NISGHA SYNTAX AND THE ERGATIVITY HYPOTHESIS:

AN ANALYSIS USING THE GOVERNMENT AND BINDING MODEL

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CHAPTER 1

A. LIST OF ABBREVIATIONS AND TECHNICAL TERMS

c-command - a structural relation informally stated as follows:

A c-commands B if and only if :

(i) A does not contain B

(ii) The first maximal projection dominating A also dominates B

conn - connective

D-structure - approximately "deep structure"; discussion, section 1F

D-subject - the D-structure subject

D-object - the D-structure object

DM - determinate marker; discussion, section 1B

ERG - ergative infix, discussion, section 1B, 2C

3ERG - third person ergative pronominal proclitic

FUT - future marker

INFL - approximately "inflection element"; in Chomsky (1981) INFL is understood to be the head of S (sentence)

IO - indirect object

JUSS - jussive morpheme. [illegible]

LF - approximately "logical form"; understood to be a level of syntax, as in Chomsky (1981).

ND - non-determinate marker; discussion, section 1B.

NP - noun phrase.

PP - prepositional phrase.

PRO - pronominal anaphor which cannot be governed (following Chomsky 1981).

pro - pronominal anaphor which must be governed (following Chomsky 1982).

REL - relative marker. [illegible]

R-expression - referential expression; for the purposes of this paper this may be understood as a non-pronominal lexical NP.

B. INTRODUCTION

Nisgha (nɪsGaʔ) is spoken in the Nass River valley of western B.C., and is a member of the Tsimshian Language family. It is closely related to Gitksan, spoken along the Skeena River, and more distantly to Coast Tsimshian.

The purpose of this paper is (1) to develop a more constrained account of Nisgha syntax than has previously been offered, (2) to determine whether Nisgha is, as is claimed, a syntactically ergative language, and (3) to determine what the D-structure word order of the language is, that is, the order before any movement has taken place.

Before presenting any of the work which has been done previously on the language, I shall introduce some basic sentence types in the language, and discuss certain recurrent morphemes to facilitate understanding of examples.

Intransitive verb; common noun argument

1 páx- ɬ hanáq' "The woman ran."
run ND woman

pronominal argument

2 wán ɲí-tit "They sat down."
sit TOP 3pl
(group)

Transitive verb; common noun arguments

3 cɛ́kʷ- ə - ɬ síl:ɲɪskʷ- ɬ wán "The hunter shot
kill ERG ND hunter ND deer a deer."

pronominal arguments

4 kɛ́'- ə - m̓ ɲí - n "We saw you."
see ERG 1pl TOP 2sg

pronominal agent

5 yɛ́c - ə - y̓ - ɬ ʔús y̓ "I hit/killed
hit/kill ERG 1sg ND dog 1sg my dog."

pronominal patient

6 sətɔ́:q- ə - t ɲu:- m̓ səmʔɔ́:kɪt "The chief
invite ERG 3sg TOP 1pl chief invited us."

Transitive verb with a recipient

7 kiɲám- ə - ɬ hanáq'- ɬ hɔ́:n ʔə - ɬ lɨkiləpɲɛ́
give ERG ND woman ND fish prep ND someone
"The lady gave someone some fish."

Note the labelling of certain morphemes (all of the above labelling from Tarpent 1982). "ERG" indicates, according to Tarpent (p. 56, fn. 8), that the argument immediately following it is ergative, that is to say, is the agent of a transitive verb. Although what Tarpent says is true distributionally, I will present evidence for a different perspective on this morpheme in section 2C.

The stem [ɲi-], labelled "TOP" is said to be a topicalizer. For the examples I employ it could be just as

easily be uderstood as a pronoun stem, but for the purposes of my argument this is irrelevant, so I shall continue to use Tarpent's labelling. Finally, the morpheme labelling "ND" is one of a set of what are usually called "connectives" in the Tsimshian literature though their actual grammatical function is more like a specifier. There are three of these morphemes, two determinate markers and one non-determinate marker. Determinate nouns are preceded by the determinate marker [t] if they are the patient of a transitive verb or the single argument of an intransitive, and are preceded by the deteminate marker [s] if they appear in other contexts, e.g. agent of a transitive or in a PP. Tarpent reports that a deteminate noun is (1) a proper name, (2) kinship terms referring to an ascendent, (3) the demonstratives t-gus and t-gun (where [t] is the determinate marker) and (4) the word k'inæ:, meaning "so and so" (1981:4). The distribution of these morphemes serves as evidence that Nisgha is morphologically ergative. They will be discussed in section 1E.

C. WORD ORDER

The word order in Nisgha is fairly rigid. It is possible to focus elements by moving them to the front of the clause and making slight modifications to the non-focus sentence. Various other operations can cause elements to appear in different positions, but basically, the sentences above display the usual order in an independent sentence.

Thematically this order, as can be seen from the above, is Verb-Agent-Patient (-Recipient).[1]

At least two different proposals have been made regarding Nisgha's D-structure word order. Rigsby (1975) proposes Verb-Agent-Patient, while Rood (1977) argues for Verb-Patient-Agent. Both argue for transformations constructed within, more or less, an Aspects framework.[2]

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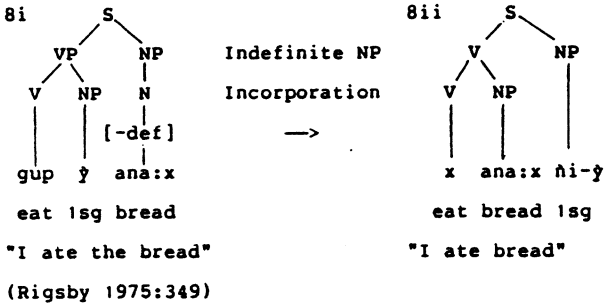
[1]Note that in no case except third person is there another lexical expression in the sentence which is coreferent with the personal suffixes on the verb. These suffixes are therefore best analysed as pronominal clitics and not agreement markers (except in the case of third person), since they do not "agree" with any pronominal arguments; they are the arguments. Tarpent analyses the [t] in sentences like (6) as, more or less, a 3sg agreement marker, and I agree with her analysis. It is needed so that the proper case (i.e., ergative) is assigned to the lexical agent, since a pronominal patient has moved between it and the verb. Note that when the pronominal patient is third person and the 3rd sing. agreement morpheme [t] does not appear it does not move. For example,

hɛ́c - ə - t ʔús ńí - t "The dog bit him."

bite ERG ND dog TOP 3sg

This serves as further evidence for Tarpent's analysis. If the third person pronominal patient did move, the sentence would be ambiguous, since the 3sg [t] could corefer either to the 3sg pronominal or non-pronominal argument.

Their transformations, as one might expect, given this theoretical model, are extremely powerful, making structural changes such as the following: [3]



(Rigsby 1975:349)

Observe some of the changes involved. The verb itself has changed, and not only do the agent and patient exchange their surface ordering, but they are also related to the verb differently. In an Aspects framework such changes may be permissible, but we wish to apply a more constrained theory to the data, specifically the Government-Binding framework (Chomsky 1981), in which a transformation such as the above would violate a number of principles. I will discuss Rigsby's transformation and his proposal of D-structure word order in section 1F and in Chapter 2. I

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[2](cont'd)[2]"Aspects" refers to Aspects of the Theory of Syntax (Chomsky, 1965).

[3]I would not derive (ii) from (i) at all. If anything, I would analyse noun incorporation as a lexical process, especially since it is not fully productive.

will also briefly consider Rood's proposal in section 1F. Before going on I wish to mention Dunn's (1979) analysis of Coast Tsimshian. He discusses the phenomenon of "split ergativity" wherein certain predicates are more likely to precipitate an ergative type construction than others. In general this phenomenon is not found in Nisgha, which seems to be the most conservative of the three major dialect groups (cf. Tarpent 1981). There seem to be sufficiently significant differences between the languages to consider a comparison of the two to be beyond the scope of this paper.

D. A SUMMARY OF THE ERGATIVITY HYPOTHESIS

In recent years there has been an increasing amount of work done on ergative languages, in particular on syntactically ergative languages. Alec Marantz (1981) has proposed a theory about the assignment of θ-roles to argument positions and their relation to grammatical functions to explain the existence of two basic syntactic paradigms found in the world's languages: the ergative and the accusative. His hypothesis has been expounded upon by Beth Levin (1983), whose work I have drawn on extensively in testing for the status of the syntax of Nisgha as ergative or accusative.

The Ergativity Hypothesis (Marantz) rests on the observation that there is a core class of verbs which, cross-liguistically, regularly associates certain θ-roles with certain grammatical functions. The hypothesis

essentially says that universal grammar does not force one particular association of thematic roles and grammatical functions, but that a given language may choose one of two options, which are shown below:

The Ergativity Hypothesis

Accusative	Ergative
Agent- [NP,S][4] (subject)	Agent- [NP,VP] (object)
Patient- [NP,VP] (object)	Patient- [NP,S] (subject)

If a language is accusative it will mean that the deep structure subject (henceforth D-subject) of a transitive verb will be assigned the agent θ-role, while the D-object will be assigned the patient θ-role. These same grammatical functions and thematic roles will hold at surface structure (or S-structure), given a transitive verb.

Given an intransitive verb (still considering a language with accusative syntax) we posit the same configuration, that is, [NP,S]-agent, [NP,VP]-patient. This

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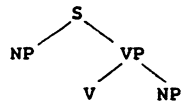
[4][NP,S] represents the NP immediately dominated by S, while [NP,VP] represents the NP immediately dominated by VP in a structure such as the following (cf. Chomsky 1965):



[NP,S] is called the external argument and [NP,VP] the internal argument (Williams 1980)

means that, not only thematically, but syntactically, at D-structure, there will be two types of intransitives: those assigning a θ-role to [NP,S] (agent only) and those assigning a θ-role to [NP,VP] (patient only). These will be called "unergative" and "unaccusative" verbs, respectively (cf. Burzio 1981, Perlmutter 1978).

At S-structure, however, this structural difference disappears, because the D-object of the unaccusative sentence will always move to S-subject position. The argument for this comes from work by Burzio, who claims that any verb which does not assign a θ-role to D-subject position (as is the case with an unaccusative) will also not assign case to its D-object. The D-object must therefore move to subject position to get Case; otherwise the Case Filter is violated.[5] Thus, although at D-structure there are two kinds of intransitives, at S-structure there will appear to be only one.

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[5]The Case Filter requires that any non-empty NP be assigned Case (capital "c" indicates abstract case) by an appropriate Case assigner (Chomsky 1981). This principle will be discussed more fully in section 1F. Note also that the the feature [±T] is used in Levin to denote whether a verb assigns a θ-role to its D-subject. [±A] denotes whether a verb assigns Case to its D-object. ~~These features will be discussed further in connection with the Passive and Antipassive (section 2B).~~

Now consider what associations of θ-roles and structural relations we have in a language with ergative syntax. The D-subject of a transitive will be assigned the patient θ-role while the D-object will be assigned the agent θ-role. The same syntactic relations and θ-roles will hold at S-structure, given a transitive verb.

Given an intransitive verb, at D-structure the agent-only verb will be unaccusative (no [NP,S] argument) while the patient-only verb will be unergative (no [NP,VP] argument). Both types of intransitives will, just as in an accusative language, appear to be unergative at S-structure, again because the internal argument will move in order to get Case since by Burzio's generalization it will not receive Case in its D-structure position.

Note that in the above description of ergativity we are talking about <u>syntactic</u> ergativity. There is no mention of case systems; only structure and θ-roles are relevant. Case marking, it is claimed, is a seperate phenomenon, such that a syntactically accusative language may have either an ergative or an accusative case system, as may a syntactically ergative language. I will henceforth refer to syntactic ergativity and accusativity as defined in the Ergativity Hypothesis as S-ergativity and S-accusativity, and morphological ergativity and accusativity (i.e. referring to case systems) as M-ergativity and M-accusativity.

With a little reflection, one can see that with the definition of S-ergativity discussed above, there will be fairly radical ramifications for the proper labelling of case systems, at least if we retain the traditional definition of an ergative case system. That is, there is potential for a great deal of confusion and mislabelling if we define an ergative case system as follows: the subject (external argument) of a transitive verb will be distinctly marked, whereas the object (internal argument) of a transitive and the single argument of an intransitive will have no distinctive marking. To see why there is such potential for confusion, compare the following tables, which show the association of θ-roles with marked or unmarked arguments (marked by case, that is) in both S-ergative and S-accusative languages:

<u>S-accusative Languages</u>

<u>Verb type:</u>	<u>θ-role</u>	<u>Accusative Case</u>	<u>Ergative Case</u>
Agent-Patient	Agt	UNMARKED(nom)	MARKED(erg)
	Pat	MARKED(accus)	UNMARKED(abs)
Agent-only	Agt	UNMARKED(nom)	UNMARKED(abs)
Patient-only	Pat	UNMARKED(nom)	UNMARKED(abs)

S-ergative Languages

Verb type	θ-role	Accusative Case	Ergative Case
Agent-Patient	Agt	MARKED(accus)	UNMARKED(abs)
	Pat	UNMARKED(nom)	MARKED(erg)
Agent	Agt	UNMARKED(nom)	UNMARKED(abs)
Patient	Pat	UNMARKED(nom)	UNMARKED(abs)

(tables from Levin, p.62)

Notice that the S-ergative language with accusative case has exactly the same the same configuration of marked and unmarked arguments as does the S-accusative language with ergative case. The same is true of the S-accusative language with accusative case and the S-ergative language with ergative case (i.e. by looking only at θ-roles and marked arguments, the two are indistinguishable).

What the above table points to is the need to determine a language's D- and S-structure and how they relate to θ-role assignment and case marking in order to make an accurate identification of the language type. The four possible language types are again schematized below, this time including their structural relations as well as θ-roles and case marking. Notice that in this table there are no two paradigms which are indistinguishable:

S-accusative Language

Verb		Structure Relation		Case System	
type	θ-role	D-	S-	Accusative	Ergative
Agt-Pat	Agt	D-subj	S-subj	UNMARKED(nom)	MARKED(erg)
	Pat	D-obj	S-obj	MARKED(acc)	UNMARKED(abs)
Agt	Agt	D-subj	S-subj	UNMARKED(nom)	UNMARKED(abs)
Pat	Pat	D-obj	S-subj	UNMARKED(nom)	UNMARKED(abs)

S-ergative Language

Verb		Structure Relation		Case System	
type	θ-role	D-	S-	Accusative	Ergative
Agt-Pat	Agt	D-obj	S-obj	MARKED(acc)	UNMARKED(abs)
	Pat	D-subj	S-subj	UNMARKED(nom)	MARKED(erg)
Agt	Agt	D-obj	S-subj	UNMARKED(nom)	UNMARKED(abs)
Pat	Pat	D-subj	S-subj	UNMARKED(nom)	UNMARKED(abs)

(tables from Levin p.62)

Thus, one must have all three types of information about a given language in order to be certain of what type of language it is.

Levin suggests a number of tests for determining a language's structure and how it relates to the θ-marking of its arguments (p.58ff). Some of these I will mention in the following analysis, but most of them have been omitted because they did not apply to Nisgha, at least not so far as I could tell. On the basis of these tests which do apply to Nisgha, as well as certain other tests, I will argue that recent analyses of Nisgha (Tarpent 1981,1982) have

improperly classified it as having ergative syntax and morphology (e.g. see Tarpent 1982, p.55).

E. MORPHOLOGICAL ERGATIVITY

In the preceding section I argued that information about structural relations, θ-role assignment, and case systems was needed to classify a given language accurately. I will argue in Chapter 2 that Nisgha is S-accusative. If the reader for the moment will accept this, I will here briefly argue that Nisgha is also M-ergative.

The distribution of the determinate markers follows an M-ergative paradigm. In an independent sentence (as well as in PP's and certain embedded constructions) the determinate agent of a transitive verb is preceded by [s], while determinate agents or patients of a single argument verb are preceded by [t], as are determinate patients of a transitive verb. Rather than claiming here that the DM's are case marking, I am arguing that they reflect the Case of the argument they precede. The formal mechanism which would allow this is feature percolation. There is no such reflection in the distribution of the non-determinate marker (i.e. it is always [ɬ]). Some examples follow:

Intransitives

Agent-only:

9	tá:wɬ- t	Mary	"Mary left."
	leave DM	Agent	

Patient-only:

10	kú?usk^{w}- t	John	"John fell down."
	fall DM	Patient	

Transitives

11	ɬəmó:m- ə - s	Lucy t Mary	"Lucy helped Mary."
	help ERG DM	AGENT DM Patient	

Oblique case (PP)

12 kiñám- ə - s Peter ɬ hɔ̀:n ʔə - s ńɔ́x̣ - t
give ERG DM Agent ND fish Prep DM mother-3sg
"Peter gave a fish to his mother."

The distribution of the determinate markers alone is probably insufficient to establish concretely that Nisgha is M-ergative. However the distribution of certain other morphemes also suggests morphological ergativity. The ERG suffix [-ə-] indicates an M-ergative paradigm. Although I will later argue for a different interpretation of this morpheme, the fact remains that its distribution is like the M-ergative paradigm. That is, it marks [NP,S] (in an independent sentence), while the other arguments are left unmarked.

F. THE GOVERNMENT-BINDING FRAMEWORK

In this section I will briefly discuss some key concepts of the Government-Binding framework (Chomsky 1981) which will enter in to the subsequent analysis of Nisgha.

A base component of X-bar phrase-structure rules generates a D-structure which provides a representation of the structure of a sentence which includes the syntactic and thematic relationships of the arguments to the verb.

D-structure is related to S-structure by a very general transformation, known as "Move-α", which essentially says "move any category anywhere" (cf. Chomsky 1976 and Baltin 1981). This ultimately general transformation is feasible because of very restrictive constraints on what S-structures are permissible and on the application of Move-α (cf. Chomsky and Lasnick 1977). These constraints are, for the most part, proposed as part of universal grammar, a parameterized model (cf. Chomsky 1982).

Several principles will be particularly relevant in the following analysis, specifically the θ-criterion, the Projection Principle, the Case Filter and the Empty Category Principle (ECP). The θ-criterion, which effectively applies to all three levels of the syntax (LF and D- and S-structure), ensures that the requirements made by the argument structure of the verb are satisfied. The statement of this constraint is as follows:

Theta Criterion

> Every argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument. (Chomsky 1981:36)

The Projection Principle is closely associated with the θ-criterion. It is stated informally as follows:

> Projection Principle [6]
>
> Representations at each syntactic level (i.e. LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items (Chomsky 1981:29).

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[6] The formal statement of this principle is as follows: Given structural configurations of the following form where α is an immediate constituent of γ:

(a) $[\gamma \ldots \alpha \ldots \beta \ldots]$

(b) $[\gamma \ldots \beta \ldots \alpha \ldots]$

then

(i) if β is an immediate constituent of γ in (a,b) at L_i, and $\gamma = \bar{\alpha}$, then α θ-marks β in γ.

(ii) if α selects β in γ as a lexical property, then α selects β in γ at L_i.

(iii) if α selects β in γ at L_i, then α selects β in γ at L_j.

where the variables L_i, L_j range over what we are considering throughout to be "syntactic levels": LF, D-structure, S-structure. (Chomsky 1981:38).

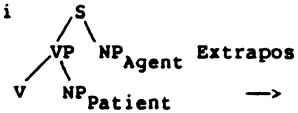
From these principles trace theory is derived. To see this it is only necessary to observe that in order for the projection principle to hold, D-structure must be recoverable from either LF or S-structure. In order for D-structure to be recoverable from, for example, S-structure, some record of each constituent's original position must exist, since any of them may have been moved by Move-α; that record then, is the trace. It should be noted that an element can "inherit" Case and θ-marking from its trace (cf. Chomsky 1981)

Thus, for example, Rigsby's transformation, as mentioned above (Section C), violates the Projection Principle. To see this, notice that in his depiction of Indefinite NP Incorporation [NP,VP] simply changes places with [NP,S], so that D-structure is not recoverable from S-structure. In the formal statement we would say that (i) is violated, since the verb (α) will directly θ-mark the NP "I" (β) at D-structure, but the NP "bread" at S-structure.

While this particular transformation in Rigsby's analysis will not work in the Government Binding framework, his suggestion for Nisgha's D-structure deserves further consideration. This will be a major topic in Chapter 2. Rood's proposal for D-structure word order should also be mentioned. He argues for a Verb-Patient-Agent D-structure which in most cases undergoes an obligatory extraposition transformation, yielding a Verb-Agent-Patient S-structure (1975:222). The transformation he proposes is depicted as

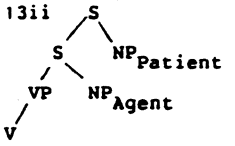
follows:

13i



Extraposition —>

13ii



As Rood formulates the transformation (above) there is no way for the Patient at S-structure to get θ-marking, so both the Projection Principle and the θ-criterion will be violated. Rood could remedy this problem by including a trace of the moved element, but there will still be other, more serious problems for his proposal. These will be discussed in Chapter 2.

Case Theory will also be relevant in the subsequent analysis. This is the subsystem of the grammar which is concerned with "abstract Case" (Chomsky 1981:6), which may or may not have any morphological realization (note capitalization of "Case"). Only [-N] elements (verbs, INFL and prepositions are [-N]) can assign Case. [7]

The Case Filter itself is stated, simply enough, as follows:

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[7]Two proposed syntactic features ([±N], [±V]) distinguish the major categories as follows: verbs=[+V,-N], nouns=[-V,+N], prepositions=[-V,-N], and adjectives=[+V,+N]. Note that Rood will have difficulty explaining how arguments in his S-structure will get Case, a further problem for his analysis given the GB framework.

Case Filter

*NP if NP has phonetic content and has no Case (Chomsky 1981:49).

That is, any non-empty NP must have Case if the sentence containing it is to be grammatical. This raises the question of how Case is assigned. I mentioned above that only [-N] elements could assign Case. The assignment, however, can only proceed under government. That is, only when a [-N] element governs an NP does the [-N] element assign the NP Case, where government is defined as follows:

Government

In the configuration $[\gamma...\beta...\alpha...\beta]$, α governs β where:

(i) $\alpha=X^{o}$, and $\gamma=X^{n}$ (i.e. γ is an X-bar projection of α, and

(ii) for each maximal projection δ, $\delta \neq \alpha^{n}$. If δ dominates β, then δ also dominates α[8] (Chomsky 1981:164 and Sproat 1983:268).

It is hypothesized that the Case filter explains why for example, non-empty NP's cannot appear as the subject of an infinitive in general, this position being ungoverned (see structure (14) below). The subject of a tensed clause, I should mention, in English is governed (and Case marked)

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[8]This definition of government is based on work by Aoun and Sportiche (1983). the terms projection and maximal projection are intended in the sense familiar from X-bar syntax.

by the inflection element (INFL). I propose Nisgha has no INFL node. this seems a reasonable assumption considering there is no clear distinction in the language between a tensed and infinitival clause. Nisgha, therefore, must use a different means for assigning Case to [NP,S].

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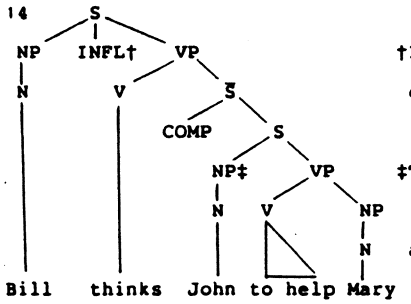

†INFL governs the subject of a tensed clause.

‡The subject of an infinitive is ungoverned and therefore has no Case.

*"Bill thinks John to help Mary."

(vs. "Bill thinks John helps Mary.")

Another principle which needs to be mentioned is the Empty Category Principle (as expounded in Chomsky 1981 and Kayne 1981). The Empty Category Principle is a well-formedness condition on S-structure which stipulates the conditions on where traces of moved elements may appear. It reads as follows:

Empty Category Principle

An empty category $[_{\beta}e]$ must be "properly governed", where α properly governs β iff α governs β and

(a) $\alpha = [\pm N, \pm V]$ or

(b) α is coindexed with β (Kayne 1981:93)

The last topic of this section is binding and the binding theory. An element is said to be "bound" if it is coindexed with a c-commanding argument (Chomsky 1981:184). If an element is not bound it is "free". The binding theory is, again, a set of well-formedness conditions (on S-structure) concerned with two factors, government and binding, and how they apply to different types of arguments.

Binding Theory

(a) An anaphor is bound in its governing category[9]

(b) A pronominal is free in its governing category

(c) A R-expression is free (Chomsky 1981:188)

I will not expound further on the binding theory here. Examples of its use will be seen in the subsequent analysis.

G. SUMMARY OF RESULTS TO BE PRESENTED

I will argue in the coming chapter that Nisgha is not S-ergative but S-accusative and M-ergative. The D-structure of Nisgha, I will argue, is SVO, which becomes VSO at S-structure via verb movement. Evidence for this will come from manifold sources. For example, the clause-final

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[9] α is the governing category for β iff α is the minimal category containing both β and a governor of β, where α is NP or S (Chomsky 1981:188). Residual problems remain with this definition but they do not enter into this discussion. For further discussion of the notion of governing categories see Huang (1983).

position of PP's requires an SVO(PP) D-structure in order to explain the position of PP's subcategorized by the verb (such as in a sentence like John put the book on the table). Evidence from the binding theory for SVO D-structure will also be presented. It will be argued that the Case Filter forces verb movement so that [NP,S] can get Case. Finally, I will present an indirect argument for verb movement based on the internal structure of NP's. I will also present a final argument for SVO D-structure based on the facts of weak crossover.

CHAPTER 2

A. ARGUMENTS AGAINST S-ERGATIVITY

Nisgha has been classified by a number of linguists as ergative, in particular as syntactically ergative. The reason for this is that a number of structural operations and constructions in the language seem to treat the agent of a transitive verb differently from the single argument of an intransitive verb, which often patterns more like the patient of a transitive.

I would like to propose that Nisgha is not S-ergative, but S-accusative. There are a number of reasons for making this claim. The first argument against Nisgha's S-ergativity hinges on a test proposed by Levin involving reflexive-reciprocal anaphors and the binding theory (Levin, p. 131ff). The binding theory stipulates that anaphors must be bound in their governing category, and that referring expressions must be free (Chomsky 1981). Now recall that in an S-ergative language, [NP,S] is assigned the patient θ-role and [NP,VP] the agent θ-role. This implies that an S-ergative language will not allow anaphors to appear in the same structural position as patients in a simple sentence, since the argument in this position will not be bound. Moreover, an S-ergative language will not allow the antecedent for an anaphor (for example, an R-expression) to occupy the same structural position as an agent in a simple sentence, that is, [NP,VP], because the argument in this

position will be bound.

We would therefore expect, in an S-ergative language, anaphors in simple sentences to appear in the same structural position as agents, [NP,VP], and for antecedents of anaphors to appear in the same structural position as patients, [NP,S]. This is not what we find in Nisgha, however; in fact we find the contrary. One common way of expressing a reflexive action is exemplified below:

15 (ləp) q'oc- ə - ł k^{y}æt kus ləp - n̂í- t
self cut ERG ND man that self TOP 3sg
"That guy cut himself."

16 (ləp) q'óc- ə -̣ ỳ - ł ləp - n̂í- ỳ
self cut ERG 1sg ND self TOP 1sg
"I cut myself."

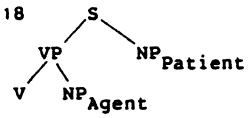
17 lu:-k^{y}ǽ'- ə - ł hanáq'- ł ləp - n̂í- t
in see ERG ND woman ND self TOP 3sg
ʔə - ł c'əm ʔænksu:lá:qaltk^{w}
Prep ND in mirror
"The woman saw herself in the mirror."

In all of the above cases the reflexive anaphor ləpn̂i- is in the position normally associated with the patient, and the antecedents of the anaphors are in the position normally associated with the agent.

Thus, regarding anaphor-θ-role correspondences Nisgha patterns like an S-accusative language.[10]

A second reason for claiming Nisgha is not S-ergative has to do with the position of subcategorized prepositional phrases. If we assume Nisgha is S-ergative, then by the Ergativity Hypothesis we would expect the simple transitive sentence to have the D-structure in (18). This is because Nisgha's surface ordering is Verb-Agent-Patient and in an S-ergative language the agent is [NP,VP] while the patient is [NP,S].

18



(Note that as well as being the D-structure implied by Tarpent's analyses, this is also Rigsby's proposed D-structure.) When there is a PP or indirect object (IO) in the sentence, it usually appears sentence-finally; and although there are operations which can move certain PP's to S-initial position (though they usually drop the preposition), the PP can never appear between the verb and either of the other arguments (i.e., one cannot have V-PP-Agt-Pat or V-Agt-PP-Pat). For example:

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[10]It should be noted that there are other ways of expressing the reflexive which would be accounted for differently, but none of them jeopardize the validity of the above argument.

19 ʔúy - ə - s John ɬ ɬít ʔawáʔa- ɬ
throw ERG DM Agent ND ball there ND
ɬku - ɬku - m -kʸét
small small conn. man
"John threw the ball to his son."

20 *ʔúyɬs John ʔawáʔaɬ ɬkuɬkumkʸæt ɬít
Verb Agent PP Patient

21 *ʔúyɬs ʔawáʔaɬ ɬkuɬkumkʸæt John ɬít
Verb PP Agent Patient

Notice, however, that PP's are subcategorized by certain verbs, for example "put" in English. One can say John put the book on the table, but not *John put the book. The same is true of some verbs in Nisgha, including the equivalent of "put". Thus we have the following:

22 nimáxt- ə - s John búk ʔə - ɬ lax hæńi - tˣóxqʷ
put ERG DM Agent Patient prep ND on place eat
"John put the book on the table."

23 *nimaxtəs John buk
Verb Agent Patient

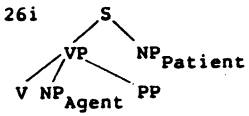
as well as:

24 *nimáxtəs John ʔəɬ lax hæńitˣóxqʷ búk
Verb Agent PP Patient

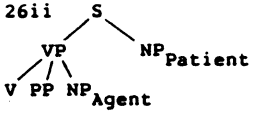
25 *nimáxtəs ʔəɬ lax hæńitˣóxqʷ John búk
Verb PP Agent Patient

But now note we have a contradiction of structures. If we assume (18), the S-ergative analysis D-structure, a subcategorized PP should appear in that structure as either (26i) or (26ii):

26i



26ii



However, unless the PP were extraposed, the above D-structures would yield Verb-Agent-PP-Patient or Verb-PP-Agent-Patient S-structures. But these are ungrammatical, as shown by (20, 21, 24, 25) above. Thus, to maintain D-structure (18) we must maintain that some factor forces PP's always to extrapose. In fact, we would have to show that some factor can force multiple PP extraposition, as seen by the position of the PP's in a sentence like (27) below:

27 k^{w}ən ƛimáx̣t- ə - s Donna ɬ qɔltəmmæcæqalé lax̣
JUSS put ERG DM Agent$_1$ ND vase on
hæƛit^{x}ɔ́x̣q^{w} ʔə - s Máry
table Prep DM Agent$_2$
"Donna had a vase put on the table by Mary."

But there is no such factor. Logically, then, there is no way of maintaining D-structure (18).

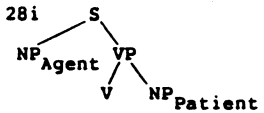
Moreover, since (18) must be abandoned, so must the claim of S-ergativity, since (18) is the only conceivable

D-structure for Nisgha which would entail the correspondences Agent-[NP,VP], Patient-[NP,S].

B. VERB MOVEMENT

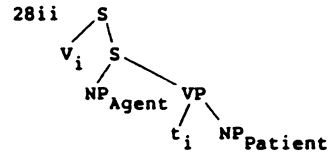
The facts about the position of the PP, making standard traditional assumptions about subcategorization (cf. Chomsky 1965), do seem to suggest there is some kind of movement going on. Since there seems to be no factor forcing PP extraposition, another option should be explored, namely verb movement. Verb movement, it will be seen, not only explains the position of PP, but accounts for a number of other phenomena as well. Verb movement would be depicted as follows:

28i



V-move —>

28ii

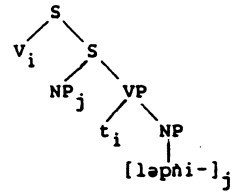


Unlike PP-extraposition there are factors which can force verb movement. Specifically, [NP,S] (the agent) requires Case, and in cases of NP-movement the trace of NP requires proper government as well. Verb movement provides the means by which Case marking and proper government are assigned. I will discuss these issues and some ramifications of verb movement in 2C.

Before going on, let me point out that the verb movement analysis explains the distribution of the reflexive

anaphor as well as the position of PP's, while assuming that Nisgha is S-accusative. That is, if we posit a D-structure such as (28i), sentences with a reflexive anaphor such as (15-17) above would have the following structure after verb movement.

29



In such a structure, the binding theory is not violated. [NP,S], being either a pronominal or referring expression, is free. [NP,VP], being an anaphor, is bound in its governing category, which in this case is S. But note again that the above structure, suggested both by the position of PP and that of the anaphor, forces an S-accusative syntax; that is, a syntax which assigns [NP,VP] the patient θ-role and [NP,S] the agent θ-role.

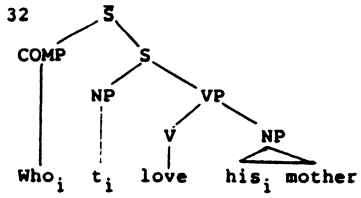
There is another diagnostic for ergativity based on the phenomenon of "weak crossover" which suggests the verb movement analysis over the ergative. Weak crossover is the term used to describe a range of phenomena involving structures such as the following:

30 Who_i loves his_i mother?

31 *Who_i does his_i mother love?

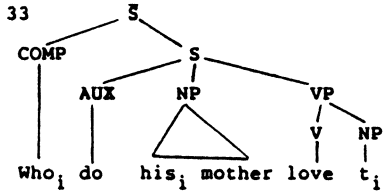
The sentence structure of these sentences is as follows:

32



"Who_i loves his_i mother?"

33

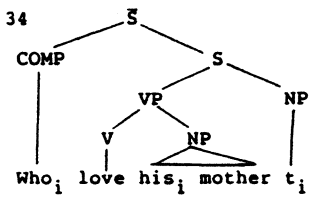


*"Who_i does his_i mother love?"

In (32) the trace c-commands the coindexed pronoun, while in (33) it does not. This difference is said to account for the difference in grammaticality. In general, in order for a pronoun to receive a bound variable reading (as it does in (32)), it must be c-commanded by its antecedant, in this case the trace (Evans 1980:347; also Higgenbottom 1980). This is not the case with (33).

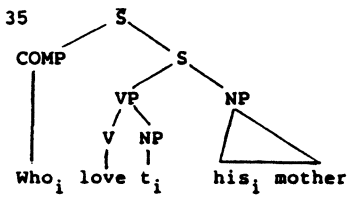
Under the s-ergative analysis of Nisgha we would have the following two structures as equivalents to the English structures (32,33):

34



"Who$_i$ does his$_i$ mother love t$_i$?"

35



"Who$_i$ t$_i$ loves his$_i$ mother?"

In the above structures we would expect to be able to get the bound variable reading from (34), since the trace c-commands the pronoun, whereas we would not expect to get this reading for (35). That is, if we assume Nisgha is ergative and has a VOS D-structure, we would expect to find exactly the opposite judgements about weak crossover that we find in English. We would expect to find equivalents to the following English sentences with the judgements given:

36 *"Who$_i$ t$_i$ loves his$_i$ mother?"

37 "Who$_i$ does his$_i$ mother love t$_i$?"

The equivalents in Nisgha to these sentences (respectively) are as follows:

38 nǽ - t ʔæn-síp'ən- s nɔ́x^{w} - t

Who 3ERG REL love DM mother 3sg

"Who$_i$ loves his$_{i,j}$ mother?"

39 nǽ -qat ɬ ti -síp'ən- s nɔ́x^{w} - t

Who one ND foc love DM mother 3sg

(i) *"Who$_i$ does his$_i$ mother love?"

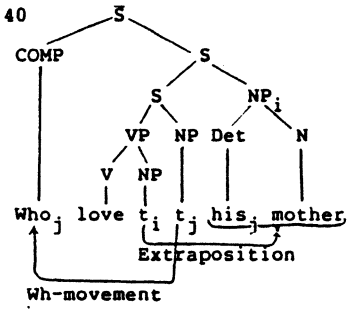
(ii) "Who$_i$ does his$_j$ mother love?"

Note that the equivalent to (36) is not starred (i.e. (38)), and that the equivalent to (37) is, given the coreferent reading (i.e. (39i)). This suggests that in Nisgha the patterning of weak crossover is exactly like English, and not like the patterning an S-ergative language with VOS D-structure would have. The verb movement analysis thus receives support from the above judgements, while the argument for ergativity is weakened.

One last topic I wish to to address before reviewing Tarpent's arguments is the viability of Rood's proposal that D-structure VOS (Verb-Patient-Agent) becomes VSO (Verb-Agent-Patient) mentioned in Chapter 1. Note first that Rood explicitly states he is working in an Aspects Framework, wherein elements subcategorized by the verb must be contained in the VP. Thus, unless he can motivate an obligatory, multiple PP extraposition rule, he will face the same dilemma as Rigsby and Tarpent; namely, he will be forced to predict a V-PP-Agent-Patient S-structure, which has been shown above to be impossible in Nisgha.

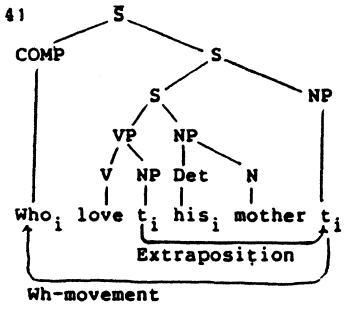
Rood's proposal will also be troubled by the weak crossover phenomenon discussed above. To see this consider what his model would predict as S-structures for (38,39):

40



"Who$_i$ loves his$_i$ mother?"
(næt ʔænsip'ənz nɔx^{w}t)

41



"Who$_i$ does his$_i$ mother love?"
(næqat ɬ tisip'ənz nɔx^{w}t)

In (40) the pronoun is not c-commanded by t_j, the pronoun's antecedant, so the sentence should be ungrammatical. But as seen by (38), it is not. On the other hand, in (41) the pronoun is c-commanded by t_i, so the sentence should be grammatical, but it is not, as shown by (39i). Thus Rood's proposal fails to account for the weak crossover facts. Note that he cannot simply say Wh-movement occurs before extraposition (which would invalidate my argument) because in his analysis extraposition must occur to put the two arguments in their correct positions for receiving case-marking. (He claims that this is why extraposition is neccesary; the first argument after the verb will receive ergative case, the second argument nominative case.) Thus the rule order would have to be Extraposition followed by Wh-movement, which produces (40,41).

C. TARPENT'S ARGUMENTS

So as not to be too lengthy I have ommitted a consideration of most of Tarpent's arguments for the syntactic ergativity of Nisgha. Let me simply point out, however, that most of Tarpent's arguments either show an intransitive agent patterning with a transitive patient or else show that the transitive agent is treated differently from any other type of argument. But notice that this does not really establish Nisgha as S-ergative as Marantz and Levin have defined it. That is, demonstrating that either the agent of an intransitive verb is treated like a transitive patient or that the transitive agent is treated uniquely does not establish the particular θ-role--grammatical function association that Marantz has attributed to S-ergative languages. For a more careful evaluation of Tarpent's arguments see my M.A. thesis.

The Ergative Infix

Tarpent (1982:56) discusses what she calls the "ergative infix" as part of her claim that Nisgha is ergative. The distribution of this infix she reports as follows: the ergative infix [-ə-] will be present on the transitive verb only if the agent of the verb is the first succeeding argument (there may be determinate markers intervening). In intransitive constructions the infix never appears, and if WH-movement or some other kind of movement moves the agent out of its position immediately succeeding the verb, then again the ergative infix does not appear. Thus, the morpheme seems to have at least an M-ergative distribution; that is, it sets off the agent of a transitive verb from the patient or the single argument of the intransitive verb when the agent is lexically present in situ.

Transitive (Arguments in situ)

42 ɬəmo:m- ə - s Lucy t Mary "Lucy helped Mary."
help ERG DM Agent DM Patient

Intransitive

43 Agent only: tə́ʔɬ - t Mary
leave DM Agent "Mary left."

44 Patient only: kʷʊltə́ʔɬ- t Lisa
faint DM Patient "Lisa fainted."

Note that in the context of the verb movement hypothesis there is a principled way of explaining the above pattern, given certain assumptions. Recall that we are asssuming Nisgha has no inflection element because of the lack of distinction between a tensed and infinitival verb. The implication of this assumption is that [NP,S] (given structure (28i) above) will not be assigned Case as it is in a language with an inflection element (where INFL governs and Case marks [NP,S]). Recall also that Case is mandatory for all non-empty NP's. Thus a syntactic Case assigner is needed to assign Case to [NP,S]. That is, I claim , what Tarpent has analysed as the "ergative infix" [-ə-].[11]

We might venture a step further and analyse [-ə-] not only as a syntactic Case assigner but as the same morpheme

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[11]There is a great deal of evidence that ERG [-ə-] is not simply a phonologically conditioned epenthetic vowel. For example, when it suffixes to a vowel-final verb stem, [y] is inserted, presumably to keep the morphology transparent. ERG [-ə-] can also appear between consonants where epenthesis would never occur, e.g. in stop+s# sequences.

as the preposition normally transcribed [ʔə-]. Phonologically this is plausible since there are no examples (to my knowledge) of null onset in Nisgha. That is, what phonologically may be vowel-initial is phonetically ʔ-initial. At best it can be said the distinction between a vowel-initial and a ʔ-initial lexeme is minimal, so the preposition [ʔə-] may be /ə/ phonemically. Moreover this analysis is theoretically sound, this idea bearing a striking resemblence to Kayne's (1981) analysis of Empty Category Principle effects. He proposes that prepositions cannot properly govern unless they are licensed by a governing verb. If we vary this idea slightly we can get exactly the right results in Nisgha.

Suppose that in addition to saying that the verb must license prepositions to be proper governors we also say that in Nisgha the verb (or its trace) must license prepositions (including the morpheme [-ə-]) to assign Case. In order to license [-ə-], however, the verb must govern it. I will argue that in Nisgha government can only be to the right. Assuming this to be true, then it folows that the verb must move to the front of the sentence in order to govern [-ə-], licensing it to govern and Case-mark [NP,S].[12]

---

[12] In subordinate clauses [-ə-] is not present on the verb even when the agent immediately follows. However, there is always a pronominal proclitic on the verb which either represents or agrees with the transitive agent. I have not

Note that such a formulation will enable us to make explicit the rules of case assignment in Nisgha:

(A) NP governed by [+V] gets absolutive Case

(B) NP governed by [-N] ([-ə-]) gets ergative Case

(C) NP governed by [+N] (nouns) gets genitive Case

There is a precedent for arguing for verb movement in a fashion similar to the way I have argued. Richard Sproat (1983) argues that in some languages (not including English) categories can only govern (and therefore Case mark) rightward. In Sproat's analysis of Welsh he argues that this is the reason for verb movement in that language (Welsh has VSO S-structure and SVO D-structure). Although Welsh has an an inflection element, it cannot govern the [NP,S] because it is to left of INFL, so INFL moves to the left of that NP, to where it can govern and Case mark [NP,S]. Since INFL elements can only affix to a verb, the verb must also move left of [NP,S], giving VSO from SVO order.

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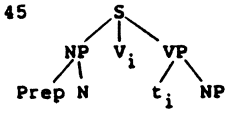
[12](cont'd)yet been able to determine with any degree of certainty why, exactly, [-ə-] should be absent, but then again, no one else has either. In the framework I am employing we might say that when the conditions required for the appearance of the proclitic are present we can have an empty preposition (that is, an empty syntactic Case assigner), but just why this should be so I am not prepared to say.

Notice first off the similarity of his analysis to that I have given for Nisgha verb movement. The difference is that Nisgha has no INFL node. Thus, verb movement is not to enable INFL to affix to something, but rather so that the Case assigner (hypothesised to be the preposition [ʔə-]) can be governed and therefore licensed to Case mark [NP,S]. What is the same about Nisgha and Welsh, I propose, is that categories can only govern rightward.

This is firstly shown by verb movement. If Nisgha categories could govern both directions there is no reason the verb could not raise out of VP to a position still to the right of [NP,S]. The morpheme [-ə-] could still Case mark [NP,S], since [-ə-] would still be governed by the raised V. That is, we would have an S-structure as follows:

45



But this is not what happens. The verb moves to the left of [NP,S] and [-ə-], implying the ability of [-ə-] and V to govern only rightward.

But beyond this, we can look for evidence of rightward government in other structures. This is because it is not just INFL or V that can govern only rightward but all categories.[13]

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[13] Let me reiterate that in English categories are not limited to rightward government (at least not [+N]

One category in which we might look for this structure is the NP. Sproat proposes that "the ability to assign genitive case is a feature of the head of an NP" (p.254). The structure of NP's is generally assumed to be as follows, where N (the head) governs and assigns case leftwards:

46 [$_{\bar{\bar{N}}}$NP[$_{\bar{N}}$N...]] (Sproat,p.255)

This would be the structure assigned an English NP such as "John's book", where <u>book</u> governs and assigns case to <u>John</u>. In a rightward governing language, however, such a structure will be impossible since N will not be able to govern leftward. Thus, either movement will position the head N to the left of the genitive case marked NP, or the N will be base-generated there. At any rate the S-structure of a genitive $\bar{\bar{N}}$ will have the head noun to the left of the genitive case-marked NP, so the case can be assigned rightward. This will result in an $\bar{\bar{N}}$ with the case marked NP (the possesor) to the right of the head N (the possesed) (<u>cf</u>. Sproat,p.254). This is precisely what is found in Nisgha (as well as Welsh and Arabic, both of which are VSO languages).

47 cǽk^{w}- ə - ŷ - ɬ nɔ́x̣^{w} - ɬ ɬku -smǽx
kill ERG 1sg ND <u>mother ND dimin bear</u>
"I (had to) kill the <u>bear cub's mother</u>."

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[13](cont'd)categories, <u>cf</u>. Sproat 1983). Thus, e.g., English INFL governs leftward.

48 k^{w}ən k^{y}ǽ'(ə)- t'ən - ɬ bɔ́t - s Robiṅ lɔ́:- ŷ
JUSS see causative ND <u>boat DM</u> IO 1sg
"Show me <u>Robin's boat</u>."

49 híc - ə - ɬ wǽk^{y} -k^{w}- s John ɬ k^{w}ilǽ ʔə - s Mary
send ERG ND <u>brother pl DM</u> ND blanket Prep DM
"<u>John's brothers</u> sent the blanket to Mary."

Sproat (1983:254) gives examples from Welsh and Arabic as shown below:

49a <u>Welsh</u>: tŷ Sion "John's house"
house John

49b <u>Arabic</u>: baytu r-rajuli "the man's house"
house the-man (gen)

The fact that genitive NP's have this structure, then, serves to strengthen the verb movement hypothesis insofar as is strengthens the hypothesis that Nisgha categories only govern rightward.

[redacted]

D. THE PURPOSE OF DOING A NEW ANALYSIS OF NISGHA

It has been argued above that there are serious flaws in some previous analyses of Nisgha, even if we adopt the same theoretical framework that these analyses were formulated in. Specifically, Rigsby's and Rood's accounts fail within an Aspects (Chomsky 1965) framework because of the position of subcategorized prepositional phrases. Moreover, given a newer framework and a new definition of syntactic ergativity, Rigsby's and Rood's analyses fail in a number of other ways, as well as having the problem with subcategorized PP's. Rood's analysis fails to account for the facts of weak crossover, while Rigsby's fails to account for not only weak crossover, but for the distribution of reflexive anaphors as well. Certainly, these researchers could not have been expected to consider these last two factors five years before the theoretical framework appeared. Nonetheless, given this framework, neither of their proposals seems to be workable.

I have also suggested that the case presented by Tarpent for the syntactic ergativity of Nisgha does not hold up, given the definition of syntactic ergativity from Marantz's Ergativity Hypothesis and given the Government-Binding framework. All the arguments mustered from looking at Nisgha from the latter perspective seem instead to point toward syntactic accusativity.

I hope it is obvious that I believe there to be some advantage in employing this new framework beyond just being

able to show that the analyses of previous researchers are problematic when tested against such a framework. I will now attempt to outline what I consider a major advantage of employing this framework.

Note that, frequently, arguing for one theoretical model over another, or even one particular application of a model over another, cannot be done empirically. To use Chomsky's terminology, almost any model can be made to be observationally and descriptively adequate, that is, can be made to account for the observable facts; but in many cases this can only be done by allowing ad hoc devices to multiply. To achieve explanatory adequacy, the facts of the language should be derivable from the model. If one model is explanatorily adequate, as well as observationally and descriptively adequate, it is superior to an analysis which is only observationally or descriptively adequate.

One criterion which a number of researchers have accepted as a valid measure of the explanatory adequacy of a grammar is learnability (cf. Chomsky 1965). The central question of the learnability issue is essentially this: given a certain formulation of a grammar, will it be possible for children to learn that grammar? This issue has been a central guiding factor in the formulation of the Government-Binding framework. This, in fact, has largely been the motivating factor for seeking to develop a more constraining universal grammar, that is, one which limits grammars to the fewest devices possible needed to account

for all the observable facts of a language. Within a transformational framework for example, the more numerous and powerful universal grammar allows the transformations of a particular grammar to be, the more difficult they will be to learn. This is because there will be more variability in what a given transformation can do, and more potential for ambiguity in explaining how a given S-structure is related to D-structure.

In other words, what we want ideally is a theory of universal grammar which will force on us one particular analysis of the syntax of a given language. If our model of universal grammar can do this, then we are well on the way to explaining how children in a given speech community converge, more or less, on a single grammar.

We can see the problem of multiple permissible analyses illustrated by the differing accounts which have been given of Indefinite NP Incorporation (cf. (8) above). Rigsby claims that $[_{vp}\ V\ NP_{Agent}]\ NP_{Patient} \longrightarrow [_{v}\ V\ NP_{Patient}]\ NP_{Agent}$ while Rood has $[_{vp}\ V\ NP_{Patient}]\ NP_{Agent} \longrightarrow [_{v}\ V\ NP_{Patient}]\ NP_{Agent}$. Within the Aspects framework there is nothing to force us to choose between not only these two possibilities, but between any number of other logically possible analyses. The reader should note here that although the importance of the learnability issue was recognized in Chomsky (1965), that framework was not very powerful in its explanatory power. Hence we wind up with conflicting analyses such as above with nothing in the model to help us

decide between them. Universal grammar, as it is conceived of in Chomsky (1981), is significantly more advanced in its ability to deal with the questions of learnability.

Universal grammar, as it is conceived of in the Government-Binding framework, consists in part of a set of parameters which are fixed in a particular way as the child encounters natural language (cf. Chomsky 1981). I have discussed at least four factors in Nisgha which might be included among these parameters. These four factors are as follows:

(1) Direction of Government (Sproat 1982:255)[14]
  (a) all categories rightward.
  (b) [-N] categories rightward, other categories free.
(2) S-Ergative Parameter (Marantz 1984).
  (a) S-Accusativity.
  (b) S-Ergativity.
(3) Presence or Absence of INFL
(4) M-Ergative Parameter
  (a) M-Accusativity.
  (b) M-Ergativity.

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[14] This situation may be more complex, and may involve more than one parameter; Sproat only specifies that this is the configuration for VSO and SVO S-structure languages (i.e. (a) for VSO, (b) for SVO).

Verb movement is not to be included among these parameters since it is derived from (1) and (3). This could be taken as an example of what I mentioned earlier, that is, that we want the facts of the language to be derivable from the model. Although verb movement can't really be called a fact, nevertheless, a number of other phenomenon which verb movement explains can be (for example the position of PP, the [-ə-] suffix, etc.).

The parameters of universal grammar, it is often assumed, must be fixed by positive evidence only (Chomsky 1981, Baker 1979). That is, children learn a language by encountering it in day-to-day life, an encounter which does not naturally involve being told explicitly the right and wrong way to say things. The above four factors, then, if they are parameters of universal grammar, must be fixed by positive evidence.

I will now briefly discuss what sort of evidence would be available to the child learning the segment of the grammar I have described. I am in no way attempting to make a definitive statement regarding the learning of the four factors; my comments here should be taken as exploratory.

Parameter (1) could be fixed by the structure of genitives; (2) could be fixed by the distribution of the reflexive. Since the binding theory is considered a part of universal grammar, the information that anaphors are bound in their governing category is available to the child (unconsciously, of course). Because the reflexive anaphor

appears in the position associated with the patient, this position must be the internal argument position. Since the patient is the internal argument, parameter (2) will be set to the (a) value, that is, S-accusativity.

Once the S-ergative parameter is set for S-accusativity, there will be positive evidence for verb movement since the patient (a subcategorized argument) is separated from the verb by the agent argument (a non-subcategorized argument).[15] The position of the PP will also serve as evidence for verb movement.

The M-ergative parameter could be evidenced by the appearance of the Case assigner [-ə-], by the distribution of determinate markers, and possibly other phenomena beyond the scope of this discussion. The parameter concerned with the presence of INFL raises a question implicit in the above discussion. Specifically, are these parameters arbitrarily pre-set in a certain way which can be reset by positive evidence? That is, is there a default or unmarked value for the parameters? If so, then the INFL parameter might be conceived of as having a negative default value. That is, in the absence of positive evidence, the grammar being formed in the mind of the child would have no INFL category.[16]

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[15]Presumably the information that VP must contain subcategorized arguments is also available to the child through universal grammar.

[16]Chomsky (1981) has INFL as the head of S. This follows

But to return to the main point, given the criterion of learnability, I believe the Government-Binding framework can be shown to be an acceptable model, and in fact probably superior to any other current model since from its inception the model was formulated against the backdrop of the learnability issue. If one accepts the learnability issue as a valid criterion for evaluating analyses, then the account I have given of Nisgha syntax would be evaluated positively. In addition to this, I think it fair to say the model makes some good empirical predictions.

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[16](cont'd)from his claim that the following rewrite rule is universal (the order of the elements obviously varies) an assumption which is made because of its analogy to semantic predicate structure:

(i) S —> NP INFL VP.

Note, then, that all I am proposing is that INFL is optional, that is, the following:

(ii) S —> NP (INFL) VP.

REFERENCES

Aoun Y. and Dominique Sportiche. (1983) "On tne Formal Theory of Government." The Linguistic Review, 2:3.

Baker, C.L. (1979) "Syntactic Theory and the Projection Problem." Linguistic Inquiry, 10:4.

Baltin, M. (1982) "A Landing Site Theory of Movement Rules." Linguistic Inquiry, 13:1.

Burzio, L. (1981) "Intransitive Verbs and Italian Auxillaries." Diss. Massachusetts Institute of Technology.

Chomsky, Noam A. (1965) Aspects of the Theory of Syntax. Cambridge, MA.: MIT Press.

_____ (1976) "Conditions on Rules of Grammar." Linguistic Analysis, 2:4.

_____ (1981) Lectures on Government and Binding. Dordrecht, Holland: Foris Publications.

_____ (1982) Some Concepts and Consequences of the Theory of Government and Binding. Cambridge, MA.: MIT Press.

Chomsky, N.A. and Howard Lasnik (1977) "Filters and Control." Linguistic Inquiry, 8:3.

Dunn, John Asher (1979) "A Reference Grammar for the Coast Tsimshian Language." National Museum of Man Mercury Series, 55, Ottawa: National Museums of Canada.

Evans, Gareth (1980) "Pronouns." Linguistic Inquiry, 11:2.

Higgenbotham, J. (1980) "Pronouns and Bound Variables." Linguistic Inquiry, 11:4.

Huang, C.T. (1983) "A Note on the Binding Theory."

Linguistic Inquiry, 14:3.

Kayne, Richard (1981) "ECP Extensions." Linguistic Inquiry, 12:1.

Levin, Beth Carol (1983) "On the Nature of Ergativity." Diss. Massachusetts Institute of Technology.

Marantz, Alec P. (1981) "On the Nature of Grammatical Relations." Diss. Massachusetts Institute of Technology.

_____ (1984) On the Nature of Grammatical Relations. Cambridge MA.: MIT Press.

Perlmutter, D.M. (1978) "Impersonal Passives and the Unaccusative Hypothesis." in J.J. Jaeger and A.C. Woodbury, eds, Proceedings of the Berkeley Linguistic Society, 4.

Rigsby, Bruce (1975) "Nass Gitksan : An Analytic Ergative Syntax." International Journal of American Linguistics, 41:4.

Rochemont, Michael (to appear) Focus in Generative Grammar. Amsterdam: J. Benamins.

Rood, David S. (1977) "Against Artificial Tree Branches: Another Look at Nass Gitskan Syntax." International Journal of American Linguistics, 43:3.

Sproat, Richard (1983) "VSO Languages and Welsh Configurationality." MIT Working Papers in Linguistics, 5.

Tarpent, Marie-Lucie (1982) "Ergative and Accusative : A single Representation of Grammatical Relations with Evidence from Nisgha." Working Papers of the Linguistic

Circle of Victoria, 2:1.

_____ (1981) "Major Features of Nisgha Syntax." Victoria, B.C. (Mimeographed).

Williams, E. (1980) "Predication." Linguistic Inquiry, 11:1.