swell.up-IM swollen
<u>STATI</u> vi.	<u>IVE</u> ?es/káł ST-√separate detached	?es/cáq ^w ST-√brown.red red	?es/péw-t ST-√swell.up-IM swollen
<u>OUT-(</u> vii.	OF-CONTROL k4·ó4 √separate-OC removed by someone inappropriate	céq ^w ·oq ^w √brown.red-OC come to be red y	-

It can be seen that the inchoative and immediate of all these forms have patient readings. It is also noteworthy that these roots appear to create alternate forms with all primary affixes. The stative affix appears to behave differently from the other primary affixes. Unlike the other primary affixes listed above it can attach to some of the free forms. It is productive with bound forms as well. There seems to be no obvious pattern to which forms it will attach to and which forms it will not attach to.

While the out-of-control affix has no diagnostic value, the desiderative and causative appear to be relevant morpho-syntactic diagnostics of underlying root structure. The aspectual affixes are a primary set of diagnostics of unaccusativity, as these affixes (inchoative and immediate) attach only to patient-oriented roots. Therefore, the set of questionable roots, despite their vague reading as actions, are in fact unaccusatives. The odd set is the agent-oriented/unergative roots which do not allow these affixes. Therefore, anything that the aspectual affixes attach to are unaccusatives. Table 8 summarizes the general patterns of distinctions in semantics of the classes with these morpho-syntactic affixes.

Semantic Class	Desiderative	Causative	Immediate	Inchoative
Agentive-Action	grammatical	causal reading	ungrammatical	ungrammatical
Bodily Proc.	grammatical	causal reading	variable	variable
State	ungrammatical	accid. reading	grammatical	grammatical
Psychological	no data	causal reading	no data	no data
Weather	future reading	causal reading	no data or unknown	no data

Table 8: Morpho-Syntactic Diagnostics of Unaccusativity/Unergativity

The distinction between bound and free forms is not made on the basis of semantic class or syntactic class. Free forms pattern both unaccusatively and unergatively, and they belong to a range of semantic classes.

Desiderative forms with two exceptions distinguish agentive forms. Weather roots have a future reading with this affix. The results from the analysis of the desiderative in N4 partially match those of Gerdts, in that the items that can be semantically classed as potential unergatives allow desiderative formation. The potential unaccusatives split into state/change of state roots that do not allow desiderative, and the anomalous set of weather roots which form a future with this suffix. There are two exceptions, in that zóq^w 'die' and xán'i 'hurt' pattern with the unergative forms.

Causative distinguishes state roots with an accidental reading from agentive, psychological, and involuntary bodily process roots with a causative reading. The results of an analysis of the patterning of causative show that while causative is productive in applying to all classes of roots, the unaccusative state roots are distinguished by having an accidental reading.

The primary aspectual affixes (immediate and inchoative) are strong diagnostics of unaccusative, as can be seen from the fact that there is always a patient reading on the root when they are attached. This means that the questionable forms listed in the preliminary classification are in fact unaccusative roots.

It is noteworthy that the bound control forms allow a middle form. It is also of interest that the involuntary bodily process roots, and psychological and weather predicates behave in a manner that is not as clearly characterizable as simply unaccusative or unergative.

These results show that the two elements of aspect and agentivity play a role in N⁴; there is an unergative and unaccusative distinction in the language. The semantic classification is therefore a useful tool for distinguishing between unaccusatives and unergatives, and the cross-linguistic generalizations hold. In table 9 I present a revised classification of the bound and free forms discussed in this Chapter. The data from the morpho-syntactic diagnostics show that there are: a set of agentive/unergative forms; and a set of state/unaccusative forms. The results also show that involuntary bodily process roots, weather roots, and psychological predicates must be considered seperate sets. It is of note that involuntary bodily processes are not behaving as a unitary set. This result matches the patterning of these forms cross-linguistically, as discussed in Rosen (1984).

Table 9: Classification of Free Roots

A. UNERGATIVES

1	2	3	4	5	6
x ^w esít	?úq ^w e?	nés	náq ^w	nóx ^w	tax
walk	drink	go	steal	run.animal	paddle
7	8	9	10	11	12
mí∳t	q?ém	p'ánt'	k ^w úce	k ^w úme	qáyt
visit	[infant] nurse	return	descend	ascend	reach.top
13	14	15	16	17	18
q'amín	kán	۲ ^w óyt	páq ^w	twép	m'ən'
throw	help	sleep	watch	back up	give
19	20	21	22	23	24
λ'éy	?écq ^w	kéze?	pték [₩] ł	záx	√?ús-
stop	bake	tell a lie,	tell a story,	get dressed	√discard
-		be a lie	be a storytelle	er -	
25	26	27	28	29	30
√k ^w én-	√ λ 'éx-	√n'(é)-	√pílex-	√púys-	√púyt-
grasp	joke	give	inform/tell	kill	lie down
31	32	33	34	35	36
√q á l-	√qə ł -	√cú(n)-	√4ím-	√téw-	√cúł-
bite	cheer	say	cut brush	sell to	point

B. UNACCUSATIVES

1	2	3	4
4áx ^w	ptúk ^w	λ'y'áq ¹²	λ'áq'
wound heals ¹³	ooze	break	tumble.down
5	6	7	0
J crátvW	0 21úz ^W	/ د'ان۳ ^w	o nl'úv ^W
shine	bang/noise	hot weather/food	punctured
	0		•
9	10	11	12
c'ák'	lpúx ^w	zóq ^w	k ^w ís
exhausted	have a hole through	die	fall
13	14	15	16
xívq' kn	pz'éł	y'e	q ^w nóx ^w
faint	worthless	good	sick
17	18	10	20
17 váni	10 davi	4vúk ^W	mán'
şanı hurt	cold	humped into	satiated
nart	cona	oumped into	Suttated
21	22	23	24
xíy	cúk ^w	√q ^w éc-	√qэ́z-
go ashore	finished	move	startle
25	26	27	28
√x'ək ^w -	√łáx ^w -	√méł-	√k ^w ás-
burst	escape	rest	crazy
20	20	21	22
29 Dr'47	30 Frény?	J1 /tex	J2 A'ém-
V A 9Z-	√žaw - thirstv	hungry	stealthy
lazy	umsty	nungiy	stouriny
33	34	35	36
√k' ^w álc'-	√céq ^w -	√yՐ ^w -	√ciq-
√curve	brown/red	hide	dig
37	38	39	40
√?ax ^w -	√łáa ^w -	√ník'-	$\sqrt{2}$ ix-
sweep	put on top	cut/slice	scratch
41	42	43	
√łép-	√łéq-	√céw-	
extinguish	sit (plural)	reach	

12. The dictionary form of this root is λ 'm'áq.

13. DU allows this root only with an inanimate referent. In Thompson & Thompson (1990) the root can refer to a healer.

C. PSYCHOLOGICAL PREDICATES

1	2	3	4
páq ^w u?	የ ^w yíxm	qəlil	√c'éx-
afraid	jealous	angry	shy/shame
_			
5			
√zéw'-			
annoy (-ctl)			
D. WEATHER			
1	2	3	4
L vvíve ^W t	د ۳ ^W át ^W	terd	*'ax ^W ús
wux t snow	frost	rain	hail (+ctl)
SHOW	nost	1 4444	
E. INVOLUNTARY	BODILY PROCESS	ES	
1	2	3	4
wéx'k'	?á∙sxe	shéw	méc'x
vomit (-ctl)	sneeze (-ctl)	yawn	blink
~	<i>,</i>	7	o
	6	/ [aám]	0 (c)61-
√x"uc'-	√tkey-	√sup ² -	√C CK-
eject/vomit	urinate	breathe	псп
9	10		
$\sqrt{x^{w}}$ ic'-	√qáz-		
defecate	sweat		

In Chapter Three I take the free forms discussed here and analyze them to determine if there is evidence for underlying transitives in N⁴.

CHAPTER THREE

3.0 Transitive Forms of Roots

3.1 Introduction

In this chapter I discuss the potential for underlying transitive and intransitive roots in N4. Opinion on this issue has been split. Gerdts (1989) hypothesizes underlying transitives and intransitives, as does Kuipers (1968). The opposite view that all roots are intransitive is the more traditional one, held by Thompson and Thompson (1992).

Apart from causative, the transitivizing suffixes do not apply across the board. Directive, indirective and relational are blocked for different items. The focus of this chapter is to discuss the set of free roots with respect to their behavior with the set of transitivizers. I bring in some comparative data from bound forms. The basis for distinguishing between transitive and intransitive roots is the logical assumption that the transitive use of predicates will be based on their thematic underpinnings. Therefore, directive should apply only to transitive roots, and never to a form that is classified as an unaccusative. Indirectives should apply to ditransitives.

First I set up a preliminary semantic grouping of forms that could potentially be transitive versus those that could be intransitive. I base this classification on whether the root appears to imply a patient as well as an agent. To aid in the classification of ambiguous forms, I bring in relevant data from Chapter Two. Some roots will potentially fit into both categories. In the sections following, I will present the use of the transitivizers with each set of roots as morpho-syntactic tests of transitivity. In Section 3.4 I present a discussion of the results and suggest what their implications are for the

argument structure of predicates.

It is of note that a conclusive test for transitivity would be if a root surfaced only in a transitive form. There do not appear to be any roots of this nature in the database. A second test is if roots only surface as a middle (intransitive) or as a transitive form. There are a number of roots that surface only as middles, but their semantics would indicate that there is no patient possible (?úy-m 'laugh', p'áq'-m 'bloom', λ 'y-śm 'wade into water') and their transitivization potential is limited to causatives. From a perusal of the database it appears that most roots allow at least two primary affix alternates. While it is questionable to use middle as a sole diagnostic of transitivity it may be useful in conjunction with directive and indirective in a discussion of bound forms.

3.2 Preliminary Semantic Grouping for a Transitive/Intransitive Distinction

Following the semantic grouping of roots into the two main classes of States and Agentives, the class of what could be termed variable roots, and the minor classes of Psychological, Weather, and Involuntary Bodily Process Predicates, the semantic grouping into potential transitive and intransitive sets is reasonably straightforward. Transitive forms must be agentive and allow a patient. Intransitives can be either agentive or nonagentive forms. I present an initial grouping in Table 10 below.

A.T	RANSITIVE	ROOTS				
11. 1	1	2	3	4	5	
	1 ?úa [₩] e?	nág ^{,w}	tax	mí∳t	pték ^w ∳	
	drink	steal	naddle	visit	narrate	
	WITTE		P			
	6	7	8	9	10	
	páq ^w	?écq ^w	q'amín	cúk ^w	kán	
	watch	bake	throw	finish	help	
Ditr	ansitive Roots					
	11	12	13	14		
	√m'ən'-	√cú(n)-	√cúł-	√téw-		
	donate	say	point	sell		
B. II	NTRANSITIV	'E ROOTS				
Age	ntive Roots					
	1	2	3	4	5	
	x ^w esít	q?ém	۲ ^w óyt	p'ánt'	k ^w úce	
	walk	nurse	sleep	return	descend	
		_	0	0	10	
	6	7	8	9	10	
	k"úme	qáyt	keze?	X1Y	zax	
	ascend	reach.top	lie	go.asnore	get dressed	
Non	-Agentive Ro	ots				
1101	11	12	13	14	15	16
	váni	xívo'	nz'éł	v'e	a ^w nóx ^w	máq'
	be hurt	faint	worthless	feel good	be sick	satiated
	bo huit	Idill				
	17	18	19	20	21	22
	łáxi	łáx ^w	ptúk ^w	x'áq'	Slúx ^w	c'lóx ^w
	be cold	wound heals	ooze	tumble.down	bang/noise	hot
	23	24	25	26	27	28
	c'ák'	lpúx ^w	plúx ^w	4yúk ^w	k'"áł	x'y'áq
	exhausted	have hole	punctured	bumped	spill	break
	20	20	31	32	33	34
	27 260	JU b [₩] is		x'év	twén	nóx ^w
	100	fall/dron	die	ston	back up	animal run
	go	ian/drop	uit	stop	ouon op	
	35	36	37	38	39	40
	c'ék' ^w	wé k 'k'	?ásxe	shéw	méc'x	páq ^w u?
	shine	vomit	sneeze	yawn	blink	afraid
	44	10	42	A A	45	16
	41 oW-1	42	45	44 "Walw	4J +SI-J	40 2'25 ^W úc
	Y"yıxm	qəm	WUXK	x ak frost	ICAT rain	лаў us hail
	lealous	angry	SHOW	11051	lam	IIGII

Table 10: Preliminary Semantic Classification of Transitive/Intransitive: Free Roots
3.3 Morpho-Syntactic Diagnostics

If the set of transitivizers were going to be diagnostic of underlying transitivity, it would be logical to assume that use of the directive would mark an underlying transitive form. The indirective should apply to transitive forms with underlying goal arguments. Neither of these transitivizers should ever apply to a non-agentive form. Causative, it has been seen in Chapter Two, applies productively to all predicates. Relational use may mark a transitivization option for an underlying intransitive form.

3.3.1 Directive

Directive patterns differently from the the relational and causative because it does not, with minor exceptions, appear to transitivize forms with the primary affixes, nor does it ever re-transitivize complex intransitives, or combine with other transitivizers. The indirective appears to pattern with the directive, except that it is found in combination with other transitivizers.

The following examples document the grammaticality judgements of DU with respect to the use of directive with the forms in Table 10.

A. Transitive Roots: Directive Use

61.	?úq ^w e?-n-s √drink-DRV-3/3	drink something
62.	táx-e-s √paddle-DRV-3/3	propel something [canoe,boat]
63.	pték ^w ∳-e-s √narrate-DRV-3/3	tell someone a story
64.	?écq ^w -e-s √bake-DRV-3/3	bake something

65.	cúk ^w -e-s √finished-DRV-3/3	complete something
66.	*náq ^w -n-t- √steal-DRV-	(268)
67.	*mí∳t-n-t- √visit-DRV-	(344c)

Of the roots that I would consider to be transitive, náq^w and míłt are exceptions in that they do not allow directive. Other forms in this classification pattern as expected. Comparative data from the bound agentive/control roots show that these forms which semantically would be considered transitive take the directive.

68.	?ús-c √discard-DRV-3/3	discard something
69.	k ^w én-s √grasp-DRV-3/3	take something, grab
70.	púys-c √kill-DRV-3/3	kill something/ someone

All forms that can be considered underlyingly ditransitive take the directive.

Ditransitive Roots: Directive Use

71.	m'ən't-és √give-DRV-3/3	give someone (something)/feed someone
72.	cú∳-e-s √point-DRV-3/3	point out someone/thing
73.	téw-e-s √sell-DRV-3/3	sell (something) to someone
74.	cú-n-ne √say-DRV-1sg/3	I told him (something)

B. Intransitive Roots: Directive Use

Agentive Roots appear to take directive as in:

75.	kéze?-s √lie-DRV-3/3	lie to someone, deceive someone
76.	k ^w úce-(n)-s √descend.water-DRV-3/3	put something into the water
77.	k ^w úme-n-s √ascend.water-DRV-3/3	move something from the water
78.	záx-e-s √dress-DRV-3/3	clothe/ dress someone

Roots that were documented in Chapter Two as unaccusative also take the directive as

as can be seen in:

79.	łyúk ^w -ə-cm-s √bumped.into-DRV-1sg	he bumped me -3
80.	k' ^w ə∔-t-és √spill-DRV-3/3	pour, dump something out
81.	X'iq ^w -t-éne √break-DRV-1sg/3	I broke it on purpose (379a)
82.	c'ló≭ ^w -e-s √hot-DRV-3/3	make something hot
83.	c'ək-t-és √exhausted-DRV-3/3	finish the last of something
84.	lpúx ^w -e-s √have a hole-DRV-3/3	he made a hole in it
85.	pz'é₄-e-s √worthless-DRV-3/3	not care about something (uncommon form)
86.	q ^w nóx ^w -e-s √sick-DRV-3/3	make someone feel bad [directly responsible]
87.	ptk ^w -ə-t-éne √ooze-DRV-3/1sg	I burst it on purpose (my sore) (390e)

Roots from both the agentive and unaccusative sets were ungrammatical, as in:

88. *x^wesít-n-t- (233a) √walk-DRV-

89.	*ſ ^w óyt-n-t √sleep-DRV-	(309c)
90.	*p'ánt'-n-t- √return-DRV-	(406c)
91.	*qáyt-n-t- √reach.top-DRV-	(388d)
92.	*xíyq'-n-t- √faint-DRV-	(389)
93.	*máq'-n-t- √satiated-DRV-	(397j)
94.	*∮áxi-n-t- √cold-DRV	(355)
95.	?*xáni-n-t- √be hurt-DRV-	(384e)
96.	*x'áq'-n-t- √tumble.down-DRV-	(377)
9 7.	*plúx ^w -n-t- √punctured-DRV-	(383)

The forms that are classified as intransitive, therefore, are problematic in that a large number of them take directives. This problem might be mitigated somewhat if it pertained to the agentive forms, for it can be seen that the directives for these forms reference locations and goals rather than theme arguments. These forms might be considered exceptional. It can be seen that some of the involuntary bodily process roots have the same type of reading.

98.	wé λ'k'-e-s √vomit-DRV-3/3	vomit on something
99.	?əsxé-ne √sneeze-DRV-3/3	I sneezed on him (323c)

The problematic forms are the forms that are clearly unaccusative/state roots that

allow the directive (as in examples 79 to 87). These forms have the characteristic directive semantics, and as such, cannot be considered exceptional.

The forms that I would consider to have both a transitive and intransitive argument structure on the basis of their change in semantics all take directives as expected.

100.	nés √go/take	nés-c √go-DRV-3/3	convey, take someone somewhere
101.	kwís √fall/drop	k ^w ís-e-s √drop-DRV-3/3	drop something
102.	zóq ^w √die/kill	zóq ^w -e-s √die-DRV-3/3	kill something
103.	c'ék ^{'w} √light/shine	c'ék' ^w -e-s √light-DRV-3/3	shine light on somthing, light the way

The inanimate agentive form below is anomalous, as the transitive form appears to have an intransitive reading with a change in root semantics to 'crawl', as opposed to a causal reading or a directive reading such as 'to run a race'.

104. √nóx^w nóx^w-e-s [many-legged creature] crawl √animal.run √animal.run-DRV-3/3

The following agentive forms are problematic if they are considered to be underlyingly intransitive because they reference a theme argument, and could not be subsumed under the rubric of exceptionality.

105.	λ'éy-e-s √stop-DRV-3/3	stop someone (from doing something)
106.	twép-e-s √back.up-DRV-3/3	cause/force something to move backwards

Psychological and Weather roots pattern as would be expected if they were intransitive.

- 107. *páq^wu?-n-t- (300a) √afraid-DRV-
- 108. *qəlíl-n-t-√angry-DRV-
- 109. *wúxx'-n-t-√snow-DRV-
- 110. *x^wák^w-n-t-√frost-DRV-
- 111. *ték₄-n-t-√rain-DRV-
- 112. *λ'ax^wús-n-t-√hail-DRV-

On the basis of the examples (in 79 through 87) which show that roots that clearly pattern as unaccusative states (Chapter Two) take directive, it would appear that the assumption that directive is a diagnostic of underlying transitivity is flawed.

3.3.2 Indirective

If the indirective transitivizer were a diagnostic of transitivity, then indirective forms would require underlying agent and goal arguments. The following are examples of the behavior of the hypothesized transitive and intransitive classes with indirective. Note that these examples would have to be underlyingly ditransitive to take the indirective. This is clearly an non-intuitive and inelegant way of approaching this first set of agentive forms.

A. Transitive Roots: Indirective Use

113.	?úq ^w e?-x-c √drink-IND-3/3	drink a beverage belonging to someone
114.	náq ^w -x-c √steal-IND-3/3	steal something for someone

115.	mí∳t-x-cəm-s √visit-IND-1sg/3	she will visit for me (344e)
116.	?u?ex pték ^w ł-xə-ne te s/ptékł-s √narrate-IND-3/1sg OBL]	I am telling it for him (his story) (to people)((347c) NOM-√story
117.	?ecq ^w -xə́-ne √bake-IND-3/1sg	I baked it for him in the pit oven (296d)
118.	cúk ^w -xə-ne √finish-IND-3/1sg	I finished it for him (357d)

If indirective was a diagnostic of underlying structure, it should not appear as frequently

as it does.

The ditransitive roots pattern as expected, as the examples below show.

Ditransitive Roots

119.	cút-x-c √say-IND-3/3	accept someone, speak for someone
120.	cúł-x-c √point-IND-3/3	point toward someone
121.	téw-m-x-c √sell-RLT?-IND-3/3	sell (something) belonging to someone
122.	*m'án'-xi-t- √give-IND-	(289b sf)

It can be seen from the results below that intransitive roots which should not take

indirective allow it with some forms.

B. Intransitive Roots: Agentive

123.	k ^w úce-xə-cm-s wi? tén-s/qáxqax √descend.water-IND-1sg-3	he is taking my horse down towards the river (412h)
124.	k ^w úme-xə-cm-s wi? tén-s/qáxqax √ascend.water-IND-1s-3	he is taking my horse away from the rivers edge (413h)

125. xíy-x-s-cm-s he might land it for me (417f) √land-IND-1sg-3

126.	p'án't-x-c √return-IND-3/3	return (something) to someone
127.	*x ^w esít-xi-t- √walk-IND-	(233a)
128.	*ſ ^w óyt-xi-t- √sleep-IND-	(309b)
1 29 .	*qáyt-xi-t- √reach.top-IND-	(388f)

Intransitive Agentives are problematic because they have the regular semantics of an

indirective form.

B. Intransitive Roots: Non-Agentive

Unaccusative intransitives are inconclusive, but appear to pattern in the same way

as the agentives.

130.	pz'éł-xit-íyxs xə tə?ə tə x ^w ə́pič √worthless-IND-3/3pl	they thought nothing of his property (398j)
131.	*‡yúk ^w -xi-t √bumped.into-IND-	(381d)
132.	*plúx ^w -xi-t- √punctured-IND-	(383b)

The forms with two potential argument structures, it can be seen, patterned as

expected with the exception of $z \acute{o}q^w$ 'die'. These forms would not normally be considered

ditransitives.

133.	nés-xə-ne te s/saq ^{,w} -s √go-IND-3/1sg OBL NOM	I am taking along their papers (345a) I-√paper-3psv.
134.	√kwís-xə-ne √drop-IND-3/1sg	I dropped it to him (315)
135.	λ'éy-xə-cm-s √stop-IND-1sg-3	he stopped it for me (runaway horse) (414h)

136.	twép-x-cm-s wi? ten/ká √back.up-IND-1sg-3	he backed it up for me, my car (4131f)
137.	c'ék' ^w -x ^w -cm-s √light-IND-1sg-3	he shines the light for me
138.	*zóq ^w -xi-t	(311a)

Involuntary bodily process roots and psychological roots split into those that allow an indirective and those that do not. The expected result is that these forms would not accept indirective.

139.	wéx'k'-xt-əm∮s/q ^{?w} óq ^{?w} ac' √vomit-IND-3/3indef. DIR NO	her feet were vomited on M-√feet
140.	?esx-éne √sneeze-IND-3/1sg	I sneezed on him (323c) ¹
141.	*shéw-xi-t- √yawn-IND-	(320b)
142.	^{°w} yíxm-xə-ne te cítx ^w -s √jealous-IND-3/1sg OBL √hous	I am jealous of his house (358) se-3psv

143. *páq^wu?-xi-t-√afraid-IND- (301a)

√die-IND-

144. *qəlíl-xi-t (306b) √angry-IND-

The results of this section show that indirective patterns much like directive, in that it is not blocked on non-agentive forms. It also marks many roots that are not intuitively thought of as indirective. These data suggest, therefore, that because indirective must bring added argument structure to a root, and since it seems to apply across the board, this transitivizer presents no evidence for an underlying transitive/intransitive distinction.

^{1.} This form is inconclusive, it may be a directive with a locative reading, or it may be indirective.

3.3.3 Causative

The causative transitivizer is of a different nature from directive and indirective. Recall that it is very productive, applying to all semantic classes of roots. It is also used exceptionally to transitivize complex intransitives, and is the most common transitivizer used with primary affixed stems. For examples of the use of causative with the free form set, see Chapter Two. This transitivizer is not a useful diagnostic for elucidating a transitive/intransitive split.

3.3.4 Relational

The relational transitivizer is not as clear-cut a diagnostic as directive and indirective are, nor is it obviously non-applicable as is the causative. Given its nature as the transitivizer of last resort, I hypothesize that it may be a transitivizer of intransitive roots. It is available to re-transitivize complex intransitives and can be used with primary affixed stems. The data following show, however, that the results are far from being as comprehensive as the directive and indirective.

Of the potential transitive forms, the available data show that it is possible to get a relational on the majority of the following forms.

145.	náq ^w -m-s √steal-RLT-3/3	steal something from someone
146.	mí4ť-m-s √visit-RLT-3/3	visit someone
147.	*cúk ^w -min-t- √finished-RLT-	(357)

Ditransitive roots all take a relational, as the forms below show.

148. cút-m-s talk about someone √say-RLT-3/3

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149.	téw-m-s	sell something
	√sell-RLT-3/3	

150. m'én'-mín-m-s give (something) away to someone $\sqrt{give-RLT-?-3/3}$

Intransitive roots of an agentive nature generally allow a relational, being blocked

in a number of cases.

x^wesít-mt-is 151. he walked to meet us √walk-RLT-1pl/3 152. [of weather or season] come back return to someone p'én't-m-s √return-RLT-3/3 153. n/k^wúce-me-s go downriver after something LOC-\/descend.water-RLT-3/3 go upriver after (to get) something 154. n/k^wúme-me-s LOC-√ascend.water-RLT-3/3 155. *qáyt-min-t-(388g) √reach.top-RLT-156. *Swóyt-min-t-(321b)

Of the non-agentive intransitive roots, which would all be expected to all take relational,

it can be seen that some do not allow it.

√sleep-RLT-

157.	*pz'é₄-min-t- √worthless-RLT-	(398i)
158.	*plúx ^w -min-t- √punctured-RLT-	(383b)
159.	y'e-mín-s √good-RLT-3/3	he likes (394h)
160.	*4yúk ^w -min-t- √bumped.into-RLT-	(381d)

The forms with two alternate argument structures take the relational affix except where the semantics would bar it.

161.	nés-m-cm-s √go-RLT-1sg-3	he took me with him (269 sf)
162.	twép-əm-cm-s √back.up-RLT-1-3	he backed up on me (4131f)
163.	*zóq ^w -min-t- √die-RLT-	(310d)

The majority of involuntary bodily process roots and psychological roots take the relational, as can be seen in the forms below.

164.	wé≀'k'-m-s √vomit-RLT-3/3	vomit something up
165.	méc'x-m-s √blink-RLT-3/3	blink at someone
166.	shéw-mt-m √yawn-RLT-3/indef	someone makes one yawn
167.	?ásxe-min-t- √sneeze-RLT-	(323e)
168.	^{°w} yíxm-me-s √jealous-RLT-3/3	be jealous of someone
169.	qəlíl-m-ne √angry-RLT-3/1sg	I got mad at him (306)
170.	*páq ^w u?-min-t- √afraid-RLT-	(304a)

3.4 Discussion

If one starts from a conservative assumption that N¹, like English, has underlying intransitive and transitive roots, and presupposes that directive and indirective were markers of underlying transitives, we find some minor evidence that there are transitive roots in N¹. From the discussion of the out-of-control data in Chapter 2 comes data that there are agentive roots with an exceptional volition reading in the out-of-control forms. If semantics of the effects of this affix are split up, these might appear to maintain their agent participant. These forms do not take the directive suffix. One could hypothesize that these forms were underlyingly intransitive. The second set of agentive roots takes the characteristic non-volitional (patient) reading when the out-of-control affix is added. These forms allow the directive transitivizer and could be considered transitive. The bound control forms that take the out-of-control reading would then be transitive by this analysis.

However, the majority of evidence points to the fact that rather than there being an intransitive/transitive split in N¹, the morpho-syntactic diagnostics discussed and exemplified in this Chapter also distinguish agentive and non-agentive forms.

In the following tables, I summarize the data from the diagnostics in Sections 3.3.1 to 3.3.4 above. In these tables, an asterisk marks an ungrammatical form, and a plus sign marks a grammatical form. A dash signifies a gap in the elicited data. A combination of plus and asterisk symbols means that the form was given in the dictionary, but was considered ungrammatical by DU.

	Root	Gloss	MID	CAU	DRV	IND	RLT
1	?uq ^w e	drink	*	+	+	+	*
2	ptek ^w ł	narrate/tell a story	*	+	+	+	-
3	tax	paddle (a canoe)	*	+	+	+	+
4	keze?	be/tell a lie	*	+	+	-	-
5	k ^w uce	descend-water	*/+	+	+	+	+
6	k ^w ume	ascend-water	*	+	+	+	+
7	nes	go	+	+	+	+	+
8	m'ən'	give, donate	*	*	+	*	+
9	zax	get dressed	*	*	+	-	-
10	?ecq ^w	bake	*/+	*	+	+	*
11	λ'ey	stop	*	+	+	+	*
12	۲ ^w oyt	sleep	*	+	*	*	*
13	cuk ^w	finished/end	*	+	+	+	*
14	miłt	visit	*	+	*	+	+
				-m1n-			ļ
15	p'en't	return	+	+	*	+	+
16	qayt	reach-top	*	+	*	*	*
17	x ^w esit	walk	*	+	*	+	+
18	micəq'	to sit	*	+	-	-	-
19	q?em	nurse	*	+	*	-	-
20	nox	animal-run	*	+	+	-	+
21	naq ^w	steal	*	*	*	+	+

 Morpho-Syntactic Behavior of Unergative Roots

	Root	Gloss	MID	CAU	DRV	IND	RLT
1	xiy	go ashore	*	+	*	+	-
2	c'lox ^w	[weather] be hot	*	+	+	-	-
3	c'ek' ^w	shine/give light	+	+	+	+	-
4	xan'i	be/get hurt	*	+	*	-	-
5	xiyq'	faint	*	+	*	-	-
6	4axi	be cold	*	+	*	*	*
7	pl'ux ^w	punctured	*	+	*	*	*
8	zx'aq'	things piled up fall	*	+	*	-	-
9	۲ lux^w	it is a noise/s.t. bangs	*	-	-	-	-
10	maq'	satiatied	*	*	*	-	-
11	4ax ^{w2}	be healed/heal up	*/+	+	+	-	+
12	q ^w nox ^w	be sick/ill	*	+	+	-	-
13	zoq ^w	die/be dead	*	+	+	*	*
14	k ^w is	fall, be born	*	+	+	+	*
15	4yuk ^w	bang (into s.t.)	*	+	+	*	*
16	k' ^w əł	[liquid] flow run, spill	*	+	+	-	-
17	λ'm'aq / λ'iyəq ^w	[cord] break, pull apart	*	+	+	-	-
18	lpux ^w	[ice/glass] have a hole	-	+	+	-	-
19 ·	ptuk ^w	ooze out, spring water source	*	+	+	-	-
20	pz'eł	foolish	*	+	+	+	*

Table 12: Morpho-Syntactic Behavior of Unaccusative Roots

 ^{2.} Dorothy Ursaki does not allow a middle form \$\u03e4\u00e1x^w-m. However, the dictionary has the form: \$\u03e4\u00e1x^w-m tək ywin' shaman specializing in marital realations

	Root	Gloss	MID	CAU	DRV	IND	RLT
1	?əsxe	sneeze	*	+	+	?	*
2	wék'k'	vomit	*	+	+	+	*
3	shew	yawn	*	+	-	*	-
4	paq ^w u	fear/frighten	*	+	*	*	*
5	qəlil	angry/mad	*	+	*	*	+
6	λ'ax ^w us	hail	*	*	*	-	+
7	tek4	rain	*	*	*	-	+
8	wux ^w t	snow	*	*/+	*	-	+
9	Ŷар	dusk	*	*	*	-	+

 Table 13: Morpho-Syntactic Behavior of Miscellaneous Roots

CHAPTER FOUR

4.0 Conclusions and Future Work

The focus of this thesis was a discussion of the semantic basis of transitivity alternations in N4e?képmx. Because intransitive and transitive use of roots in N4e?képmx is morphologically marked, the purpose of this work was to document what derivational affixes are allowed with a set of predicates. This led to a classification of predicate types.

In Chapter One, I presented an overview of the morphology of N4e?képmx. Chapter Two comprised an application of the semantic diagnostics from the literature on unaccusative and unergative (Grimshaw 1987, Levin & Rappaport 1989, Grimshaw 1990, Gerdts 1991) to a set of N4e?képmx roots. A set of morpho-syntactic diagnostics, including primary affixes, and (following Gerdts 1991) desiderative and causative affixes, was analyzed to determine if they could elucidate underlying structure.

The results of the data collection documented in Chapter Two show that unergative and unaccusative is a relevant distinction in N¹. There is a distinction based on agency that marks unergatives, as seen from the causative evidence and corroborated by the desiderative diagnostic. Unaccusatives are distinguished by the aspectual markers of inchoative and immediate. It is apparent from the data that the psychological, involuntary and weather predicates do not pattern evenly with either the unergative or unaccusative groups. This evidence corroborates Rosen (1984) by showing that for some roots the semantic underpinnings of argument structure vary from language to language. This can be seen most clearly with the involuntary bodily process roots which do not behave as a unitary set, and with the weather roots. This is the only set where the desiderative has a future reading. This shows that the weather forms cannot be grouped with the state/unaccusative predicates. It is possible that there may be some process roots that allow a future reading, and that these were missed in elicitation. Another possibility is that the full extent of the use of such form is being lost by my consultant. It is of note that during the elicitation of the weather forms DU attempted to create a second translation of these forms by setting them in a sentence such as 'the earth wants to rain'.

In Chapter Three I discussed the potential of an intransitive/transitive classification of roots in N4e?képmx. It can be seen from this discussion that there is little evidence for transitive roots in N4. The morpho-syntactic tests in combination do show agency as a relevant semantic dimension, corroborating the evidence from Chapter Two. But there are forms that are clearly documented as unaccusative in Chapter Two that take directive and indirective forms. These data show that these transitivizers cannot be diagnostic of an underlying transitive form.

I conclude therefore, following Thompson and Thompson (1992), that roots in N⁴ are underlyingly intransitive. Given the proportion of agentive versus non-agentive roots, it is also clear that the traditional view holds that in Salish most forms are patient-oriented.

The implications of these data for cross-linguistic work are that transitive roots are not universal. The data from Chapter Two show that the unaccusative and unergative distinction is a viable one in N¹. The behavior of the involuntary bodily process, weather and psychological predicates tends to corroborate Rosen (1984), showing that for a limited set of forms in the data, the semantic underpinnings of argument structure can vary from language to language. In retrospect, there are a number of methodological considerations that would contribute to a clearer analysis of these data. This thesis is based on the extensive work done by Thompson & Thompson with Annie York and other consultants, and on items elicited from DU, a fluent and very linguistically astute consultant. However, the grammaticality judgements come from a single source (DU), as the Thompson database does not distinguish between elicitation gaps and forms that are ungrammatical. An attempt was made to find a second consultant with whom to verify forms, but it was difficult to gain access to a speaker with the degree of fluency required.

A second consideration is that the semantic classification in Chapter Three is largely intuitive. A more conclusive, syntactic test of these judgements would be to elicit intransitive forms with oblique object nominals.

My primary set of data was the subset of roots in N4e?képmx that can appear as free form intransitives in a main sentence. This group of roots cross-cuts the broad semantic categories found in the literature. However, it is important to note that while choosing the set of free forms gave a finite set of common roots with an identifiable subset of agentive forms, the majority set (and potentially more interesting set) of roots is that of the bound forms. Further work on these forms would explain the distinction between bound and free forms. It is of note that the inchoative and immediate forms (the aspectual affixes distinguished in the data) do not attach to the free forms. Thus the next step would be to determine if the distinction is an aspectual one. Looking at the type of roots that surface as free forms, one can see that these roots are very common. Their status as free forms may be linked to this semantic familiarity. Future work would be to map the semantic structure of bound roots in light of the conclusions reached in this thesis. An interesting issue is the event-structure/aspectual nature of the primary affixes and their patterning with roots. The results of Chapter Two show that the forms discussed as primary affixes are not a unitary set, as stative and out-of-control behave quite differently with respect to free forms from the other affixes.

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APPENDIX 1

Free Form Roots

	Agentive Act	<u>ivity</u>
1.	?écq ^w	bake in ashes
2.	?úq ^w e?	drink
3.	k ^w úce	descend-water
4.	k ^w úme	ascend-water
5.	λ'éy	stop
6.	m'ə́n/m'ə́n'	give (s.t.), make a donation/ s.t. given
7.	mícəq'	to sit
8.	míłt	(make a) visit
9.	náq"	steal
10.	nés	go to (place), go for (purpose)
11.	nóx ^w	animal-run
12.	pték ^w ł	narrate, tell a story/narrator, story-teller
13.	p'én't	come back, go back, return, revive
14.	táx	to paddle (a canoe)
15.	twép	go, move backwards
16.	q?em	[of infant] nurse, suck at breast
17.	qáyt	reach the top, summit of s.t.
18.	xiy	go ashore
19.	x ^w esít	walk, go, take a trip, travel
20.	záx	get dressed, put one's clothes on
21.	٢ ^w óyt	sleep
22.	kən	help
23.	páq ^w	watch
24.	téw	sell
25.	cúł	point
26.	łím	cut brush
27.	cún	say
28.	kéze?	be a lie/falsehood, tell a lie/falsehood
29.	cúk ^w	that's all, as soon as, be completed, finished
	Non-Agentiv	e Forms
1.	k ^w is	fall down, be born
2.	∮yúk^w	bang/bump (into something)
3.	pl'úx ^w	puncture, touch (s.t.), finger goes through
4.	xan'i	be/get hurt
5.	xíyq'	faint, lose conciousness
6.	ky'úx ^w	perforated
7.	k" ^w áł	[of liquid] flow, run, spill
8.	λ'm'áq	[of cord] break, pull apart

9. p	túk ^w	ooze	out,	water	source,	spring
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- 10. zx'aq' (things piled up) come down, fall; (of house) cave in
- 11. Slúx^w s.t. bangs, makes a racket
- 12. c'ək exhausted, finished
- 13. laxi be cold
- 14. łáx^w be healed, heal
- 15. **λ**'əz lazy
- 16. máq' be full, satiated
- 17. pz'éł free, easily done, worthless, reckless, foolish
- 18. $q^w nox^w$ be sick, ill
- 19. wméx live, be alive
- 20. xzúm big, large, great
- 21. zóq^w [person, animal, plant] die, be dead

States:Inanimate

1.	?éy	present, here
2.	cə́	burn/blacken, burn up, burn black
3.	c'l'óx ^w	wash out [of road,hill]
4.	c'lóx ^w	(be) hot, hot [weather, object]
5.	c'max	[of berries] mashed, [of clothes] worn out
6.	kəł	detached, apart
7.	k'łúx ^w	severed, cut off
8.	lpúx ^w	[of ice/glass] have a hole through
9.	λ [¯] 'íy'	difficult (to do), hard, elevated [language]
10.	λ'méx	braided
11.	néx ^w	strongly, very, intensively
12.	q'lux ^w	curled
13.	xtáq	[obj/substance] develops a hole
14.	znák	coiled [of snake, rope]
15.	c'ek' ^w	shine, give light
16.	flúx^w	be a noise

Involuntary bodily processes

- 1. shéw yawn
- 2. $? \hat{\rightarrow} sxe$ sneeze
- 3. wéx'k' vomit

Psychological

- c'éx 1. shame
- k^wá crazy, insane 2.
- 3. paq^wu? fear/scare/frighten
- qəlil S^wyíxm angry, get angry/mad 4.
- jealous, envious 5.

Weather/Nature

- λ'ax^wús (to) hail 1.
- 2. tékł to rain
- wúx^wt to snow 3.
- it is dusk, twilight 4. **Sáp**
- x^wák'^w get frosty, there is frost 5.

Nominal Forms

1.	?ék' ^w n	bait/salmon roe
2.	?éyk	kinnickkinnick berry
3.	?ímc	grandchild
4.	%ixic	white worms (in rotten wood)
5.	cítx ^w	house
6.	c'y'é	basket
7.	képu(w)	coat
8.	kíx	elder sister/cousin
9.	k' ^w úlu?x ^w	dog salmon
10.	4ík ^w	prayer beads
11.	łwéy'st	autumn
12.	λ'émn	body hair/fur
13.	λ'éms	birch basket
14.	λ'íx ^w eł	different/strange, wrong one
15.	λ'úmk'	whistle/drinking tube
16.	mc'úłt	pus
17.	qəmút	hat
18.	qłéx ^w	blanket
19.	q ^w téł	grease
20.	q ^w ú	water/river
21.	q ^w zém	moss
22.	séw't	slave
23.	sóx ^w m'	edible sprouts, blackcaps, sunflower seeds
24.	tínx	sinew
25.	tmíx ^w	land, earth
26.	xnúx ^w	ladder
27.	zm'én'	bird nest/one's origins

APPENDIX 2

Control Roots

	Free Forms	
1.	x ^w esít	walk
2.	cú(n)	say
3.	náq ^w	steal
4.	táx	paddle
5.	?úq ^w e?	drink
6.	nóx ^w	animal run
7.	łím	cut brush
8.	cúł	point
9.	nés	go
10.	kán	help
11.	míłt	visit
12.	mlá(m)	heal
13.	p'ənt	return
14.	q?ém	to nurse (breastfeed)
15.	qáyt	reach top
16.	q'amín	throw
17.	téw	sell to
18.	k ^w úceh	descend to water
19.	k ^w úmeh	ascend from water
20.	m'én	donate
21.	só¤ ^w est	descend (this form may be a re-analyzed reflexive)
22.	tékł	rain

Bound forms

1.	√?ús-	discard
2.	√k ^w én-	grasp
3.	√ λ 'éx-	joke
4.	√n'é-	give
5.	√pílex-	inform/tell
6.	√púys-	kill
7.	√púyt-	lie down
8.	√qál-	bite
9.	√qəł-	cheer