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# Transitivity Alternations, Event-types and Light Verbs

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#### Abstract

This dissertation investigates transitivity alternations, with particular reference to Amharic. The lexical-semantic and morphosyntactic properties of morphological causatives, experiencer predicates, applicative constructions and complex predicates formed by light verbs are examined in detail. It is claimed that transitivity alternations are an artefact of Event-type alternations and follow from universal principles such as Event Headedness. It is argued that the valency difference between various verb classes reduces to whether the Root of the verb is specified or underspecified for Event Headedness.

Two levels of phrase structure, l-syntax and s-syntax, are recognized in the study. It is argued that productive causatives are generated in s-syntax, whereas morphological causatives which are sensitive to the Event-type of the Root are generated in l-syntax. A unified structural analysis is given for a number of superficially unrelated constructions including Subject Experiencer predicates, perception verbs and possessive predicates. It is argued that the quirky Case and agreement properties of such predicates can be handled by motivating inherent Case assignment. This analysis is further extended to account for the benefactive applicative of unaccusatives.

The role of light verbs in transitivity alternation is explored in detail. It is shown that light verbs are independent verbs that spell-out Event-types. The study argues that the polysemous relationship between predicates is best accounted for by a single argument structure rather than by positing multiple lexical entries.

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#### Résumé

Dans cette thèse, nous examinons les alternances de transitivité, en nous basant sur des données de l'amharic. Nous étudions en détail les propriétés lexicosémantiques et morphosyntaxiques des constructions causatives morphologiques, des prédicats à sujet "psy-chose" et des prédicats complexes formés par les verbes lègers. Nous proposons que les alternances de transitivité résultent d'alternances de type Événementiel et obéissent à des principes universaux tels que la fonction de tête Événementielle. Nous montrons que la différence de valence entre certaines classes de verbes se ramène à la spécification ou la sous-spécification de la Racine du verbe pour la tête Événementiel.

Deux niveaux de représentation structurale sont admises: syntaxe-l et syntaxe-s. Nous montrons que les constructions causatives productives sont générées en syntaxe-l, alors que les causatives morphologiques, qui sont sensibles au type d'Événement de la Racine, sont générés en syntaxe-s. Nous proposons une analyse structurelle unifiée pour un nombre de constructions qui n'ont en apparence aucun rapport, tels que les prédicats à sujet "psy-chose", les verbes de perception et les prédicats possessifs. Nous montrons qu'il est possible de rendre compte du cas "quirky" et des propriétés d'accord de ces prédicats en motivant l'assignement du cas inhérent. Nous étendons cette analyse aux verbes inaccusatifs applicatifs à effet bienfaisant.

Nous explorons en détail le rôle des verbes lègers dans l'alternance de transitivité. Nous montrons que ces verbes sont des verbes indépendants qui expriment des types d'Événement. Nous proposons que la meilleure façon de rendre compte de la relation polysémique entre les prédicats est d'admettre une seule structure argumentale plutôt que de poser de multiples entrées lexicales.

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## Contribution

This thesis contributes to a better understanding of transitivity alternations in particular and the interface of lexical-semantics and syntax in general. The thesis presents the first study of transitivity alternations in Amharic within the context of current approaches to lexical-semantics and morphosyntax. As such, the study presents novel data from a wide range of constructions including inchoative/causative predicates, experiencer and applicative constructions, and complex predicates which are formed by light verbs. The study advances the view that phrase structure mirrors the organization of Event-types and shows that transitivity alternation is best accounted for if it is regarded as an artefact of Eventtype alternation.

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# List of Abbreviations

# **Glossing Abbreviations for Amharic**

1	First person
2	Second person
3	Third person
s	Singular
pl	Plural
m	Masculine
f	Feminine
S	Subject
0	Object
pf	Perfect
imp	Imperfect
ger	Gerund
DEF	Definite
ACC	Accusative
REL	Relative clause marker
POSS	Possessive marker
NEG	Negation marker

Note that the glossing abbreviations used in examples from languages other than Amharic are as they appear in the original sources.

## **Other Abbreviations**

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BE	State functor
INCH	Inchoative functor
CAUS	Causative functor
A-Causer	Ambient Causer
PATH	Path argument
EP	Event Phrase
LV	Light Verb
LVC	Light Verb Complex
VN	Verbal Noun

RP	Root Phrase
SubjExp	Subject Experiencer
ObjExp	Object Experiencer
P-verb	Prefix requiring verb

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#### **CHAPTER 1**

#### Introduction

The goal of this thesis is to present a detailed study of transitivity alternations, with particular reference to Amharic, an Ethio-Semitic language. The lexical-semantic and morphosyntactic properties of morphological causatives, experiencer predicates, applicative constructions and light verbs are examined in detail. In addition to the general theoretical interest that a study of transitivity raises, the thesis highlights a number of specific theoretical issues.

First, the thesis advances a particular view of the lexical-semantics/syntax interface, according to which the internal structure of verbs is assumed to be syntactically transparent. A verb is conceived of as containing two types of meaning: non-compositional, which includes idiosyncratic meaning, and compositional meaning. An important component of the compositional meaning is Event-type. It is assumed that the Event-type and the idiosyncratic content of a verb can be morphologically dissociated. The former can be represented either by a zero form, an affix, or an independent form, whereas the latter is always represented by a lexical root. The study argues that, apart from morphological differences, all items that spell-out the same Event-type have the same phrase structure representation.

Second, the thesis recognizes two levels of phrase structure which are referred to as s-syntax and l-syntax, in the sense of Hale and Keyser (1993), Travis (in press). The study shows that all valency changing processes make reference to these two levels of phrase structure. Consequently, different types of morphological causatives are generated at different levels of phrase structure. It is argued that the causative morphology that transitivizes unergative verbs is generated in s-syntax, whereas the causative morphology that transitivizes unaccusative verbs is generated in l-syntax.

Third, the study presents evidence for the existence of a causer argument in certain predicates which encode psychological states. This causer argument is referred to as the Ambient Causer, in the sense of Pesetsky (1995). The Ambient Causer functions as a 'hidden' Agent of Subject Experiencer predicates. A range of superficially unrelated constructions which have subjects that exhibit object-like properties receive a unified account by utilizing the notion of Ambient Causer and

independently motivated Case-theoretic assumptions such as the assignment of inherent Case.

Fourth, the thesis argues that the polysemous relationship between certain predicates can be explained by motivating a single argument structure rather than by positing multiple lexical entries. A detailed case study of Amharic light verbs shows that, at the right level of abstraction, the same structural representation can account for the various related meanings of a verb. An extension of this study is a synchronic analysis of grammaticization in which a light verb is derived by a UG operation that underparses the meaning of a lexical verb.

In the remainder of this chapter I discuss background issues in the study of transitivity (\$1.1), outline the basic components of the grammatical model (\$1.2), and present the organisation of the thesis (\$1.3).

#### 1.1. Transitivity

The traditional notion of transitivity classifies verbs into two categories on the basis of whether the action denoted by a given verb is or is not 'transferred' from an active participant (an agent) to a passive participant (a patient), (cf. Hopper and Thompson 1980). Naturally, the presence of such transfer will be possible with transitive verbs but not with intransitive verbs, because the former has two arguments, whereas the latter has only one.

As the research over the past three decades has shown, the traditional notion of transitivity is too coarse-grained: the notion of 'transfer' is insufficient to identify the transitivity of a given verb. A verb may have two obligatory arguments which are not related by the notion of transfer. For instance, verbs such as *like* and *resemble* require two obligatory arguments without encoding any transfer of action.

Furthermore, in a number of languages there are verbs which do not lend themselves to a clear-cut categorisation in terms of transitivity. For instance, in English the verb *open* can be either transitive or intransitive, depending on its syntactic environment. This fact raises a number of non-trivial questions. How are such verbs listed in the lexicon? Are there two lexical items or is one form basic and the other form derivative? If there is one basic form, is it the transitive variant or the intransitive one? As we shall see in Chapter 2, the answers to these questions are not straightforward.

A related problem is the cross-linguistic status of transitivity. It is known that verbs which are classified as transitive in one language may behave as

intransitive in another language. For example, in English verbs such as *laugh* are typically classified as intransitive as they do not require a direct object. However, in a number of languages, such verbs must occur with a direct object (cf. Hopper and Thompson (1980), Austin (1982)).

The problem of transitivity indeterminacy arises even in the same language: verbs which are classified as either transitive or intransitive on the basis of some morpho-syntactic criteria may not fall into neat homogenous classes. For instance, certain intransitive verbs may exhibit properties which are not typical of other intransitive predicates.

The fact that intransitive verbs do not exhibit properties of a homogenous class has been an important avenue of research. The distinction between two types of intransitive verbs has been brought to the fore by Perlmutter (1978), who uses the terms *unergative* and *unaccusative* - roughly to refer to agentive and stative intransitive verbs. As we shall see in Chapter 2, there is an on-going debate regarding whether the unergative/unaccusative distinction is syntactic, semantic or a combination of both (cf. Levin and Rappaport 1995).

The study of transitivity remains a challenging avenue of inquiry into the diathesis of the verb. It is hoped that this thesis will contribute to the study of transitivity in particular and to a better understanding of the mapping from lexical-semantics to syntax in general.

# 1.2. The Theoretical Framework1.2.1. The Principles and Parameters Theory

The thesis is situated within the Principles and Parameters (P&P) framework as developed in Chomsky and Lasnik (1991). The reader is referred to this work for the general theoretical assumptions of the grammatical model. Specific aspects of the theory that are relevant to the present study will be fleshed out in the course of the analysis.

#### 1.2.2. Event Types

In the present study, I assume a decompositional approach to verb meaning. I assume that the Event-type of a verb, analogous to the notion of *Aktionsart* (Vendler 1967), is a compositional meaning component. The Event-type of a predicate, to a large extent, determines transitivity. Thus, inchoative verbs such as the English open (intr) have an Event-type specification which can be paraphrased as: 'change of state with an unspecified causer'. This meaning component is transparent to syntax: it determines whether the verb takes one or two arguments.

On the other hand, the verb *open* also has other meaning components which are not transparent to syntax. For instance, the idiosyncratic lexical knowledge about the verb 'open' is built into the meaning of the verb. It is this information which distinguishes the verb *open* from the verb *break* which is otherwise specified by the same Event-type.<sup>1</sup>

The earlier classification of verbs into semantic classes was mainly ontological and was philosophically motivated, commencing at least as far back as Aristotle (cf. Kenny 1963). Aristotle recognized three types of event: (a) *States* (b) *Performances* and (c) *Activities*. The ontological classification later gained linguistic validity mainly due to Vendler's (1967) classic study. Vendler (1967) extended the Aristotelian classification to four 'Aspectual' types, by splitting up Performance into what he called *Achievements* and *Accomplishments*. The four classes identified by Vendler (1967) and some representative examples are presented below:

- (1) Verb Classes (Aktionsart)
  - State: love
  - · Activity: run, walk, dance, laugh
  - · Achievement: win (a race)
  - Accomplishment: draw (a circle), build (a house)

Vendler (1967) employed some grammatical criteria to distinguish the four classes. For instance, the ability to take the progressive form is argued to set Accomplishment and Activity verbs apart from State and Achievement verbs. The former can take the progressive form whereas the latter cannot.

- (2) (a) \*John is knowing
  - (b) \*John was recognizing
- (3) (a) He is running

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(b) He is building a house

<sup>&</sup>lt;sup>1</sup> The same is true with other lexical categories. In the nominal system, for example, definiteness, number, and gender are features that are syntactically relevant. On the other hand, as pointed out in Jackendoff (1994), the lexical knowledge which distinguishes, say, the noun *dog* from the noun *armadillo* is not something syntactically relevant.

The co-occurrence of adverbials with verbs also appears to be sensitive to the classification. Thus, *for*-adverbials cannot occur with Accomplishments and Achievements, as shown in (4):

- (4) (a) \* He built a house for an hour (Accomplishment)
  - (b) \*She recognized him for an hour (Achievement)
  - (c) He ran for an hour (Activity)
  - (d) She loved him for two years (State)

As opposed to *for*-adverbials, *in*-adverbials can co-occur with Achievements and Accomplishments:

- (5) (a) He built a house in three days
  - (b) She recognized him in three minutes

Vendler's study generated considerable interest in the investigation of the lexical-semantics of verbs. In general, subsequent studies on verb classification attempted to formalize Vendler's classification within a constrained framework by sharpening the linguistic criteria. In this regard, the study of Dowty (1979) is one of the most fundamental refinements of the Vendlerian classification.

Dowty (1979) developed the idea that the Vendler-classes can be seen as a function-argument elaboration of a basic primitive. Dowty (1979) proposed that the State primitive was the basic primitive and other types were constructed from it by the application of one or more of three operators, namely, BECOME, DO and CAUSE.

Although Dowty retained Vendler's distinction between Accomplishments and Achievements, for Dowty, the distinction was attributable to the presence vs. absence of the CAUSE operator. Dowty also proposed that each class could be further subdivided in terms of agentivity. For instance, he identified agentive States, such as *keep quiet, be polite*, as opposed to non-agentive States such as *love, know, be asleep*.

As discussed in some detail in Verkuyl (1972, 1993), the linguistic tests developed to identify verb classes have serious shortcomings. For instance, the progressive test does not exclusively determine membership in the stative class. A number of stative constructions permit the progressive, for example, *I am living in Amherst, Mr Smith is standing by the Nile* (Verkuyl 1993:36). According to

Verkuyl (1993), the problem with the *progressive* test is that it lumps together two different semantic factors, temporality and agentivity.

Verkuyl's (1972, 1989, 1993) study also articulated the important idea that aspectual verb classification is a property of the whole VP or the clause rather than the verb. Thus, the default aspectual value of a verb changes according to the surrounding syntactic environment. The classic example is *John ran* (Activity) vs. *John ran to the store* (Accomplishment). This idea is further explored and articulated in Tenny's (1987) study. Tenny argued that certain arguments 'measure out' or 'delimit' the event denoted by the predicate.

Dowty's (1979) approach to word meaning is *decompositional* in the tradition of Katz and Fodor (1963), Gruber (1976), Katz (1972), Schank (1975), among others. In fact, Dowty (1979) situates his study under the umbrella of *Generative Semantics*. It will be recalled that the decompositional approach was the centrepiece of the Generative Semantics research program (cf. McCawley 1968, Lakoff 1970). Generative Semantics attempted to explain syntactic phenomena by equating phrase markers with semantic atoms. A sentence such as *John killed Bill* was assumed to be derived from a phrase marker which consisted of the atoms CAUSE x NOT TO BE ALIVE. The primitive items were conflated by a rule of *Predicate Raising* and late lexical insertion provided the surface form of the verb. In this way, many verbs were analyzed as multipartite forms consisting of multiple heads which were often phonologically null.

One conceptual criticism levelled against Generative Semantics in particular, and decompositional approaches in general, was that the framework denies the autonomy of syntax. It was shown that multipartite forms have different syntactic and semantic behaviour than their supposedly synonymous lexicalized forms. In a popular article, Fodor (1970) showed that *kill* and *cause to die* are different in a number of respects. Crucially, the former encodes one event whereas the latter encodes two sub-events which can be modified independently.

However, it has been pointed out, implicitly or explicitly, (cf. Jackendoff 1983, 1990; Pesetsky 1995), that the multipartite syntactic analysis can be dissociated from its Generative Semantics motivation. Pesetsky (1995), for instance, argues that unlike the Generative Semantics approach, a decompositional analysis of verbs can postulate bound morphemes which have PF-content. Thus, a word such as *persuade* consists of two components: (a) an abstract causative morpheme with the features [+V, +PRO, +CAUSATIVE], which supplies the CAUS

component and (b) a bound root  $\sqrt{persuade}$  which supplies the phonological features and the rest of the lexical semantic content of the verb.

In the present study, I assume that a verb's meaning comprises conceptual functions (THING, BE, GO, BECOME, CAUSE, etc.) as developed in Jackendoff (1983, 1990). The motivation for conceptual functions is *localistic* in orientation following Gruber (1965) and Bierwisch (1967) among others. That is, expressions of spatial location and motion are employed (metaphorically) to analyze abstract events such as causation, change of state, and activity. The functions take arguments which are drawn from a repertoire of major conceptual categories, the 'semantic parts of speech' (Jackendoff 1990:43), such as Thing, Property, Event, Path, Place. Each conceptual category can be further elaborated in terms of a function-argument organization, reminiscent of syntactic elaboration in terms of the X-bar schema.

Jackendoff (1990) argued that the correspondence between syntax and conceptual structure is driven by the assumption that "every content-bearing major phrasal constituent of a sentence (S, NP, AP, PP, etc.) corresponds to a conceptual constituent of some major conceptual category." (p. 44) subject to some general markedness conditions. Thus, in the unmarked case, mapping holds as follows:

(6) NP  $\Leftrightarrow$  THING VP  $\Leftrightarrow$  EVENT/STATE S  $\Leftrightarrow$  SITUATION PP  $\Leftrightarrow$  PATH AP  $\Leftrightarrow$  PROPERTY

Hence, a lexical entry contains an elaborated Lexical Conceptual Structure (LCS), (see also Hale and Laughren 1983, Guerssel et al. 1985). For example, the lexical entry of a verb such as *enter* has the LCS in  $(7)^2$ :

 $<sup>^2</sup>$  Jackendoff (1990) also characterizes the lexicon as the component that establishes correspondence between different modules. This implies that the structures of the modules are formed independent of the lexicon. What this means with respect to syntax is that lexical items are inserted at the output of syntax. This conception of lexical insertion is what is usually referred to as *late* lexical insertion as opposed to the standard *early* lexical insertion (cf. Halle and Marantz 1993, 1994). When a lexical item is inserted at the syntactic output, its phonological features are identified by the syntactic, semantic and morphological features of the terminal node. In the present study, I will assume a traditional 'early' insertion, but the essential claims can be reformulated in terms of late insertion.

(7) enter

## [Event INCH ([Thing ], [Path TO ([Place IN ([Thing ])])])]

One desirable consequence of the LCS is that the so-called Theta-roles ( $\theta$ -roles), such as Agent, Theme, Goal, Beneficiary, Instrument, among others, are no longer primitives of grammar but rather derivatives of the LCS. Thematic roles are best understood as structural positions in the LCS. For instance, a Theme is the first argument of the motion function INCH or the state function BE. Goal is the argument of the Path function TO, whereas Agent is the first argument of the Event function CAUSE.

For the purposes of the present study, I use the term Event-type, in the sense of Pustejovsky (1991, 1995). I recognize four Event-types: Accomplishments, Activities, States and Achievements. With the exception of States (indicated by BE), all Event-types are complex, that is, they contain *subeventual* specifications (cf. Pustejovsky (1991, 1995)). Thus, an Accomplishment verb such as *build* encodes a complex of two subevents, a causing subevent and a change of state, represented by the notations CAUS and INCH respectively. An Activity is a complex of a causing subevent and a state, represented by INCH and BE. I use the notation INCH as an abbreviation for a change of state with an unspecified causer. Such verbs include *melt* (intr), *break* (intr), *open* (intr). I will refer to CAUS, INCH, BE as Event-type *functors* (borrowing the term 'functor' from Ritter and Rosen 1993).

A number of contemporary studies explicitly or implicitly assume some form of decomposition of verbs (cf. Pustejovsky 1991, 1993, 1995; Jackendoff 1983, 1990; Hale and Keyser 1993; Travis 1994, in press; Harley 1995; among others). Of particular interest for us is Hale and Keyser's (1993) study of argument structure and Travis' (1994, in press) hypothesis about phrase structure and Event structure. As I will be relying on these studies, a brief review of their major assumptions is in order here. 1.2.3. Phrase Structure: L-syntax vs. S-syntax

1.2.3.1. Hale and Keyser (1993)

In a novel approach to the study of argument structure and its mapping to syntax, Hale and Keyser (1993) argued that predicate argument structure is itself syntax. They refer to this syntactic argument structure as *Lexical Relational Structure* (LRS), (in contrast to the more traditional thematic argument structure). Hale and Keyser (1993), hereafter H&K, made a distinction between syntax in the conventional sense and syntax at LRS, *s-syntax* and *l-syntax* respectively.

The main empirical motivation for H&K's analysis arose from their analysis of denominal verb formation in English. H&K argue that denominal verb formation can be constrained by independently motivated syntactic principles, particularly by the *Head Movement Constraint* (HMC), (originally proposed in Travis 1984:131):

(8) The Head Movement Constraint
 An X<sup>o</sup> may only move into the Y<sup>o</sup> which properly governs it.

The HMC is argued to be subsumed within the *Empty Category Principle* (ECP), the principle which requires that an empty category be properly governed (cf. Baker 1988a). H&K showed that denominal verbs such as *shelve*, *bottle*, *saddle*, *dance*, *sneeze*, *calve*, *laugh* etc., are formed by the process of Move- $\alpha$  obeying the ECP. They argue that constructions with denominal verbs, such as (9b), have essentially the same structure as constructions which contain the nominal, as shown in (9a):

- (9) (a) Mary put her books on the shelf
  - (b) Mary shelved her books

The phrase structure of (9a) and (9b) is as shown below in (10a) and (10b) respectively (simplified for the present purposes):





(11) \*Mary shelved her books on

If denominal verb formation is simply a matter of category change in the lexicon, H&K argue, the class of denominal verbs in English would have included verbs such as those in (12), (H&K 60:11):

- (12) (a) \*It cowed a calf (cf. A cow had a calf. A cow calved.)
  - (b) \*It mared a foal (cf. A mare had a foal. A mare foaled.)

- (c) \*It dusted the horses blind
  (cf. The dust made the horses blind.
  The dust blinded the horses.)
- (d) \*It machined the wine into bottles(cf. A machine got the wine into bottles.A machine bottled the wine.)

The syntactic theory of denominal and deadjectival verb formation correctly predicts the ill-formedness of (12). The incorporated head originates in subject position, a position which cannot be properly governed as required by the ECP (cf. Baker 1988a). Thus, H&K's theory is able to constrain possible denominal verb formation by appealing to an independently motivated syntactic principle.

H&K argue that the *process* of word formation is independent of the distinction between the lexicon and syntax. In effect, they argue that a word can be formed in the lexicon but by processes which are syntactic. To that extent, they claim that their theory is a development of studies such as those of Keyser and Roeper (1984, 1992) which assume that syntactic processes may operate in the lexicon.

H&K motivate the distinction between l-syntax and s-syntax on primarily conceptual grounds, in particular on the basis of the observation that there is both something lexical and something syntactic about denominal and deadjectival verbs. For example, take the verb *shelve*. We note that it is lexical because (a) the basic form-meaning association is arbitrary, that is, it is an arbitrary property of the verb that the sign *shelve* means what it means, and (b) the phonological fact - *\*shelfe* > *shelve* - is idiosyncratic and must be registered lexically. However, there is also something syntactic operations. It is in an attempt to accommodate these two properties of denominal/deadjectival verbs that H&K motivated the notion of l-syntax.

The basic insight of H&K is adapted by Travis (in press). Travis recast the distinction between 1-syntax and s-syntax within a particular view of phrase structure and Event structure.

#### 1.2.3.2. Travis (in press)

Travis (in press) argued that the distinction between l-syntax and s-syntax is both conceptually and empirically valid. For Travis, l-syntax has some characteristics of lexical rules, in terms of semantics, phonology, and distribution whereas s-syntax lacks idiosyncrasies, is productive and predictable. Travis (1994) provides empirical support for her claim from her study of causative formation in Tagalog and Malagasy. These languages have two causatives, one of which exhibits lexical properties. Travis (in press) argued that although many languages have two types of causatives like Malagasy and Tagalog, what makes the morphological causatives in these two languages interesting is the fact that the same affix is used in both l-syntax and s-syntax. Consider the following examples:

(13)	Tagalog: CAUS affix -pag-			
	<b>(</b> a)	bumagsak	'y fall'	
	•	magpabagsak	'x cause y fall'	(s-syntax)
	<b>(</b> b)	magbagsak	'x drop y'	(l-syntax)
(14)	Mala	gasy: CAUS affix -an-		
	<b>(</b> a)	misitrika	'x hide'	
		mampisitrka	'z makes x hide'	(s-syntax)
	<b>(</b> b)	manitrika	'y hides x'	(l-syntax)

Travis (in press) argues that there are reasons for believing that the (b) examples in (13) and (14) have some lexical properties. She argues that there are four ways in which this lexical property can be articulated: (a) change of category, (b) semantic idiosyncrasy, (c) phonological idiosyncrasy and (d) lexical idiosyncrasy.

First, there is clearly a change in category, as shown in the following alternations in Malagasy:

(15)	(a)	mihisatra	'x move slowly'
		manisatra	'y move x slowly'
		hisatra <sub>N</sub>	'action of slowly moving'

 (b) milahatra 'x be in order' mandahatra 'y arrange x' lahatra<sub>N</sub> 'organization'

Second, there is semantic idiosyncrasy. Consider, for example, the verb for 'live' in Malagasy and its causative counterpart:

- (16) (a) Mipetraka eto an-Montreal aho I live in Montréal
  - (b) Nametraka ahy eto an-Montreal ny vadiko
     = My husband placed me in Montréal
     ≠ My husband made me live in Montréal.

The second reading is not possible, although, logically the causative would derive such a reading.

Third, there is phonological idiosyncrasy. For instance, in Malagasy the /n + s/ combination is realized as [n] in the l-syntax causative, while elsewhere /n + s/ is realized as [nts]:

(17) man + sitrika > manitrika

and the second sec

Furthermore, whereas both types of causatives add an Agent to the argument structure of the verb, only the s-syntactic causative may add an additional Agent.

Travis uses the l-syntax/s-syntax distinction to capture the difference between the two (otherwise similar) causative morphemes in Tagalog and Malagasy. The productive causative is generated in s-syntax, whereas the causative that exhibits idiosyncratic properties is generated in l-syntax.

Travis also observes that when the two types of causatives co-occur, they are separated by an additional morpheme:

### (18) mampanitrika /m+an+F+an+sitrika/ 'z makes x hide y'

Travis, developing ideas first raised in Hung (1988), argues that the morpheme ('F' in (18)) which occurs between the two causatives in Malagasy is a functional head and calls it E(vent). For Travis, Event Phrase (EP), which is headed by E, is parallel to Aspect Phrase (AspP). Although neither EP nor AspP are lexical categories, as they do not assign theta-roles, Travis claims that they are distinct from other functional categories because, among other things, they theta-bind, in the sense of Higginbotham (1985), "an event variable introduced by the head of their complement". Travis argues that E binds the event variable of the top VP which is headed by CAUS. Thus, whilst Aspect has scope over the lower VP which is headed by a State, E has scope over the entire event.

What is interesting for the present purposes is Travis' hypothesis that E separates the domain of s-syntax from that of l-syntax in phrase structure. In other words, once a cause argument is added to the configuration, the domain of l-syntax is closed-off, as it were, in that no other lexical category can be added. Although Travis motivates EP on the basis of facts from languages like Malagasy and Tagalog, she assumes that EP is part of the phrase structure module as a matter of UG.

In Travis' (in press) proposal, there are lexical categories (N, V, A, P), functional categories (AgrS, TP, etc.), and binding categories (E and Asp). Functional projections such as TP appear outside EP, as shown in the following tree diagram.



So far we have presented the views of Hale and Keyser (1993) and Travis (1994, in press) regarding the l-syntax/s-syntax distinction. The logic of the argument for l-syntax is basically as follows. The derivations of certain verbs (denominal and deadjectival verbs in English, some causatives in Tagalog and Malagasy) exhibit properties which are both lexical and syntactic. They are lexical because of the basic form-meaning arbitrariness, category change, and idiosyncratic properties with respect to distribution, semantics and phonology. They are syntactic because their predicate argument structure is itself syntax, that is, it can be defined in terms of basic syntactic relationships (head, complement) and it obeys an independent syntactic principle (HMC). Travis makes the additional claim that the domain of l-syntax is separated from that of s-syntax by the projection of a binding category E(vent). For Travis, E theta-binds the event argument of the verb, in the sense of Higginbotham (1985).

## 1.2.3.3. Event Headedness and Default Subevents

I follow Travis in assuming that EP marks the boundary between 1-syntax and s-syntax. However, while maintaining the basic insights of Travis (in press), I make a number of further assumptions. First, I assume that the highest VP projects only if there is CAUS. In other words, only Accomplishment and Activity verbs will have a double VP structure (cf. Amberber 1993).

Second, I assume that the head of the lower VP is a category-neutral Root. I will refer to the lower VP (VP<sub>2</sub>) and the higher VP (VP<sub>1</sub>) of Travis (in press) as the Root Phrase (RP) and VP respectively.<sup>3</sup> In this system, both Accomplishment and Activity verbs have the same highest subevent, CAUS, but differ in their embedded subevent. Accomplishment verbs take an INCH subevent, whereas Activity verbs take a BE subevent. Achievement and Stative Events have only the lower VP (RP) and no higher VP. The difference between the embedded subevents is not arbitrary. I will present arguments in Chapter 2 which show the stative nature of the embedded subevents in Activity verbs.

Third, I assume, following Pustejovsky (1995, Ch 5), that the grammar has an event focussing mechanism that can be referred to as *Event Headedness*. Pustejovsky (1995:72) argues that "Event Headedness provides a way of indicating a type of foregrounding and backgrounding of event arguments. An event structure provides a configuration where events are not only ordered by temporal precedence, but also by relative prominence". Languages make reference to the relative prominence of subevents of a larger event. Thus, I assume that the LCS of a verb specifies which subevent is the head subevent. A head subevent always projects in the syntax. For instance, a verb such as *build* with the LCS [CAUSh [INCH]] specifies the CAUS functor as the head, that is, the CAUS subevent must always project in the syntax. (I employ the notation h in subscript to indicate the Event head). Likewise, for an Activity verb such as *laugh*, with the LCS [CAUSh [BE]], the head subevent is CAUS. As we shall see in Chapter 2, although it is often the case that the subevent which has temporal prominence (i.e. temporal precedence) also has relative prominence, the two types of prominence can be dissociated.

The notion of Event Headedness allows that some verbs may be underspecified for Headedness. In such verbs, either of their subevents may be the

<sup>&</sup>lt;sup>3</sup> Although I assume that the lower VP is actually a Root Phrase, those who prefer the label 'VP' can refer to RP as VP2.

head. For example, an Accomplishment verb such as the English *break* (tr) with the the subevents [CAUS [ INCH]], is underspecified for Event Headedness. Thus, the verb may be spelled out either as a causative or as an inchoative.

Building on Pustejovsky's idea, I assume that the grammar also allows for default Event Headedness. The idea is that an LCS which is not specified for Event Headedness may assign a default head. When two subevents are not ranked according to relative prominence, the subevent which has temporal prominence becomes the head by default. I will show that Event Headedness correlates with the morphological realization of verbs in such a way that the realization of the default Event head is morphologically less marked. Thus, the default Event head can be altered through overt morphology in languages with the appropriate morphological resources.

Fourth, I assume that the Event-type functors of Achievements and States are generated in the head of AspP. For an Achievement verb such as *come*, Asp is INCH because that is the only Event-type specification in the LCS. For a stative verb such as *sit*, I assume that Asp is BE. On the other hand, the CAUS functor always requires the projection of VP.

Therefore, structurally speaking, Accomplishment and Activity verbs have a double VP structure, whereas Achievement and States have a single VP (RP) structure.<sup>4</sup> This phrase structure representation is consistent with two common observational facts: (a) Accomplishment and Activity verbs are transitive (although, the inner argument is often optional in the latter), and (b) constructions may receive either an Achievement or a Stative reading (Jackendoff 1990: 91-95).

For the present purposes, I will continue to use the more familiar terms, causative, unergative, and unaccusative as approximate equivalents of Accomplishment, Activity, and Achievement respectively, but without implying that there is a one to one equivalence relationship. Abbreviated phrase structure representations of the four classes of verbs are schematised in the following diagrams on the basis of Arnharic head position:

<sup>&</sup>lt;sup>4</sup> There is one problem with this classification. Transitive Achievements such as 'I find the pencil' will not be readily accommodated if Achievements are single VP projections. Since the resolution of this problem is not crucial for the present study, I simply note its general relevance and assume the structure in (20c) of the text to be true of other cases of Achievement verbs.



In this system, every Root must move out of the RP to be well-formed irrespective of the presence of an overt Event-type functor.

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#### 1.2.3.4. The Lower VP as the Root Phrase

I assume that the Root of the verb is inserted as the head of the lower VP. It is the Root which registers the idiosyncratic phonological information. It is also the Root which can be marked for various non-compositional semantic content. In Sapir's (1921) terminology, it is the Root which contains the 'material' content of the verb. The 'relational' content of the verb is derived in the syntax with the help of functional categories.

The assumption that the lower VP differs in some way from the upper one has been previously suggested by Travis (1991). Travis argued that the lower VP is projected from a different sort of head which she refers to as 'verbal noun' (Vn). She suggested that Vn is distinguished from V in not assigning accusative Case and external argument. She also claims that VnP can be specifically selected by certain verbs such as the verb *be*.

Harley (1995:103ff), who argued that the notion of a verb is derivative, employed the term *Base Phrase* (BaseP) to refer to the lower VP. Harley's theory also makes use of Hale and Keyser's (1993) idea that predicate argument structure is itself syntax. For Harley (1995), the Base can be any one of the three categories, N, A, or P. In English, when the Base is N, the derived verb will be denominal. When the Base is A, the derived verb will be deadjectival. A prepositional Base provides the input to double-object verbs. In this way, a verb's internal property is reduced to the properties of the other categories. Thus, Harley assumed that excluding V, the other three categories are primitive.

I would like to argue that the other categories are also not primitive. In this regard, my proposal is similar to that of Walinska de Hackbeil (1986). Adapting ideas from the theory of Conceptual Semantics (Jackendoff 1983), Walinska de Hackbeil (1986:38) suggests that roots can be identified by ontological categories like THING, PROPERTY, EVENT and PATH. As we have already seen, in Jackendoff's (1990) Conceptual Semantics, the correspondence between these ontological categories and syntactic categories is governed by general markedness conventions. The unmarked realizations of THING, PROPERTY, EVENT and PATH are the lexical categories N, A, V and P, respectively. However, languages vary in how they map the ontological categories, or in H&K's sense 'notional types', onto syntactic categories. For example, in some languages the unmarked realization of PROPERTY is not an Adjective but a Verb or a Noun (cf. Dixon 1982). Thus,

suppose we assume that the lexical entry of the Root  $\sqrt{thin}$  in English is essentially as in (21):

(21) thin A, (PROPERTY)

A proto-typical PROPERTY corresponds to the syntactic category of Adjective in English. An attributive position, as in *the thin gravy*, is a typical realization of Adjectives. On the other hand, under certain conditions PROPERTY will no longer be realized by its unmarked category but may be mapped onto, say, Event, as is the case with *the gravy thinned*. In this way, the category labels are just convenient mnemonics for the notional types.

Therefore, I argue that the VnP of Travis (1991) or the BaseP of Harley (1995) is best conceived of as a Root Phrase (RP). The LCS of a Root contains essentially two components: (a) a compositional meaning component, that is, whether it is an Event, Thing, Property, or Path, and (b) an idiosyncratic meaning component.

I also assume, unlike Harley (1995) and Kratzer (1994), that the lexical entry of a verb (the Root) contains both the external  $\theta$ -role (cf. Williams (1981) and the internal  $\theta$ -roles. I accept that there is an asymmetry between the external theta role, the role assigned to the argument of CAUS, and the internal theta roles. I assume that although the Root contains the external  $\theta$ -role, it needs the projection of the higher VP to assign this  $\theta$ -role to an argument. In other words, the external  $\theta$ role is assigned in the Spec of VP. This idea is adapted from Travis (1991) who claims: "the external theta-role is in the theta-grid of the VnP but may not be assigned without 'help', where help may come in the form of a light verb". The external argument is licensed by the head of VP, and what Travis (1991) calls a 'light verb' is the morphological spell-out of CAUS. I will show in Chapters 2 and 3 that our assumption regarding the status of the external argument makes the right prediction about the inchoative-causative alternation in Amharic.

Summarizing, the Event-type of a verb is a compositional meaning component that is registered in the LCS of the verb Root. Subevents which form a larger event are distinguished by temporal and relative prominence. A verb can be specified or underspecified for Event Headedness. Other things being equal, the default Event head is the subevent which is temporally prominent. The realization of the default Event head is morphologically unmarked. The Root must spell-out its Event-type in the syntax by moving into the head of AspP and VP. The LCS of a Root registers the external argument, if there is any, among other arguments. The higher VP in the Larsonian VP shell (cf. Larson 1988) projects only if there is CAUS; this condition is met with Accomplishment and Activity verbs but not with Achievement and Stative verbs.

#### 1.3. The Organization of the Thesis

The thesis is organized as follows. In Chapter 2, a detailed investigation of the Inchoative-Causative Alternation is undertaken. I show that transitivity alternation is an artefact of Event-type alternation and can be captured configurationally by phrase structure.

Chapter 3 investigates transitivity with respect to the so-called 'external' causative. I argue that the external CAUS functor is generated in s-syntax. Due to this property, any EP can be embedded within the external causative. In this chapter, I also discuss the Case assignment mechanism of morphological causatives.

In Chapter 4, the structure of Experiencer predicates is examined in detail. I argue, following Pesetsky (1995), that a class of Subject Experiencer predicates have a special type of Agent argument, the Ambient Causer (A-Causer). Departing from Pesetsky, I argue that the A-Causer can be realized by a zero morpheme, at least in Amharic. I show that the behaviour of Experiencer predicates with respect to the diagnostics of unaccusativity follows naturally from the presence of the A-Causer. One type of Subject Experiencer predicates pose problems related to Case assignment: the subject exhibits object-like properties, such as triggering object agreement. This problem is accounted for by motivating the assignment of inherent Case.

In Chapter 5, the interaction of split intransitivity with the applicative construction is examined. The main focus is on the problem of how the benefactive/malefactive applicative of intransitive verbs (unergative/unaccusative) is derived. Essentially the same Case theoretic analysis proposed to account for the problem of Subject Experiencer predicates will be extended to account for the benefactive applicative of unaccusatives.

Chapter 6 is concerned with the analysis of light verbs and their role in transitivity alternation. It will be argued that the relationship between a light verb
and its lexical variant can be accounted for by the same LCS without postulating multiple lexical entries.

In Chapter 7, I conclude by summarizing the major theoretical claims made in the course of the thesis and by discussing some theoretical and empirical consequences of the thesis.

# **CHAPTER 2**

## The Inchoative-Causative Alternation

#### 2.0. Introduction

In this chapter, I investigate the *Inchoative-Causative Alternation* (ICA) in Amharic. I examine the internal structure of verbs which are involved in the ICA. I show that the notion of transitivity is too coarse-grained to reveal the true property of the ICA and argue that the ICA is an artefact of Event-type alternation. I argue that Event-type heads project as syntactic heads with the effect that phrase structure mirrors the organisation of Events in the LCS.

The chapter is organized as follows. In §2.1, I present the general patterns of the ICA. In §2.2, I investigate two Patterns of the ICA in Amharic. In §2.3, I turn to the analysis of verbs with a mandatory agent. In §2.4, I investigate the interaction of unaccusatives with the passive construction. In §2.5, I compare the different patterns of unaccusative verbs with the unergative construction and in §2.6, I examine two classes of verbs which exhibit quirky alternation. These are (a) verbs with variable behaviour, and (b) the so-called 'ingestive' verbs. I argue that the special property of verbs with quirky alternation can be accounted for within the proposed framework by utilizing independently motivated principles.

## 2.1. Patterns of Alternation

The ICA is one of the most common types of transitivity alternation. It has been discussed extensively in the literature (see Nedjalkov 1969, Shibatani 1979, Guerssel et al. 1985, Guerssel 1986, Hasplemath 1993, Levin and Rappaport 1995 and references therein).<sup>5</sup> Typical exemplars of the ICA are presented below from English and Amharic:

<sup>&</sup>lt;sup>5</sup> Also see Levin (1993: 27-30) for a detailed bibiliographical reference on this subject for English.

- (1) (a) The glass broke
  - (b) John broke the glass
- (2) (a) The butter melted(b) John melted the butter
- (3) (a) t'ermus-u te-sebbere
  glass-DEF INCH-break.pf.3mS
  the glass broke
  - (b) lamma t'armus-u-n sabbara-w
    L. glass-DEF-ACC break.pf.3mS-3mO
    Lemma broke the glass
- (4) (a) k'ibe-w k'əllət'ə butter-DEF melt.pf.3mS the butter melted
  - (b) aster k'ibe-w-in a-k'allat'a-č-iw
    A. butter-DEF-ACC CAUS-melt.pf.-3fS-3mO
    Aster melted the butter

Observationally, in the (a) sentences the verb is intransitive: the causer of the event, if there is any, is not explicitly specified. On the other hand, in the (b) sentences, the verb is transitive and the causer of the event is explicitly mentioned. Notice that the verbs which alternate may be homophonous as in English, that is, the same morphological form can be either transitive or intransitive. Alternatively, the alternating verb forms may be morphologically mediated, as for example, in Amharic, by the use of the prefix ta- or a-. In other words, in English, but not in Amharic, the verb is morphologically the same in both constructions. The difference is signalled by the change in argument structure and word-order: a causer is introduced and placed in the pre-verbal position.

The alternation is cross-linguistically productive, as the following examples from diverse languages show (examples from Haspelmath 1993:89ff).

(5)	(a)	rasplavit'-sja	'melt (intr.)'	Russian
	<b>(</b> b)	rasplavit'	'melt (tr.)'	
(6)	(a)	xajil-ax	'melt (intr)'	Mongolian
	(b)	xajil-uul-ax	'melt (tr.)'	
(7)	(a)	darasa	'learn'	Arabic
	(b)	darrasa	'teach'	
(8)	(a)	duys	'cook (intr.)'	Georgian
	<b>(b</b> )	a-duy-ebs	'cook (tr.)'	
(9)	(a)	khulnaa	'open (intr.)'	Hindi-Urdu
	(b)	kholnaa	'open (tr.)'	

Depending on their morphological resources, among other factors, different languages employ different strategies to encode transitivity alternation. Some languages employ affixes (Russian), whereas others employ internal stem modification (Arabic). Still others may use zero derivation, that is, the same morphological form is employed for both the causative and inchoative constructions (English).

Despite its cross-linguistic productivity, the ICA does not occur for all verbs. There are verbs which do not participate in the alternation as can be seen in (10) and (11).

(10)	(a)	John danced
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(b) \*Bill danced John

(11) (a) ləmma č'əffərə
 L. dance.pf.3mS
 Lemma danced

(b) \* kassa lamma-n a-č'affara K. L.-ACC CAUS-dance.pf.3mS (Kassa danced Lemma)

As we shall see in Chapter 3, many languages have some strategy for deriving the causative of verbs like *dance*. However, the strategy employed to form the causative of verbs like *dance* is structurally distinct from that of the ICA as will be shown in §2.5.

The distinction between verbs that can be causativised and those that cannot has been the subject of many typological and theoretical studies (cf. Nedjalkov and Silnitsky 1973, Comrie and Polinsky 1993). Within the generative tradition, the distinction has been central to the division of intransitives into two classes: unaccusatives and unergatives.<sup>6</sup> This distinction was originally proposed by Perlmutter (1978) and termed the *Unaccusative Hypothesis*. The basic idea is that the single argument of unergative verbs is an underlying subject whereas the single argument of unaccusative verbs is an underlying object. This can be schematized as follows.

(12)	(a)	Unergative:	dance,	NP [vp V]
	(b)	Unaccusative	: break,	[vp V NP]

Burzio (1986) further developed the Unaccusative Hypothesis within the formalism of the P&P framework. He claimed that unaccusative verbs lack the ability to assign an external  $\theta$ -role, where external is defined configurationally to mean outside the VP projection. Burzio (1986) made the generalization (later known as *Burzio's generalization*) that if a verb cannot assign an external  $\theta$ -role, then it cannot assign accusative Case to its internal argument. Since NPs must be assigned Case to be well-formed, the internal NP must move to subject position at

 $<sup>^{6}</sup>$  I assume that there is no important distinction between the terms *unaccusative* and *inchoative*. This is justifiable to the extent that both unaccusatives and inchoatives generally pick out verbs whose sole argument undergoes a change of state (or location).

S-structure to get Case from Infl. Thus, though both unergatives and unaccusatives are monadic, they differ in the underlying status of their arguments.

A number of studies have proposed various syntactic and semantic diagnostics for unaccusativity subsequent to Perlmutter's (1978) proposal (cf. Rosen 1984, Zaenen 1993, Van Valin 1990, Pustejovsky 1991, Levin & Rappaport 1995). However, without independently establishing why certain verbs alternate whereas others do not, there is a danger of circularity: verbs alternate when they are unaccusative and are unaccusative because they alternate. Thus, a deeper motivation for the different classes of monadic verbs must be established. A recent and comprehensive account of this problem is provided by Levin and Rappaport (1995), L&R hereafter. In the following section, I briefly review the arguments presented in L&R and evaluate the consequences of their analysis for the ICA in Amharic.

# 2.1.1. Internal vs. External Causation

L&R motivate the notion of *Internal* vs. *External Causation* to account for the difference between verbs which have causative variants and those which do not. Their proposal is inspired by Smith (1970) who attempted to account for the problem in terms of internal vs. external *control*. Smith (1970) has argued that the alternating verbs encode eventualities that can be under the control of an external entity, whereas the non-alternating monadic verbs encode eventualities that are under internal control. For instance, the event denoted by the verb *dance* cannot be controlled by an external cause(r) but only by the entity which is involved in the event.

L&R argued that the term *control* should be re-defined as *cause*, to accommodate concepts which are expressed by verbs such as *blush* and *tremble*. These verbs do not alternate (\**John blushed Mary*) because, applying Smith's terminology, they are internally controlled. However, the entity engaged in these events does not have control as the events are involuntary emotional reactions. The term *causation* does not have this problem as it can subsume the notion of control without necessarily being equated with it.

According to L&R, the dichotomy between internal and external causation accounts for the lack of alternation for the so-called Verbs of Emission, which include in English the verbs sparkle, burble, flash, reek, bubble:

- (13) (a) The jewels glittered/sparkled
  - (b) \*The queen glittered/sparkled the jewels

The events denoted by these verbs are such that the eventualities take place because of the physical characteristics of the entities involved, that is, they are internally caused.

The notion of external vs. internal causation is offered as an explanation for the ICA in L&R's framework. I would like to recast the notion of external vs. internal causation in terms of the independently motivated categories of verb classes. I argue that the difference between unaccusatives and unergatives is a difference in Event-types. Change of states and activities are equivalent to Achievement and Activity Event-types respectively.<sup>7</sup> Therefore, instead of relying on the notions of external vs. internal causation, I appeal to the independently motivated Event-types of verbs to account for the ICA.

Now, one question which immediately arises is how a verb such as *break*, which can be both transitive and intransitive is encoded in the lexicon. In other words, do we have two verbs *break1* and *break2* or do we have one basic form and a secondary derived form? If one assumes that there are two verbs, it means that they will be listed in the lexicon as distinct individual lexical items. However, to assume the multiple listing of a verb's different senses is problematic. It would mean that every novel and creative use of a verb would require a different listing, obviously an undesirable consequence given a parsimonious theory of grammar (see Pustejovsky 1995 for a relevant discussion).

Thus, let us assume that alternating verbs are not two independent verbs listed in the lexicon. The challenge is then to characterise the relationship between the two verbs.

# 2.1.2. The Basic Variant

According to L&R, there are two ways of addressing the problem of determining the basic variant of an alternating pair. In the first, and perhaps the more traditional approach (cf. Lakoff 1968, 1970, Williams 1981, Brousseau and

<sup>&</sup>lt;sup>7</sup> Note that not all Achievements are unaccusative nor are all Activities unergative. Verbs such as *find* and *notice* are Achievements in the classic Vendler sense but they are not unaccusative. Likewise, verbs such as *push* in *push the cart* are Activities without being unergative. However, I would like to argue that the reverse relationship is different, i.e., all unaccusatives are Achievements and all unergatives are Activities.

Ritter 1991), unaccusative verbs are treated as basically monadic (inchoative). The dyadic (causative) variant is derived by adding an external argument. In the second approach, which (according to L&R) was developed in Chierchia (1989), unaccusative verbs are assumed to be basically dyadic. The monadic variant is derived by suppressing the external argument. L&R discuss three major arguments in favour of the dyadic source of unaccusatives which are outlined in (14):<sup>8</sup>

- (14) (a) Selectional restriction
  - (b) Typological tendency
  - (c) Interpretation of adverbials

The first argument in favour of the dyadic source comes from selectional restriction. L&R (p.85) show that the set of arguments which can be subjects of the intransitive variant are a *subset* of the set of arguments which can be objects of the transitive variant. Consider the following examples:

- (15) John broke the glass/the window/ the promise/the contract
- (16) (a) The glass/window broke
  - (b) \*The promise/the contract broke

Notice that although *the promise* and *the contract* can appear as objects of the transitive variant, they cannot occur as subjects of the intransitive variant. L&R (p.85) further point out that this restriction is not confined to less "literal" uses of verbs. Thus, consider the following contrast:

 $<sup>^{8}</sup>$  L&R present a fourth argument in favour of the dyadic analysis. The fourth argument, however, is not clearly articulated in their discussion. They appear to argue, based on Chierchia (1989), that the fact that unaccusative verbs exhibit unstable valency across languages is because they are underlyingly dyadic. According to L&R, Chierchia (1989) observed that "an unaccusative verb that lacks a paired transitive causative use is exceptional on the causative analysis and would be expected to acquire such a use because it derives from a causative predicate" (L&R:87). Chierchia (1989) further argued that unaccusative verbs tend to exhibit "unstable valency", in the sense that they "oscillate in valence from transitive to intransitive and vice versa, both diachronically and across dialects" (Chierchia 1989:23) as quoted in L&R, p.87). One of the examples discussed by Chierchia is the Italian verb crescere 'grow', which, apparently has an intransitive use in standard Italian but a transitive use in some other dialects. L&R argue that a similar indeterminacy of valency can also be seen in English, where the verb deteriorate, which is normally intransitive -Over the years the roof deteriorated - can be used (at least by some speakers) as a transitive verb -The pine needles were deteriorating the roof. In contrast to unaccusative verbs, other intransitive verbs (unergatives) are stable in their valency. Thus, the idea is that unstable valency is indicative of an underlying dyadic source for the unaccusatives.

- (17) (a) The wind cleared the sky
  - (b) The sky cleared
- (18) (a) The waiter cleared the table
  - (b) \*The table cleared

The logic of the argument is as follows. If one variant of the alternating verbs imposes less stringent restrictions on its arguments, then that variant must be basic. The opposite view is problematic because it would be difficult to derive the variant with looser restrictions in a systematic way.

The second argument for the basic dyadic source of unaccusatives comes from typological studies of causatives such as Nedjalkov (1969). Nedjalkov's (1969) study of the morphological relationship between causative and unaccusative variants of verbs such as *break* in sixty languages shows that, in more cases than not, the causative variant is morphologically unmarked, "the intransitive form being identical to the transitive form" (L&R, p.88). The crux of this argument is Jakobsonian in nature: unmarked items are more basic than their marked variants.

The third argument of L&R for the causative analysis of unaccusatives draws on the work of Chierchia (1989) and relates to the interpretation of adverbial phrases. If unaccusative verbs are underlyingly causative, some adverbials which reflect the presence of the causer will be expected. Chierchia (1989) argues that one such adverbial is the Italian da se 'by itself', as shown in the following example (L&R, p.88):

(19) La porta si e aperta da se the door opened by itself the door opened by itself

L&R show that 'by itself', with the interpretation "without outside help", is found with the intransitive use of the alternating verbs in English:

- (20) (a) The plate broke by itself
  - (b) The door opened by itself

After claiming that the causative variant of an alternating pair is basic, L&R attempt to show how the intransitive variant is derived. They argue that the intransitive variant of an externally caused verb arises by binding the external cause within what they refer to as the *Lexical Semantic Representation* (LSR). Note that the LSR is analogous to the LCS, previously discussed in §1.2.2. They further suggest that this binding takes place in the mapping from the LSR to argument structure. Thus, compare the representation of the verb *break* both in its intransitive and transitive variants (from L&R, p.108):

(21) Intransitive break LSR [[x DO-SOMETHING] CAUSE [y BECOME BROKEN]] Lexical binding  $\phi$ Linking rules  $\downarrow$ Argument S < y >(22) Transitive break LSR [[x DO-SOMETHING] CAUSE [y BECOME BROKEN]]

LSK	[[x DO-SOMETHING] CAUS	E LA BECOME BROKEN
Linking rules	$\downarrow$	$\downarrow$
Argument S	x	< y >

Thus, what L&R propose is that there is a lexical process, namely, lexical binding, which makes the cause event unavailable for argument structure. That is, the intransitive variants of the alternating verbs are monadic at the level of argument structure though they are dyadic at the level of LSR.

The notion of internal vs. external causation to characterise the lexicalsemantic property of the unergative-unaccusative distinction is conceptually attractive. It provides a lexical-semantic hypothesis about the bifurcation of verbs into different transitivity classes. However, the dyadic analysis of unaccusative verbs along the lines proposed by L&R has some conceptual and empirical problems. Some of the arguments which were presented by L&R as justifications for the dyadic analysis do not exclusively support their position, and in fact, in some cases can be used against their analysis.

First, L&R take Nedljakov's (1969) findings about the distribution of the verbs meaning 'break' as representative of other alternating pairs. On the other hand, if they had taken the verbs corresponding to 'boil', for instance, Nedlyakov's

(1969) study shows quite a different picture: only in two languages is the unmarked variant transitive. In 36 languages the unmarked variant is intransitive and the marked variant is transitive. Thus, the case of 'boil' argues against L&R's contention that unaccusative verbs are dyadic in nature.

Thus, at best the statistical argument is not strong enough to support L&R's analysis. In fact, Haspelmath's (1993: 101) typological study based on a sample of 21 languages and 31 verbs shows that the number of languages which favour the anti-causative strategy, that is, where the unmarked form is causative and the marked form is inchoative, equalled the number of languages which prefer the causative strategy, 10 languages each. At one extreme, languages such as Russian and Rumanian demonstrate a strong preference for anticausatives. At the other extreme, languages such as Indonesian and Mongolian exhibit no or few anticausatives. In contrast, languages like Swahili and Finnish, manifest equal or almost equal distribution of causative and anticausative verb pairs.

Second, L&R's argument regarding the causative modifying adverbial, 'by itself', is also problematic. They argue that if a causative verb can appear as an intransitive verb, the (bound) causer argument can license the adverbial 'by itself'. This argument would have been more useful if it were predicting the presence of a transitive variant. As it turns out, there are unaccusative verbs that can occur with 'by itself' but do not have a transitive use, for example, *the glass fell by itself* vs. \*John fell the glass.

Therefore, in general, the arguments for a dyadic analysis of all unaccusative verbs are inconclusive. The issue is difficult to test in English as the language lacks morphological mediation between members of the alternating pair. In the following sections, I show that although it is true that some unaccusative verbs lend themselves to a dyadic analysis, there is a large number of unaccusative verbs which cannot be accounted for by assuming an underlying dyadic LCS.

# 2.2. Two Patterns of Unaccusatives in Amharic

In Amharic, the ICA exhibits two morphological Patterns. In Pattern I, the causative variant occurs with the affix e-. In Pattern II, the inchoative variant occurs with the affix t-. Descriptively, Pattern I and Pattern II represent two strategies of expressing the ICA, namely the causative and the anticausative, respectively. Table 1 presents some representative examples:

Pattern I Causative			Pattern II Anticausative		
Inchoative	Causative	Gloss	Causative	Inchoative	Gloss
wət't'a	a-wət't'a	exit	səbbərə	tə-səbbərə	break
nət't'a	a-nət't'a	whiten	ləwwət'ə	tə – Iəwwət'ə	change
mət't'a	a-mət't'a	come/bring	məlləsə	tə-məlləsə	return
bək k'ələ	a-bək'k'ələ	grow	kəffətə	tə-kəffətə	open

Table 1: Patterns of the Inchoative-Causative Alternation in Amharic

I should point out here that Pattern I is more productive than Pattern II. Some further examples of Pattern I verbs are given below. For ease of exposition, the verbs are categorized according to Levin's (1993) English verb classification:<sup>9</sup>

(23)	(a)	Verbs of Emis	ssion		
		(i) <i>light</i> :	nəddədə	'burn'	
			a-nəddədə	'burn (tr)'	
		(ii) sound:	fənnəda	'explode'	
			a-fənnəda	'explode (tr)'	
		(iii) smell:	t'ənnəba	'stink'	
			a-t'ənnəba	'stink (tr)'	
		(iv) substance:	dəmma	'bleed'	
			a-dəmma	'bleed (tr)'	

(b)	Verbs of Inherently I	Directed Motion
	dərrəsə	'arrive'
	a-dərrəsə	'arrive(tr)'

. No

<sup>&</sup>lt;sup>9</sup> Note that the glosses for the transitive variants do not necessarily correspond to actual English lexical items.

(c)	Verbs of Manner of Motion			
	nət't'ərə	'bounce'		
	a-nət't'ərə	'bounce (tr)'		
(d)	Verbs of Existence a	nd Appearance		
	norə	'exist, live'		
	a-nore	'exist, live (tr)'		
(e)	Verbs of Spatial Con	figuration		
	gobbət'ə	'bend'		
	a-gobbət'ə	'bend (tr)'		
(f)	Verbs of Change of S	State		
	fəlla	'boil'		
	a-fəlla	'boil (tr)'		
	nək'k⁺a	'awake'		
	a-nək'k'a	'awaken'		
	zagə	'rust'		
	a-zaga	'rust (tr)'		

I assume that although these classes may be well-motivated on lexicalsemantic grounds, in terms of Event-type classification they all come under the umbrella of the Event-type Achievement. For L&R, the absence of the causative variant of verbs such as *rust* in English is attributed to the notion of internal causation. As we can see, in the Amharic examples above, internally caused verbs of change of state such as zaga 'rust' (> a-zaga 'cause to rust') can causativise.

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As mentioned above, Pattern II verbs are not nearly as productive as Pattern I verbs. Apart from the Pattern II verbs which are listed in Table 1 above, we also have the verbs in Table 2:

Transitive	Intransitive	Gloss
dəffa	tə-dəffa	spill
kəmmərə	tə-kəmmərə	pile up
ləyyə	tə-ləyyə	separate
nəffa	tə-nəffa	blow
nək'ənnək'ə	tə-nək'annək'ə	shake
sənət't'ək'ə	tə-sənət't'ək'ə	splinter
k'addada	tə-k'əddədə	tear
šəbbəšəbə	tə-šəbbəšəbə	wrinkle

#### Table 2: Pattern II Verbs

I would like to argue that the distinction between the two Patterns is based on the lexical-semantic property of the verbs. The morphology is indicative of the underlying LCS of the verbs. I argue that the events encoded by Pattern I verbs are conceptualized as events which can take place spontaneously, without the necessary intervention of an external causer. On the other hand, the events encoded by Pattern II verbs are conceptualized as events which normally come about by an external causer. Thus, although both mət't'a 'come' (Pattern I) and səbbərə 'break' (Pattern II) are change of state events, the change of state expressed by the former is conceptualised as a spontaneous event, whereas the change of state expressed by the latter is conceptualised as a caused event. The verb mət't'a 'come' can be causativised by the prefix a - whereas the verb səbbərə 'break' can be decausativised by the prefix t-.

I assume that in Amharic, change of state verbs can be classified in three major classes depending on the presence or absence of a causing subevent. First, Pattern I verbs are not specified for a causing subevent. The causing subevent can be introduced in the derivation. Second, Pattern II verbs are specified for the causing subevent. This sub-event can be suppressed in the derivation to derive a simple change of state. Last, there is a third class (a full discussion of which is deferred until §2.3) comprising events that obligatorily require a causing subevent. I will refer to such verbs as *mandatory agent verbs*. Typical exemplars are verbs of creation such as ganabba 'build' and verbs such as gaddala 'kill'. With mandatory agent verbs the causing subevent cannot be suppressed in the derivation to derive a simple change of state. An abbreviated LCS representation of Patterns I and Pattern II verbs is presented in (24a) and (24b) respectively:

- (24) (a) Pattern I mət't'a 'come' [Event y INCH]
  - (b) Pattern II
    səbbərə 'break'
    [Event x CAUS [ y INCH]]

In contrast to English, there are no unaccusatives that must remain unaccusative. The only unaccusative verbs that cannot be causativized by a- are those with suppletive (lexical) causatives. Thus, the causative of waddak'a 'drop (intr)' is not \*a-waddak'a but rather the suppletive form t'ala 'drop (tr)'. Another example is mota 'die' > \*a-mota, > gaddala 'kill'. Thus, the presence of suppletive lexical items 'blocks' the application of an otherwise productive morphological process.

In the following sections, I examine the derivation of both Patterns of unaccusative predicates.

# 2.2.1. The Derivation of Pattern I Unaccusatives

As already mentioned, I assume that Pattern I verbs are lexically specified as having no external argument. The LCS schema [y INCH] represents all Pattern I unaccusatives. Thus, verbs of appearance, such as mət't'a 'come' and verbs of simple change of state, such as k'əllət'ə 'melt' are both represented by the functor INCH.

As argued in Chapter 1, when there is only a single event in the LCS, there is only an RP, and no VP projection. The Event-type of verbs without CAUS is

spelled out in AspP. The partial phrase structure representation of a Pattern I construction with the verb mat't'a 'come' is presented in (25):



I assume that the Theme argument is assigned its  $\theta$ -role locally within the RP. The Root moves into Asp to spell out its Event-type. An unaccusative verb such as mət't'a 'come' can be causativised if a subevent headed by CAUS is introduced. The basic LCS schema [y INCH] can be embedded within [x CAUS ...]. The newly introduced CAUS licenses the VP projection. Since the newly introduced head was not part of the initial LCS of the verb, we assume that languages with the appropriate morphological resources signal the argument of CAUS morphologically. In Amharic this is done by generating the causative affix a-under V. The structure of the causative variant of Pattern I verbs such as a-mət't'a 'bring' in (26) is schematized in (27):

(26) aster l∔j-u-n a-mət't'ə-č-iw
 A. boy-DEF-ACC CAUS-come.pf.-3fS-3mO
 Aster brought the boy



Again, the Theme/Patient argument is assigned the Theme  $\theta$ -role by the Root locally in the specifier of RP. The Agent  $\theta$ -role is assigned in the Spec VP position, external to the Root projection. The whole structure is part of a single EP in l-syntax.

# 2.2.2. The Derivation of Pattern II Unaccusatives

I suggested that Pattern II verbs, unlike Pattern I verbs, have a CAUS component. That is, the event denoted by such verbs normally comes about with the involvement of an external causer. As a result of the LCS specification, there are two arguments: the argument of CAUS and the argument of INCH. These arguments are projected in Spec VP and Spec RP positions, respectively, as shown in (29) for the construction in (28):

(28) aster t'ərmus-u-n səbbər-əč-iw A. bottle-DEF-ACC break.pf.-3fS-3mO Aster broke the bottle



I have said that verbs can be specified or underspecified for Event Headedness. I have also said that in the case of verbs which are underspecified for Event Headedness, the temporally prominent subevent becomes the default head. I assume that Pattern II verbs are underspecified for Event Headedness. Thus, the functor of the causing subevent, CAUS, is either projected or suppressed. Since the causing subevent is the default head, the morphologically unmarked verb will be the causative. An overt morphological form is employed as a reflex of suppressing CAUS. In Amharic this morphological form is the prefix t-. Thus, consider (31) which is the structural representation of (30):

(30) t'ərmus-u tə-səbbərə
 bottle-DEF INCH-break.pf.3mS
 the bottle broke



(31)

=tə-səbbərə 'break (intr)'

Hence, the difference between the two Patterns of unaccusative verbs in Amharic is attributed to the difference in the specification of CAUS. Pattern I verbs do not have CAUS at the level of LCS, whereas Pattern II verbs do have CAUS at the level of LCS. The former can become causative by adding a CAUS subevent morphologically, whereas the latter can become inchoative by suppressing CAUS morphologically.

It is important to note here that not all Accomplishment verbs have the option of suppressing CAUS. In fact, a large class of Accomplishment verbs cannot be well-formed without the projection of the external argument of CAUS at I-syntax. This is the case with mandatory agent verbs such as mət't'a 'hit', gəddələ 'kill', s'affə 'write'. Because of the importance of such verbs in the discussion of transitivity alternation, I will briefly examine their derivation below.

#### 2.3. Mandatory Agent Verbs

Mandatory agent verbs have been discussed extensively in the syntactic literature, particularly with respect to English (Marantz 1984, Levin 1993, Levin and Rappaport 1995, Harley 1995). It is well-known that in English, verbs of creation like *write* and *build*, and verbs of contact like *hit* and *kiss*, must always appear with a causer argument (barring passive constructions which we will turn to shortly):

- (32) (a) Mary kissed John
  - (b) \*John kissed
  - (c) Mary built the house
  - (d) \*the house built

These verbs are particularly problematic for theories which assume that information about the external argument of a verb is not part of the lexical entry of the verb (cf. Marantz 1984, Kratzer 1994, Harley 1995). Harley (1995), for example, working in a framework closer to the present one, assumes that the head of BaseP (in our analysis, RP) does not contain information about the CAUS argument. The CAUS argument is projected in EP licensed by E. This approach works well when the verbs are underspecified for an Event-type head, such as *break, melt, open*, in English or when there is no CAUS in the LCS of the Root, such as Pattern I verbs, k'əllət'ə 'melt', mət't'a 'come', in Amharic.

However, verbs like *build*, *kiss*, *kick*, *kill* are problematic because these verbs are always causative and lack the inchoative variant. A theory which assumes that the information about the external argument is not part of the LCS of verbs cannot provide a natural account for the non-optionality of the causer argument in mandatory agent verbs. Harley (1995:194-197) specifically acknowledges this problem but does not propose any account for it.

In our approach, the argument of CAUS can be present in the LCS of a verb if the event denoted by the verb requires it. However, its assignment to an argument is achieved in conjunction with the higher VP. Thus, at the level of LCS, a Root may contain the external  $\theta$ -role as part of its lexical specification.

Now the problem is how to capture the difference between the *build*-type and *break*-type causative verbs while still maintaining that both belong to the same Event-type. This problem can be addressed from a number of different perspectives. One may simply argue that the embedded subevent in mandatory agent verbs such as *build* is a different sort of subevent from the subevent in other Accomplishment verbs such as *break* (tr.). One could introduce another primitive, say, BECOME to represent verbs of mandatory agent, as in (33):

# (33) build [x CAUS [y BECOME]]

Thus, the representation in (33) contrasts minimally with the LCS, [x CAUS y INCH], of other Accomplishment verbs.

The main problem with introducing another event primitive is that it makes the system unconstrained by allowing any number of primitives on demand, an undesirable result for obvious reasons.

On the other hand, one may argue that the causing subevent is lexically specified as conceptually prominent and cannot be suppressed at l-syntax. In order to motivate the notion of prominence, I appeal to the idea of Event Headedness proposed in Pustejovsky (1995:73ff). As stated in Chapter 1, the basic idea behind the notion of Event Headedness is that subevents are not only temporally ordered with respect to each other, for example a causing subevent precedes a change of state subevent, but they are also ordered in terms of relative prominence or importance within the larger event.

Thus, a mandatory agent verb such as *build* which has two subevents focuses on the action which brings about a state. On the other hand, verbs such as *break* are underspecified for Event Headedness, hence allowing either one of the subevents to project in syntax (e.g. *the boy broke the glass* vs. *the glass broke*). Developing Pustejovsky's (1995:73ff) basic insight regarding Event Headedness, I assume that a lexically specified head subevent cannot be suppressed in l-syntax. Thus, verbs of mandatory agent cannot have an inchoative variant.

Therefore, the difference between verbs of mandatory agent and other Accomplishment verbs does not need to be differentiated by stipulating two different subeventual primitives. By adopting the independently motivated idea of Event Headedness, we can capture the difference between the two types of Accomplishment verbs.<sup>10</sup>

When we say that the CAUS subevent is always present in the event expressed by verbs of mandatory agent, we should be careful not to overstate the case. To be sure, these verbs can appear without an overt argument of CAUS. In such cases, however, the construction is that of a passive where there is an implicit Agent. Thus, consider (34):

<sup>&</sup>lt;sup>10</sup> In Pustejovsky's (1995) system, a head subevent is marked by an asterisk as in  $[e_1^* < e_2]$ . Although nothing hinges on the actual notation used, I will employ the letter *h* for head in subscript as in [CAUS<sub>h</sub> INCH] to represent head subevents. Notice that the verb *break* will simply have [CAUS INCH] without any specification as to its headedness.

(34) (a) aster ginb-u-n gannab-ač-(iw)
 A. wall-DEF-ACC build.pf.-3fS-(3mO)
 Aster built the wall

(b) ginb-u tə-gənnəbə wall-DEF PASS-build.pf.3mS the wall was built

I assume that the passive construction involves a structure quite different from the inchoative. I would like to argue that the passive morpheme is inserted as the head of EP. Following the standard analysis of the passive, I assume that the passive morpheme absorbs the external  $\theta$ -role and as a result there can be no argument in the specifier of VP. I assume that the passive construction in (34b) has the structure shown in (35):



Therefore, the passive is formed when the argument of CAUS is suppressed in EP, whereas the inchoative is formed when the argument of CAUS is suppressed in AspP. This is a desirable result because it provides a structural account for the ambiguity between the passive and the inchoative interpretations. Thus, consider the Pattern II verb  $\sqrt{sbr}$  'break':

(36) ta-sabbara

'break (intr)'	(Inchoative)	AspP
'was broken'	(Passive)	EP

This analysis of the difference between passives and inchoatives provides a natural account for one closely related fact: with passives there is an implicit Agent argument (expressed by the standard *by*-phrase), whereas with the inchoative, there is no implicit Agent argument. The implicit argument is possible when there is a projection of a (higher) VP, whose head is, by definition, CAUS. In other words, the implicit agent semantically depends on the CAUS functor.

This discussion raises the question of how Pattern I and Pattern II verbs interact with passivization. Thus, in the next section, I examine the interaction of the inchoative with the passive construction.

### 2.4. Interaction with the Passive

If the proposed analysis of the passive is correct, a passive of Pattern I verbs should be impossible. The reason for this is straightforward: the passive morpheme absorbs the external argument and if there is no CAUS, there would be no external argument to absorb. As the example in (37c) below demonstrates, the passive of a Pattern I verb is not possible:

- (37) (a) mərkəb-wa səmməti-əč ship-DEF sink.pf.-3fS the ship sank
  - (b) watadaroču markab-wa-n a-sammat'-u-(at) soldiers-DEF ship-DEF-ACC CAUS-sink.pf.-3plS-(3fO) the soldiers sank the ship
  - (c) \*mərkəb-wa tə-səmmət'ə-č
    ship-DEF PASS-sink.pf.-3fS
    (the ship was sunk)

None of the Pattern I verbs listed earlier can passivize as the following examples show:<sup>11</sup>

(38)	Pattern I			Passive	
	(a)	wət't'e	'exit'	*tə-wət't'ə	
	(b)	nət't'a	'whiten'	*tə-nət't'a	
	(c)	mət't'a	'come'	*tə-mət't'a	
	(d)	dəmma	'bleed'	*tə-dəmma	

The interaction of unaccusative verbs with the passive construction has generated considerable debate (cf. Perlmutter 1978, Burzio 1981, Rosen 1981, Perlmutter and Postal 1984, Marantz 1984, Baker 1988a, Dubinsky et al. 1988, Belletti and Rizzi 1988, Pesetsky 1995, among others). A number of different analyses have been proposed to account for the non-passivisation of unaccusative verbs.

In the framework of Relational Grammar (RG), (see Perlmutter and Postal 1984, Dubinsky, et al. 1988), where grammatical relations such as "subject", "object" are considered to be theoretical primitives, the non-passivisation of unaccusative verbs is argued to follow from the principle of the so-called *1*-Advancement Exclusiveness Law. In RG notation "1" refers to the subject and "2" refers to the direct object. Transitive verbs select for an initial subject and object. Unergative verbs select for an initial subject only, whereas unaccusative verbs select for an initial object.

As unaccusative verbs select an initial object, the object "advances" to become the subject, presumably because of the principle of the *Final 1 Law*. This principle requires every basic clause to have a final subject, analogous to the P&P *Extended Projection Principle* (Chomsky 1986). The passive construction involves a 2 to 1 advancement. The 1-Advancement Exclusiveness Law basically restricts the number of such advancements in a single clause to one. Since the subject of unaccusative verbs is placed by 2 to 1 advancement, passivization which requires a second advancement is prohibited, thus accounting for the non-passivization of unaccusative verbs.

<sup>&</sup>lt;sup>11</sup> Unaccusative verbs can be involved in passivization only through a periphrastic strategy, i.e., the use of the passive form of the Light Verb aderrege 'make'. This issue will be discussed in Chapter 6 in the context of Light Verbs.

Within the P&P framework, Baker (1988a:323) has argued that unaccusatives cannot be passivized essentially because of the argument status of the passive morpheme. Baker (1988a) and Baker et al. (1989), developing ideas in Jaeggli (1986), argue that the passive morpheme itself is like an external argument and requires the external  $\theta$ -role. Since unaccusative verbs do not have the external  $\theta$ -role, the passive morpheme will violate the Theta Criterion if it is generated with unaccusative verbs.

Abstracting away from the issue of whether the external  $\theta$ -role is assigned to or suppressed by the passive morpheme, the present study supports the view that the presence of the external argument is responsible for the availability of passives.

However, if passivization is not possible when there is no CAUS in the LCS of a Root, one would expect that it would be possible to form the passive after introducing CAUS by the causative verb a-. Thus, a Pattern I verb such as mət't'a 'come' first must be spelled-out as a causative verb, a-mət't'a 'bring', in order to be passivized. However, the expected passive form turns out to be ungrammatical:

Nothing we have said thus far will exclude constructions such as (39). I would like to suggest that the form ta-a-mat'ta was brought is ill-formed not because of any lexical-semantic or structural reason but rather because of a morphological restriction which governs the co-occurrence of affixes. Suppose that in Amharic there is a morphological restriction on affixation such that affixes which are relevant to the valency of the verb cannot co-occur. This constraint can be informally stated as in (40):

# (40) The Co-Affix Constraint

Valency changing affixes cannot co-occur.

A different way of stating this constraint would be to say that valency changing affixes subcategorize for a Root, not for a derived stem. As I will demonstrate in Chapter 3, in the context of the s-syntactic causative verb as- and its interaction with the l-syntactic causative a-, the Co-Affix Constraint is empirically well-motivated. Although the Co-Affix Constraint is likely to be language specific, it is interesting to see that morphological restrictions on the co-occurrence of affixes is not unusual. For instance, Fabb (1988) has shown that there are many English suffixes, such as the noun-forming -an and the deverbal suffix -age, "which never attach to an already-suffixed word" and thus "must select for a host which does not contain a suffix" (Fabb 1988:532-533).

Therefore, whilst the absence of CAUS explains the ungrammaticality of passives of Pattern I unaccusatives (\*tə-mət't'a 'was come'), the Co-Affix Constraint explains why the passive of the derived causative (\*tə-a-mət't'a 'was brought') is ill-formed. As already mentioned, the situation is different with Pattern II verbs such as tə-səbbərə 'break (intr)': these verbs can be passivized because they contain the CAUS component in their LCS.

Summarising, the argument of CAUS can be suppressed either in AspP, yielding the inchoative tə-səbbərə 'break (intr)' or it can be suppressed in EP, yielding the passive tə-səbbərə 'was broken'. Pattern I verbs cannot be passivized because they do not have a functor that licenses an external argument.

Now that we have seen the derivation of the two types of unaccusatives and verbs of mandatory agents, it is time to examine more closely the distinction between unaccusatives and unergatives.

#### 2.5. The ICA and Unergatives

One of the questions raised earlier was why intransitive verbs such as 'dance', 'laugh' cannot be involved in the ICA, as shown in (41) - (42), that is, why they cannot occur as causatives like the unaccusative verbs *break*, *melt*, *open*.

(41)	(a)	John danced/laughed
	(b)	*Bill danced/laughed John

- (42) (a) ləmma č'əffərə
  L. dance.pf.3mS
  Lemma danced
  - (b) \*kassa lamma-n a-č'affara-w
    K. L.-ACC CAUS-dance.pf-3mO
    (\*Kassa danced Lemma)

Hale and Keyser (1993:75ff), hereafter H&K, attempted to account for the absence of the causative alternation in (41), by claiming that unergative verbs do not have subjects in their LRS representation. For H&K (p.78) the subject of unergative verbs is *external*, in the sense that it "is not present in the LRS projection of the predicator, i.e., the lexical VP". Unergatives do not have an internal subject in the lexical VP (or l-syntax) because the complement in the lexical VP is not a predicate. On the other hand, the alternation between *the gravy thinned* and *the cook thinned the gravy* is possible because the complement of the inner VP is an adjective (*thin*), and thus a predicate, by definition. This predicate, like any other predicate, requires a subject in its projection (the inner VP), and hence licenses an internal subject position.

Thus, for H&K, the structure of unergative verbs is quite different from that of unaccusative verbs. A partial S-Structure representation for unergatives is as in (43):



Now, one problem for H&K's analysis is that in some languages the causative of unergatives is possible. H&K observe that in Papago, the equivalent of *Mary sneezed the children* is perfectly grammatical. Consider the following examples (from H&K, p. 99):

(44)	(a)	bisck-cud	'cause to sneeze'
	<b>(</b> b)	'a'as-cud	'cause to laugh'
	(c)	wihos-cud	'cause to vomit'
	(d)	'i'ihog-cud	'cause to cough'

Descriptively, the old Agent of the main verb becomes the new object, that is, it triggers object agreement in the causative predicate. Consider the contrast in (45):

- (45) (a) 'a'al 'at bisc *children 3:PERF sneeze:PERF* the children sneezed
  - (b) 'A:ñ 'ant g 'a'al ha-bisck-c
    I lsg:PERF ART children 3PL-sneeze-CAUSE:PERF
    I made the children sneeze

H&K argue that in Papago and other languages which have causative morphology, the subject of the internal VP can be licensed. They claim that "some grammatical property - for example, its 'transitivity', including the ability to assign accusative Case - licenses the NP in the Spec position of the unergative verb" (H&K, p. 99).

H&K's analysis implies that the presence of causative morphology is sufficient to license the causative of unergatives. If this were true, then why is the Amharic construction in (42b) ungrammatical? We know that causative morphology exists, namely, a-, which has the grammatical property of licensing an internal argument in the lower VP (the RP). Hence, the explanation for the causative of unergatives cannot be the presence of a causative morphology per se.

I argue (see Chapter 3 for details) that the causative of unergatives is formed in a structure higher than the causative of unaccusatives. I will argue that the causative of unergatives is formed in s-syntax. Therefore, while maintaining Hale and Keyser's assumption about external vs. internal subjects, I recast it in terms of the organization of Event-types.

The hallmark of the present analysis is that unergative verbs encode activities as opposed to change of states. A distinctive property of an Activity is that it is inherently *atelic*, that is, unbounded in its temporal organization. We assumed that Activity is the composite of two subevents: CAUSE and BE. The causing subevent is the head of the event in the sense of Pustejovsky (1995). Thus a verb such as *dance* will have the LCS in (46):

(46) laugh [x CAUSE<sub>h</sub> [ y BE dance]] A syntactic structure corresponding to an Activity Event-type is just like an Accomplishment Event-type except for one crucial difference: the subevent of an Accomplishment Event-type is an Achievement (INCH), whereas in an Activity Event-type, the sub-event is a State (BE).

I refer to the State subevent as a *Co-extensive* State, that is, roughly a state which co-exists with an Activity.<sup>12</sup> The difference between a Co-extensive State and the proto-typical State, is that the former is *transitory* (cf. Croft 1991), that is, as soon as the activity terminates, the state does not pertain, whereas the latter is relatively *durative* (cf. Smith 1991). Croft (1991: 267) has rightly pointed out that Activity verbs "have a negligible final state, one that is brought out only in certain contexts." <sup>13</sup>

I further argue that the argument of BE, (in the Spec of RP) may not be overtly expressed. This argument has special properties: it is related to the verb semantically and, at times, morphologically as well. Since this argument is a constant, that is, it can always be predicted from the meaning of the verb, it is redundant and thus need not be expressed syntactically. However, it can be expressed syntactically in certain contexts, for instance if it is modified or focused. One piece of evidence for this assumption emerges from a well-known property of unergative verbs. As pointed out in Hale and Keyser (1993, 1994), unergative verbs can take a special type of object, known as a *cognate* object. Thus, consider examples (47) from English (Hale and Keyser 1993), (48) from Fongbe (Lefebvre 1994:13), and (49) from Amharic:

(47) He danced (a lively dance)

(48) đý àđý urinate urine to urinate

<sup>&</sup>lt;sup>12</sup> I thank Lisa Travis for suggesting this term to me.

<sup>&</sup>lt;sup>13</sup> One may wonder what the status of a co-extensive state would be in the overall schema of conceptual structure. I argue that a co-extensive state can be regarded as a sub-category of STATE. This is justifiable to the extent that we can identify sub-categories of event within a single category. Jackendoff (1990:44) proposes different functions for State. He employs BE for the location of objects as in *the dog is in the park*, ORIENT for specifying the orientation of objects as in *the sign points towards New York*, and EXT for the spatial extension of linear objects as in *the road goes from N.Y. to San Francisco*.

(49) (a) aster (ya-lib sak') sak'a-č
 A. (POSS-heart laughter) laugh.pf.-3fS
 Aster laughed a hearty laughter

- (b) aster (ya-agarwa-n čiffara) čaffara-č
  A. (POSS-country-ACC dance) dance.pf.-3fS
  Aster danced (a folk dance)
- (c) setiya-wa (k'onjo zaffan) zaffana-č
  woman-DEF(f) (beautiful song) sing.pf.-3fS
  the woman sang (a beautiful song)

Notice that in all the three languages, the relationship between the cognate object and the verb is morphologically transparent, that is, the head of the complement NP is morphologically identical or nearly identical with the verb itself.<sup>14</sup>

The status of the cognate object becomes clearer in constructions such as (50), (from H&K, p. 73), which are near paraphrases of the sentences in (51):

- (50) (a) She did her new song
  - (b) This mare does a nice trot
- (51) (a) She sang her new song
  - (b) This mare trots nicely

The verb do in (50) is simply the morphological spell-out of CAUS and the co-existing state is designated by the arguments *new song* and *nice trot*. Thus, in (50a) the specifier of RP is occupied by the phrase *her new song*.<sup>15</sup> The coming about of *a new song* is the direct consequence of the singer's activity denoted by

<sup>&</sup>lt;sup>14</sup> This does not mean that the relationship between the verb and the cognate object is always transparent (e.g. *Mary danced a tango*). Also, note that in some languages, such as Fongbe (cf. Lefebvre 1994), cognate objects are obligatory (see also Austin 1982).

<sup>&</sup>lt;sup>15</sup> Note that both in Amharic and English the cognate object is preferred with some modification. For instance, *Mary laughed a laugh* does not tell us much more than the simple *Mary laughed*. On the other hand, when the cognate object is modified as in *Mary laughed a hearty laugh*, the construction provides more information than the sentence without a cognate object. Thus, in languages where the cognate object is optional, it is typically realized only under special circumstances such as providing more information about the coexisting state.

CAUS. The Activity event and the resulting state are dependent on each other such that it is not possible to conceptualize them separately. The verb *do*, being simply a spell-out of the Event-type CAUS, tells us nothing about the specific nature of the Activity: *doing a song* and *doing a trot* are quite different activities which require different psycho-motor movements. We learn *what* kind of Activity is taking place only by inspecting the meaning of the nominal element.

For an unergative construction with a verb like  $\check{c}$ 'əffərə 'dance', I assume the structure in (52):



Now we are in a position to answer the question why the unergative verbs are not involved in the causative alternation in the way that the unaccusative verbs are. Consider once again the relevant Amharic examples repeated below as (53):

(53) (a) aster yə-agərwa-n čiffəra čəffərə-č
 A. POSS-country-ACC dance dance.pf.-3fS
 Aster danced her country's dance

(b) \*kassa aster-n ya-gərwa-n č'iffəra K. A.-ACC POSS-country-ACC dance

> a-č'əffərə-(at) CAUS-dance.pf-3mS-(3fO)

According to our analysis, the verb of the grammatical sentence in (53a) has a zero CAUS functor which licenses the external argument. The causative affix  $a_{-}$ , being an 1-syntax affix, cannot attach to the verb: it does not have a structural position, as the head of VP is occupied by the zero CAUS functor. As the structure in (52) shows, the cognate object, *dance*, is projected in the specifier of RP, whereas the agent argument, *Aster*, is generated in the specifier of VP. This leaves no position for the causer NP, *Kassa*, in (53b).

For (53b) to be grammatical while retaining the argument designated by *Kassa*, *Kassa* must be licensed by another VP. This means that a new domain of EP must be formed. In many languages the head of VP that is outside of EP is marked by a head different from the lower VP. In English, this higher EP is headed by the verb *make*, while in Amharic it is headed by the affix as-.

Thus, the sentence \*Kassa danced Lemma a lovely dance (to mean 'Kassa made Lemma dance') is ungrammatical for the same reason as the sentence \*Bill broke John a glass (with the relevant reading) is ungrammatical.

Our analysis also accounts for the ungrammaticality of constructions such as (54) where the argument of CAUS does not appear:

(54) \*yə-agər bet č'iffərra č'əffərə folk dance dance.pf.3mS (\*a folk dance dance)

The ungrammaticality of (54) follows from the hypothesis about Event Headedness. The CAUS subevent of unergative verbs is specified as the head of the larger event (see the schema in (46)). As we argued earlier in the context of verbs of mandatory agent, a specified head cannot be suppressed in l-syntax.

Consistent with what we have said about the correlation of passive and the presence of the CAUS functor, the passive equivalent of (54) is well formed, as shown in (55):

(55) yə-agər bet č'iffərra tə-č'əffərə
 folk dance PASS-dance.pf.3mS
 A folk dance was danced

Therefore, our analysis captures the difference between unaccusatives and unergatives, by motivating a configurational representation which mirrors the organisation of Event-types.

Summarizing, Event Headedness and its interaction with morphology accounts for the realization of the various verb types. Pattern I verbs have the LCS [y INCH] and their zero derived form will be, vacuously, the inchoative. These verbs can add the CAUS functor which is morphologically realized by the affix a-. Pattern II verbs have the LCS [x CAUS y INCH]: they are underspecified for Event Headedness. When a given LCS is underspecified for Event Headedness, the temporally prominent subevent becomes the default head. In a causative LCS the default head is CAUS. The realization of the default head is morphologically unmarked. Default heads syntactically project unless they are suppressed by morphology.

Mandatory agent verbs are specified for Event Headedness: CAUS is the head - [x CAUS<sub>h</sub> y INCH]. The zero derived form of such verbs is causative. We have assumed that a specified head functor cannot be suppressed in l-syntax. Thus, there is no intransitive (inchoative) form of mandatory agent verbs such as gənnəba 'build'. Unergative verbs have the LCS [x CAUS<sub>h</sub> y BE], with a specified CAUS functor. Again, this functor cannot be suppressed in l-syntax: there is no agentless unergative in l-syntax. Since unergatives as well as mandatory agent verbs have the CAUS functor in their LCS they can be passivized, that is, CAUS can be suppressed in s-syntax.

# 2.6. Quirky Alternations

There are two classes of verbs which are potentially problematic for the proposed analysis. In this section, I examine these verbs and show that they can be accommodated in the analysis without stipulating additional machinery.

# 2.6.1. The Boil Verbs

Pattern I		Causative	Passive
fəlla	'boil'	a-fəlla	tə-fəlla
nəddədə	'burn'	a-nəddədə	tə-nəddədə
ləffa	'soften'	a-ləffa	tə-ləffa
nət't'ərə	'purify'	a-nət't'ərə	tə-nət't'ərə
rasə	'moisten'	a-rasə	tə-rasə
kəbbərə	'gain respect'	a-kəbbərə	tə-kəbbərə

There are about half a dozen verbs which are potential counter-examples to the empirical generalization regarding the non-passivization of Pattern I verbs. Consider the examples listed in Table 3 (cf. Demoz 1964:18):

#### Table 3: The "Boil" Class of Verbs

I will refer to these verbs as the *Boil* class of verbs, for lack of a better term. It is obvious that these verbs exhibit Pattern I behaviour: their unmarked form is inchoative and the causative is derived by the CAUS affix a-. Unlike Pattern I verbs, however, the verbs of the Boil class can take the affix ta- to form the passive. As we have seen earlier, the passive of Pattern I verbs is not possible: ta-mat'ta 'was come'. Thus, the Boil class of verbs appears to challenge the generalization that in Amharic the passive exists only when there is an external theta role.

As problematic as this class of verbs may be, the peculiarity it exhibits is not accidental. From a cross-linguistic perspective, there is a lexical-semantic basis for treating the Boil verbs as a homogenous class. Haspelmath (1993:109, n.17) notes "[boiling] occurs in nature mainly as a result of volcanic activities. But human agents may boil liquids only very indirectly, by using the natural force of fire, which may account for the behaviour of 'boil'". This suggests that the event encoded by the verb 'boil' can be conceptualized as coming about either spontaneously (prototypically Pattern I) or through the involvement of an external instigator (prototypically Pattern II).

In Amharic, the verb falla 'boil' can be used to describe both volitional and non-volitional events. For instance, it can be used to express a situation where a kettle of water is boiling (volitional) as well as a thermal spring (non-volitional).<sup>16</sup> The former occurs through volitional agency whereas the latter occurs through the force of nature. Likewise, the verb laffa which means 'become soft' (as for example a hide) has a passive form ta-laffa 'be softened' which expresses the event that comes about through the work performed on a hide to make it pliant. The verb kabbara 'gain respect, be esteemed' is particularly interesting because it cannot have a non-volitional Agent. Among the meanings of the inchoative of kabbara are found (a) 'gain respect' (b) 'be exalted (as God)', (c) to be celebrated (as in a holiday). It is obvious that events such as 'respecting', 'exalting', 'celebrating', can be carried out only by volitional human Agents.

Suppose that the Boil verbs have an LCS similar to that of Pattern II verbs except that, unlike the latter, they are specified for Event Headedness: the lower subevent is the head:

(56)  $\sqrt{f}$  'boil' [ x CAUS y INCH<sub>h</sub> boil]

The verb projects its head subevent to derive an inchoative verb. Since INCH is the head functor, the unmarked form of the verb will be inchoative. This follows from what we have said about the zero derived form of a verb: the zero form realizes the head functor. The non-head functor can be licensed only by the use of overt morphology, namely by the l-syntax causative affix a-, or can be suppressed by the passive.

This analysis neatly captures the ambivalent behaviour of the Boil class of verbs. The Boil verbs have a Pattern II LCS but are specified for Event Headedness: INCH is the head, [x CAUS y INCH<sub>h</sub>]. Thus, the zero derived form of these verbs is inchoative. However, the highest subevent, CAUS, which otherwise would have been the default head (because of its temporal prominence) can be projected in l-syntax. Since the zero form is already used to derive the inchoative, the non-head functor CAUS must be licensed by overt morphology, namely the l-syntax affix a-. This makes Boil verbs look like Pattern I verbs. Since

<sup>&</sup>lt;sup>16</sup> Incidentally, thermal springs are commonly called by the compound  $f \neq 0$  with  $a (f \neq 1 < f \neq 0)$ 'boil', with a 'water'). Interestingly, this compound cannot be used to describe water boiling in a kettle. One has to use the relativized form y=falla with a 'water which was boiled'.

the LCS contains the CAUS functor, the Boil verbs can be passivized. Hence, in this respect, the Boil verbs look like Pattern II verbs.

# 2.6.2. Ingestive Verbs

The generalization that the 1-syntactic CAUS affix a- does not attach to transitive verbs is correct with only one exception. A small class of verbs which are called *ingestive* verbs (Demoz 1964:33) exhibit an unexpected transitivity pattern: they can take the 1-syntactic CAUS affix a- despite the fact that they are already causative. Consider the example in (57):

(57) aster lamma-n dabo a-balla-č-iw
 A. L.-ACC bread CAUS-eat.pf.-3fS-3mO
 Aster fed Lemma some bread

Since the verb bella 'eat' has a zero l-syntactic causative, like Pattern II causative verbs such as sebbere 'break' or mandatory agent verbs such as genneba 'build', it would not be expected to take the l-syntactic CAUS affix a-.

The list presented in Table 4 exhausts the class of ingestive verbs in Amharic (cf. Leslau 1995):
CAUS-√v		a-CAUS-√v	
bəlla	'eat'	a-bəlla	'feed'
t'ət't'a	'drink'	a-tət't'a	'give to drink'
lasə	'lick'	a-lasə	'give to lick'
t'əbbə	'suck'	a-t'əbba	'to suckle'
qəmməsə	'taste'	a-qəmməsə	'give to taste'
ləqqəmə	'pick up'	a-ləqqəmə	'graze'
gwərrəsə	'take a mouthful'	a-gwarrasa	'give a mouthful'
wat ə	'swallow'	a-wat'ə	'give to swallow'
k'amə	'eat large mouthfuls of	a-k'amə	'give large mouthful of
	grain'		grain'
gat'ə	'graze '	a-gat'ə	'let graze'

## Table 4: Ingestive Verbs

The question is, then, what is special about the class of ingestive verbs? How can we reconcile the property of ingestive verbs with the basic generalization regarding the morphological causative a-?

At the outset, one can pursue a lexical approach to this problem. One may argue that the causative affix is lexically attached to this class of verbs. Thus, the causativized ingestive verb such as a-balla 'feed' is listed in the lexicon independent of the basic causative form balla 'eat'. The problem with the lexical account is that it makes the relationship between the causativized and the noncausativized verb accidental. Also, as we shall see shortly, the lexical account is quite problematic given that a number of typologically diverse languages exhibit a similar quirk for ingestive verbs. Therefore, I develop one analysis of the ingestive verbs which accounts for the transitivity problem without abandoning the generalization regarding the ICA.

An essential property of ingestive verbs in general is the fact that they can be both transitive, as in (58a), (59a), and intransitive, as in (58b), (59b):

- (58) (a) John ate the sandwich
  - (b) John ate
- (59) (a) lemma dabo bella
   L. bread eat.pf.3mS
   Lemma ate some bread
  - (b) ləmma bəlla
     L. eat.pf.3mS
     Lemma ate

Even though the (b) sentences are intransitive, it is the intuition of speakers that there is an implicit object argument which is prototypically understood as 'something edible'.

It is interesting to note that these same verbs exhibit peculiar behavior in a number of genetically and typologically diverse languages including Malayalam (Mohanan 1983:105-106), Berber (Guerssel 1986:36ff), Chichewa (Baker 1988a:461n.31), and Malay (Voskuil 1990).

In the Dravidian language Malayalam (Mohanan 1983), there is a very productive causativization process which derives causative predicates both from intransitives and transitives. However, intransitives and transitives differ in the syntactic realization of the causee. In the causativisation of intransitive verbs, the causee (the original subject) becomes a 'primary object' (marked by accusative Case), whereas in the causativisation of transitive verbs, the causee occurs in an instrumental phrase. Thus, consider the following contrast (from Mohanan 1983:58-59):

- (60) (a) kuțți karannu child-n cried the child cried
  - (b) acchan kuțțiye karay-icc-u father-n child-a cry-cause-past the father made the child cry

- (61) (a) kuțți aanaye nulli child-n elephant-a pinched the child pinched the elephant
  - (b) amma kuțțiye-kkonțə aanaye null-icc-u mother-n child-a with elephant-a pinch-cause-past mother made the child pinch the elephant

In the causative of a transitive verb, as in (61b), the causee must appear as an instrumental with the postposition konte 'with'.

The only exception to the above generalisation comes from a small class of transitive verbs which Mohanan refers to as ingestive. Consider the following examples (from Mohanan 1983:105):

- (62) (a) kuțți coorə ținnu child-n rice-n ate the child ate the rice
  - (b) amma kuțțiye coorə țiitti *mother-n child-a rice-n eat-cause-past* mother fed the child rice

As (62b) shows, the causee of the verb tinn 'eat' behaves as the causee of an intransitive verb: it occurs with the accusative case instead of the instrumental adposition. Thus, even though the verb is transitive, its causativisation pattern is that of an intransitive verb. Unfortunately, Mohanan does not offer any solution to what he calls the "mystery of ingestive verbs" (Mohannan 1983:106).

It is interesting that the Malayalam ingestive class includes not only verbs of eating, such as tinn 'eat', kuțikk 'drink', but also verbs such as kaan 'see', and pațhikk 'learn'. Mohanan (1983:106) notes that in the Dravidian literature the term *ingestive* is used to encode the meaning of "taking something either literally or metaphorically". According to Mohanan, this class of verbs exhibits similar behaviour in other Indian languages as well. Apparently, the existence of the ingestive class of verbs had been noted at least as far back as Panini in the study of Classical Sanskrit. The ingestive verbs also exhibit an unexpected pattern of transitivity alternation in Berber, an Afroasiatic language (Guerssel 1986). Berber has a productive morphological process which derives causative verbs from intransitive verbs. Thus, according to Guerssel (1986), 'active' (unergative) monadic verbs such as bedd 'stand' and 'stative' (unaccusative) monadic verbs such as zyert 'be long' can be causativised by the causative prefix ss- (Guerssel 1986: 14-15):

- (63) (a) y-bedd wrba *3ms-stand boy:cst* the boy stood up
  - (b) y-ss-bedd wryaz arba *3ms-TRANS-stand man:cst boy* the man made the boy stand up
- (64) (a) y-zyert wfuli *3ms-be long string-cst* the string is long
  - (b) y-ss-zyert wrba fuli 3ms-TRANS-be long boy-cst string the boy lengthened the string

On the other hand, causativisation cannot apply to typical transitive verbs such as wt 'hit' (Guerssel 1986:18):

(65) \*y-ss-wt wmddakkwl-inw mucc aryaz
 3ms-CAUSE-hit friend:cst-my cat man
 my friend made the man hit the cat

The only exception to the generalization that transitive verbs cannot be causativised comes from a class of verbs which Guerssel (1986:36) refers to as the *eat* class, which includes verbs such as ttc 'eat', sw 'drink', jjawn 'be satiated with food' and tted 'suckle'. Consider the examples in (66)-(67):

And a

(66) (a) Y-ttcu wqqzin *3ms-eat dog:cst* the dog ate

- (b) Y-ss-ttc wryaz aqqzin 3ms-TRANS-eat man:cst dog the man fed the dog
- (67) (a) Y-ttcu wqqzin aysum *3ms-eat dog:cst meat* the dog ate the meat
  - (b) Y-ss-ttc wryaz aysum i-wqqzin *3ms-TRANS-eat:per man:cst meat dat-dog:cst* the man fed meat to the dog

Notice that, like most other languages, the Berber verb ttc 'eat' can be used intransitively, as in (66b). However, the interesting example is (67b), where the transitive variant of the verb ttc 'eat' is causativised, thus violating the transitivity pattern of Berber.

Thus, the data from these three languages, Amharic, Malayalam, and Berber, show that ingestive verbs violate the transitivity pattern of the languages. In Amharic, the l-syntactic causative affix a- takes only intransitive (albeit unaccusative) verbs. There is no transitive verb that can take a-: the only exception being the ingestive verbs. In Malayalam, the causee of a transitive verb is always realized as an instrumental. With the exception of ingestive verbs, there is no other transitive verb whose causee can appear in an accusative case. In Berber, transitive verbs cannot be causativised. The only exception to this comes from ingestive verbs.

Although the problem of ingestive verbs is noted in some studies within the generative framework, to the best of my knowledge no systematic analysis of the problem has been proposed. A notable exception is Guerssel (1986) who offered an account of the ingestive verbs in Berber. Hence, I will briefly review Guerssel's (1986:36-39) analysis of the Berber *eat* class before putting forward my own analysis.

Guerssel (1986:6) assumes a framework which recognises a level of LCS that represents the meaning of a verb, and a level of *Lexical Structure* (LS) which is "the lexical projection of the category verb". The two representations are related by "a set of linking conventions that associate the variables in LCS to argument positions in LS". The LCS and LS together are referred to as the Predicate Argument Structure (PAS) of a verb.

In order to account for the problem of ingestive verbs, Guerssel (1986) begins with the assumption that the ingestive verbs have Agent and Patient semantic roles. Guerssel argues that the LCS of ttc 'eat' contains a clause which identifies the patient variable, as in (68):

(68) LCS of ttc 'eat'

x EAT y, where y is typically FOOD

Guerssel proposes that the patient role in the LCS is not obligatorily linked to an argument position in the LS. Thus, depending on whether the patient argument is linked or not, there are two PAS representations for ttc 'eat' (Guerssel 1986:37):



The PAS representations in (69a) and (69b) are that of the intransitive and transitive 'eat' respectively. Guerssel argues that the causativisation rule cannot apply to any transitive PAS, including (69b), but there is no reason why it cannot apply to (69a). The basic idea is that the *eat* verbs, by virtue of their lexical property, have a patient role which is not linked into a position in LS. Due to this property, the *eat* verbs can behave as intransitive for the purpose of causativisation. Guerssel argues that the crucial difference between the *eat* verbs and other transitive verbs such as *hit* is that the latter cannot have a PAS like (69a) and as a result cannot be causativised.

Guerssel's (1986) analysis regarding the grammatical function of the arguments in the causativised 'eat' (67b) is problematic. Notice that in Berber the

Agent of the lower verb is realized as a dative argument. There is no reason why this argument is not realised as the object of the derived verb. In order to account for this problem, Guerssel (1986:39) invokes the notion of "passive participant": an argument which is a passive participant in a given activity is mapped onto the object position. Guerssel (1986) stipulates that in (67b), although the Agent argument of the lower verb is a passive participant relative to the external causer, the Patient argument of the lower verb is a 'more' passive participant than the Agent argument and as a result it is the Patient that can be mapped onto object position.

The problem with Guerssel's notion of passive participant is that it is not independently determined but is rather evaluated relative to other arguments. Furthermore, it would be difficult to transfer the notion of a passive participant into the analysis of other languages, such as Amharic and Malayalam, where it is the causee (not the patient of the lower verb) that is mapped onto the object position. Thus, it would be desirable to derive the effect of passive participant from other independently motivated principles of grammar.

In the next section, I motivate an account of the ingestive verbs on the basis of a more articulated LCS. I will establish that the important property of ingestive verbs is not only the presence of an optional Theme/Patient argument but also the presence of a Goal argument that is co-referential with the Agent.<sup>17</sup>

## 2.6.2.2. Ingestive Verbs as Ditransitives

Let us begin with the LCS of *eat* proposed in Jackendoff (1990). According to Jackendoff (1990:253), the verb *eat* has a causative LCS with an Agent, an optional Theme/Patient and a Goal argument:

The Path argument of INTO is normally conceived of as "self's mouth" which is co-indexed with the first argument of CAUSE. Typically, the arguments

<sup>&</sup>lt;sup>17</sup> Note that if the crucial property were the presence of an optional object, unergative verbs would be expected (contrary to fact) to take the l-syntax causative affix a-. Recall that unergative verbs have an optional object - the cognate object.

of CAUSE, INCH and INTO - Agent, Theme/Patient, and Goal - are mapped onto the subject, object and indirect object positions respectively. However, when the Agent and Goal arguments are linked to the same NP, only the higher argument, that is, the Agent, is mapped onto the syntax. In other words, although the *eat* class of verbs appear to be transitive in the syntax, they are ditransitive in the LCS.

When the Agent and Goal are co-indexed, it is the higher of the two, namely the Agent, that is mapped onto the syntax, giving the argument structure of the verb bella 'eat', with an Agent and a Theme argument.

(71) bella 'eat' [ $x_i CAUS_h$  (y) INCH  $\underline{z_i}$  PATH]  $\downarrow$ ø < Agent, Theme >

Let us assume that another CAUS functor is introduced at 1-syntax. We know from our discussion of the causative alternation that an 1-syntax CAUS functor cannot attach to a verb which already has a CAUS functor. However, given the LCS of the verb balla 'eat' in (71), the possibility of allowing a new CAUS functor emerges. Suppose that the original CAUS functor does not project. This option, which is otherwise unavailable with other causative verbs (because CAUS is specified as head), is made possible by the co-indexation of CAUS with PATH. In other words, the CAUS functor is semantically recoverable from the PATH. Thus, the old CAUS will be displaced by the new CAUS. This will give the triadic argument structure of the verb a-balla 'feed', as modelled in (72):

(72) a-balla 'feed' [w CAUS [ $\underline{x_i}$  CAUS (y) INCH  $z_i$  PATH]]  $\downarrow$   $\emptyset$ < Agent, Theme, Goal >

Languages vary in how they realize the LCS in (72). In Amharic, the introduction of the new CAUS functor is achieved by a morphological causative, the l-syntax affix a-. In languages like English, (72) is realized by a suppletive

form, the verb 'feed'.<sup>18</sup> There is nothing special about this sort of suppletion. Recall that we have already seen a similar contrast between the l-syntax derivation of CAUS +  $\sqrt{\text{come}}$ , giving a-mat't'a 'bring' in Amharic, whereas CAUS + $\sqrt{\text{come}}$ , giving the suppletive form *bring* in English.

Our analysis does not imply that all verbs of ingestion will behave the same way. On the contrary, there will be language-particular lexical gaps. For instance, the verbs *eat* and *drink* are conceptually identical except for the specification of the Theme/Patient argument: in the former the Theme/Patient is typically a solid substance (cf. Levin 1993: 213ff), whereas in the latter it is liquid.<sup>19</sup> In both cases, the Theme/Patient can be omitted: *John drank beer* vs *John drank*. Nevertheless, whilst there is an 1-syntax causative of *eat*, namely *feed*, there is no equivalent 1-syntax causative for *drink*. In fact, it appears that in English all verbs of ingestion, with the exception of *eat*, lack 1-syntax causatives. Instead, a periphrastic form is employed, for example, *give to drink*.

There is cross-linguistic variation with respect to the productivity of deriving the l-syntactic causative of ingestive verbs and also with respect to the size of the ingestive class itself. In Amharic, the set of ingestive verbs which take the l-syntactic causative a- include verbs such as 'eat', 'drink', 'taste', among others. Likewise, in Malayalam and Berber, ingestive verbs have l-syntactic causatives which are derived by a productive morphological process. However, recall that Malayalam (Mohanan 1983) differs from both Amharic and Berber in that the set of ingestives includes verbs of perception and mentation such as 'see' and 'learn'.<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> It should be noted here that the English verb *feed* which we assume to be the lexicalized causative of *eat*, has a different range of usage to the verb *eat*. As noted in Fellbaum (1990), the verb *feed* supports a number of compounds such as *bottlefeed*, *breastfeed*, *spoonfeed* which simply do not occur with the verb *eat*. This type of meaning extension is typical of lexicalization; recall the famous debate regarding the relationship between 'kill' and 'cause to die'.

<sup>&</sup>lt;sup>19</sup> This is a slight over-simplification. There are other differences between the English verbs *eat* and *drink* which are not relevant for the present discussion. For instance, consider the difference between John had a drink vs. \*John had an eat. See Wierzbicka (1982) for some interesting differences between the two English verbs.

<sup>&</sup>lt;sup>20</sup> Note that, even in Amahric, the term 'ingestive' is used in a loose sense as it covers verbs of gustation like k'əmməsə 'taste'. The cross-linguistic variation regarding verbs of ingestion is an interesting topic for future investigation. In some languages, there is only one abstract verb which can be used with anything that is taken. In Bengali, for instance, the verb *kha* can be used as 'eat', 'drink', 'smoke', or 'graze' depending on the identity of the Agent and/or Theme/Patient argument (M. Onishi, p.c.). In some languages, it is the *manner* of eating that seems to be expressed by different verbs. English appears to have a rich inventory of verbs of ingestion that specify the *manner* of eating. Thus, consider *chew, chomp, crunch, gnaw, munch, nibble, pick, peck, sip, slurp, suck* (examples from Levin 1993:214). Some verbs are used to encode "the complete, and usually speedy, consumption of something" (Levin 1993:215). Such verbs are *bolt, gobble, gulp, guzzle, quaff, swallow, swig, wolf.* 

There is also cross-linguistic variation with respect to the Case of the Goal argument. The Case assignment of the Goal argument depends on the Case resources of individual languages and may exhibit some idiosyncracy. Malayalam is like Amharic in that the Goal argument receives accusative Case. On the other hand, in Berber, the Goal argument receives dative Case. In languages like English, the goal argument can be expressed either as an accusative object or as a dative object. Consider the examples in (73), from Carrier and Randall (1992):

- (73) (a) They fed the baby (peas)
  - (b) They fed peas to the baby

The sentence in (73a) resembles the dative shift structure that is familiar from the verb give. One important difference between the typical dative shift structure and (73a) is that in the former the Theme/Patient argument cannot be left implicit (*They gave John* \*(*a present*)). This can be trivially traced back to the LCS of the verb give; namely, unlike the ingestives, the Theme/Patient argument cannot be implicit. <sup>21</sup>

As already shown above, in Amharic the Goal NP is marked by accusative Case. Consider the relevant example repeated as (74):

(74) aster almaz-in dabo a-bəlla-č-at
 A. A.-ACC bread CAUS-eat.pf.-3fS-3fO
 Aster fed Almaz some bread

(a) deda u-keravs švils kabas

(i)

- *mother sews for child dress* The mother is sewing a dress for the child.
- (b) deda i-keravs kabas mother sews self dress

The mother is sewing herself a dress.

What is interesting for our purpose is that the ingestive verbs satisfy the two requirements for the deletion rule: namely, the indirect object is (a) a goal and (b) co-referential with the subject.

<sup>&</sup>lt;sup>21</sup> It is likely that the crucial criterion for the implicitness of the Indirect Object may be that it has to be coreferential with the agent. This requirement gains some indirect support from languages like Georgian, for which the rule "Co-referential Version Object Deletion" has been motivated (cf. Anderson 1992:276). As Anderson puts it this rule applies when "..the Indirect Object expresses (a) a benefactive or (b) the possessor of the Direct Object; and when furthermore (c) this Indirect Object is co-referential with the Subject of the clause" (Anderson (1992:277)). Thus, consider the following examples, where the rule has applied in the second sentence (ibid):

What about the Case of the Theme/Patient argument? In order to determine the Case properties of the Theme/Patient, we have to use a definite NP as in (75), because in Amharic only definite NPs can be assigned the accusative Case:

(75) aster almaz-in dabo-w-in a-bəl-ač-at
 A. A.-ACC bread-DEF-ACC CAUS-eat.pf.-3fS-3fO
 Aster fed Almaz some bread

Notice that both NPs, the causee and the basic object can be assigned accusative Case. However, a closer examination reveals that there is an asymmetry between the two objects: only the Goal causee can trigger object agreement. Thus, consider (76):

(76) \*aster almaz-in dabo-wi-in a-ball-ač-iwi
 A. A.-ACC bread-DEF-ACC CAUS-eat.pf.-3fS-3mO

Therefore, despite the fact that both NPs can occur with an accusative Case, only one of them can exhibit an object-like property. The Case assignment mechanisms of Amharic morphological causative verbs and double object verbs will be discussed in detail in Chapter 3 (§3.5.). For the present purposes, I simply note that the double object asymmetry exhibited by the verb balla 'eat' can be accounted for by assuming that the Goal NP is assigned structural Case, whereas the Theme/Patient NP is assigned inherent Case.

A partial phrase structure representation of the ingestive construction is as schematized in (77), (ignoring irrelevant details):

1



(77)

Thus, NP2 moves into AgrO position to check structural accusative Case. It also triggers object agreement in AgrO.

We have said that the crucial property of the ingestive verbs is that the Agent argument can be co-indexed with the Goal argument. If this assumption is on the right track, one may wonder whether there are other verbs which exhibit the same property and behave accordingly. The verb labbasa 'dress' is one such verb. Consider the examples in (78) and the proposed LCS for labbasa 'dress' in (79):

- (78) (a) aster libs lebbeseč
   A. dress dress-3FS
   Aster dressed in a dress
  - (b) lamma asteri-in libs a-labbas-ati
     L. A.-ACC dress/cloth CAUS-dress3mS-3fO
     lit. Lemma dressed/clothed Aster a dress
     Lemma dressed/clothed Aster in a dress

(79) dress V, [Event CAUSE ([Thingi ], [GO ([Thing ], [Path TO [ON [BODY-OF [ Thingi ]]]])])] The LCS of *dress* is very much like *eat* except that in the former the Goal argument is not 'self's mouth' but rather 'self's body'. As in the case of the ingestives, the Goal of the verb labbasa 'dress/put on/wear' can be different from the Agent argument: X causes Y(clothing) to be on the body of Z. The Goal argument moves to AgrO and as a result the double-object construction is derived.

Therefore, the unexpected behaviour of the ingestive verbs with respect to transitivity alternation can be accounted for by assuming that the verbs' LCS specifies a Goal argument that forms a chain with the Agent argument. By virtue of its co-indexation with a Goal argument, the Agent may not project in the syntax. This allows for the introduction of another causer argument thus deriving the l-syntax causative of transitive verbs.

2.7. Summary

In this chapter, I investigated the Inchoative-Causative Alternation and related issues. I identified two types of unaccusative verbs in Amharic. Pattern I unaccusatives have an underlyingly monadic structure, whereas Pattern II unaccusatives have a basically dyadic structure. In the case of the former, CAUS can be added in the derivation, whereas in the case of the latter CAUS can be suppressed.

Verb Types	Examples	Intransitive	Transitive	Passive	LCS
Pattern I	mət't'a 'come'	mət't'a	a + mət't'a	none	[y INCH]
Pattern II	səbbərə 'break (tr)'	tə+ səbbərə	səbbərə	tə+ səbbərə	[x CAUS y INCH]
Mandatory Agent Verbs	gənnəba 'build'	none	gənnəbə	tə+ gənnəba	[x CAUS <sub>h</sub> y INCH]
Unergatives	č'əffərə 'dance'	č'əffərə	č'əffərə	tə+ č'əffərə	[x CAUS <sub>h</sub> y BE]
Boil Verbs	fəlla 'boil'	fəll <b>a</b>	a + fəlla	tə + fəlla	[x CAUS y INCH <sub>h</sub> ]
Ingestives	bəll <b>a</b> 'eat'	bəlla	bəlla / a-bəlla 'feed'	tə + bəlla	[xi CAUSh y INCH zi,j Path ]

For ease of comparison, I have summarized the main verb types in Table 5 below:

Table 5: Summary of Verb Types

The notion of Event Headedness (Pustejovsky 1995) has been found to be crucial in characterizing the morphosyntactic realization of Event-types. It is particularly important when the LCS of the verb encodes two subevents. The basic idea is that the lexical-semantics of verbs does not only specify temporal relations between subeventualities but also encodes relative prominence. In some events, the focus is on the causing subevent, whereas in others the focus is on the resulting subevent. In yet other events, either subevent may be profiled as prominent. I made the additional assumption that when verbs do not specify their Event Headedness, the temporally highest subevent becomes the default head. In languages like Amharic, the default head functor must project in l-syntax, unless suppressed by overt morphology.

In the final section, I discussed two classes of verbs, namely the Boil verbs and the Ingestive verbs which appear to pose problems for the proposed analysis. In each case, I showed that it is possible to account for the apparent problems by

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utilising the same basic devices proposed in the analysis of other verbs. Thus, the Boil verbs exhibit properties of both Pattern I and Pattern II verbs. They were shown to be like Pattern I verbs in that their zero form is inchoative, but to be like Pattern II verbs in that they permit passivisation. This apparent inconsistency was resolved by assuming that these verbs have an LCS similar to Pattern II verbs but with an INCH head functor.

The apparent problem posed by the Ingestive class of verbs is also tackled by utilising independently motivated assumptions. I showed that ingestive verbs are ditransitive with two internal arguments, Theme/Patient and Goal. The LCS of the verbs indicates that there is an implicit Goal argument which is co-referential with the Agent. Since the Agent is lexically specified as co-referential with the Goal, it can be omitted. This allows for the introduction of an l-syntax CAUS functor, thus deriving a triadic argument structure for the ingestive verb.

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### CHAPTER 3

### The External Causative

#### 3.0. Introduction

In the previous chapter, we saw that the Inchoative-Causative Alternation is sensitive to the Event-type of the Root. Typically, only Achievement verbs participate in the alternation. However, causation is such a fundamental aspect of human cognition (cf. Talmy 1985a), languages have strategies to embed different Event-types within a causative predicate. It is generally assumed that there are three types of causative constructions: (a) lexical causatives, (b) synthetic causatives, and (c) analytic causatives. Some representative examples are given below from English:

- (1) (a) Lexical Causative: John broke the glass
  - (b) Synthetic Causative: Mary pasteurised the milk
  - (c) Analytic Causative: Mary made Bill go to school

Some linguists collapse the three types of causative constructions into two major types. Thus, Shibatani (1976:3ff) makes a distinction between morphologically irregular causatives - *lexical causatives* - and morphologically regular causatives - *productive causatives*. Shibatani suggests that whether languages use affixes or independent words to derive causatives depends on their morphological typology. Agglutinative languages tend to employ affixes whereas isolating languages tend to employ independent verbs, what Shibatani (1976:2) calls *auxiliary causative verbs*.

The classification of causative predicates is frequently made on the basis of semantic assumptions. For instance, lexical causatives are assumed to express 'direct' or 'contact' causation, whereas analytic causatives are assumed to express 'indirect' or 'distant' causation. Shibatani (1976:31-32) uses the terms 'manipulative' and 'directive' for the lexical and productive causatives respectively.

Within the framework of the present study, both lexical and productive causatives are derived in the syntax. We have seen in the previous chapter that both the 'lexical' causative s abbara 'break (tr)' and the morphological causative a - mat't'a 'bring' have the same CAUS functor. This CAUS functor is realized by a zero form in Pattern II verbs (sabbara 'break (tr)') but by a- in Pattern I verbs (a-mat't'a 'bring').

Amharic has another causative verb, as -, which is the subject of the present chapter. I will refer to this causative verb as the *external causative* to signify that it is generated outside the lower EP. I will show that the configurational analysis proposed in Chapter 2 can be extended to account for the difference between the internal (l-syntax) causative and the external (s-syntax) causative. I argue that the causative verb as- differs from a- in its structural position, namely that it occurs above EP. Since as- selects for an EP, it is not sensitive to the Event-type of the Root. I also show that the distribution of the two causative affixes with respect to intransitive verbs is closely correlated with the unaccusative/unergative distinction.

This chapter is organised as follows. In §3.1, I present basic facts about the external causative. In §3.2 and §3.3, I examine the interaction of the external causative with unergative verbs and unaccusative verbs. In §3.4, I investigate the so-called *double* causative, the causative of Accomplishments. In §3.5, I address issues pertaining to agreement and Case. In §3.6, I examine constructions which involve multiple occurrences of the external causative affix. In §3.7, I discuss the so-called *permissive* meaning of the external causative predicate.

# 3.1. The External Causative and CAUS-selection

Languages differ in how they encode the external causative. Many languages mark the external causative by using a form which is distinct from the internal causative. In languages like English, the external causative is spelled out by an independent verb *make*, as in *John made Mary dance*, whereas the internal causative is often a zero form. In some languages such as Hindi-Urdu (Kachru 1976) the causatives are distinguished by two different forms, -a- for the internal causative and -va- for the external causative (Kachru 1976:356):

(2)	(a)	sikhna	'learn'
	<b>(</b> b)	sikhana	'teach'
	(c)	sikhvana	'cause to teach'

In still other languages, the external causative is formed by *doubling* or reiterating the internal causative morpheme. For instance, in the Cushitic language Oromo, (cf. Dubinsky et al. 1988, Owens 1985), the internal causative morpheme is a single -s morpheme whereas the external causative involves two -s morphemes (Dubinsky, et. al 1988:485):

(3)	(a)	daanfe	'boil (intr);
	(b)	daanf-is-e	'boil (tr)'
	(c)	daanf-is-iis-e	'make someone boil something'

However, there are languages which do not appear to make any morphological distinction between the two types of causatives. In Tagalog and Malagasy (Travis, in press) the same form is used for both types of causatives.

Hence, languages differ in the strategies they employ to encode the two types of causatives. However, when languages allow different forms of the two types of causatives, the external causative is morphologically more marked than the internal one (cf. Comrie 1993). Thus, if only one of the causatives is to be realized by zero morphology, it will be the internal causative. That is, we do not expect to find languages where the higher causative is signalled by zero morphology and the lower causative is encoded morphologically.

As we have already seen, in Amharic the l-syntactic causative can be formed either by a zero form or by the affix a-, whereas the s-syntactic causative is always realized by the affix  $as - .2^2$  I assume that the LCS of the external causative affix specifies that the verb selects for an EP irrespective of the nature of the EP. This can be schematized simply as in (4):

(4) es - 'cause' [CAUS [ EP]]

What is interesting is that the distribution of the two causative affixes, aand as-, splits the class of intransitive verbs into two major classes, essentially paralleling the unaccusative/unergative distinction. Hence, Amharic has a

<sup>&</sup>lt;sup>22</sup> The Amharic causative prefix as- is historically derived from a- and the proto-Afroasiatic causative \*s(s). The -s causative is found in other Afroasiatic languages such as Berber (Guerssel 1985) and a number of Cushitic languages such as Oromo and Agaw.

morphologically transparent diagnostic for unaccusativity. I refer to this diagnostic by the term *CAUS-selection* and informally state it as in (5):

 (5) CAUS-selection
 Intransitive verbs which select only for the causative affix as - are unergative.

If an intransitive verb takes only the affix as- then that intransitive verb must be unergative. Note that *CAUS*-selection as stated in (5) does not imply that all intransitive verbs that take as- are unergative. The consequences of *CAUS*-selection will be explored in detail in the coming sections.

## 3.2. Unergatives and the External Causative

In Chapter 2, we saw that unergative verbs such as *dance, laugh, sing* cannot be causativized by the l-syntax causative. Thus, the examples in (6b), (6d) and (7b), (7d) are ungrammatical:

- (6) (a) Mary laughed
  - (b) \*Bill laughed Mary
  - (c) Mary danced
  - (d) \*Bill danced Mary
- (7) (a) aster sak'ə-č
   A. laugh.pf.-3fS
   Aster laughed

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(b) \*lamma aster-in a-sak'-at
 L. A.-ACC CAUS-laugh.pf.3mS-3fO
 (\*Lemma laughed Aster)

- (c) aster č'əffərə-č
   A. dance.pf.-3fS
   Aster danced
- (d) \*lemma aster-in a-č'effer-at
   L. A.-ACC CAUS-dance.pf.3mS-3fO
   (\*Lemma danced Aster)

The ungrammaticality of the l-syntax causative of unergative verbs can be accounted for by assuming that unergative verbs already have a CAUS functor in lsyntax and hence cannot take another CAUS functor for configurational reasons. Thus, (7b) is ungrammatical, basically for the same reason that the affixation of  $\mathfrak{a}$ to a Pattern II causative verb like  $\mathfrak{s}\mathfrak{a}\mathfrak{b}\mathfrak{b}\mathfrak{a}r\mathfrak{a}$  'break (tr)' is ungrammatical (\* $\mathfrak{a}$ - $\mathfrak{s}\mathfrak{a}\mathfrak{b}\mathfrak{b}\mathfrak{a}r\mathfrak{a}$ ). I have argued in Chapter 2 that the basic distinction between verbs which can be involved in the ICA and those which cannot, unaccusatives and unergatives respectively, follows from a difference in the Event-types encoded by each class of verb. Unaccusatives encode a change of state, whereas unergatives encode activity.

At the outset, our generalization that the l-syntax causative of unergative verbs is ungrammatical appears to be challenged by some cross-linguistic data. In many languages, there is one other construction which may be mistaken for the l-syntax causative of unergatives. Let us take the verb meaning 'laugh'. In some languages the l-syntax causative of the verb 'laugh' does not mean 'x *laughed* y' but rather 'x *laughed at* y'. For instance, in Yawuru (an Australian language, Hosokawa 1991) the verb meaning 'laugh' exhibits ambivalent behaviour in its valency. Thus, consider the following examples (from Hosokawa 1991:191):

- (8) Mi-na-ng-kami-rn dyuyu<sup>23</sup>
   2-TR-EN-laugh-IMP 2(ABS)
   you giggle
- (9) I-na-kami-rn-dyuu yaw kamma-ni ngarrungu
   3<sub>i</sub>-TR-laugh-IMPF-2 ACC hey! that-ERG person (ERG)<sub>i</sub>
   Hey, that man is laughing at you!

<sup>&</sup>lt;sup>23</sup> In Hosokawa (1991), the verb is transcribed as k\*ami where k\* signifies a phonological feature which is not relevant here.

# (10) I-na-ng-kami-rn-dyuyu-w karda-gap-ni, 3-TR-EN-laugh-IMPF-2ACC-VOC yonder-ABL-ERG

i-na-langka-rn-dyuu 3-know-IMPF-2 ACC Look, [the girl] is smiling at you from over there. Perhaps she knows you

In (8) the verb kami 'laugh' behaves as an intransitive verb whereas in (9) and (10) it behaves as a transitive verb. There is no derivational marking which mediates the alternation. What is interesting is that in (9), the object is not an argument that is caused to laugh but rather is a kind of stimuli for the laughing event. In other words, (9) is better treated as a zero-derived applicative of the verb 'laugh' (see Chapter 5 below for details on the applicative construction). In (10) the verb is used very much as a communicative verb, with the object as a kind of recipient. In neither case do we find the reading 'x laughed/smiled y'.

Thus, a closer scrutiny reveals that even in languages which appear to exhibit an l-syntax transitivisation of unergatives, the interpretation is not strictly causative. However, this should not be taken to mean that verbs like *laugh* cannot be causativised: there are many languages where 'x laughed/smiled y' is grammatical. I will argue that the causative of such verbs is an s-syntax causative and exhibits different structural properties.

Most languages mark the causative of unergatives either by an affix distinct from the causative of unaccusatives or by an independent lexical item such as the English *make*. In Amharic, the causative of unergatives is realized by the external causative affix as -:

- (11) (a) Mary laughed
  - (b) Bill made Mary laugh

(12) (a) aster sak'ə-č
 A. laugh.pf.3fS
 Aster laughed

(b) ləmma aster-in as-sak'ə-at
 L. A.-ACC E.CAUS-laugh.pf.3mS-3fO
 Lemma made Aster laugh

Intuitively, it is obvious that the subevent introduced by the external causative is relatively more remote from the core event than the internal causative. The external causative in a sentence such as *John makes Bill laugh* participates in the causing subevent by, at best, providing the stimulus. But in *John breaks the window*, the causer participates relatively fully in the causing subevent. It has been noted in the literature (cf. Shibatani 1976, Comrie 1993) that the subevent encoded by the external causative and the embedded subevent can be temporally disjoint. That is, one can make someone *run* or *break a glass*, say today, by ordering him to do so the previous day. This is in sharp contrast to direct causation, where the causing event and the change of state are co-temporal.

The difference between the two types of causatives can be stated configurationally. The external causative is hierarchically higher than the internal causative. I assume that the sentence in (12b) has the structural representation given in (13):

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The s-syntax causative selects for an EP whereas the l-syntax causative selects for an AspP. By *CAUS*-selection, unergatives are intransitive verbs which can take only the external causative affix as - to form the causative.

# 3.2.1. Overt Morphology and the Causative of Unergatives

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Now, recall from Chapter 2 (cf. §2.5) H&K's explanation for the fact that in Papago, the causative of unergatives is grammatical, that is, the Papago equivalent of \**Mary sneezed the children* would be well-formed. Consider the relevant examples repeated below in (14), (from H&K, p. 99):

- (14) (a) 'a'al 'at bisc children 3:PERF sneeze:PERF the children sneezed
  - (b) 'A:ñ 'ant g 'a'al ha-bisck-c
     I Isg:PERF ART children 3PL-sneeze-CAUSE:PERF
     I made the children sneeze

H&K argued that the fundamental difference between the ungrammatical English construction *\*the alfalfa sneezed the colt* and the grammatical Papago construction in (14b) is due to morphology. The basic idea is that the overt causative morphology of Papago licenses the internal subject position thus allowing the causative alternation. On the other hand, in English, causativisation is not possible because the zero causative verb lacks the morphological features necessary to license an internal subject NP.

H&K's analysis predicts that overt causative morphology will permit the causative of unergatives in other languages as well. However, consider the Amharic example in (7d) above. The construction is ungrammatical, despite the fact that there is an overt causative morpheme, a-, with the required properties. Thus, the crucial factor is not simply the presence of causative morphology but rather that the relevant causative morphology must be in s-syntax. In the present analysis, we hypothesize that the Papago causative suffix is an s-syntax verb, equivalent to the Arnharic as - and English *make*.<sup>24</sup> Thus, although Amharic, English, and Papago (if we are correct), differ morphologically, they are the same in requiring an overt s-syntax predicate for the causative of unergatives.

## 3.2.2. The Internal Subject and the External Causative

In our framework, the internal subject of the unergative verb is none other than the cognate object which occurs optionally in languages like English and Arnharic but obligatorily in languages such as Fon (Lefebvre 1994). I argued that it

<sup>&</sup>lt;sup>24</sup> I have not been able to check the properties of the causative affix in Papago. Thus, the claim that the Papago causative affix is an s-syntax verb is made tentatively. However, the configurational distinction between the two types of causatives would still be valid if it turns out that the same affix is used to derive the causative of unaccusatives.

is the presence of this argument that gives unergative verbs their underlyingly transitive structure. Consider the relevant examples in (15) - (16):

- (15) aster yə-agərbet č'iffəra č'əffərə-č
   A. POSS-country dance dance.pf.-3fS
   Aster danced a folk dance
- (16) ləmma aster-in yə-agərbet č'iffəra
   L. A.-ACC POSS-country dance

as-č'əffər-at E.CAUS.dance.pf.3mS-3fO Lemma made Aster dance a folk dance

Now the question arises whether causativisation is possible without the causee (original Agent) but with the cognate argument. There is nothing in our analysis that would exclude such a construction. Indeed, as can be seen in (17) the construction is possible:

(17) lamma ya-agarbet č'iffara as-č'affara
 L. POSS-country dance E.CAUS.dance.pf.3mS
 Lemma had a folk dance danced

This is not surprising because as we saw in Chapter 2, the cognate argument can occur on its own in the so-called impersonal passive construction:

(18) yə-agərbet č'iffəra tə-č'əffərə
 POSS-country dance PASS-dance.pf.3mS
 A folk dance was danced

However, it is also true that not all unergative verbs allow the equivalent of (17). It turns out that unergative verbs such as *laugh* and *sneeze* do not permit the omission of the causee argument unlike unergative verbs such as *dance*. Consider the examples in (19) - (21):

(19) aster ya-lib sak' sak'a-č
 A. POSS-heart laughter laugh.pf.-3fS
 Aster laughed a hearty laugh

(20) ləmma aster-in yə-lib sak' L. A.-ACC POSS-heart laughter

> as-sakk'ə-at E.CAUS-laugh.pf.3mS-3fO Lemma made Aster laugh a hearty laugh

(21) \*ləmma yə-lɨb sak' as-sak'ə
 A. POSS-heart laughter E.CAUS-laugh.pf.3mS
 (Lemma had a hearty laughter laughed)

The ungrammaticality of (21) shows that the causee, 'the laugher', cannot be omitted. This is consistent with the ungrammaticality of the impersonal passive of the same verb, as shown in (22):

(22) \*yə-lɨb sak tə-sak ə
 POSS-heart laughter PASS-laugh.pf.3mS
 (A hearty laughter was laughed)

The key to this apparent discrepancy in the behaviour of unergative verbs can be found in the nature of the cognate object. Hale and Keyser (1994:8, n. 4), point out that there are two senses in which the term 'cognate' object can be used: (a) cognate objects which 'classify' the complement, such as the cognate object dance and (b) true cognate objects, such as *laugh*. If there is an independently established difference of this sort between the two kinds of cognate objects, then we assume that true cognate objects must always occur with their causer arguments.

# 3.3. Unaccusatives and the External Causative

I have assumed that the external causative as - selects for an EP, irrespective of the Event-type of the Root. Thus, it should be possible to attach the external causative affix to unaccusative verbs. In this section we investigate the interaction of the external causative with unaccusatives.

# 3.3.1. Pattern I Verbs and the S-syntax CAUS

Recall that Pattern I verbs are monadic with a zero inchoative marking. These verbs can take the external causative prefix as- to derive the s-syntactic causative, as shown in (23):

(23)	(a)	aster	wət't'a-č	
		<i>A</i> .	leave.pf.3fS	
		Aster left		
	(b)	ləmma	aster-in (kə-bet)	
		L. A	ACC (from-house)	
		as-wət't	'a-t	
		E.CAUS-leave.pf.3mS-3fO		
		Lemma made Aster leave (the house)		

In (23b), the natural reading is that the external causer is involved in the event indirectly: 'Lemma' may simply have ordered 'Aster' to leave the house. On the other hand, with an inanimate argument the same predicate necessarily implicates the involvement of an intermediate Agent:

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(24) ləmma wənbər-u-n (kə-bet) L. chair-DEF-ACC (from-house)

> as-wət't'a *E.CAUS-leave.pf.3mS* Lemma had the chair taken out (of the house) ≠ Lemma made the chair leave

The legitimate reading in (24) is traditionally known as the *factive* (cf. Leslau 1995). Demoz (1964) refers to it as the *causative of the passive*. In any case, it is obvious that the external causer's involvement in the event is only indirect. If the external causer had acted directly on the argument of the main verb 'leave/exit', the appropriate construction would utilize the internal causative a- and not the external causative as-:

(25) lamma wanbar-u-n (ka-bet) a-wat't'a
 L. chair-ACC (from-house) CAUS-leave.pf.3mS
 Lemma took the chair out of the house

I would like to argue that there is no need to maintain a distinction between the causative and the 'factive' (or the 'causative of the passive'). There is only one causative meaning and the apparent difference in interpretation follows from the nature of the argument of the lower verb. Thus, inanimate objects of a motion verb implicate an intermediate Agent. Notice in (26) that the intermediate Agent can be overtly expressed in an adpositional phrase:

(26) lamma wanbar-u-n (ba-aster) as-wat't'a
 L. chair-ACC (by -Aster) E.CAUS-leave.pf.3mS
 Lemma had the chair taken out (by Aster)

The adpositional phrase is formally similar to the logical subject of a passive, as can be seen in a typical passive construction in (27b):

	(b)	ləmma	(be-aster)	tə-samə
		Aster kis	sed Lemma	
		<i>A</i> .	L-ACC	kiss.pf3fS-3mO
(27)	(a)	aster	]əmma-n	samə-č-iw

L. (by-A.) PASS-kiss.pf.3mS Lemma is kissed (by Aster)

Despite the similarity of the two by-phrases, there is no passive form in the causative construction. It is the presence of the optional intermediate Agent which suggests that there is an underlying passive that functions as an input to the causative construction.

There is strong evidence against assuming an underlying passive form. Notice that such an underlying passive would have to appear as: \* $as-ta-\sqrt{wt}$ ' (E.CAUS-PASS- $\sqrt{leave}$ ). The major problem with this underlying form is that \*ta-wat't'a (PASS- $\sqrt{leave}$ ) is illegitimate: Pattern I verbs cannot be passivized because they lack the CAUS functor in their LCS.

We have seen in Chapter 2 that the passive of the morphologically derived causative is equally impossible. The passive cannot be formed from the output of causativisation, as the ungrammatical  $*t-a-\sqrt{wt}$  (PASS-CAUS- $\sqrt{leave}$ ) demonstrates. We attributed the ill-formedness of such constructions to a morphological constraint on affixation, the Co-Affix Constraint, which prohibits the co-occurrence of two valency changing affixes. Therefore, as Pattern I verbs cannot passivize independently, it is not possible to argue that the external causative is formed from the output of passivisation.

It is interesting to note that the issue of whether a passive is or is not embedded within a causative construction is not peculiar to Amharic. Rather, this issue has generated considerable attention in the literature, particularly, in relation to the so-called *faire par* construction in French and other Romance languages (see Kayne 1975, Rouveret and Vergnaud 1980, Zubizarreta 1982, Burzio 1986, S. Rosen 1990, Legendre 1990, Alsina 1993, among others). We will treat this issue in full when we discuss the causative of Accomplishment verbs in §3.4. A partial structure of the s-syntactic causative of Pattern I verbs such as (23b) can be schematized as in (28) below:



It is important to note that the Amharic structure corresponding to Lemma made Aster leave can be interpreted in two ways. First, it can be interpreted as meaning Lemma simply ordered Aster to leave. Since the application of force is one component of causation, we obtain the meaning that Aster was forced to leave. The second interpretation is that Lemma ordered someone to order Aster to leave. In English, such contexts can be disambiguated by employing the causative make twice, as in John made Bill make Aster leave. In Amharic, the equivalent of John made Bill make Aster leave is perfectly grammatical with a periphrastic strategy where the verb adarraga 'make' is employed:

(29) ləmma kassa-n aster-in ind-iy-as-wət't'a L. K.-ACC A.-ACC that-3mS-E.CAUS-leave

> as-dərrəgə-w E.CAUS-make.pf.3mS-3mO Lemma made Kassa make Aster leave

In (29), Kassa exhibits typical causee properties, since it triggers object agreement. The periphrastic verb adarraga 'make' is treated here as a causative Light Verb and will be discussed in Chapter 6.

## 3.3.2. Pattern II Verbs and the S-syntax CAUS

Now consider the case of Pattern II unaccusatives, verbs which are formed by the inchoative prefix t-. The s-syntactic causative can be formed from Pattern II verbs as shown in (30b) and (31b) with the verbs ta-sabbara 'break' and tamallasa 'return', respectively:

(30) (a) t'ərmus-u tə-səbbərə bottle-DEF INCH-break.pf.3mS the bottle broke OR the bottle was broken

(b) aster t'ərmus-u-n as-səbbərə-č-w
 A. bottle-DEF-ACC E.CAUS-break.pf.3fS-3mO
 Aster made the bottle break OR
 Aster made the bottle be broken (by someone)

- (31) (a) aster tə-məlləsə-č
   A. INCH-return.pf.-3fS
   Aster returned OR
   Aster was returned
  - (b) lamma aster-in as-mallas-at
     L. A.-ACC E.CAUS-return.pf.3mS-3fO
     Lemma made Aster return OR
     Lemma made Aster be returned (by someone)

Again, the natural reading of the causative sentences in (30b) and (31b) is that in which the external causer has acted indirectly. Thus, for instance, in the case of (30b), as-sabbara 'E.CAUS-break', the preferred reading is that 'Aster made the bottle be broken by someone'. In both (30b) and (31b) it is possible for the external causer to act directly on the internal argument of the lower verb. This is clearer in example (31b) where the argument of the verb 'return' is animate: 'Lemma' could cause the event by directly forcing 'Aster' to return. In (30b) where the argument of the verb sabbara 'break' is inanimate, the first reading is easier to parse in certain contexts such as (32):

(32) aster-ikko t'armus-u-n agul bota ask'amit'a A.-as for bottle-DEF-ACC bad place put.gerund.3fS as-sabbara-č-iw

E.CAUS-break.3fS-3mO

As for Aster, she made the bottle break by leaving it at a bad spot (such as at the edge of a table)

Note that, as in the case of the Pattern I verbs, the unspecified intermediate Agent of Pattern II verbs can be expressed by an adpositional phrase:

(33) aster t'ərmus-u-n (bə-lemma) as-səbbərə-č-iw
 A. bottle-DEF-ACC (by-L.) E.CAUS-break.pf.3fS-3mO
 Aster made the bottle be broken (by Lemma)

Again, we maintain that the availability of the by-phrase in such constructions does not require the existence of an underlying passive. As we have already seen in the case of Pattern I verbs, the reading which implicates an intermediate Agent is available despite the fact that the Pattern I verbs fail to passivize. Thus, the minimal assumption would be that the external causative of both Pattern I and Pattern II verbs does not have an underlying passive form. Thus, the so-called 'causative of the passive' reading has nothing to do with an underlying passive construction. The question then is what is the source of the by-phrase, if it is not passivization? I will argue that the presence of the adpositional phrase is motivated by the interaction of Case and agreement facts. The discussion of this issue will be deferred until §3.5.

Now, Pattern II verbs pose a further problem. The reader will have noticed that the causative of the inchoative reading is not strictly represented in the morphological make-up of the complex verb. Let us refer to (30b) and (31b) once more. If the causative prefix as- selects for the inchoative verb, then we would

expect the forms to be \*as-ta-sabbara (external causative-INCH- $\sqrt{}$ 'break') and \*as-ta-mallasa (external causative-INCH- $\sqrt{}$ 'return'). However, these are not well-formed. Hence, we obtain instead the forms as-sabbara and as-mallasa respectively, without the inchoative marker ta-. Thus, even though we argued that the passive ta- does not occur with the causative as- (because there is no underlying passive in the causative construction) we still need to explain why the inchoative ta- fails to occur with as-.

The non-occurrence of \*as-tə-səbbərə is reminiscent of the ill-formedness of the passive of the causative, t-a-mətta 'be brought'. In Chapter 2, I proposed a morphological constraint, namely the Co-Affix Constraint, to account for the co-occurence restriction on valency changing affixes. Unfortunately, the Co-Affix Constraint as proposed earlier cannot explain why when two affixes are juxtaposed, the Co-Affix Constraint is met by dropping the l-syntax affix. Thus, it is now time to refine the Co-Affix Constraint along the lines stated in (34):

(34) The Co-Affix Constraint (Final Version) When two Event-type encoding affixes Af1, Af2 co-occur, where both Af1, Af2 have phonological forms, only the affix inserted in ssyntax can be overtly expressed; at most, only one affix can attach to a root.

It is interesting to note that a number of languages exhibit a similar constraint. According to Travis (in press), in Tagalog '[o]nce the productive causative morpheme has been added, the lexical causative morpheme drops."<sup>25</sup> Nevertheless, the Co-Affix Constraint, as it stands, is probably language specific, given that causative affixes can co-occur in languages such as Oromo, Turkish, Mongolian, and Hindi (cf. Kulikov 1993).

I suggest that the Co-Affix Constraint may be one instantiation of a wider morphological restriction based on the selectional property of affixes. Naturally, in languages where certain affixes select for a basic root (instead of a stem) only one affix can occur with a root at any single derivation. Fabb (1988) showed that certain English suffixes subcategorize for a root and thus cannot be added to an already suffixed item.

 $<sup>^{25}</sup>$  Travis (p.c.) proposes that the restriction in Tagalog can be accounted for by assuming that the inner Agent is still in the Spec of the lower VP and that there is a restriction on filling both the Spec and the head at the same time - something like the *Doubly Filled COMP* filter.

Given that languages have something like the Co-Affix Constraint, the fact that it is the s-syntax affix which is retained follows naturally from the idea of Event Headedness. The s-syntax causative is the head of the larger event. This in turn is not a simple ad hoc stipulation but rather follows from a deeper cognitive organization of information. The external causative has temporal saliency over the internal subeventuality. It is also foregrounded in the sense of Talmy (1985a) and Pustejovsky (1995). It has been known (cf. Talmy 1985a) that foregrounded components of meaning are more overtly marked than backgrounded components. Thus, it is not surprising that it is the affix corresponding to the head subeventuality, the s-syntax causative, that is retained to satisfy the Co-Affix Constraint.<sup>26</sup>

I should note here that some apparent Co-Affix Constraint violations exist in Amharic. Consider the following examples:

(35)	(a)	t-at't'əbə	'wash oneself'
	(b)	as-t-at't'əbə	'cause x wash oneself'
(36)	(a)	ta-naffasa	'breathe'
	(b)	as-tə-nəffəsə	'make breathe'

I would like to argue that these are classic cases of exceptions that confirm the generalization. Unlike the t- prefix of the inchoative ta-sabbara 'break (intr)' or ta-mallasa 'return (intr)', the t- of the verbs in (35) - (36) are reanalysed as part of the Root radicals. Since they are lexically part of the Root, they are not subject to the morphosyntactic Co-Affix Constraint.

There is a simple test that can be used to determine whether or not a given segment is part of the Root. A segment can be used as the Verbal Noun component of the Light Verb Complex (the construction which involves LVs such as alə 'say', see Chapter 6 for full discussion), only if it is part of the Root. By this test, we can see below in (37) that the t- of tə-səbbərə and tə-məlləsə are true syntactic prefixes: they cannot occur as part of the VN in the LVC. In contrast, the t- of the verbs tə-at'əbə 'wash oneself' and tə-nəffəsə 'breath' occur as the part of the VN Root because they are part of the Root radicals:

<sup>&</sup>lt;sup>26</sup> Notice that two s-syntax prefixes cannot co-occur either. This follows from the requirement that at most only one Event-type encoding affix can occur with the root.

- (37) (a) \*t'ərmus-u <u>t</u>isibbir alə
   bottle-DEF break.int say.pf.3mS
   (the bottle broke)
  - (b) \*aster <u>t</u>imillis ala-č *A. return say.pf.3mS* (Aster returned)
- (38) (a) aster <u>t</u>itib ala-č
  A. wash.INT say.pf.-3fS
  Aster washed herself
  - (b) aster <u>t</u>infis ala-č
     A. breath.INT say.pf.-3fS
     Aster breathed

As we will argue in Chapter 6, both the LV ele and the inchoative prefix tespell out the same Event-type: INCH. Hence, the LV ele 'say' and inchoative prefix te- are in complementary distribution. The only environment in which they are not in complementary distribution is when t- is lexically part of the Root material as shown in (38a) and (38b).

There is a further piece of evidence which argues for the lexical status of the reflexive prefix t- in 'wash oneself' and 'breathe'. For both tat't'əbə 'wash oneself' and tənəffəsə 'breathe', the t- shows up in the generic nominals: t+t'bət 'washing of self' and t+nfəš 'breath'. A characteristic property of such nominals is that they involve the Root material (the radicals). Interestingly, the generic nominals of the inchoative tə-səbbərə 'break (intr.)' and that of tə-məlləsə 'return (intr.)' do not involve t-: s+bb+rat 'breakage' and m+llaš 'reply, something returned'. This fact makes sense only if the t- of 'wash oneself' and 'breathe' count as part of the lexical Root, whereas the t- of other inchoative forms is syntactically attached in l-syntax, as argued in Chapter 2.27

(i) hasan yilka-n-di

in the

H. wash-refl-past Hasan washed himself

<sup>&</sup>lt;sup>27</sup> A similar property has been noted in Turkish (Zimmer 1976:401). In Turkish, like in Amharic, the causative cannot be derived from a reflexive. Thus, consider the examples below:

Therefore, the verbs in (35) - (36), far from being counter-examples to the Co-Affix Constraint, provide the strongest support for it. The Co-Affix Constraint is relevant for syntactically introduced affixes. I assume that the Co-Affix Constraint exists as a parameter of UG, and I will present more evidence to support this when we discuss the double causative, the causative of Accomplishments, in the next section.

#### 3.4. Accomplishments and The External Causative

So far we have seen that the s-syntax affix as- takes EPs formed by unergatives and unaccusatives. In this section, we examine the interaction of as-with Accomplishment EPs.

### 3.4.1. With Pattern I and Pattern II Causatives

Recall that Pattern II verbs are basically dyadic and occur with a zero form causative. Such verbs take the prefix as- as in (39b):

- (39) (a) aster t'armus sabbara-č
   A. bottle break.pf.-3fS
   Aster broke a bottle
  - (b) səwoču aster-in t'armus as-səbbər-u-at
     people A.-ACC bottle E.CAUS-break.pf.-3plS-3fO
     the people made Aster break a bottle

(ii) \* hasan-i yika-n-dir-di-m
 H.-acc wash-refl-caus-past-lsg
 I made Hasan wash himself

According to Zimmer (1976:402) the causative of regular reflexives is not possible only in the case of transformationally derived reflexives: lexicalized reflexives behave differently. Thus, the causative of a lexicalized reflexive such as sevin- 'be pleased' (<sev- 'love, like' + -n 'refl') is perfectly grammatical:

(ii) bu haber biz-i čok sevin-dir-di

this news we-acc much be pleased-caus-past this news pleased us very much

Hence, a lexicalized reflexive can be causativized in Turkish, exactly as in Arnharic. The minimal assumption would be that both languages have something like the Co-Affix Constraint which is relevant only to syntactically derived words.
Likewise, as- is expected to take Pattern I causatives. Recall that the lsyntactic causative of Pattern I verbs is formed by the CAUS affix a-. When the prefix as- is employed to derive the external causative, the CAUS affix a- is dropped following the Co-Affix Constraint. Thus, instead of  $as-a-\sqrt{come'}$  we get as  $-e-\sqrt{come'}$ :

- (40) (a) aster wənbər a-mət't'a-č *A. chair CAUS-come.-pf.-3fS* Aster brought a chair
  - (b) \*ləmma aster-in wənbər L. A.-ACC chair

as-a-mət't'-at E.CAUS-CAUS-come.pf.3mS-3fO

(c) ləmma aster-in wənbər as-mət't'-at
 L. A.-ACC chair E.CAUS-come.pf.3mS-3fO
 Lemma made Aster bring a chair

There is no lexical-semantic or syntactic reason why as - does not attach to the derived causative form a-mat't'a 'bring'. The restriction is morphological: (40b) is yet another example which exhibits the effects of the Co-Affix Constraint.

## 3.4.2. With Mandatory Agent Verbs

Mandatory agent verbs are just like Pattern II verbs except that they are specified for Event Headedness: the causing subevent is the head. Thus, they do not have inchoative forms. Such verbs take the external causative as- as in (41b):

(41) (a) ləmma ginb gənnəba L. wall build.pf.3mS Lemma built a wall **(**b) as-gənnəba-č-iw aster ləmma-n ginb L.-ACC E.CAUS-build.pf.-3fS-3mO Α. wall Aster made Lemma build a wall

Therefore, as expected all types of causative constructions can take the external causative. For (41b), I assume the structure in (42):



Notice that the external causative of a mandatory agent verb involves three arguments: the external causer, the logical subject of the embedded verb and the object of the embedded verb. This raises issues related to Case assignment and agreement which are addressed in the following section.

# 3.5. Case Marking and Agreement3.5.1. Case Parameters in Causative Constructions

The Case assignment mechanism of morphological causatives and ditransitive verbs has been explored in detail for a range of languages in Baker (1988a: Ch 4), (see also Gibson 1980, Marantz 1984). Baker (1988a), (hereafter Baker), has argued extensively that the Case assignment mechanism of morphological causatives is essentially the same as the Case mechanism of ditransitive constructions. Lexical ditransitives, such as *give*, and morphological causatives are parallel in that both have three arguments. In lexically ditransitive verbs, these arguments are the Causer, the Theme/Patient, and the Goal. In morphological causatives the arguments are the Causer, the Causee, and the Theme/Patient. Baker demonstrated that languages can be divided according to their Case assigning mechanism. Three major types of languages exist: (a) true double object languages, (b) partial double object languages, and (c) non-double object languages (1988a:174ff)

In true double object languages, structural (accusative) Case can be assigned to both NPs of a causative construction, that is, to the causee and the object of the lower verb. Baker argued that in such languages, the causative verb complex assigns two structural Cases: the causative predicate and the lower verb each assigning one Case. In such languages, both the causee and the object of the lower verb can exhibit object-like properties such as triggering object agreement, becoming the subject of a passive, occurring closer to the verb, and being *pro*dropped. Languages such as Kinyarwanda and Japanese belong to this group. In true double object languages, ditransitive verbs exhibit the dative shift construction (where both the Theme/Patient and the Goal appear as objects).

In partial double object languages, both the causee and the object of the lower verb appear with accusative Case. Alternatively, depending on the language, both arguments are left unmarked. Although languages in this group may superficially resemble the true double object languages, they differ in one important respect: only the causee will exhibit object-like properties. Baker identified Chimwiini and Chamorro as languages which exhibit this type of Case parameter. In order to account for the asymmetry between the causee and the basic object, Baker argued that the causee is assigned structural Case, whereas the basic object is assigned inherent Case. Inherent Case is linked to thematic role assignment at D- Structure (Chomsky 1986). In partial double object languages such as Chimwiini and English, dative shift is possible.

The third type of language is that of the non-double object languages. One characteristic property of the morphological causative construction in this type of language is that the causee is marked as oblique, whereas the basic object gets the canonical structural Case. As a result, it is the basic object which exhibits object-like properties. This type of Case mechanism is exhibited by Malayalam. Baker argued that the basic object is assigned structural Case from the verb whereas the causee is assigned Case from an inserted preposition or from an oblique Case marker. In non-double object languages, dative shift is not possible.

#### 3.5.2. Case Assignment Mechanisms in Amharic Causatives

Now let us have a closer look at the Case assignment mechanism in the Amharic morphological causatives. Take, for instance, the typical causative construction exemplified in (41b) and repeated below as (43):

(43) aster ləmma-n gɨnb as-gənnəba-č-iw
 A. L.-ACC wall E.CAUS-build.pf.-3fS-3mO
 Aster made Lemma build a wall

We see that the causee, 'Lemma', triggers object agreement.<sup>28</sup> However, we may ask what happens to the basic object, g+nb 'wall'? In order to determine the properties of the basic object, one needs to understand the basic conditions of accusative Case assignment. As mentioned earlier, in Amharic, as in other languages such as Turkish and Hindi-Urdu (cf. Hopper and Thompson 1980, Mahajan 1990), accusative Case marking depends on definiteness/specificity. Only definite or specific NPs are assigned accusative Case. Consider the contrast in (44):

- (i) \*Kassa tarmus ta-as-sabbara-w
  - K. bottle PASS-E.CAUS-break.pf.3mS.3mO (intended: Kassa was made to break the bottle).

<sup>&</sup>lt;sup>28</sup> Another object property is the ability to become the subject of a passive. Unfortunately, the passive of the causative construction is completely ungrammatical:

We have noted independently that the passive of the causative is ungrammatical and suggested that this may be due to the lexical requirement of the passive morpheme: it must attach to a basic stem or a root rather than to a derived stem. As we will see in Chapter 6, the passive of such constructions can be formed by the use of the Light Verb adarraga 'make'.

(44) (a) aster wiša-(\*n) mətta-č-(\*iw) *A. dog-(ACC) hit.pf.-3fS-(ACC)* Aster hit a dog

(b) aster wiša-w-\*(in) matta-č-(iw)
 A. dog-DEF-ACC hit.pf.3fS-(3mO)
 Aster hit the dog

The object NP of (44a) is indefinite and it can neither trigger object agreement nor take the accusative Case. On the other hand, the object NP in (44b) is definite and must be marked by the accusative Case. Furthermore, (44b) shows that a definite object of a simple transitive verb can trigger (optional) object agreement. Let us now examine the causative construction with a definite object, as in (45):

(45) (a) aster sawoč-ui-n ginb-u-n
 A. men-DEF-ACC wall-DEF-ACC

as-gənnəba-č-aččəw<sub>i</sub> E.CAUS-build.pf.-3fS-3plO Aster made the men build the wall

(b) \*aster sawoč-u-n ginb-ui-n A. men-DEF-ACC wall-DEF-ACC

> as-gənnəba-č-iw<sub>i</sub> E.CAUS-build.pf.-3fS-3mO

In (45a) both the causee and the basic object are definite and thus must occur with the accusative Case marking -n. However, despite the fact that both NPs can be assigned the accusative Case, there is an asymmetry. Only the causee, and not the basic object, can trigger object agreement. Thus, as we can see in (45b), the construction is ungrammatical when the basic object triggers object agreement.<sup>29</sup>

 $<sup>^{29}</sup>$  For some speakers, the grammaticality level of the sentence in (45a) is marginal without an intonational pause between the two accusative marked NPs. Haile (1970) offers a discourse-based account. He also points out that double accusative marked NPs are less preferred for 'euphonic' reasons - the repetition of the two -/n/ sounds is regarded as marked. Note also that the passive test

The only way of retaining the agreement triggered by the basic object in an environment similar to (45b) would be to omit the causee or mark it as oblique by the preposition be 'by'. This is shown in (46):

(46) aster ginb-ui-n (be-sewoč-u)
 A. wall-DEF-ACC (by-men-DEF)

as-gannaba-č-iwi E.CAUS-build.pf.-3fS-3mO Aster had the wall built (by the men)

Thus it is not the case that the basic object cannot trigger object agreement, but rather, that, when it does, it cannot co-occur with an accusative marked causee.

The above observations suggest that in terms of Baker's typology of causative Case assignment, Amharic seems to behave like a cross between a partial double object language and a non-double object language. Recall that a partial double object language is accounted for by invoking a distinction between structural Case and inherent Case. The causee, which exhibits more object-like properties, is assumed to get structural Case, whereas the basic object is assumed to get inherent Case.

While maintaining Baker's basic insight that there is a Case-theoretic reason for the observed asymmetry between the causee and the basic object, I would like to argue that an important source for the asymmetry in Amharic is the independent interaction between Case and definiteness.

First, I should point out that the causee must be definite and animate. As shown in (47a) and (47b) the causee cannot be indefinite or inanimate:

(47) (a) \*aster saw ginb as-gannaba-č-iw
 A. someone wall E.CAUS-build.pf.-3fS-3mO
 (Aster made someone build a wall)

for objecthood, i.e. the ability to become the subject of a passive, cannot be used here, because, for independent reasons, (the Co-Affix Constraint) the passive affix cannot attach to a derived stem.

(b) \*aster dingay-u-n məskot A. stone-DEF-ACC window

> as-sabbara-č-iw E. CAUS-break.pf.-3fS-3mO (Aster made the stone break the window)

The grammatical version of (47a) must involve the oblique marking of the causee, as in b = s = w 'by someone'. In (47b) 'the stone' must occur as an instrument which is also realized by the preposition b = -, as in b = -d = ngayu 'with the stone':

- (47') (a) aster bə-səw ginb as-gənnəba-č
   A. by-someone wall E.CAUS-build.pf.-3fS
   Aster had a wall built by someone
  - (b) aster ba-dingay-u maskot as-sabbara-č
     A. with-stone-DEF window E.CAUS-break.pf.-3fS
     Aster had a window break with the stone

I would like to argue, following Mahajan (1990), that there is a difference in the Case assignment mechanism of definite and indefinite objects. Mahajan suggested that indefinite/non-specific objects do not move to AgrO in languages such as Hindi which exhibit a specificity effect similar to Amharic. Consider the following examples from Hindi:

- (48) (a) Raam-ne kitaab parhii
   Raam-ERG (M) book (F) read (PERF F SG)
   Ram read the book
  - (b) Raam ek kitaab parhegaa
     *Raam (M) a book (F) read (FUT M SG)* Ram will read a book

In (48a) there is gender agreement with the object whereas in (48b) there is no such agreement. Mahajan (1990, 1991) made a distinction between the positions where

specific and nonspecific objects receive structural Case. He argued that specific objects receive structural Case from AgrO either under government or by Spec-Head agreement, whereas non-specific objects get structural Case under government by the verb.

I suggest that in Amharic indefinite objects do not move into AgrO, at least not in the overt syntax. I assume that movement to AgrO is triggered by morphological features, in the spirit of Chomsky (1992) and subsequent works. Suppose that in Amharic, the causee, by virtue of its [+animate] and [+definite] requirements has more morphological or formal features than the basic object. Due to its rich morphological features, the causee must move to AgrO. Thus, although both the causee and the basic object can be definite, only the object with richer features can move to AgrO. In other words, the definite basic object is outranked by the causee and as a result the former does not move into AgrO.<sup>30</sup> I assume that the definite basic object gets inherent Case, in the sense of Baker (1988a).

My claim is that the asymmetry between the causee object and the basic object is due to a mismatch between the number of definite internal arguments and Agr positions. There is one AgrO position but two object NPs that need to move into AgrO. Since there is independent evidence for the correlation between agreement and morphological features (definiteness, animacy), I argue that the NP with richer formal features will move into AgrO. Thus, we obtain the observed asymmetry between the causee and the basic object.

Now given the idea that Case assignment in causatives is the same as Case assignment in ditransitive verbs, the crucial test for our analysis comes from the behaviour of ditransitive predicates. Thus, let us briefly examine the structure of ditransitive verbs.

In Amharic, a typical ditransitive verb such as sət't'ə 'give' occurs with a direct object (Theme/Patient) and an indirect object (Goal). The unmarked word order is S O IO V:

 $<sup>^{30}</sup>$  Note that in the case of the causative construction, the inherently definite object (the causee) is also the one which is structurally closer to AgrO. It may be argued that this would be sufficient enough to ensure its movement into AgrO. However, as we shall see later, this assumption is not warranted.

- (49) (a) aster wanbar-ui-n la-setiyya-wa sat't'-ač-iwi
   A. chair-DEF-ACC to-woman-DEF give.pf.-3fS-3mO
   Aster gave the chair to the woman
  - (b) aster wanbar-u-n la-setiyya-wai sat't'-ač-ati
     A. chair-DEF-ACC to-woman-DEF give.pf.-3fS-3fO
     Aster gave the chair to the woman

Notice that either the direct object or the indirect object NP can trigger object agreement and that either the direct object or the indirect object NP can become the subject of a passive. This is in sharp contrast to (45a) and (45b), the morphological causative constructions, where only one object NP (the causee) can trigger object agreement. At the outset, this argues against the assumption that the Case assignment mechanism of ditransitives will be the same as the Case assignment mechanism of morphological causatives.

I would like to argue that the Case assignment mechanism of ditransitives is not different from that of morphological causatives. However, due to an independent lexical difference between lexically ditransitive verbs and morphological causatives, there is no mismatch between object NPs and AgrO positions in the former. I assume that ditransitives can have two AgrO positions: AgrO and Indirect Object Agr (AgrIO). The object agreement morphemes are bifunctional, that is, they can be either object agreement markers or oblique agreement markers.

I would like to suggest that a ditransitive verb such as *give* which lexically selects for two NPs assigns two structural Cases, accusative Case to the Theme/Patient and dative Case to the Goal NP. The former is realized by -n whereas the latter is realized by 12-. In other words, I am assuming, departing from the traditional assumption in the Amharic literature (cf. Mullen 1986, Leslau 1995), that 12- can be regarded as a realization of dative Case, in addition to its other functions as a preposition with the meanings 'to', 'for'. Since there are two Agr positions for the objects, either the indirect object or the direct object can trigger object agreement. (Note that, since the same object agreement suffix functions as a spell-out of AgrO and AgrIO, both positions cannot be filled simultaneously). This explains the lack of asymmetry in ditransitive constructions.

However, we have not yet examined a 'real' dative shift construction. Recall that a dative shift construction is where the Goal NP of a ditransitive verb appears as a direct object. This is exemplified below in (50b) for English:

- (50) (a) Mary sent/gave the book to Bill
  - (b) Mary sent/gave Bill the book

Amharic has a semi-productive dative shift construction where both the Goal and the Theme/Patient occur with the accusative Case.<sup>31</sup> Consider (51) below:

(51) aster set+yya-wa-n wanbar-u-n sat't'-ač-at
 A. woman-DEF-ACC chair-DEF-ACC give.pf.-3fS-3fO
 Aster gave the woman a chair

I would like to argue that ditransitive verbs which allow the dative shift are verbs that can optionally select AgrIO. Only when AgrIO is selected can the Goal NP be assigned the dative Case. When AgrIO is not selected, exactly the same situation as the morphological causative construction pertains: there will be only one AgrO position and two definite NPs that compete for it. I suggest that the competition is resolved by applying essentially the same principle as in the causative: the NP which has richer morphological features to check wins out. The question then is to determine which NP, the Goal or the Theme/Patient, has richer morphological features. I assume that, a Goal NP would have more formal features than a Theme/Patient NP, because typically a Goal NP, as a recipient, is typically [+animate]. Furthermore, we also find that in the dative shift construction, an indefinite Goal NP cannot occur as a derived object:

(52) \*aster set wanbar sat't'-ač
 A. woman chair give.pf.-3fS-3fO
 (Aster gave a woman a chair)

<sup>&</sup>lt;sup>31</sup> I say semi-productive because a number of ditransitive verbs do not permit the dative shift construction. For instance, the verb lake 'send' does not permit the dative shift construction despite the fact that it is a typical ditransitive verb. Also, transaction verbs such as \$ette'sell', gezze 'buy' do not allow the dative shift. Furthermore, there is some variation among speakers: some speakers tend to reject the dative shift construction during elicitation but can be found using it in spontaneous speech.

Therefore, by virtue of its rich morphological features, [+animate] [+definite], the Goal NP will move to AgrO to check object agreement. The Theme/Patient NP will receive inherent Case. Consequently, there will be an asymmetry in the dative shift construction: the Theme/Patient object cannot trigger object agreement. This is borne out by the data:

(53) \*aster setiyya-wa-n wanbar-uj-n sat't'a-č-iwi
 A. woman-DEF-ACC chair-DEF-ACC give.pf.-3fS-3mO

I assume that both the Theme/Patient and the Goal NPs are generated within the projection of the lower VP (RP), as shown in (54):



The Goal NP has richer morphological features than the Theme/Patient and thus must move to AgrO at S-structure.

In the case of verbs such as sət't'ə 'give', the dative shift is an optional operation. It occurs only when AgrIO is not selected. However, there is another construction which requires an obligatory dative shift movement of the Goal. This construction involves the ingestive predicates, as discussed in Chapter 2 (§2.6.2.2). Recall that the causee of a causativized ingestive predicate is underlyingly a Goal argument. Trivially, the Goal argument is always [+ animate], that is, it must be an argument that is capable of ingestion. In other words, the Goal

argument has richer morphological features than the Theme/Patient argument which is always [-animate]. Thus, the Goal moves to AgrO and asymmetrically controls object agreement.

Therefore, to recap, we started out by observing that the causee and the basic object can occur with the same morphological Case, the accusative suffix -n. However, only the causee can trigger object agreement. This is typical of a partial double object language. On the other hand, ditransitive verbs exhibit two types of Case realization. In the first type, where the indirect object appears with the element 1a-, there is no double object agreement. In the second type, where the indirect object or the direct object can trigger object agreement. In the second type, where the indirect object agreement. appears with the accusative suffix -n, only the indirect object can trigger object agreement.

Our analysis was based on the assumption that the Case assignment mechanism in morphological causatives is similar to that of ditransitive verbs. However, due to a lexical difference between the two verbs, ditransitive verbs can select for an additional Agr position (AgrIO) that is not available in morphological causatives. The availability of this AgrIO allows either the direct object or the indirect object to exhibit object-like properties.

Thus, the relative strength of grammatical features between object NPs in double object constructions accounts for the observed structural asymmetry. This analysis can account for similar cases in other languages. A case in point is Sierra Popoluca (Marlett 1986) which can have two 'advancee' objects (in the terminology of Relational Grammar) in an applicative type construction. Consider the following example (from Marlett 1986:372):

(55) a-na-n+k-a?y-a?y-+
 Blex-CAUSE-go- - IMP
 Take it to him on my behalf!

Marlett (1986), hereafter Marlett, pointed out that in constructions which involve two surface direct objects (his 'final 2'), one of the objects is the real object. The relevant point for the present purposes is Marlett's observation that constructions which have two objects are possible only if one of the 'advancees' is third person. Thus, the equivalent of 'he took it to you for me' or 'he showed me to you' are both ungrammatical. Marlett proposes a constraint which states: "If in a given clause there are two nominals which head 2-arcs [surface direct objects, MA] one of them must be third person".

Marlett's stipulation receives a natural account within our analysis. It is well known that in a number of languages the third person is formally the unmarked person. For instance, in many languages the third person has less morphology than other persons. I hypothesize that in Sierra Popoluca, the third person has fewer morphological features than other persons. Thus, in languages such as Sierra Popoluca, the competition between two object NPs for an Agr position can be resolved only if one of them has little (or no) formal features to check. The pronominal which satisfies this requirement is the third person.

Before concluding this discussion on Case assignment, let us have a brief look at the construction in (46), repeated below as (46'):

(46') aster ginb-uj-n (bə-səwoč-u) A. wall-DEF-ACC (by-men-DEF)

> as-gannaba-č-iwi E.CAUS-build.pf.-3fS-3mO Aster had the wall built (by the men)

Notice that, in our analysis the occurrence of the causee in an oblique by-phrase has a straightforward explanation: the oblique marking is a strategy for removing the best candidate (the NP with [+animate] feature) out of the competition for a single AgrO.

It is important to note here that when we say movement into Agr position is motivated by morphological features, we are referring to internal arguments. The external argument *must* always move into Spec AgrS at S-structure: in Amharic, subject agreement is obligatory, irrespective of definiteness or animacy. We will take up this issue in Chapter 4.

The proposed analysis does not imply that there will be no true non-double object languages. Many languages exhibit a pattern similar to (46) in the realization of the causee (cf. Shibatani 1976, Baker 1988a, Alsina 1993, among others). It may be the case that in these languages the verb indeed fails to assign two structural Cases. In some of the relevant languages, the exact status of the oblique argument is a matter of some controversy. According to Alsina (1993:124) the causatives of Chichewa and a number of other Bantu languages exhibit similar properties. Consider the following examples from Chichewa (Alsina 1993:124):

(56) (a) ŋŭngu i-na-phik-its-a 9 porcupine 9 s-PS-cook-CST-FV

> kadzidzi maûngu la owl 6 pumpkins the porcupine made the owl cook the pumpkins

(b) ŋŭngu i-na-phik-its-a 9 porcupine 9 s-PS-cook-CST-FV

> maûngu kwá kádzidzi 6 pumpkins to la owl the porcupine had the pumpkins cooked by the owl

Alsina (1993) argues that in (56a), the causee exhibits direct object properties: it occurs close to the verb and it can be the subject of passive. In (56b), the object of the embedded verb, 'pumpkins', functions as the direct object and the causee occurs as an oblique object preceded by the preposition kwá. Alsina (1993:126) claims that the "unexpressed causee has the same generic interpretation as the unexpressed logical subject [of a passive]".

As already mentioned, the fact that the causee appears in a passive-like oblique argument may lead to the assumption that the causative is formed from the output of the passive. Alsina (1993:137-139) argues against the passive analysis of (56b). First, like the Amharic equivalent, there is no passive morphology in the construction. Second, the causee oblique in Chichewa is marked by an adposition which is different from that of the passive oblique, kwé and ndi, respectively. If the causee is like a passive oblique, argues Alsina (1993), it would be expected to occur with the same adposition as a passive oblique. Since the two obliques occur with different adpositions, they must be different.

A similar issue arises with respect to Romance languages, in the so-called *faire par* construction, as exemplified below (from Legendre 1990:247):

- (57) (a) Pierre a fait réparer sa voiture par le mécanicien Piere had his car repaired by the mechanic
  - (b) Sa voiture a été reparée par le mécanicien His car was repaired by the mechanic

It has been argued that the *faire par* construction involves the passive (cf. Rouveret and Vergnaud 1980, Zubizarreta 1982, Postal 1989 among others). On the other hand, it has been pointed out in a number of studies that there is no passive in the *faire par* construction (Legendre 1987, 1990, Perlmutter 1986, Burzio 1986). The major problem for the proponents of the passive analysis of the *faire par* construction is the fact that there is no passive morphology in the construction (also see Baker 1988a:487, n.38).

Alsina's (1993) solution to the apparent passive-type effect of the causative construction is to assume that the causative morpheme is a three-place predicate with the following lexical representation (Alsina 1993:140):

Alsina (1993:140) argues that "the causer (Agent) acts on an individual, the patient, in bringing about an event, of which this individual is itself an argument." Thus, the basic idea is that the patient (the causee) of the causative verb may be semantically identified either with the logical subject or the logical object of the lower predicate. When the causee is the logical object of the lower verb, the logical subject becomes an oblique object, similar to the demoted object of the passive.

Alsina's argument against the passive analysis of the causative verb is valid. However, Alsina's lexical entry in (58), to the extent that it is correct, applies only to the s-syntax causative. The l-syntax causative always has only one argument to act on, the argument of the RP. I argued that the s-syntax causative is above EP. Thus, the s-syntax causative has potentially two internal arguments. The reading which implicates an oblique causee arises only in the case of the s-syntax causative. Since the l-syntax causative selects for an RP, it has only one Theme/Patient

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argument. Thus, there is no argument that can be implicated as an intermediate Agent.

Now given that I have argued that the external causative is above EP, the question arises whether there is a limit on the number of EPs that can be embedded within another EP. This is largely an empirical issue which requires further investigation. Hence, in what follows I will briefly point out the Amharic facts and situate the problem in a wider context.

# 3.6. Multiple Instances of the External Causative

I would like to argue that any EP can be embedded by the external causative verb as- unless other independent principles of grammar dictate otherwise. For instance, consider (59) below where two instances of the external causative affix occur:

(59) \*səwo-č-u aster-in ləmma-n ginb-u-n person-pl-DEF A.-ACC L.-ACC wall-DEF-ACC

> as-(as)-ganna-bu-at E.CAUS-(E.CAUS)-build.pf.-3plS-3fO (the people made Aster make Lemma build the wall)

The construction would still be ungrammatical if one of the as- prefixes is omitted. The fact that (59) is ungrammatical cannot be predicted on the basis of the assumption that as- is above EP. The reason for the ungrammaticality is not due to a universal semantic restriction, since the equivalent construction is grammatical in English: the men made Aster make Lemma build the wall.

I would like to argue that the reason why a recursive application of the external causative affix is illegitimate is due to a morphological restriction reminiscent of the Co-Affix Constraint. Recall that the Co-Affix Constraint was proposed to rule out the co-occurrence of two Event-type affixes. In the case of adjacent s-syntax and l-syntax affixes, one of them, namely the l-syntax one, can be omitted to meet the constraint. Since the constraint also requires that a maximum of one Event-type affix can attach to the root, the occurrence of two s-syntax affixes is ruled out.

Thus, the multiple occurrence of as- is ruled out on the basis of morphology. This predicts that the equivalent of (59) would be grammatical in languages which do not place a similar morphological constraint on multiple affixes. This prediction is borne out by the data. For example, in the Cushitic language Oromo (Owens 1985:5), two external causative affixes can occur allowing a causative of double causative:

(60) at isíi eerúu álíi k'occi-siis-is-t-e you her-abs field-abs ali-abs dig-CAUS-CAUS-2-pst you made her make Ali cultivate the field

Owens (1985) points out that there is a pragmatic constraint on triple causativisation. When more than two causatives occur, the preferred strategy is to use a periphrastic verb with the meaning 'force'. Nevertheless, constructions such as (59) are possible. The same is true in Turkic languages (cf. Lewis 1967). Therefore, the restriction on the multiple occurrence of the causative morpheme in Amharic is due to a language specific morphological constraint.

## 3.7. The Permissive External Causative

In this final section, I address one issue of the lexical-semantics/syntax interface that arises in the discussion of the external causative. The discussion has so far been confined to the causative interpretation of as-. I have ignored one other meaning of the affix as- which is traditionally known as the *permissive*. The clearest example of the permissive is found with verbs of motion such as watt'a 'exit':

- (61) zəbəñña-w aster-in as-wət't'-at
   guard-DEF A.-ACC E.CAUS-exit.pf.3mS-3fO
   the guard made Aster leave/exit OR
   the guard let Aster leave/exit
- (62) bər-u məkina y-as-wət't'-al gate-DEF car 3m.imp-E.CAUS-exit-3m.imp. the gate lets a car pass through

Sentence (61) has a Pattern I unaccusative verb watt'a 'exit'. When this verb takes the external causative affix, it has two readings: either that of 'causing y do V' or 'letting y do V'. In (62) the inanimate argument baru 'the gate' cannot perform any action. The sentence simply asserts that the door's configuration is such that it enables a car to pass through it. Thus, whilst languages like English use a distinct lexical item, *let*, for the permissive meaning, Amharic employs the same external causative affix for both the causative and the permissive.

The use of the same form to encode the causative and the permissive is common cross-linguistically. In Japanese (Shibatani 1976), the verb *sase* can have the same two readings. Interestingly, in Japanese, the two readings of the causative verb have different syntactic properties (cf. Harley 1995:155ff and references therein). For example, on the permissive reading, the causee is marked as dative whereas in the causative reading, the cause is marked as accusative.

Unlike the Japanese *sase*, the Amharic as- does not exhibit any clear morphosyntactic differences corresponding to its causative and permissive readings. In terms of Case, the causee of the causative and the causee of the permissive have exactly the same marking as can be seen in (61) and (62) above.

Nevertheless, the difference between the two readings must be captured in some way. Thus, the question is how do we encode the permissive meaning? According to Jackendoff (1990) verbs of *letting* can be accounted for by Talmy's (1985b) theory of *force-dynamics*. Talmy (1985b) demonstrates that the typical causation relation, involves the interaction of two characters, which he refers to as the *agonist* and *antagonist*. The agonist has a tendency toward carrying out or not carrying out a certain event. In a typical causative event, the tendency of the agonist is countered by the antagonist. For instance, consider the English sentence *John made Bill go to the store*. The force-dynamic analysis of such a construction is that the agonist (*Bill*) has a tendency not to perform the event of going; the antagonist (*John*) successfully opposes the agonist's tendency and the event is carried out.

What makes the force-dynamic analysis interesting is that it covers not only typical verbs of causation such as *force*, *order*, *make* but also verbs of *letting* as well. For instance, in the sentence John let Bill go to the store, the force-dynamic analysis of the situation is that the agonist (Bill) has a tendency to perform the event denoted by the verb and the antagonist does not counter this tendency. Jackendoff (1990:134) argues, developing Talmy's (1985b) idea, that verbs of *letting* express a situation which can be conceptualized as "a *potential* opposition". The sentence Amy let Bill go to the movies "is understood as a decision by Amy not to obstruct

Bill's action" (Jackendoff 1990:134). On the other hand, the sentence *The window let the light come* is non-volitional where "the window's mere existence...eliminates the potential obstruction to the light" (Jackendoff, ibid). Jackendoff suggests that, unlike verbs of causation, verbs of letting express non-opposition. Thus, the fact that both *let* and *make* are expressed by the same grammatical form (as-) in Amharic is not an accident but rather an instantiation of the same family of force-dynamic relationship between the two arguments.

After motivating the idea that verbs of letting belong to the family of forcedynamic concepts, Jackendoff (1990) proposes to encode the permissive meaning component in a separate level of LCS, the *action tier*, a level that is distinct from the thematic tier (Jackendoff 1990:125ff)). Within the context of the present framework, I assume that an additional tier in the LCS would be an additional device in the theory. For reasons of parsimony, it is desirable to keep the basic machinery as simple as possible. Thus, the present framework does not assume a doubly-tiered LCS representation.

I would like to propose an alternative way of looking at the permissive meaning of as -.<sup>32</sup> In order to account for the apparent polysemy exhibited by the verb as -, first I assume, adopting Talmy's (1985b) basic insight, that the causative verb has a force component. Suppose that the external causative verb is underspecified for the component [force]. When it is [+force] the *coercion* reading pertains, whereas when it is [-force] the *letting* reading obtains. Thus, in (61) the causer argument can be a realization of [+force] (giving the causative reading) or [-force] giving the permissive reading. Now what about (62)? Why do we obtain only the permissive reading?

It appears that certain arguments of the causative predicate allow only the permissive reading. I will argue that this phenomenon can be accounted for by assuming that part of the meaning of the causative verb is determined by the meaning of the arguments it co-occurs with. This follows from the generally accepted idea that a verb can have different senses depending on its arguments (cf.

<sup>&</sup>lt;sup>32</sup> We are assuming throughout this work that, other things being equal, a parsimonious theory of grammar is one which does not stipulate separate lexical entries for each of the different senses of a verb. The problem with multiple lexical entries is that there is no logical limit to their number because verbs are constantly used in a novel and creative way (cf. Pustejovsky 1995 for discussion). Typological studies have shown that the causative verb can have a number of senses. Thus, cross-linguistically (cf. Comrie 1993), the 'second' causative (what we call here s-syntactic) may have different senses including: (a) permissive (b) intensive (c) plurality/iterative, (d) assistive, (e) curative, and (f) deliberate/accidental. Thus, if a language has a causative verb with all of these senses, a logical possibility, then there will be five to six causative verbs with independent lexical entries, if they are considered to be accidentally related to the same form.

Pustejovsky 1991, 1995; Tenny 1987). Consider, for instance, the use of the verb bake in John baked the potatoes vs. Mary baked a cake. Pustejovsky (1995) argues that in the case of the former there is a change of state, whereas in the case of the latter, there is creation. According to Pustejovsky (1995), the difference in meaning between the two senses of the verb can be captured with an adequate understanding of the nominal arguments. He argues that instead of enumerating theoretically infinite senses of a verb, an adequate theory of lexical-semantics would keep certain lexical senses constant and distribute the lexical-semantic load of verbs over the entire lexicon.

Thus, instead of considering nouns simply as unanalysable arguments in syntax, Pustejovsky (1995) argued that nouns have an internal lexical-semantic organization, which he calls *qualia structure*. Qualia roles are for nouns as thematic roles are for verbs. In fact, standard thematic-role assignment can be viewed as the saturation of a verb's thematic roles by the appropriate qualia role of the noun. Thus, for example, to account for the polysemy of the verb *bake*, it is assumed that the noun *cake* has the factor *artefact* as part of its *Agentive* qualia role (encoding factors which are involved in the "origin or 'bringing about' of an object" (Pustejovsky 1995:86). Thus, this factor distinguishes the creation reading of *bake* from the simple change of state reading: a potato, being a *natural kind* rather than an artefact, is incompatible with the creation reading.

I would like to extend essentially the same approach to the analysis of the causative and permissive senses of as-. Take the construction in (62) once again. We are concerned with why the sentence has only the permissive reading. Let us assume with Pustejovsky (1995:91) that nouns such as 'door' have a double denotation: "a physical object denotation and an aperture denotation". These two denotations can be seen in the difference between *Mary painted the door* vs. *Mary walked through the door*. In the first instance, *the door* is a physical object, whereas in the second, it is an aperture. Thus, the noun bər 'door/gate' has the factor Aperture. Suppose that the factor Aperture is what would satisfy the Path (trajectory) argument of the basic verb wətt'a 'exit'. As the realization of the Path argument of the verb, the noun bər 'gate, door' in (62) is incompatible with the [+force] component of as-.

Therefore, the permissive use of the as- causative can be accounted for without resorting to multiple lexical entries. By appealing to independently required principles of grammar, the Talmy-Jackendoff notion of force-dynamics and

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Pustejovsky's (1995) basic insight regarding the lexical-semantic structure of nominals, we are able to maintain a single lexical entry for the external causative.

#### 3.8. Summary

In this chapter, I investigated the lexical-semantics and morphosyntax of the external causative. The external causative predicate selects an EP as its complement. As a result, the causative affix as- can take any EP to form a complex predicate. The embedded EP can be unergative, unaccusative, or a mandatory agent verb.

I also showed that Amharic has a diagnostic for unaccusativity, which I called *CAUS*-selection. Unaccusative verbs take a causative affix a- that is distinct from the causative of unergative verbs, as-. I argued that unergative verbs are Activities and already have a CAUS functor. Hence, unergatives can only take another type of CAUS functor, namely the external causative. I also argued that the external causative is the head of the larger event and, thus, it must always be realized overtly. I showed that in Amharic, at most one Event-type encoding affix can occur on the Root. The constraint responsible for this phenomenon was formulated as the Co-Affix Constraint. Although this constraint is language-specific, it is available as a UG parameter.

I also examined the Case and agreement properties of the external causative construction in detail. The logical subject of the base predicate can occur either as the direct object of the construction, can be omitted, or can be relegated to an oblique position. Although often the oblique status of this argument appears to be formally similar to the passive oblique, I argued that there is no passive form that functions as an input to the causative. I showed that the oblique phrase is possible even with verbs which cannot be passivized independently (Pattern I unaccusatives).

It is hoped that this chapter has provided a deeper insight into the nature of morphological causatives. The distribution of the traditional 'external' causative was captured by showing in exactly what sense it is external. It is external in as much as it is outside of the l-syntactic domain and creates its own domain of EP. In particular, we explicated the circumstances under which unergative verbs can be causativized. The existence of a morphological causative per se does not allow the causativization of unergative verbs. Rather, I showed that the causative morphology in question must have the right properties: it must be able to be generated in the ssyntax domain of EP. One of the many empirical consequences of this analysis is that a language which does not have an s-syntax causative cannot causativize unergative verbs.

The Case assignment mechanism in Amharic morphological (external) causative verbs and ditransitive verbs revealed the importance of recognizing the mismatch between Agr positions and the number of object NPs. It was claimed that this mismatch is a valid source of structural asymmetry between double objects. It was argued that despite the similarity between lexical ditransitives and morphological causatives, only the former can select for two Agr positions, AgrO and AgrIO. The availability of these Agr positions provides lexical ditransitives with enough structural positions for the objects. As a result, there is a double object asymmetry in morphological causatives but not in ditransitives. When a ditransitive verb fails to select for two Agr positions, an option which results in the so-called dative shift construction, the double object asymmetry surfaces. Thus, while maintaining that Case assignment in morphological causatives and ditransitives is similar, we attempted to locate the difference between morphological causatives and lexical ditransitives in the Agr positions they contain.

Finally, we saw that the polysemy of the external causative predicate can be accounted for by appealing to the interaction between the general properties of causation and the lexical-semantic structure of nominals. This is a desirable result because it does not require multiple lexical entries for the external causative verb.

#### CHAPTER 4

#### **Experiencer Predicates**

#### 4.0. Introduction

In this chapter, I examine the lexical-semantic and morphosyntactic properties of Experiencer predicates. I extend the analysis of transitivity alternation laid out in the previous two chapters to account for problems of transitivity alternation exhibited by Experiencer predicates. I will focus on two major issues. The first is that Amharic Subject Experiencer predicates behave as unergative verbs in terms of the unaccusativity diagnostic of *CAUS*-selection. That is, they are causativised by the external causative affix as- and not by the CAUS affix a-. In order to account for this fact, I argue that Subject Experiencer predicates have a CAUS predicate in 1-syntax. I refer to this CAUS predicate as the *Ambient* causer (A-Causer), adopting the term from Pesetsky (1995). It is the presence of the A-Causer that blocks the addition of another 1-syntax CAUS affix. However, I will depart from Pesetsky (1995) in one crucial assumption: I will argue that the A-Causer can be realized by a zero morpheme.

The second issue that I will address is the rather unusual Case and agreement properties of certain Subject Experiencer predicates, such as č'ənnək'ə 'worry'. Despite occupying a canonical subject position, the Experiencer argument of such verbs occurs with an optional accusative Case marking and appears to trigger object agreement. This is unusual, at least in a nominative-accusative language such as Amharic, because the subjects of other predicates are marked nominative and control subject agreement. In other words, the Experiencer subject appears to exhibit the Case and agreement properties of the Theme/Patient of canonical transitive verbs.

I will show that the quirky Case and agreement facts are resolved once we analyse the Experiencer 'object' agreement as the obligatory subject agreement generated in AgrS. I will argue that although the Experiencer agreement superficially resembles the object agreement suffix of transitive predicates, it is a morphological reflex of inherent Case. I will argue that the Experiencer argument is assigned inherent Case and moves into AgrSP. I also show that apart from psychological predicates, a number of other verb classes such as verbs of sensation, verbs of possession, verbs of temperature and weather, and verbs of perception/cognition can assign inherent Case.

The chapter is organized as follows. In §4.1, I discuss general problems associated with Experiencer predicates. In §4.2, I examine the behaviour of Subject Experiencer predicates with respect to the unaccusative diagnostic, *CAUS*selection. In §4.3, a family of predicates which exhibit quirky Case and agreement properties is examined. In §4.4, I discuss the derivation of one Pattern of Subject Experiencer predicates, the Pattern B SubjExp predicates. In §4.5, I discuss the derivation of other constructions with quirky Case. In §4.6, I examine the derivation of Pattern A SubjExp predicates. In §4.7, the derivation of Object Experiencer predicates are discussed.

## 4.1. The Experiencer Problem

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Many studies have shown that Experiencer predicates, also known as psychological predicates or predicates of emotion, exhibit certain properties which are challenging for the theory of grammar (cf. Postal 1970; Lakoff 1970; N.McCawley 1976; Belletti and Rizzi 1988; Pesetsky 1987, 1995; Baker 1988b; Grimshaw 1990). One of the main problems is the so-called *linking* problem. Experiencer predicates appear to differ from other verbs in their linking of arguments to syntactic positions. Consider the examples in (1):

(1) (a) Bill *feared* the ghosts.
(b) The ghosts *frightened* Bill.

In (1a), the Experiencer is in subject position, whereas in (1b) the same argument is in object position. This can be schematized as in (2) where the underlined role indicates the syntactic subject.

(2) (a) *like* (Exp, Theme) Subject Experiencer (SubjExp)
(b) *please* (Exp, <u>Theme</u>) Object Experiencer (ObjExp)

It has been observed that constructions involving Experiencer-Theme roles violate linking principles such as the *Uniformity of Theta Assignment Hypothesis* (UTAH) of Baker (1988a):

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(3) Uniformity of Theta Assignment Hypothesis (UTAH) Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-Structure.

Experiencer predicates are problematic for the UTAH because items with identical thematic relationships are represented by different structural relationships. Thus, in (1a) above, the Experiencer is the subject of the sentence whereas in (1b), it is the object.

A number of different solutions to the linking problem have been proposed. Some studies attempted to resolve the linking problem of Experiencer predicates without abandoning the UTAH. One such approach is what Pesetsky (1995) calls *Fine-Grained Syntax*. This type of solution argues that the alleged syntactic identity between the subjects of the two sentences in (1) does not hold when examined at an underlying level. Belletti and Rizzi (1988) best represent this approach. They argue that the ObjExp predicate involves a syntactic movement of the Theme into the subject position as schematized in (4):

(4) Theme<sub>i</sub> [ $_{VP}$  [ *please* e<sub>i</sub> ] Experiencer ]

In order to ensure that the Experiencer argument does not project into the subject position in the ObjExp construction, Belletti and Rizzi (1988) propose that the Experiencer is pre-linked, that is lexically associated with the accusative Case.

The movement of the Therne into a non-thematic position is independently motivated for the analysis of unaccusatives and their causative variants as shown in (5):

(5) (a) Themei [VP [ open ei ]].
(b) John opened the door

Thus, the fine-grained syntax approach employs mechanisms that are already required elsewhere in the grammar. However, Belletti and Rizzi's (1988) analysis is not without problems (cf. Grimshaw 1990, Pesetsky 1995). Grimshaw (1990:21) argues that the lexical case marking of the Experiencer argument reduces the difference between *fear* and *frighten* to an arbitrary lexical stipulation. Grimshaw further argues that if the Experiencer can be lexically marked for accusative Case, the same can be done for the Agent. But it is known than Agents are not marked accusative even in languages with overt case marking.

Another problem with Belletti and Rizzi's analysis is the assumption that the subject of ObjExp predicates is non-thematic, thus enabling the Theme to move. If ObjExp predicates are like unaccusatives, argues Pesetsky, they should be incompatible with the passive, contrary to fact (from Pesetsky 1995:22):

- (6) (a) Bill was angered by Mary's conduct
  - (b) The paleontologist was pleased by the discovery of the fossil

For Belletti and Rizzi (1988) such passives are not problematic: they assume that the passive of ObjExp predicates are adjectival and not verbal. Since adjectival passives are possible with unaccusative verbs (for example, *departed travellers, a fallen leaf*), Belletti and Rizzi (1988) argue that the possibility of passives as in (6) cannot be taken as evidence against their unaccusative analysis of ObjExp predicates. Nevertheless, as pointed out in Pesetsky (1995:23), there are many unaccusative verbs in English which cannot take the adjectival passive, such as \**an* (*already*) occurred event, \* the (*already*) stumbled horse.

The second approach to the solution of the linking problem which maintains the UTAH is described by Pesetsky (1995) as *Fine-Grained Semantics* or thematic reanalysis (cf. Grimshaw 1990). This approach denies that the object of (1a) has an identical thematic relationship with the subject of (1b). The idea is that since the UTAH is concerned with identical thematic relationship between items, showing that the two classes do not have identical roles will circumvent the linking problem.

Pesetsky (1995) proposed that the solution to the linking problem exhibited by Experiencer predicates cannot be purely syntactic, but must also appeal to a finegrained semantic analysis. He pointed out that the label "Theme" to refer to the non-Experiencer argument in Experiencer predicates is too coarse-grained and suggested that a number of other distinct roles must be distinguished. He argued that "the subject argument with the ObjExp class always bears the role *Causer*, whereas the object argument with the SubjExp class always bears one of two entirely distinct roles . . *Target of Emotion* and *Subject Matter of Emotion*."(Pesetsky 1995:55). Pesetsky further argued that once these distinct roles are distinguished, the linking problem for the UTAH and most of the problems exhibited by the unaccusative analysis will be accounted for adequately. The assumption that the subject argument of the ObjExp class bears the role Causer led Pesetsky (1995) to propose a bi-morphemic analysis of the predicates. He proposed that there is a CAUS morpheme which combines with the root in ObjExp verbs. In languages like English, which lack Causative affixes, a zero morpheme has to be postulated.

However, the assumption that the Theme argument can bear distinct roles is also problematic. Grimshaw (1990) pointed out that there is no reason to believe that the thematic role of the subject of the ObjExp verbs and the object of the SubjExp verbs is not identical. That is why the two roles cannot co-occur, as can be seen in (7b):

- (7) (a) Mary was frightened of the ghost.
  - (b) \*The movie frightened Mary of the ghost.

If the two arguments have different thematic roles, as the thematicreanalysis approach claims, it would be difficult to explain why (7b) is ruled out. For Grimshaw (1990), the ungrammaticality of (7b) follows if one assumes that no verb can allow the multiple occurrence of a single thematic role.<sup>33</sup>

However, Pesetsky (1995) maintains that the two roles, namely Causer of Emotion and Subject Matter of Emotion, are distinct roles and attributes the cooccurrence problem to the presence of a zero CAUS morpheme. We will return to this matter in §4.2.

It is important to note here that failure to explain why the two arguments cannot co-occur is not endemic of the thematic-reanalysis approach. For instance, Baker (1988b) argued that the explanation for the co-occurrence problem must be based on the lexical-semantic difference between Experiencer verbs and agentive verbs. Baker's lexical-semantic reanalysis, which is based on the Gruber-Jackendoff localistic definition of thematic roles, is an attempt to show that the object of emotion is a type of location, that defines where the Theme is emotionally located: physical location is utilised as a metaphor for emotional location. Thus, for Baker (1988b) the verbs *fear* and *frighten* will have the argument structures shown in (8):

<sup>&</sup>lt;sup>33</sup> The term *Thematic Diversity* is employed (cf. Pesetsky 1995) to describe the requirement that rules out multiple roles.

- (8) (a) *fear* (Theme, Location)
  - (b) frighten (Agent, Theme)

Baker (1988b:6) represented the relationship between the physical and the emotional location in the Jackendovian notation shown in (9):

- (9) (a) BE psych (John, AT (FEAR-OF (Bill)))
  - (b) GO physical (John, TO (TOP-OF (mountain)))

For Baker (1988b:9), sentences like \*ghosts frighten John of death are ungrammatical because an expression defining the fear is "optionally present in the conceptual representation of 'frighten'... but that this position is inherently linked with the causer slot." The inherent linking of the agent with location is schernatized as in (10):

(10) frighten: CAUSE (x, GO psych (y, TO (FEAR  $\langle OF(x) \rangle$ )))

Thus, the co-occurrence problem is due to the fact that the Agent and Goal are expressed by a single argument. Since these two arguments are lexically linked there would be only one role to be discharged, in accordance with the Thetacriterion.

In the coming sections, I will argue that Baker's (1988b) analysis is on the right track for some of the SubjExp predicates in Amharic. For another class of SubjExp predicates, I argue that the Experiencer occurs with a causer argument, the A-Causer.

# 4.2. Two Patterns of Subject Experiencer Predicates4.2.1. Basic Facts

In Amharic, SubjExp predicates exhibit two morphological patterns - those which are morphologically unmarked (Pattern A) and those which occur with the prefix t- (Pattern B). Consider the following examples: (11) (a) Pattern A: aster ləmma-n wəddədə-č-iw A. L-ACC love.pf.-3fS-3mO Aster loved Lemma
(b) Pattern B: ləmma tə-č'ənnək'ə L. BE.worry.pf.3mS Lemma is worried

Syntactically, Pattern B verbs have one obligatory argument, the Experiencer, whereas Pattern A verbs always have two obligatory arguments, the Experiencer and the Target. Further examples of the two patterns are presented in Table 1.

Pattern A		Pattern B	
SubjExp	ObjExp	SubjExp	ObjExp
wəddədə 'love Y'	as-wəddədə	tə-č'ənnək'ə	as-č'ənnək'ə
	'make x love y'	'worry'	'make x worry'
fərra 'fear y'	as-fərra	tə-dəssətə	as-dəssətə
	'make x fear y'	'be pleased'	'make x
			be pleased'
t'əlla 'hate y'	as-t'əlla	tə-k'ot't'a	as-k'ot't'a
	'make x hate y'	'be angry'	'make x be angry'

Table 1: Patterns of Experiencer Predicates

The ObjExp verbs are formed by the external causative affix as -, and not by the causative affix a-. Thus, compare the sentences in (12) below :

- (12) (a) lemma te-dessete
   L. INCH.be.please.pf.3mS
   Lemma is pleased
  - (b) aster lamma-n as -dassata-č-iw
     A. L.-ACC E.CAUS-be.please.pf.-3fS-3mO
     Aster pleased Lemma
  - (c) \* aster lamma-n a -dassata-č-iw
     A. L.-ACC CAUS-be.please.pf.3mS-3fO
     (Aster pleased Lemma)

When the causative affix a- is used, as in (12c), the construction becomes ungrammatical. This is reminiscent of the unergative verbs which we have already discussed in Chapter 2. Therefore, in terms of the unaccusativity diagnostic, CAUS-selection, the SubjExp predicates behave exactly like unergative verbs such as *dance*. This is shown in (13b):

(13) (a) lemma č'effere
 L. dance.pf.3mS
 Lemma danced

(b) aster lamma-n as-čaffara-č-iw
 A. L.-ACC E.CAUS-dance.pf-3fS-3mO
 Mary made Lemma dance

(b) \*aster lamma-n **e**-č'affara-č-iw *A. L.-ACC CAUS-dance.pf-3fS-3mO* 

This raises the question of why Amharic Experiencer predicates behave like unergative predicates in terms of CAUS-selection. At the outset, one of two directions can be taken to address this problem. First, we may deny the validity of CAUS-selection as a diagnostic of unaccusativity. This will force us to abandon the generalisation built so far on the basis of CAUS-selection. The second alternative is to maintain CAUS-selection as a valid test for unaccusativity and investigate if there is some property that is common between unergatives and Experiencer predicates. The challenge is then to characterize the common property in a non-circular way.

I would like to pursue the second approach by maintaining CAUS-selection as a valid diagnostic for unaccusativity. I will make the following claims about SubjExp predicates.

- (14) (a) Pattern B verbs take a special type of causer argument, the Ambient Causer.
  - (b) SubjExp predicates cannot take the causative affix a- because of the presence of a zero CAUS functor.

These claims will be defended and elaborated in the following sections. I begin by examining the Pattern B SubjExp predicates.

# 4.2.2. Pattern B SubjExp Predicates

Pattern B SubjExp verbs are of two types depending on whether or not they occur independently without the prefix t-. The verbs which cannot occur independently are referred to as *Prefix requiring* (P-verbs). Although in our framework all Roots are bound, in the sense that they must incorporate into higher structural positions, the P-verbs are 'bound' in a morphologically transparent sense: they require overt affixation. Thus, consider the following examples:

(15) (a) \*dəssətə > tə-dəssətə 'be happy'
(b) \*k'ot't'a > tə-k'ot't'a 'be angry'

There is neither a form \*-dessete nor a form \*k'ot't'e meaning, respectively 'to be pleased' and 'to be angry'. Such verbs must occur with the prefix t-.<sup>34</sup> The prefix-requiring forms are phonologically well-formed, and it is not

<sup>&</sup>lt;sup>34</sup> The phenomenon is also common in other related Ethiosemitic languages (cf. Petros 1994 for Chaha). However, as already mentioned in Chapter 3 in the context of the Co-Affix Constraint, we have to control for one fact: some roots may begin with a segment t- which is not a prefix but rather a part of the consonantal radicals. Our test for identifying whether t- is a prefix or a part of the radicals is the following. It is known that in Semitic languages the basic meaning of any root is carried by the consonantal radicals. If t- is part of the consonantal radicals, we would expect it to show up in other categories such as nouns. By this test, all the relevant stems in Table 1 are P-verbs because ta- disappears in the nominal forms:

obvious why they must occur with an affix. They have a typical tri-radical morphology and do not exhibit any phonological deficiency. This phenomenon is rather ubiquitous: it is not restricted to a semantically homogenous class such as the Experiencer predicates. There are verbs which, despite their well-formed morphophonological status, simply do not occur independently: they require valency-changing prefixes. Thus, consider (16):

(16)	(a)	*bəddərə	a-bəddərə	'lend '
			tə-bəddərə	'borrow'
	(b)	*k'əbbələ	a-k'əbbələ	'pass on'
			tə-k`əbbələ	'take'
	(c)	*kərrayə	a-kərrayə	'give to rent'
			tə-kərrayə	'rent' or 'be rented'
	(d)	*nəbbəbə	a-nəbbəbə	'read (tr)'
			tə-nəbbəbə	'was read'

Thus, Pattern B SubjExp verbs are of two types: those which require the prefix t- and those which do not. A representative example of each is given below.

(i)	(b)	dəss∔ta	'happiness'	tə-dəssətə 'be happy'
	(c)	k'ut't'a	'anger'	tə-k'ot't'a 'be angry'

On the other hand, verbs such as t = kk = 2 'brood over' do begin with a t-but the t- is part of the root's radicals as it shows up in the noun form t = kk = 2 'brood over'.

One issue which cannot be addressed here is the phonological status of the t- affix itself. There is some evidence to suggest that t- may be an empty C position which is filled by the default coronal t- (cf. Broselow 1985). This assumption is supported by the fact that in infinitival nominalization the segment t- disappears but its position is filled by spreading the consonant of the root, thus creating a geminate consonant. That is, the initial consonant of the stem spreads to fill in the empty C position: ta-č'annak'a 'worry(intr) > ma-č'č'anak' 'to worry'. Note that ma- is the infinitive nominalizer prefix and the underlying form can be reconstructed as ma-C- č'anak'. Note also that this does not happen when t- is part of the root: takkaza 'brood over' > ma-takkaz 'to brood over'. In some cases, the original prefix t- has been lexicalized as part of the root. This is the case with ta-mara 'learn' (the P-verb form \*mara is attested as the verb to 'learn' in classical Ethiopic) where t- has become part of the root as in the nominal timihirt 'learning, education'.

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- (17) (a) \*-dəssətə tə-dəssətə 'be happy'
  - (b) čannak'a ta-č'annak'a 'worry'

Let us focus on the latter group (17b), that is, Pattern B SubjExp verbs which can occur with or without the prefix t-. Consider the examples in (18) - (20):

- (18) (a) aster-(in) č'annak'-at A.-(ACC) worry.pf.3mS-3fO Aster is worried
  - (b) aster tə-č'ənnək'ə-č
     A. BE-worry.pf.-3fS
     Aster is worried
- (19) (a) aster-(in) dennek'-at A.-(ACC) astonish.pf.3mS-3fO Aster is astonished
  - (b) aster tə-dənnək'-əč A. BE.-astonish.pf.-3fS Aster is astonished
- (20) (a) lijoč-u-(n) gerrem-aččew boy-pl-DEF-(ACC) amuse.pf.3mS-3plO the boys are amused
  - (b) lɨj-oč-u tə-gərrəmə-u
     boy-pl-DEF BE-amuse.pf.-3plS
     the boys are amused

For ease of exposition, I refer to the constructions in the (a) examples as Type 1 and the constructions in the (b) examples as Type 2. I hypothesize that Type 1 and Type 2 are thematic paraphrases of each other. Thus, by the UTAH, the thematic relationship of the arguments must be identical at D-Structure. Hence, in what follows, I develop a proposal which accounts for Type 1 and Type 2 verbs based on the hypothesis that the constructions have an identical thematic relationship.

What is interesting about the Type 1 construction is that (a) the Experiencer occurs with an optional accusative Case, and (b) the Experiencer appears to control object agreement. If the agreement is lacking, the structure becomes ungrammatical as shown in (21):

(21) aster-(in) č'ənnək'ə-\*(at) A.-(ACC) worry.pf.3mS-(3f0)

The obligatory presence of the object-like agreement is particularly curious given that object agreement is typically optional in simple transitives, as shown in (22):

(22)	aster	ləmma-n	mətta−č-(∔w)
	А.	LACC	hit.pf3fS-(3mO)
	Aster hit Lemma		

Furthermore, the presence of the accusative Case marking is also unusual, since only objects are marked by the accusative. In fact, definite objects *must* be marked by the accusative Case. Notice that in the case of the Type 1 construction, not only is accusative Case manifested on the subject but it is also manifested optionally.

Notice also that in the Type 1 construction, subject agreement is with an unspecified element with the features third person, masculine, singular (3ms). On the other hand, when the verbs do occur with the prefix t-, in Type 2, they take subject agreement that refers to the Experiencer.

These facts raise a number of interesting issues. I will focus on two major questions: (a) why does the Experiencer exhibit two different Case/agreement properties? (b) what is the status of the 3ms argument? I will address these and related questions in the following section.

# 4.3. Quirky Case and Split Intransitivity4.3.1. Dative and Accusative Subjects

The fact that Subject Experiencer predicates exhibit quirky Case properties cross-linguistically is by now well-documented (cf. Verma and Mohanan 1990, Belletti and Rizzi 1988, Takezawa 1987, Zaenen et al. 1985). Consider the following example from Icelandic (Zaenen et al. 1985):

(23) Calvini liki verkið Calvin-D like the job-N Calvin likes the job

According to Zaenen et al. (1985), the experiencer argument is a grammatical subject as established by various tests for subjecthood. However, when the Experiencer is expected to be marked by the nominative, it is marked by the dative Case.

Most of the examples of quirky subjects documented in the generative literature deal with verbs such as 'like' which are transitive. To this extent, the Amharic facts are different from the Icelandic example given above. The Amharic equivalent of the verb 'like/love', waddada, behaves just like a typical transitive verb in that the subject (the Experiencer) is marked by the nominative whereas the object (the Target) is marked by the accusative Case. Thus, we should keep in mind that although quirky subjects of Experiencer predicates are common, the Amharic facts are of a slightly different nature.

There is a body of literature both within and outside of generative linguistics that deals with quirky subjects of intransitive verbs. Often, a semantic motivation is implicitly or explicitly provided to distinguish intransitive subjects with nominative marking from intransitive subjects with accusative and dative marking. According to N. McCawley (1976) indirect subject constructions involve verbs which express events such as those listed in (24):

- (24) (a) sensory and mental experience
  - (b) emotional experience
  - (c) physical and biological experience
  - (d) need/duty/obligation
  - (e) possession/existence
  - (f) happenstance

It is observed that intransitive subjects which are more 'affected', or which have less 'control' over the event, in the sense of Hopper and Thompson (1980), are likely to be marked by the accusative/dative, whereas intransitive subjects which are 'agentive', or exert more control over the event may be marked by the nominative.

It appears that the arguments of certain intransitive predicates exhibit properties that are different from the arguments of other intransitive predicates. This phenomenon is sometimes known as *split intransitivity* (cf. Mithun 1991). In order to situate the relevant Amharic facts in a broader context, I will first sketch the general Case typology of languages and then elaborate the notion of split intransitivity.

#### 4.3.2. Case Typology and Split Intransitivity

It is often assumed that languages can be categorized into two major types on the basis of Case typology (cf. Moravcsik 1976; Dixon 1994; Van Valin 1990). They are (a) nominative-accusative languages and (b) ergative-absolutive languages. Basically, in nominative-accusative languages, the subject of a transitive verb and the subject of an intransitive verb are formally marked in the same way, as distinct from the object of a transitive verb. In ergative-absolutive languages, the subject of an intransitive verb and the object of a transitive verb are marked in the same way, as distinct from the subject of a transitive verb. This can be summarized as in (25):

(25) (a) Nominative-Accusative
 Nominative: Subject of transitive, Subject of intransitive
 Accusative: Object of transitive
(b) Ergative-Absolutive
 Ergative: Subject of transitive
 Absolutive: Subject of intransitive, Object of transitive

A typical nominative-accusative language is Latin. Consider the following examples (from Dixon 1994:9):

(26) (a) domin-us veni-t master-NOM comes-NOM the master comes

> (b) domin-us serv-um audi-t master-NOM slave-ACC hears-NOM the master hears the slave

The subject of the intransitive verb in (26a) receives the same nominative Case as the subject of the transitive verb in (26b). The object of the transitive verb in (26b) receives the distinct accusative marking. Notice also that the verb agrees with the subject (the nominative) NP.

One of the classic examples of an ergative language is Dyirbal, an Australian language. Consider the following constructions (from Dixon 1994:10):

- (27) (a) yuma banaga-nYu father+ABS return-NONFUT father returned
  - (b) ŋuma yabu-ŋgu bura-n father+ABS mother-ERG see-NONFUT mother saw father

The subject of the intransitive verb in (27a) and the object of the transitive verb in (27b) are marked in the same way by the absolutive. The subject of the transitive verb takes the distinct ergative marking. Notice that often there is an asymmetry in the way morphological Case is realized. In a nominative-accusative system, the nominative is unmarked, whereas in an ergative-absolutive system, it is the absolutive which is unmarked.

As documented in a number of studies (see Moravcsik 1976, Mithun 1991), some languages have a class of verbs which exhibit Case properties that diverge from the general Case typology of the language. For our purposes, we focus on the so-called split-intransitive pattern (cf. Mithun 1991) where the single argument of intransitive verbs exhibits different Case properties. Consider the following examples from Guaraní (adopted from Mithun 1991:511):

(28)	(a)	<b>e</b> -xá	I go	
	(b)	<b>e</b> -pu?á	I got up	
(29)	(a)	šé-rasí	I am sick	
	(b)	<b>še</b> -ropehií	I am sleepy	
(30)	a-gwerú aína		I am bringing them now	
(31)	<b>še-</b> rerahá		It will carry me off	

Notice that the subject pronominal prefix of the intransitive verbs in (28) has the same form as the subject of the transitive verb in (30). On the other hand, the subject of the intransitive verbs in (29) has the same form as the object of the transitive verb in (31).

The basis of split intransitivity has been the subject of an interesting debate. As pointed out in Mithun (1991:512), some have argued that the basis of split intransitivity is primarily due to lexical aspect, or Aktionsart (cf. Van Valin 1990, Zaenen 1988). It has been argued that aspectual and lexical parameters such as agentivity, telicity, and volitionality, among others, may be responsible for determining the basis of split intransitivity. As we saw in Chapter 2, Perlmutter's (1978) classification of intransitive verbs into unergatives and unaccusatives aimed to provide a syntactic account for the difference between two types of intransitives. In his account, the single argument of unaccusative verbs, unlike the single argument of unergative verbs, is an underlying patient that advances to subject position.

It is commonly assumed that split intransitivity has, to some extent, a lexical-semantic basis. For instance, in Guaraní the unergative class of intransitives

includes verbs meaning 'go', 'get up', 'walk', 'descend, get off', 'run', 'swim', 'die', 'sink', whereas the unaccusative class includes verbs such as 'be sick', 'be sleepy', 'be hungry', 'be tired', be stingy', 'be tender, unripe', etc. (Mithun 1991:512-513). Mithun points out, following Van Valin (1990), that the split appears to be based on lexical-aspect. Verbs in the first class encode dynamic events, Accomplishment, Achievement, Activities, whereas verbs in the second class express stable events, States. In some cases the same verb may exhibit properties of either class, although with different meanings. For example, the verb karú means 'to have lunch' (Activity) when marked by the pronominal marking of the agentive class, whereas it means 'to be a glutton' (State) when marked by the pronominal marking of the stative class.

Now, what is interesting for the present purposes is that in Amharic verbs which exhibit the Type 1 Pattern B behaviour are not always psychological verbs. In fact, as we will see in the next section, the Type 1 Pattern B SubjExp predicates of Amharic are only a sub-class of a much larger class whose verbs systematically trigger an obligatory object agreement.

## 4.3.3. Quirky Subjects

## 4.3.3.1. The Experiencer of Physical States

There is a class of verbs which can be characterized as sensation predicates. This class includes forms such as 'be hungry', 'be thirsty', and 'be in pain', which exhibit Case and agreement properties that are similar to those of the Type 1 predicates. Thus, consider the following examples:

- (32) (a) aster-(in) t'amm-at A.-(ACC) thirst.pf.3mS-3fO Aster is thirsty
  - (b) səwoč-u-(n) rab-ačəw men-DEF-(ACC) hunger.pf.3mS-3plO the men are hungry
  - (c) aster-(in) ammam-at A.-(ACC) pain.pf.3mS-3fO Aster is sick

Notice that in (32) there is an obligatory object agreement with the argument which is experiencing the physical sensation, just like in the Type 1 predicates. Subject agreement is with a 3ms argument. Like the SubjExp predicates, the sensation predicates can take the prefix t-, in which case subject agreement is with the argument that experiences the sensation:

- (33) (a) aster tə-t'əmma-č
   A. BE-thirst.pf.3fS
   Aster is thirsty
  - (b) səwoč-u tə-rab-u men-DEF BE-hunger.pf.-3plS the men are hungry
  - (c) aster t-amməmə-č *A. BE-pain.pf.3fS* Aster is sick

#### 4.3.3.2. Temperature Verbs

and the

The second class of verbs which exhibit the Type 1 phenomenon can be characterized as *temperature* predicates. This class includes verbs such as bərrədə 'it is cold', mokk'ə 'it is hot'. Although these verbs are typically used to express the temperature as in (34), they can also be used with Experiencer arguments as in (35):

- (34) (a) yi-bərdal<sup>35</sup>
   3m.imp.-be.cold.3mS
   it is cold
  - (b) y+-mok'al
     3m.imp.-be.hot.3mS
     it is hot

<sup>&</sup>lt;sup>35</sup> The temperature predicates are more felicitous in the compound imperfect which involves the bound auxiliary -al(1) 'exist/be'. It is probably because such predicates are often used as generic statements.

(35) (a) aster-(in) bərrəd-at
 A-(ACC) be.cold.3mS-3fO
 Aster is cold

(b) aster-(+n) mok'k'-at A.(ACC) be.hot.3mS-3fO Aster is hot

Again, notice that there is obligatory object agreement with the argument that is experiencing the effects of the temperature.

#### 4.3.3.3. Possessive Constructions

Possessive constructions also exhibit similar behaviour in terms of triggering object agreement. In Amharic, as in a number of other languages (cf. Benveniste 1966, Lyons 1968), the verb corresponding to the English possessive 'have' is encoded by the existential copula elle 'exist/be':<sup>36</sup>

(36)	aster	l∔joč	all-u-at
	<i>A</i> .	child <b>r</b> en	exist/be.pf3pl.S-3fO
	Aster h	as children	L

Notice that the possessor NP (Aster) obligatorily controls object agreement whereas the possessed NP (children) controls subject agreement. Also, the possessor must be in a clause-initial position.

Therefore, the presence of an obligatory object agreement with an intransitive subject is rather widespread. It can be found with sensory predicates, temperature predicates, and possessive predicates. It is unlikely that the observed

- (ii) le-yóav hayú harbé xaverím to-Yoav were many friends Yoav had many friends
- (iii) ti mi-ti-la kitab-cik way the man-DEF-DAT book-one be/have the man has a book

<sup>&</sup>lt;sup>36</sup> The use of the verb 'to be' or 'exist' to express possession is quite common among the languages of the world. In some languages, the possessor is expressed as a dative object. Thus consider the following examples from Hebrew and Sherpa respectively (from Givón 1984: 104-105):

phenomenon is an accidental property of each set of predicates. Therefore, I will put forth a proposal which provides a unified account for these constructions.

# 4.4. The Derivation of Pattern B SubjExp Predicates 4.4.1. The Ambient CAUS

One of the characteristic properties of the Type 1 predicates is that they show subject agreement with a 3ms element. It is necessary to determine the status of this element in order to account for the quirky Case and agreement facts. I will argue that this element is an argument of the predicate in its own right.

I follow Pesetsky (1995) in assuming that some SubjExp predicates have an additional argument which can be referred to as the *Ambient Cause*. Pesetsky (1995) argued that this argument is akin to "weather *it*" or Ambient *it*. He articulated this notion as follows (Pesetsky 1992:96-97):

Emotions like *surprise, annoyance*, and *amusement* are . . . like the weather in a number of respects. They are "global" (ambient), affecting one's perceptions as well as actions. They are in principle transitory. They are somewhat unpredictable both in their onset, intensity and duration . . . the proximate cause of both weather and emotions can be viewed as a force of nature, something beyond conscious control of the individual.

Pesetsky (1995) maintains that Experiencer predicates are "Experiencer weather" differing from meteorological weather in the external world, that is, in the former the natural force is within the individual. For Pesetsky, the Experiencer ambient *it* differs from the weather ambient *it* in only one way. The ambient *it* must be controlled by the Experiencer. Pesetsky (1995) speculates that this difference may in turn be a consequence of the conceptual distinction between the two different "natural forces".

Although it is generally agreed upon that ambient *it* is some sort of argument, the exact status of its argumenthood is a matter of some controversy. Pesetsky (1995) reports that Ruwet (1991) argued that weather predicates such as *rain* are unaccusative, which means that ambient *it* cannot be an external argument. However, as noted by Pesetsky (1995) there is some evidence which supports the idea that ambient *it* is an external argument. For instance, the availability of cognate

No.

objects with ambient *it* argues against an unaccusative analysis. Consider (37) (from Pesetsky 1995:110):

- (37) (a) It rained a fine little rain
  - (b) Il a plu une petite pluie fine

The standard assumption is that cognate objects are not possible with unaccusative verbs. Indeed, as we have seen in Chapter 2, cognate objects occur with unergative verbs but not with unaccusative verbs. In our analysis, the unavailability of the cognate object in unaccusatives follows from the fact that there is no structural position for the cognate argument, as the specifier of RP is taken up by the Theme/Patient argument of the unaccusative predicate.

In Amharic, weather predicates such as zənnəbə 'rain' can occur with cognate objects (from Leslau 1995):

(38) hayləñña zɨnab-(ɨn) zənnəbə<sup>37</sup> hard rain-(ACC) rain.pf.3mS it rained a heavy rain

Amharic does not have a form equivalent to the English *it*. Rather, it employs an empty category (*pro*) with the grammatical features 3rd person, masculine, singular.

Hence, I assume that the A-Causer is an external argument. Suppose that the LCS of a Pattern B SubjExp verb such as  $\sqrt{\check{c}}$ 'nk' 'worry' is as in (39):

(39)  $\sqrt{c'}$ nk' 'worry' [x CAUS y BE *worry*]

and a

The LCS in (39) shows that there are two arguments: an A-Causer and an Experiencer. A rough paraphrase of (39) is that an A-Causer X causes an emotional state in Y. Given standard assumptions about the mapping from LCS onto syntax, one would assume that the argument of CAUS will be mapped onto subject

(i) igziabiher səw-in bə-məlk-u fəttərə

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<sup>&</sup>lt;sup>37</sup> The example shows one of the very few exceptions where an indefinite NP receives accusative marking. The other exception is when the nominal is clearly generic as in 'man' in (i) below:

God-and man-ACC with-image-his create.pf.3mS God created man in his own image (Genesis 1:27).

position, whereas the argument of BE would be mapped onto object position. This would give us the construction in (40):

(40) pro aster-(in) č'ənnək'-at A.-(ACC) worry.pf.3mS-3fO it worried Aster

Thus, according to (40), the subject is a 3m pro argument and the object is the Experiencer. This is consistent with the agreement facts. As already mentioned, the sentence in (40) resembles transitive predicates such as (41):

(41) ləmma aster-in ayyə-(at)
 L. A.-ACC see.pf.3mS-(3fO)
 Lemma saw Aster

However, the reader will have noticed that there are two obvious differences between (40) and (41). In (40) the accusative marking is optional, whereas the object agreement is obligatory. In (41) the opposite occurs: accusative marking is obligatory but object agreement is optional. These facts are problematic if the Experiencer in (40) is simply an object on a par with the grammatical object of transitive verbs as in (41).

Therefore, the question is how do we account for the quirky Case and agreement properties of (40)? Suppose we deny the parallelism between (40) and (41) above by claiming that the Experiencer argument is not a grammatical object. This idea can be explored in one of two ways. The first possibility is to assume that the Experiencer argument is actually a grammatical subject rather than an object. The second possibility would be to assume that the Experiencer argument is actually in topic position. I will refer to these two approaches as the *subject hypothesis* and the *topicalization hypothesis* respectively. I will briefly explore the topicalization hypothesis first and show that it cannot be maintained in Amharic. I then argue for the subject hypothesis by appealing to one recent view of Case theory as articulated in Harley (1995) and Montrul (1996).

4.4.2. The Topicalization Hypothesis4.4.2.1. Constructions with Obligatory Object Pronominal Suffix

The first thing we need to ask is, where else in the grammar is object agreement obligatory in simple transitive verbs? There are two clear cases: (a) when the object is pronominal, either null or overt, as in (42), and (b) when the overt nominal occurs in topic position, as in (43):

- (42) aster [e] / issu-n mətta-č-\*(iw) *A. pro / he-DEF-ACC hit.pf.-3fS-(3mO)* Aster hit him
- (43) wišša-w-ni aster ti matta-č-\*(iw)
   dog-DEF.m.-ACC A. hit.pf.-3fS-(3mO)
   Aster hit the dog

In (42) where the direct object is either an empty pronominal or an overt pronominal, object agreement is obligatory. In (43) where the object moves from its canonical position and occurs in topic position, object agreement is obligatory.

Now, one may argue that the obligatory object agreement in the Experiencer construction is the result of topicalization. Thus, compare (43) with the Pattern B SubjExp construction in (44):

(44) asteri-(in) pro [ei] č'ənnək'-\*(at) A.-(ACC) worry.pf.3mS-(3fO) Aster is worried

Abstracting away from the obvious differences between topicalization in transitive verbs (43) and the construction in (44), it appears that there is some prima facie evidence for the correlation of obligatory object agreement and topicalization.

The topicalization hypothesis may even gain further support from the fact that in Amharic, cleft questions and relative clause constructions also involve obligatory object agreement, as shown in (45b) and (46b):

Sinc.

(45) aster birtukan (a) gəzza-č buy.pf.-3fS Α. orange Aster bought some oranges

- (b) aster [e] ya-gazza-č-\*(iw) mind-in nəw what-ACC be.3m REL-buy.pf.-3fS-(3mO) А. what is it that Aster bought
- (46)1∔ľoč aster avə-č (a) children see.pf.-3fS Α. Aster saw (some) children
  - [e] y-ayya-č-\*(aččaw) **(b)** aster lijoč REL-see.pf.-3fS-(3plO) children Α. the children whom Aster saw

I take it as uncontroversial that wh-questions, cleft constructions and relative clauses involve wh-movement.<sup>38</sup> Thus, one may argue that the Experiencer argument is also topicalized by wh-movement.<sup>39</sup> As I will demonstrate in the next section, there are good arguments against the topicalization hypothesis.

ayya-č-(\*iw) (i) aster min see.pf.-3fS-(3mO) Α. what what did Aster see?

The absence of the object pronominal suffix in the case of wh-in-situ questions can be accounted for naturally if we assume that wh-words are indefinite. Independent evidence for this assumption comes from the unavailability of the object suffix with quantified phrases (OPs) which are also indefinite (cf. Heim 1982). Consider the following example: (ii)

- aster and nagar ayya-č-(\*w)
- see.pf.-3fS-(3mO) **A**. something Aster saw-it something

<sup>39</sup> One can also assume that the 'topic' Experiencer in the Experiencer construction is basegenerated as an adjunct, and that the real argument of the verb is the object pronominal suffix, possibly co-indexed with an empty pronominal in argument position. This is the argument proposed for the so-called Clitic Left Dislocated constructions (CLLD) in Italian by Cinque (1990, Ch 2). The same line of argument is recently adopted by Baker (1996, Ch 3) for the analysis of polysynthetic languages such as Mohawk. I do not attempt to adjudicate between the basegeneration and movement positions here because the issue is tangential to the present purposes.

Note also that the idea that NPs which are coreferential with object pronominal suffixes can be adjuncts is argued for by Bresnan and Mchombo (1987), based on a study of Chichewa and other related Bantu languages. Bresnan and Mchombo (1987), argue that there are two types of verbal agreement affixes: grammatical agreement affixes and anaphoric agreement affixes. An NP in grammatical agreement is an argument of the verb "...while the verbal affix expresses

<sup>&</sup>lt;sup>38</sup> It is interesting that in wh-in-situ questions, the object suffix is not possible as can be seen in (i):

#### 4.4.2.2. The Experiencer as Topic

The first problem with the topicalization hypothesis is that whereas a topicalized NP is typically set off by a slight intonational pause from the rest of the clause, the Experiencer construction in (40) does not exhibit any such intonational difference from a non-topic construction.

Second, if the reason for the obligatory object agreement is attributed to topicalization, then we would expect that agreement would not be obligatory in a non-topicalized construction. While this is true in the case of direct objects, (47b), it is not possible in the Experiencer construction, (48b):

- (47) (a) Topicalized Object
   wiššaj-w-n aster [ei] matta-č-\*(1w)
   dog-DEF.m.-ACC A. hit.pf.-3fS-(3mO)
   Aster hit the dog
   (lit. the dog, Aster hit him)
  - (b) Non-Topicalized Object

     aster wišša-w-n matta-č-(iw)
     A. dog-DEF.m.-ACC hit.pf.-3fS-(3mO)
     Aster hit the dog
- (48) (a) Topicalized Experiencer asteri-(in) pro [ei] č'ənnək'-\*(at) A.-(ACC) worry.pf.3mS-(3fO) Aster is worried
  - (b) Non-Topicalized Experiencer
     \*aster-(in) č'ənnək'ə
     A.-(ACC) worry.pf.3mS

redundantly the person, number, and gender class of the NP". In anaphoric agreement, "...the verbal affix is an incorporated pronominal argument of the verb, and the coreferential NP has a non-argument function - either as an adjunct of the pronominal argument, or as a topic or focus of the clause or discourse structure". (Bresnan and Mchombo 1987:741). Bresnan and Mchombo argue that the coreferential NP is some kind of topic.

Thus, the Experiencer requires obligatory object agreement even in its nontopicalized base position. There is no reason why this should be the case, if the obligatory status of object agreement is linked with topicalization.

Third, the topicalization hypothesis is difficult to maintain given that in a range of constructions, there is no non-topicalized version. Thus, for instance consider the possessive construction repeated below as (49):

(49) aster l+joč all-u-at
 A. children exist/be.pf.-3pl.S-3fO
 Aster has children

If the possessor construction in (49) forms a natural class with the Experiencer construction, and if the possessor is also moved into topic position, one would expect that a construction where the possessor is in its 'base' position to be grammatical. However, such a construction is ungrammatical as shown in (50):

(50) \*lijoč aster all-u-(at) children A. exist/be.pf.-3pl.S-(3fO)

One may attempt to account for this fact by suggesting that there is some factor in the Experiencer and possessive constructions that forces topicalization. Naturally, one may want to situate this factor in the conceptual structure of the verbs. It may be argued that the Experiencer role is more prominent in the degree of affectedness than the Patient/Theme role and that the argument which receives the Experiencer role must be in a sententially prominent position. When the subject position is already taken up by another argument, the Ambient argument, the Experiencer moves into Topic position.

However, relating topicalization to the semantics of the verb is rather dubious. It is akin to saying that a verb will have features which require obligatory relativisation or cleft formation.

Fourth, the topicalization hypothesis has been shown to be problematic in the analysis of similar facts in other languages. For instance, Zaenen et al. (1985) (see also Harley 1995:211ff), presented a battery of tests to show that the dative Experiencer in Icelandic exhibits subject properties that are distinct from properties of topicalization. Thus, for example, a dative Experiencer can occur as the object of an ECM verb, when non-subjects and topicalized NPs cannot do so.

Therefore, I conclude that there is no evidence to support the topicalization analysis of the Type 1 construction. In the next section, I develop an alternative analysis after exploring the subject hypothesis.

#### 4.4.3. The Subject Hypothesis: Case and Case Checking Positions

Harley (1995), argues that there is no necessary link between the morphological realization of a given Case and the Agr positions where that Case is checked. On the basis of evidence from languages such as Icelandic, Harley (1995:143) shows that nominative Case and its reflex verbal agreement is available in Spec AgrO.

Montrul (1996), in analysing the dative subject of Spanish, takes advantage of the idea that Case features can be checked in any Agr projection. Consider, the Spanish Experiencer construction in (51), (from Montrul 1996:183):

(51) A Juan le gusta la música to Juan 3S-DAT pleases the music-NOM Juan likes music

Montrul (1996:196) points out that dative Experiencers in Spanish exhibit subject-like properties. They can be antecedents for anaphors, can control PRO in adjunct clauses, and they can be deleted under identity with other nominative subjects.

Montrul argues, following Suñer (1988), that Spanish dative Experiencers are dative subjects. Although the dative clitic of Experiencer predicates is superficially similar to the dative clitic of AgrIO, the Experiencer dative clitic can be regarded as a manifestation of inherent Case optionally assigned to the Experiencer argument.

Montrul (1996) assumes that the Themes of psychological predicates check nominative Case in Spec AgrO. The dative Experiencer moves to Spec AgrS to check morphological Case.

I would like to argue that the Amharic Type 1 Pattern B SubjExp predicates can be analysed along the same lines as Harley (1995), and Montrul (1996). I assume that Pattern B SubjExp predicates such as č'ənnək' 'worry' can optionally assign inherent Case to the Experiencer argument. The obligatory pronominal suffix is not the same as the object agreement suffix. It is rather a morphological reflex of the inherent Case and is generated in AgrS. The Experiencer moves to AgrS to check morphological Case, whereas the A-Causer moves to object position and checks nominative Case. Thus, a partial tree diagram of the Type 1 Pattern B SubjExp construction of (40) is presented in (52):

(52)

Type 1 Pattern B SubjExp



Therefore, I assume that the Experiencer is in Spec AgrS position and that the obligatory agreement in AgrS, which superficially resembles the object agreement of transitive predicates, is actually the reflex of an inherent Case assigned to the Experiencer at D-Structure. Now, suppose that the A-causer can be suppressed in l-syntax, analogous to the suppression of CAUS in the derivation of Pattern II unaccusatives, like ta-sabbara 'break (intr)'. We have said that the prefix t- is the morphological reflex of the suppression of CAUS. When the A-Causer is suppressed, only one argument, namely the Experiencer, will be available for mapping onto syntax. Assuming that nominative Case is the mandatory Case in a nominative-accusative system, (cf. Harley 1995), I assume that it is checked by the single argument of the clause in AgrSP. This gives us the Type 2 Pattern B SubjExp predicate exemplified in (18b) and repeated below as (53):

(53) aster tə-č'ənnək'ə-č
 A. BE-worry.pf.-3fS
 Aster is worried

I assume that (53) has the phrase structure representation modelled in (54) below (ignoring irrelevant details):

(54) Type 2 Pattern B SubjExp



Notice that since CAUS is suppressed in l-syntax, there is no projection of the higher VP. We have seen that Pattern B SubjExp predicates have an LCS representation where there are two arguments, an A-Causer and an Experiencer. When CAUS projects, the Experiencer is assigned inherent Case. The Experiencer moves into AgrSP to check Case. If CAUS does not project, that is, if it is suppressed at l-syntax, only one argument, namely the Experiencer would be available for mapping. The Experiencer is assigned the mandatory structural nominative Case which is checked in Spec-AgrS in the usual fashion.

Now, recall that we have identified certain bound Roots (P-verbs) which require overt prefixes to be well-formed. The Pattern B SubjExp verbs which exhibit this property, such as -dəssətə 'be happy', occur with the prefix t- to form Type 2 constructions. These verbs cannot occur with the Type 1 construction where the Experiencer gets quirky Case. Thus, consider the relevant example repeated below as (55):

- (55) (a) \*aster dəssət-at
   A. be.happy.pf.3mS-3fO
   (Aster is happy)
  - (b) aster ta-dassata-č
     A. BE.happy.pf.-3fS
     Aster is happy

The second construction is straightforward. The derivation takes place precisely as argued for the č'annak'a 'worry' type verbs. The A-Causer is suppressed at l-syntax. There is then only one argument in the syntax and it checks nominative Case in AgrSP.

Let us see why the first construction, (55a), should be impossible. Recall that the verb  $\sqrt{dst}$  be happy' has exactly the same LCS as the verb  $\sqrt{\tilde{c}}$ 'nk' 'worry', except for the specification that the former is a P-verb and hence requires an overt prefix:

(56) √dst 'be happy'
 [+P]
 [x CAUS y BE happy]

Suppose that CAUS projects. Due to the [+P] nature of the verb Root, CAUS must be spelled-out by a prefix, that is, the functor CAUS cannot be realized by a zero form. There are two candidate prefixes, namely a - and as-. The prefix as is immediately excluded because we know that as an s-syntactic affix, as - requires its own external argument and a new domain of EP. Thus, though as- can attach to the [+P] Root, the derived construction would be an ObjExp predicate. (ObjExp predicates will be examined in §4.7). The remaining option is the affix a-. However, as can be seen in (57), the construction is ungrammatical with the affix a-:

The reason for this is straightforward: the affix a- selects for INCH and not for BE. As shown in (56), the embedded subevent of  $\sqrt{dst}$  'be happy' is a State (BE). Therefore, there is no way of satisfying the [+P] requirement of Roots such as  $\sqrt{dst}$  'be happy', if CAUS is projected as the head of VP. Therefore, only the Type 2 derivation, where CAUS is suppressed by t-, is possible for a [+P] Pattern B predicate.

I now extend the proposed analysis to accommodate all other constructions which exhibit quirky Case and agreement properties - the sensation predicates, the temperature predicates, and possessive predicates.

# 4.5. The Derivation of Other Constructions with Quirky Case 4.5.1. Physical States and Sensations

I have shown that some verbs which encode physical states or sensation also behave like the Type 1 predicates. Consider the relevant examples repeated below as (58) - (59):

- (58) (a) səwoč-u-(n) rab-ačəw
   men-DEF-(ACC) hunger.pf.-3plO
   the men are hungry
  - (b) aster-(in) ammam-at A.-(ACC) sick.pf.3mS-3fO Aster is sick
- (59) (a) səwoč-u tə-rab-u men-DEF PASS-hunger.pf.-3pl the men are hungry
  - (b) aster t-amməm-əč A. BE.sick.pf.3fS Aster is sick

The examples in (58) are parallel to the Type 1 predicates in that the argument which is in a certain physical state occurs with quirky Case. The examples in (59) are parallel to the Type 2 predicates: the verb occurs with the prefix t- and the argument which is in the physical state controls subject agreement.

Suppose that these predicates also have an A-Causer and an Experiencer. Here we will use the term Experiencer in a broader sense to incorporate physical and sensation 'experiences' in addition to emotional ones. Now, the Experiencer argument can be assigned inherent Case whose reflex is the obligatory pronominal suffix in AgrS. The Experiencer moves into AgrSP to check morphological Case. The A-Causer moves into AgrOP and checks nominative Case.

Like the Pattern B SubjExp predicates, the physical state predicates can also suppress the A-Causer at l-syntax. In the absence of the A-Causer, there will be only one argument, the Experiencer, which checks the mandatory nominative Case in the highest AgrP position to derive the constructions in (59).

Therefore, the sensation predicates can be accounted for in exactly the same way as the Type 1 predicates.

4.5.2. Temperature Predicates

We saw that the temperature predicates provide yet another set of examples which exhibit properties parallel to Pattern B SubjExp predicates. Consider (60) -(61):

- (61) aster-(in) mok'k'-at
   A.(ACC) be.hot.3mS-3fO
   Aster is hot

Again, these constructions have an argument with the grammatical features of 3rd person, masculine, singular. This argument is what Pesetsky (1995) calls the weather *it*. Thus, I assume that these verbs have an A-Causer argument. In fact, this assumption is unavoidable because temperature predicates are the prototypical A-Causer predicates, in that the event they express happens due to the natural forces of nature. Consider the examples in (62) - (63):

- (62) yi-bərdal 3.imp-cold.imp it is cold
- (63) yi-mok'al3.imp-hot.impit is hot

Sin .

Conceptually, there is one crucial difference between the temperature predicates and the Experiencer predicates. Temperature predicates, unlike Experiencer predicates, can occur without an Experiencer, as in (62) - (63). But this is precisely what we would expect if emotional states, by their very conceptual property, can exist *only* if there are entities capable of experiencing emotions.

Now, when temperature verbs occur with an argument that is affected by the temperature in question, the affected argument is generated as a Theme/Patient argument in the RP and the A-Causer is generated in the head of the higher VP. The affected argument is assigned inherent Case but moves to AgrSP to check morphological Case, yielding the construction exemplified in (60) - (61).

To complete the comparison between temperature predicates and the Experiencer predicates, we may wonder whether the former occur in a Type 2 construction, that is, with the suppression of CAUS. As it turns out, such verbs do not have a Type 2 variant:

- (64) \* aster tə-bərrəd-əč *A. BE.-be.cold.-3fS* (Aster is cold)
- (65) \*aster tə-mok'k'-əč A. BE.-be.hot.-3fS (Aster is hot)

This outcome is to be expected given the conceptual structure of the verbs. The temperature State does not exist without the A-Causer, the natural force. In other words, these are verbs with a mandatory A-Causer and their grammatical behaviour is not unlike verbs of mandatory agents (cf. Chapter 2): the argument of the CAUS functor cannot be suppressed.<sup>40</sup>

Hence, the temperature verbs can be accounted for by the same mechanism which was proposed for the other set of verbs that exhibit quirky Case and agreement.

(i) witha-w ta-mok'k'a water-DEF PASS-be.hot.pf.3mS the water is heated

Y

<sup>&</sup>lt;sup>40</sup> It is interesting to note that the temperature verbs can occur with the prefix t - if the suppressed Agent is a non-Ambient causer. The interpretation is that of a passive:

4.5.3. Possessive Constructions

Now let us see how the possessive constructions can be explained by the subject hypothesis. Consider the relevant example repeated in (66):

(66) aster lijoč all-u-\*(at)
 A. children exist/be.pf.-3pl.S-(3fO)
 Aster has children

The verb alla 'be/exist' can be considered as an existential copula with a Theme/Patient argument and a Path argument. Adopting the Gruber-Jackendoff localistic definition of thematic relations, I assume that the possessor is a kind of location generated in the complement position of the verb alla 'be, exist'. In other words, conceptually the possessor is like a location in an extended semantic field, whereas the possessed is a Theme. Following Jackendoff (1983, 1990), I assume that location (Path) in the possessional field (BE<sub>poss</sub>) is less prototypical or 'degenerate' (in the sense of Baker 1992), than location in the physical field. I further assume that due to its less prototypical status, Path in the possessional semantic field is syntactically realized by an NP instead of a PP. This can be represented as in (67):



On the other hand, Path in the physical semantic field is a prototypical location argument and is canonically realized by a PP. Thus, consider (68) with the same existential verb alle 'exist/be':

(68) məs'haf-u bə-t'ərəp'eza-w lay alla
 book-DEF on-table-DEF on exist.pf.3mS
 lit. on the table there is the book
 there is the book on the table

The location argument is t'ərəp'ezaw 'the table', whereas the Theme/Patient argument is məs'haf 'a book'. The location appears with an overt (discontinuous) adposition bə-lay 'on'. A partial structure corresponding to the physical location can be represented as in (69):



In the existential construction, the location argument receives Case in its base position from the preposition 'on'. On the other hand, in the possessive construction, (66), the possessor is base generated as a bare NP and cannot get Case from a postpostion.<sup>41</sup> The verb is a typical unaccusative verb and, by hypothesis, cannot assign structural Case. Thus, I assume that the possessor NP gets inherent Case. The morphological reflex of this inherent Case is the obligatory pronominal suffix (which superficially looks like the object agreement suffix of transitive predicates) that is generated in AgrS. Therefore, the possessor moves into AgrSP. On the other hand, the possessed NP, the Theme/Patient, raises to AgrOP and checks nominative Case. As there is no A-Causer argument, there is no t-

<sup>&</sup>lt;sup>41</sup> The fact that location (Path) may be realized either by an NP or a PP is not unusual. In a number of languages there is little or no formal distinction between postpositions and nouns. For instance, in Koasati (Muskogean) a number of words can function either as a noun or as a postposition (cf. Kimball (1991:495ff)).

prefixed version of the possessive construction. This follows naturally from the argument structure of the existential verb alla 'exist'.

Hence, we are able to provide a unified account for a range of constructions that exhibit quirky Case and agreement properties. The differences between the individual constructions are attributed to independent differences in the LCS's of the verbs under consideration.

Constructions which exhibit quirky Case are productive. Recall the Guaraní data we discussed earlier. Mithun (1991) documented that in languages such as Guaraní, the same verb can have an agentive or stative reading depending on the Case of the argument. In Amharic, some sensory-perception verbs such as šəttətə 'smell' provide interesting examples which clearly show the correlation between quirky Case and a non-volitional affected argument. Consider the following paradigms:

- (70) (a) bet-u šəttətə house-DEF smell.pf.3mS the house smelled
  - (b) aster-(in) bet-u šattat-\*(at)
     A.-(ACC) house-DEF smell.pf.3mS-(3fO)
     lit. the house smelled to Aster
- (71) (a) aster bet-u-n a-šəttətə-č-(iw)
   A. house-DEF-ACC CAUS-smell.pf.3fS-3mO
   Reading 1: Aster made the house smell OR
   Reading 2: Aster smelled (sniffed) the house
  - (b) bet-u ba-aster ta-šattata
     house-DEF by-A. PASS-smell.pf.3mS
     the house was smelled (sniffed) by Aster

In (71a) the verb \$ ttata 'smell' occurs as a simple unaccusative construction. In (70b) the same verb with the same argument in subject position, 'the house', takes another argument which controls object agreement, 'Aster'. The interpretation of (70b) is that *Aster* has been affected by the event in a non-volitional manner. Notice that if 'Aster' does carry out the event as a volitional participant, the

construction in (71a) is used. Notice that in (71a) 'Aster' is mapped onto subject position and is licensed by a CAUS functor, hence, the presence of the 1-syntax affix  $a_{-}$ .

Interestingly, (71a) can mean to 'cause the house to smell' or 'smell the house'. On the first reading, Aster is involved not as an Experiencer argument but rather as an Agent. For example, Aster may have left her perfume in the room to make it smell. In other words, in the first reading, 'Aster made the house smell', 'Aster' is simply the cause of the smell. We can substitute for Aster any (pragmatically plausible) argument, irrespective of animacy. An inanimate argument such as šittow 'the perfume' will be perfectly acceptable with the first reading. On the other hand, in the second reading, 'Aster smelled the house', the argument of CAUS must be an animate being capable of olfaction.

In some cases, the constructions which exhibit the properties of Type 1 Pattern B predicates are rather idiomatic. For instance, desiderative verbs such as  $f \ge 11 \ge 9 \ge 100$  want, desire', typically take an animate argument in subject position. However, the object of the desire (the 'desired') may control subject agreement. In contrast, the argument that desires (the 'desirer') triggers object agreement. These options are exemplified below in (72):

- (72) (a) aster migib fəlləgə-č
   A. food want.pf.-3fS
   Aster wanted to eat
  - (b) aster-(in) migib felleg-at
     A.-ACC food want.pf.3mS-3fO
     lit. the food wanted Aster
     Aster wanted to eat<sup>42</sup>

ga hiá kofi money need K. lit. money needs Kofi Kofi is in need of money

<sup>&</sup>lt;sup>42</sup> Although these constructions are truth-conditionally equivalent, they are not identical in terms of pragmatic value and discourse. For instance, the construction where the object of desire controls subject agreement is often used, in the first person, as a polite way of expressing certain desires. Note also that such constructions are not a quirk of Amharic. Languages such as Ewe (a Kwa language of West Africa), exhibits a similar construction as exemplified below (cf. Ameka 1990:154):

Therefore, verbs which exhibit the Case and agreement properties of Type 1 predicates are quite productive, encompassing different semantic fields. They may be verbs which express the temperature or possessive relationship. They may be verbs of sensory perception or verbs of desire.

Summarizing, the two types of Pattern B SubjExp predicates can be accounted for by assuming independently motivated principles of grammar, such as the availability of inherent Case and the Ambient Causer. The main subtypes of the Pattern B SubjExp predicates are summarized in Table 2.

Root	Type 1 (Acc. Exp)	Type 2 (Nom. Exp)	LCS
√č'nk' 'worry'	čənnək'-at	tə-čənnək'ə-č	[x CAUS y BE]
√dst, [+P] 'be pleased/happy'	none	tə – dəssətəč	[x CAUS y BE]

Table 2: Sub-types of Pattern B SubjExp Predicates

### 4.6. The Derivation of Pattern A SubjExp Predicates

One of the main syntactic differences between Pattern B SubjExp Predicates such as  $\sqrt{c'nk'}$  worry', and Pattern A SubjExp predicates such as  $\sqrt{wd'}$  love', is that in the latter there are two overtly expressed obligatory arguments: the Experiencer and the Target of Emotion. The LCS of such verbs is schematized in (73) taking the verb wəddədə 'love' as an example:

(73)  $\sqrt{wd}$  'love' [ x CAUS<sub>h</sub> y BE]

Intuitively, it is clear that the Experiencer of Pattern A verbs is a more 'agentive' entity than the Experiencer of Pattern B verbs. Emotions such as 'love' and 'hate', which are typical Pattern A verbs, are relatively more volitional than Pattern B verbs such as 'be pleased', 'be angry'. They can be called *evaluative* emotions in the sense of Pesetsky (1995), (see also Wierzbicka 1990). The idea is that these verbs encode an emotional state which can be, relatively speaking, controlled by the Experiencer. In the context of Amharic, the events expressed by Pattern A verbs such as t'əlle 'hate' are conceptualized as events that can be initiated or terminated in a way that is different from events expressed by Pattern B verbs such as tədəssətə 'be happy'.

This does not mean that we would expect the partition between Pattern A and Pattern B predicates to be universal. On the contrary, like the distinction between unergative and unaccusative verbs, the same 'translation equivalent' emotional concepts may be classified in opposite categories in different languages. However, like the unergative vs. unaccusative distinction, the cross-linguistic similarity would be robust enough to suggest a similar conceptual basis.

Now, since the Pattern A predicates have a CAUS functor in their LCS, I assume that the Experiencer is generated in Spec VP whereas the Target of Emotion is generated in Spec RP. Thus, I assume that a construction with a Pattern A verb such as weddede 'love' in (74) has the structure in (75):

(74) aster ləmma-n wəddədə-č-iw
 A. L.-ACC love.pf.-3fS-3mO
 Aster loved Lemma





Since Pattern A verbs have a CAUS functor, the passive of such verbs would be grammatical as shown in (76):

(76) ləmma tə-wəddədə
 L. PASS-love.pf.3mS
 Lemma is loved

The fact that Pattern A verbs can have a passive construction as in (76) is not only consistent with but also predictable from our analysis. The argument of CAUS can be suppressed in s-syntax like any other argument of CAUS. Furthermore, the argument of CAUS cannot be suppressed in l-syntax as it is the argument of the head functor, as shown in the LCS representation, in (73) above.

This concludes our discussion of the SubjExp predicate. In the next section, the structure of ObjExp predicates will be examined.

### 4.7. Object Experiencer Predicates

Pesetsky (1995) argued that ObjExp verbs such as *annoy* are zero-derived from a reflexive form. The ObjExp predicates like *annoy* are morphologically complex, consisting of a phonologically zero causative morpheme (*CAUS*) and a bound root ( $\sqrt{annoy}$ ). Thus a verb such as *annoy* in *John annoyed Bill* is CAUS +  $\sqrt{annoy}$ . Evidence for the existence of a bound root comes from nominalization. The noun *annoyance* does not mean *making someone annoyed* but rather it means that *someone is in the state of being annoyed*. This observation (which Pesetsky attributes to Lakoff 1970:126) can be accounted for if nominalization applies to a non-causative root. If it applies to the causative root, so the argument goes, it would be difficult to account for the disappearance of the causative force in the nominalized form. Notice that this analysis depends heavily on the existence of zero forms in the syntax.

A comparison of English and other languages such as French reveals that though roots like  $\sqrt{amaze}$  do not occur independently, as a SubjExp predicate, they do occur with a reflexive morpheme. Thus, consider the French examples below (from Pesetsky 1995: 97):

- (77) (a) \*Marie étonne (du) bruit Marie is amazed at the noise
  - (b) Marie s'étonne du bruit qu'on Marie refl-amazes at the fuss that one

fait sur cette histoire makes about this story Marie is amazed at the fuss made about this story

The ObjExp variant of *étonner* 'amaze', occurs without the reflexive morpheme as shown in (78) below, (from Pesetsky, ibid):

(78) Le bruit étonne Marie the noise amazes Marie

These facts led Pesetsky to assume that "the non-reflexive verb is the zeroderived causative of the reflexive verb" (Pesetsky 1995:99). If this is correct, then the disappearance of the reflexive morpheme must be explained. As already mentioned in the previous section, Pesetsky proposed that SubjExp predicates have a CAUS argument. He argued that the Ambient Causer is expressed by a reflexive clitic in languages such as French, which have reflexive clitics.<sup>43</sup> This is schematized as follows, for the SubjExp predicate of the French étonne 'amaze' (Pesetsky 1995:109):

(79) Marie<sub>i</sub> s'étonne t<sub>i</sub> du [bruit qu'on fait...].
 ARG ARG ARG
 Exp A-Causer Subject Matter

The problem is that if SubjExp predicates are indeed reflexive, then where does the reflexive clitic disappear to during causativization? Compare the following sentences (from Pesetsky 1995: 121):

 $<sup>^{43}</sup>$ This proposal is situated within a particular view of reflexive clitics which assumes that reflexive clitics are external arguments. The full DP in reflexives is the underlying object and moves to surface subject position for Case reasons.

(80) (a) Le bruit étonne-CAUS Marie
(b) \*Le bruit s'étonne-CAUS Marie

The second sentence, which contains the reflexive clitic *se*, is ungrammatical when the zero CAUS morpheme is added. Pesetsky accounts for this fact syntactically by a c-command requirement. He claims (1995:121):

The root of the causative verb is not . . . merely marked [+reflexive]. Rather, the requirement that the reflexive clitic disappear grew out of a requirement that the A-Causer argument be controlled by the Experiencer, and an assumption that this relation requires the A-Causer to be c-commanded by the Experiencer. Clearly, this control requirement is not met in a configuration like [(80b)], in which the reflexive clitic is c-commanded by the Causer argument added by the causative morpheme.

Let us consider the Amharic facts. We have said that in Amharic, the ObjExp predicate is derived by the external causative prefix as - as shown in (81b):

(81) (a) Aster tə-č'ənnək'ə-č
 A. BE.-worry.pf.-3fS
 Aster is worried

(b) ləmma aster-in as-č'ənnək'-(at)
 L. A.-ACC E.CAUS-worry.3mS-(3fO)
 Lemma made Aster worry

Notice that the object is obligatorily marked by accusative Case. I assume that the object receives structural Case from the complex predicate. We saw that the external causative affix and the prefix t- do not co-occur, \*as-ta-č;annak', for the same reason that the s-syntax and l-syntax affixes, as- and a- respectively, do not co-occur, \*as-a-matt'a 'cause to bring'. We accounted for this phenomenon by the Co-Affix Constraint. Thus, the facts in Amharic stand out independent of any particular theory about reflexives. The c-command account of Reflexive-drop proposed by Pesetsky (1995) may be plausible for French. In Amharic, however, it

does not appear to be explanatory in the light of an independent morphological constraint which operates even in the case of non-reflexive morphemes.

Hence, the causative affix as-, as an s-syntax verb, is generated above EP as argued in Chapter 3. This is shown by the partial tree structure representation of (81b) given in (82):



Therefore, ObjExp predicates have a structure which is quite different from that of SubjExp predicates. The former involve the introduction of a new domain of EP which licenses the Agent argument. The reason why Subject Experiencer predicates seem to behave like unergative verbs in terms of *CAUS*-selection is now clear. SubjExp predicates already have an l-syntax causative. The presence of an lsyntax CAUS functor blocks the introduction of another l-syntax CAUS functor.

#### 4.8. Summary

(82)

To summarise, in this chapter we examined the lexical-semantics and morphosyntax of a family of Experiencer predicates. We examined first the socalled linking problem which is often associated with Experiencer predicates. Experiencer predicates exhibit properties which prima facie challenge linking principles such as the UTAH.

The central focus of the chapter was the analysis of Amharic SubjExp verbs. In terms of the unaccusativity diagnostic, CAUS-selection, these verbs behave as if they are unergative verbs. They take the external causative affix as-instead of the l-syntactic affix a- to derive the causative. In order to account for this fact we appealed to Pesetsky's (1995) idea of the Ambient Causer.

In Amharic, the Ambient argument is realized as a 3m-pro. Pattern B SubjExp predicates have an A-Causer, whereas Pattern A SubjExp predicates do not. Pattern B SubjExp predicates, in general, can occur in two different constructions, Type 1 and Type 2. In Type 1, the Experiencer occurs with quirky Case marking, whereas the A-Causer checks nominative Case. In Type 2, there is only one argument, the Experiencer, which checks nominative Case. The thematic role assigned to the Experiencer and its D-Structure position is the same in both types, in accordance with the UTAH. I argued that Pattern B SubjExp predicates can assign inherent Case to their complements. What looks like the object agreement suffix is actually generated in AgrS as a morphological reflex of inherent Case. The Experiencer moves into Spec AgrS to check morphological Case.

In Type 2 constructions, there is only one argument, the Experiencer, which moves into Spec-AgrS in the usual fashion. Our analysis is supported by a wide range of data including physical and sensation predicates, temperature verbs, and possessive constructions.

The Ambient Causer embodies a crucial concept in the understanding of SubjExp predicates. It enabled us to account for a class of thematic paraphrases without abandoning the UTAH. The study also showed that the Ambient Causer does not need to be realized as a reflexive. The existence of Type 1 Pattern B predicates demonstrates that the A-Causer can co-exist with the Experiencer. Moreover, otherwise mysterious Case and agreement properties of a family of superficially unrelated predicates is neatly accounted for by invoking the independently motivated notion of inherent Case assignment.

The study also established further evidence for the idea that the realization of a particular Case is not necessarily linked with a particular Agr position. In addition, the distinction between the two domains of EP is further substantiated by showing that psychological predicates behave like unergative predicates because they contain a CAUS functor at l-syntax.

(Sec.

#### **CHAPTER 5**

## Split Intransitivity and the Applicative Construction

#### 5.0. Introduction

N.

In this chapter, I investigate the *applicative* construction in Amharic, particularly focussing on the interaction of split intransitivity with the benefactive applicative. Descriptively, a distinctive property of the applicative construction is that an erstwhile oblique argument, such as an instrument, benefactive, malefactive, or locative, becomes the object of a complex predicate.

It has been pointed out (cf. Baker 1988a) that many languages do not allow the benefactive applicative of intransitive verbs. Interestingly, there is an asymmetry between unergatives and unaccusatives with respect to the availability of the benefactive applicative. It has been observed that to the extent that intransitive verbs are involved in benefactive applicatives, in most cases the verbs are unergative and not unaccusative. For Marantz (1984) the cross-linguistic variation regarding the applicative of intransitive verbs is due to the lexical nature of the applicative affix. On the other hand, Baker (1988a) suggests that the variation among languages may be due to an independent difference in the Case-assigning properties of intransitive verbs.

In this chapter, I will show that in Amharic the benefactive applicative of both unergatives and unaccusatives is productive. I will show that the Amharic benefactive applicative of intransitive predicates involves two kinds of Case assignment, depending on whether the verb is unergative or unaccusative. I will argue that the benefactive argument of unergatives is an elaboration of the Activity Event-type. It is represented as an implicit Path argument in the LCS. As argued in Chapter 2, I assume that the unergative verb has a transitive structure and can assign structural accusative Case. Following Baker (1988a), I assume that the complex applied verb inherits the Case assigning potential of the unergative Root and assigns structural Case to the benefactive argument. On the other hand, the benefactive argument of unaccusative verbs is not an elaboration of the Achievement Event-type. It is an extra argument that is affected by the event. The unaccusative verb cannot assign structural Case, and thus the complex verb cannot inherit Case assigning properties. However, the unaccusative verb can assign inherent Case, in the manner argued for Type 1 Pattern B Experiencer predicates in Chapter 4.

Since the benefactive argument of unergative verbs is assigned structural Case, it exhibits typical object-like properties: it can be the subject of a passive and controls object agreement. In contrast, the benefactive argument of unaccusative verbs behaves like an Experiencer subject: it bears quirky Case marking, controls obligatory object agreement and occurs clause-initially.

The proposed analysis will account for one productive construction which I refer to as the *ethical applicative*. This is analogous to the so-called *ethical dative* construction of languages such as Hebrew. In the ethical applicative, a range of unaccusative predicates license an additional argument which is adversely or favourably affected by the event.

After showing that the applicative construction is sensitive to the lexicalsemantics of the main predicate, I will argue that the applicative is formed in the domain of l-syntax analogous to the l-syntax causative. However, I will show that the Amharic applicative construction is not formed through the operation of Preposition Incorporation (cf. Baker 1988a, 1988c). I will also argue against the lexical generation of the complex applicative verb (cf. Alsina 1993). Additional support for the claim that the applicative is formed in the domain of l-syntax comes from languages which use the same affix both as an l-syntax causative marker and as an applicative marker. I will claim that in all such languages, where the distinction between an s-syntax causative affix and an l-syntax one is relevant, it is the latter that exhibits the causative/applicative polysemy.

This chapter is organized as follows. In §5.1, I outline basic facts and assumptions regarding the applicative construction. In §5.2, I discuss the interaction of the applicative with intransitive predicates. In §5.3, the Case assignment mechanism of the applicative construction is investigated.

## 5.1. Basic Properties of Applicatives 5.1.1. The Benefactive Applicative

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We saw in Chapter 2 that unergative verbs cannot be causativized by the lsyntax causative affix. I argued that a construction such as (1b) is ungrammatical because the causative affix is attached to a predicate which already contains a CAUS functor: (1) (a) aster sak'ač
 A. laugh.pf.-3fS
 Aster laughed

(b) \*ləmma aster-in a-sak'-at
 L. A.-ACC CAUS-laugh.pf.3mS-3fO
 (\*Lemma laughed Aster)

On the other hand, unaccusative verbs can be causativized in l-syntax, because they do have a structural position for the CAUS functor.

- (2) (a) aster wət't'a-č *A. leave.pf.-3fS* Aster left/exited
  - (b) lamma aster-in a-wat't'a-t
     L. A.-ACC CAUS-leave.pf.3mS-3fO
     Lemma took Aster out

Although the l-syntax causative of unergative verbs is ungrammatical, it is interesting to see that unergatives can be involved in another type of transitivity alternation. Consider the following examples:

(3) aster sak'ə-č (a) *A*. laugh.pf.-3mS Aster laughed sak'a-č-(ibb-at) (b) aster ba-lamma **A**. at-L. laugh.pf.-3fS-(on-3mO) Aster laughed at Lemma ləmma-n sak'ə-č-\*(ibb-ət) (c) aster Α. L.-ACC laugh.pf.-3fS-(on-3mO) Aster laughed at Lemma

In (3a), the verb sak'a 'laugh' occurs with its single argument, whereas in (3b), the construction has an argument which occurs with the preposition bab. Note that bab can have a range of meanings, including 'at', 'on', 'with', 'by'. Notice also that the verb is optionally marked by the form -bb-, which is phonologically similar to the preposition bab. Let us assume that -bb- is a 'prepositional' suffix and its function is similar to an 'applied' affix. In addition to the prepositional suffix, the verb is also marked by an object agreement suffix which agrees with the argument that is negatively affected by the event. I will use the term *malefactive* to refer to such an argument. In (3c) the malefactive argument appears with an accusative Case and the verb is obligatorily marked by the prepositional suffix and the object agreement.

The prepositional suffix that is found in the verb can be either -bb-, as in the above examples, or -11-. The meaning of -11- is roughly 'for the benefit of NP'. I will use the term *benefactive* to refer to an argument that is favourably affected by the event. The classic minimal pair which shows the meaning difference between the -bb- suffix and the -11- suffix is presented in (4) - (5):

- (4) (a) daññaw ba-aster farrada-(bb-at) judge-DEF on-A. judge.pf.3mS-(on-3fO) the judge judged against Aster (=he sentenced her)
  - (b) daññaw aster-in farrada-bb-at
     judge-DEF A.-ACC. judge.pf.3mS-on-3fO
     the judge judged against Aster (=he sentenced her)
- (5) (a) dañña-w la-aster farrada-(ll-at) judge-DEF for-A judge.pf.3mS-(for-3fO) the judge judged in favour of Aster (=he acquitted her)
  - (b) dañña-w aster-in fərrədə-ll-at judge-DEF A.-ACC judge.pf.3mS-for-3fO the judge judged in Aster's favour (=he acquitted her)

The prepositional suffix and the object agreement suffix do not occur independent of each other. The verb cannot be marked by the prepositional suffix alone, without the agreement suffix, nor vice versa. Thus, unless I am referring to the individual parts separately, I will use the terms *B*-complex (or *L*-complex) to refer to the complex of [-bb -/-l] - + agreement suffix] as a single unit.<sup>44</sup>

In Amharic, the applicative construction also occurs with transitive verbs. Consider the following example of an instrumental applicative:

(6) (a) aster ba-mat'ragiya-wi bet-u-n
 A. with-broom-DEF house-DEF-ACC

t'ərrəgə-čɨ-(bb-ət<sub>i</sub>) clean.pf.-3fS-(with-3mO) Aster cleaned the house with the broom

(b) aster mət'rəgiya-wj-in bet-u-n
 A. broom-DEF-ACC house-DEF-ACC

t'ərrəgə-č-ibb-əti clean.pf.-3fS-with-3mO Aster cleaned the house with the broom

The major concern of this chapter is the interaction of split intransitivity with the applicative construction. Thus, I will focus on the benefactive and malefactive applicative of intransitive predicates such as (3). For brevity, I will use the term *Benefactive* to cover both the 'benefactive' and 'malefactive' meanings (see Baker 1988a for a similar practice).

The Benefactive applicative construction raises important questions. What is the function of the B-complex in (3b)? Why is the B-complex obligatory in (3c) but not in (3b)? In order to answer these questions, we need to understand the nature of the applicative construction in general.

1.1

<sup>&</sup>lt;sup>44</sup> The B-complex has a variety of functions which are not relevant for the present purposes. For instance, with the existential copula alle 'be, exist', the B-complex has a modal interpretation. Consider the example below:

<sup>(</sup>i) aster məhed allə-bb-at *A. to.go be.pf.3mS-on-3fO* Aster must go

<sup>(</sup>lit. Aster, going is on her)

Thus, in Amharic the equivalent of 'must' is actually a composite of the existential verb and the B-complex.
## 5.1.2. Some Cross-Linguistic Facts of the Applicative

The applicative construction is found in a number of typologically and genetically diverse languages including Bantu, Austronesian, Mayan and Australian languages. The generative literature on the applicative construction has been increasing, particularly subsequent to the seminal work of Baker (1988a). The reader is referred to Baker (1988a: Ch. 5, 1988c, 1992, 1996: Ch. 9), Alsina and Mchombo (1990), Alsina (1993), Austin (1995), and references therein. Thus, I will confine this discussion to those studies which are most relevant to the present purposes.

Baker (1988a:229ff) has observed that the typical Benefactive applicative construction involves transitive verbs. Consider the following examples from Chichewa (Bantu), from Baker (1988a: 229ff):

- (7) (a) Mbidzi zi-na-perek-a msampha kwa nkhandwe zebras SP-PAST-hand-ASP trap to fox the zebras handed the trap to the fox
  - (b) Mbidzi zi-na-perek-er-a nkhandwe msampha zebras SP-PAST-hand-ASP fox trap the zebras handed the fox the trap

In (7a), the beneficiary occurs in a prepositional phrase, whereas in (7b) it occurs without the preposition. Furthermore, in (7b) the verb is more complex than the verb in (7a): it includes the affix -er-, which is traditionally referred to as an applicative affix.

A similar construction is found in Chamorro (Austronesian) as shown in (8b), (from Baker 1988a:237; original due to Gibson 1980):

(8) (a) He puunu' si Miguel i bəbui pəre guehu 3sS-kill PN Miguel the pig for me Miguel killed the pig for me

> (b) Ha punu'-i yu' si Miguel nu i bəbui 3sS-kill-for me PN Miguel OBL the pig Miguel killed the pig for me

In (8a) a benefactive argument occurs with a prepositional element para 'for', whereas in (8b) this argument occurs as the object of the construction. In the latter case, the verb is marked by the affix -1 'for'.

Baker (1988a), (hereafter Baker), argued that the arguments in the applicative construction have the same thematic roles as the arguments in the corresponding construction with the prepositional phrase. Thus, the UTAH dictates that the thematic roles should be assigned in the same way at D-Structure. Hence, for the Chichewa sentences in (7), Baker assumes a structure schematized in (9), (from Baker, p. 230):



Essentially, Baker's basic insight is that the applicative construction is an instance of Preposition Incorporation (PI). The elements generated under the P node, kwa 'to' and -ir, have the same meaning but differ morphologically: the former is an independent word, whereas the latter is an affix. The affix must move to attach to the verb root at S-Structure, thus yielding the applicative construction.



Baker argued that the P to V movement obeys the HMC and other locality constraints. For instance, it would not be possible to move out of an adjunct PP, thus ruling out applicative constructions of the type modelled in (11b), (Baker, p. 235):

- (11) (a) The goats [VP ate [NP the letter [PP to Britta]]]
  - (b) (\*) The goats [ $_{VP}$  ate-to<sub>i</sub> [ $_{NP}$  the letter [ $_{PP}$  t<sub>i</sub> Britta]]]

Hence, incorporation from subcategorized PPs is possible, but incorporation from adjunct PPs is illegitimate. This assumption is straightforward in the case of dative/goal applicatives, as the dative/goal PP is clearly an argument of the verb. The assumption becomes problematic with other types of applicatives such as instrumentals, benefactives, malefactives, and some locatives where the argument status of the PPs is not clear, at least partly because they are often optional. However, Baker argued convincingly that optional PPs such as the benefactive can be treated as arguments of the verb. Baker points out that optionality is not necessarily an indication of non-argumenthood. For instance, the object of verbs like *eat* is optional but it is still an argument selected for and thetamarked by the verb (see Baker, pp. 240-243 for details).

One remarkable aspect of Baker's theory of applicatives is its analysis regarding the Benefactive applicative of intransitive verbs. The theory predicts that generally the Benefactive applicative of intransitives will be ungrammatical. In order to appreciate this prediction, let us go back to Baker's account of the applicative of transitives. Recall that in the applicative of transitives, there are two objects - the new (applied) object and the original (basic) object. It has been pointed out that in languages like Chichewa, it is the applied object which exhibits object-like properties, in terms of word order, object agreement, pro-drop, passivization, among others. For instance, in Chichewa direct objects immediately follow the verb. In the applicative construction it is the applied object which follows the verb. Direct objects also trigger optional object agreement. Again, it is the applied object which can agree with the object suffix. Also, it is the applied object that can become the subject of a passive.

Baker argued that the object-like properties of the applied object follow from certain independent assumptions about Case theory. In particular, Baker argued that the Case properties of applicatives will be similar to those of morphological causatives, as reviewed in Chapter 3. Consider the S-structure of the applied dative construction in (10) above. Notice that the applied object 'fox' is stranded without Case because of the movement of the preposition (the applied affix) prior to S-Structure. Baker argued that the applied object must receive the verb's structural Case so as not to violate the Case Filter.

Now, the question arises as to what Case is assigned to the basic object. It appears that the Case properties of the basic object depend on the Case parameters of the language in question (see also Chapter 3). For instance, some languages can assign an inherent Case to their Theme/Patient arguments at D-Structure. The applied object cannot be assigned the inherent Case because it is not governed by the verb.

Interestingly, Baker's PI analysis of applicatives explicitly predicts that the Benefactive applicative of intransitive verbs is not possible if the basic verb is a non-Case assigner (cf. Baker, pp. 251-258; see also Baker 1988c: 377-381). The reason for this follows quite naturally from the previous discussion: the applied object needs structural Case from the verb. If the verb does not have structural Case to assign, either because it is lexically a non-Case assigner (intransitive) or is derivationally deprived of its Case assigning properties (passive, antipassive), the complex verb cannot assign structural Case. The argument which is embedded in the PP is not governed by the verb and thus is not eligible for inherent Case.

Baker's analysis provides an elegant account for the fact that in many diverse languages the Benefactive applicative of intransitive verbs is simply ungrammatical. For the sake of clarity, I will reproduce some of Baker's examples below. Consider the examples in (12)- (13) from Bahasa Indonesian (Baker, p. 252, original due to Chung 1976).

- (12) (a) Mereka mem-bawa daging itu kepada dia they TRANS-bring meat the to him they brought the meat to him
  - (b) Mereka mem-bawa-kan dia daging itu they TRANS-bring-to him meat the they brought him the meat

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- (13) (a) A jah saja menj-umbang kepada rumah sakit father my TRANS-donate to house sick my father donated to the hospital
  - (b) \*Ajah saja menj-umbang-kan rumah sakit father my TRANS-donate-to house sick my father donated to the hospital

In (12) the verb meaning bawa 'bring' is transitive and thus it can assign structural Case. The applicative of this verb is grammatical as can be seen in (12b). On the other hand, in (13) the verb umbang 'donate' is intransitive and thus cannot assign structural Case. Therefore, as (13b) shows, the applicative of umbang 'donate' is ungrammatical.

The same is true in Chichewa: the Benefactive applicative of intransitive verbs is ungrammatical. Baker noted that this can be clearly seen in the case of unaccusative verbs. Consider the following examples (Baker, p. 255):

- (14) (a) Mlenje a-na-gon-a hunger SP-PAST-sleep-ASP the hunter slept
  - (b) \*Mlenje a-na-gon-er-a kalulu hunter SP-PAST-sleep-for-ASP hare the hunter slept for the hare
- (15) (a) Chiphadzuwa chi-a-fik-a
   beautiful-woman SP-PERF-arrive-ASP
   the beautiful woman has arrived
  - (b) \*Chiphadzuwa chi-a-fik-ir-a mfumu beautiful-woman SP-PERF-arrive-for-ASP chief the beautiful woman has arrived for the chief<sup>45</sup>

 $<sup>^{45}</sup>$  Baker (1988a:255) noted that the applicatives of the unaccusatives are grammatical under a different reading. Thus, (14b) is grammatical with the reading 'the hunter lay on the hare' and (15b) is also grammatical with the reading 'the beautiful woman received the chief'.

As (14b) and (15b) show respectively, the Benefactive applicative of the unaccusative verbs 'sleep' and 'arrive' is ungrammatical. The Benefactive applicative of typical unergative verbs such as 'walk' and 'laugh' is equally ungrammatical as can be seen in (16b) and (17b), (Baker, p. 255):

- (16) (a) Mkango u-ku-yenda-a
   *lion SP-PRES-walk-ASP* the lion walked
  - (b) \*Mkango u-ku-yenda-er-a anayani
     *lion SP-PRES-walk-for-ASP baboons* the lion walked for the baboons
- (17) (a) Kalulu a-na-sek-a hare SP-PAST-laugh-ASP the hare laughed
  - (b) \*Kalulu a-na-sek-er-a atsikana hare SP-PAST-laugh-for-ASP girls the hare laughed for the girls

Interestingly, as pointed out by Baker, the Benefactive applicative of some unergative verbs is grammatical in Chichewa (Baker, p. 258):

- (18) (a) Atsikana a-na-vin-a girls SP-PAST-dance-ASP the girls danced
  - (b) Atsikana a-na-vin-ir-a mfumu girls SP-PAST-dance-for-ASP chief the girls danced for the chief

Baker's account for this discrepancy of unergative verbs in Chichewa is based on the assumption that the unergative verbs in question, 'dance' and 'sing', are transitive as they can occur with cognate objects. Baker suggested that such verbs are structural Case assigners.

It is interesting to note that, although the Benefactive applicative of intransitive verbs is not possible in Chichewa, the instrumental applicative is quite productive. Consider (19) - (20), (from Baker 1988c: 379):

- (19) Msangalatsi a-ku-yend-er-a ndodo entertainer SP-PRES-walk-APPL-ASP stick the entertainer is walking with a stick
- (20) Mbalame zi-ma-uluk-ir-a mapika birds SP-HAB-fly-APPL-ASP wings birds fly with wings

Notice that both examples of intransitive verbs are of the unergative type. Baker provided a Case theoretic account for the difference between the Benefactive applicative and the instrumental applicative. Basically, Baker's analysis is based on the assumption that the Benefactive argument is generated in a PP. When the P moves into the verb, the Benefactive will be stranded without Case. It is not eligible for inherent Case as it is not theta-marked by the verb. If the verb is not a structural Case assigner, the applied object cannot get inherent Case, thus the ungrammaticality of a Benefactive applicative of intransitive verbs follows. On the other hand, instrumentals are NPs which are theta-marked by the verb. As a result, instrumental NPs are eligible for inherent Case. The applied affix is inserted at S-Structure as the realization of inherent Case.

The merit of the Case theoretic analysis is that it leaves the possibility open for the existence of languages which can form the Benefactive applicative from intransitives. Referring to one such language, Sierra Popoluca, Baker claimed (p. 469, note 25):

[I] ntransitive verbs which do not need Case features to realize their arguments do not in general have such features. This principle seems to be common across languages, but not universal. Sierra Popoluca (Marlett (1986)) is a language with a different relationship between Case and arguments; it does not include this principle, and applicatives of intransitive verbs are possible in it. From the brief description of the Sierra Popoluca facts in Marlett (1986), which is couched in Relational Grammar terminology, it appears that there is independent motivation for benefactive applicatives of intransitives. Marlett (1986:369) pointed out: "There are no clauses in Sierra Popoluca in which a nominal heads a final 3-arc, a final Benefactive arc, a final Source arc [...] What is semantically an Addressee, Recipient, Beneficary, or Source always appears to a head a 2-arc". Translated into a P&P framework, what Marlett basically says is that benefactives do not occur as oblique clauses in S-structure: they must occur as direct objects. Thus, there is an obligatory 'advancement' to object. This is achieved by an applicative construction (though Marlett does not call it as such) which involves the use of the morpheme -a?y. Consider the following example (from Marlett 1986:370):

(21) i-h+y-a?y-pa
 A3-speak- -INC
 he speaks to him

According to Marlett (1986:371), the verb h + y 'speak' is lexically intransitive. When the verb takes the applicative affix  $a^{2}y$  the benefactive (the addressee) occurs as a direct object. In other words, a verb such as 'speak' in Sierra Popoluca is intransitive in the construction 'he speaks'. When an addressee argument is introduced, it cannot occur as an oblique, 'he speaks to him'. Rather a special affix must be attached to the verb to derive the equivalent of 'he him speaksto'. Thus, it appears that Sierra Popoluca intransitive verbs, not only can but rather *must* assign Case to their arguments.

It is interesting to note that languages which permit the applicative of intransitives are widespread. In fact, the opposite of the typical Bantu applicative situation is found in a number of Australian languages. According to Austin (1995), in some Australian languages it is *only* intransitives that can permit the applicative. Interestingly, as Austin (1995) pointed out, in several Australian languages both the causative and the applicative are possible with intransitive verbs, and not with transitive verbs. For instance, in Ngiyambaa (cf. Austin 1995:7; orginal due to Donaldson 1980) neither the causative affix -ma-1, nor the applicative affix -ba-1 can be added to a transitive verb. However, many intransitive verbs can be transitivized by the causative affix, whereas only two intransitive verbs can be

transitivized by the applicative affix. Crucially, the two verbs which can be transitivized by the applicative affix are the verbs ginda-y 'to laugh' and yunga-y 'to cry'. Consider the examples in (22) and (23) which exemplify causatives and applicatives respectively:

(22)	(a)	dhuwa-y	'to fall'
		dhuway-ma-l	'to drop'
	(b)	yuwa-y	'to lie'
		yuwa-y-ma-l	'to lay down'
(23)	(a)	ginda-y	'to laugh'
		ginda-y-ba-l	'to laugh at'
	(b)	yunga-y	'to cry'
		yunga-y-ba-l	'to cry at'

Austin (1995) suggested that the split between the intransitive verbs can be described in terms of the more familiar unaccusative/unergative split. In some Australian languages the causative is added to unaccusative verbs, whereas the applicative is added only to unergative verbs. In other languages the same affix can have either a causative or an applicative interpretation, depending on the lexical-semantics of the verb it is added to. Thus, in Arabana-Wangkangurru (cf. Austin 1995:9; original due to Hercus 1990), the affix -la- derives a causative verb. However, with just five verbs, all of them unergative, 'cry', 'laugh', 'be pleased', 'talk', and 'move', the same affix -la- derives the applicative.

Likewise, in the Arrente group of languages, the affix -lhile- is typically used to derive causatives from intransitives. In just two cases, the affix derives applicative verbs. Again, the verbs involved are the unergative 'cry' and 'laugh'. We will return to these cases at the end of §5.3.

Therefore, in languages like Chichewa, the Benefactive applicative does not involve intransitive verbs. The only exception to this, at least in Chichewa, is when the verb is (a cognate object taking) unergative. In the Australian languages, at least in those sampled by Austin (1995), the applicative does not attach to transitives. It can be added to intransitives but again only to the unergative type. In some languages, an otherwise causative affix can have an applicative function, but only when it is added to unergative verbs.

Now that we are familiar with the basic issues regarding the interaction between split intransitivity and the Benefactive applicative construction, let us return to the Amharic facts.

# 5.2. The Benefactive/Malefactive Applicative of Intransitives 5.2.1. Unergatives

As already mentioned, the Benefactive applicative of unergative verbs such as sakk'ə 'laugh' is possible in Amharic. Consider once again the relevant examples repeated below as (24):

(24) (a) aster bə-ləmma sak'ə-č-(ibb-ət)
 A. at-L. laugh.pf.-3fS-(on-3mO)
 Aster laughed at Lemma

(b) aster lamma-n sak'a-č-\*(ibb-at)
 A. L.-ACC laugh.pf.-3fS-(on-3mO)
 Aster laughed at Lemma

I will refer to the construction in (24a) by the term *non-applicative*, for lack of a better term. The clause which is most similar to the typical applicative construction is (24b). Descriptively, an erstwhile oblique malefactive argument becomes the object of a complex predicate that contains an applicative type affix, -bb- in the B-complex. Like typical direct objects, the malefactive object exhibits object-like properties. It can become the subject of the clause when the complex verb is passivized:

(25) ləmma tə-sak'ə-bb-ət
 L. PASS-laugh.-on-3mO
 Lemma was laughed at

Also, since the applied malefactive object triggers object agreement, it can be *pro*-dropped:

(26) tə-sak'ə-bb-ət
 PASS-laugh.-on-3mO
 (he) was laughed at

I would like to argue, following the basic insights of Baker, that the arguments in the non-applicative construction, (24a), and the arguments in the applicative construction, (24b), bear the same thematic relationship. Thus, by UTAH, the thematic roles must be assigned in the same way in both constructions. It would then be tempting to analyse (24b) as a case of PI, particularly given that the preposition ba- and the affix -bb- in the verb have an obvious phonological similarity. Let us see how far we can take the PI analysis of (24b).

Suppose that the Benefactive argument is generated as a PP argument of the verb, that is, as a complement of the Root. Suppose also that P incorporates into the verb, stranding the Benefactive NP without Case. Recall that in Chapter 2, we saw that unergative verbs can take cognate objects. Thus, assuming that Amharic unergative verbs can assign structural Case, the Benefactive NP receives the accusative Case after moving into Spec AgrO in the usual manner. The result of this derivation is the applicative construction in (24b). This can be partially schematized as in (27). Note that Spec RP of unergative verbs is a position for cognate objects. As mentioned in Chapter 2 (cf. §2.5) cognate objects need not be overtly expressed.



Thus, one can argue that the applicative construction in (24b) is derived when the preposition incorporates into the verb Root, whereas the non-applicative construction in (24a) is derived when the preposition remains in its base position. The immediate problem with this analysis is the presence of the B-complex in the verb of (24a). Notice that in (24a) the verb is marked by the prepositional affix -bbwhich was supposed to be the result of incorporation. Since the preposition ba- still occurs attached to the Benefactive argument, the occurrence of the prepositional affix on the verb could not have been as a result of PI. But then, if the prepositional suffix can occur in the verb without incorporation, the assumption regarding the alleged incorporation source for the prepositional suffix in (24b) becomes untenable.

It is instructive to see at this point that Baker (1992) has modified his earlier analysis of PI in order to account for certain locative applicatives of Chichewa. Consider one of the relevant examples which are reproduced below from Baker (1992:29):

- (28) (a) Alenje a-ku-luk-ir-a pa-mchenga mikeka hunters SP-pres-weave-appl-ind on-sand mats the hunters are weaving mats on the beach
  - (b) Alenje a-ku-luk-ir-a mikeka pa-mchenga hunters SP-pres-weave-appl-ind mats on-sand the hunters are weaving mats on the beach

The important point for the present purposes is the fact that the applicative affix -ir - which, in a PI analysis, is assumed to have incorporated from a PP, cooccurs with a locative argument that is marked by an overt preposition. This is a problem for the PI analysis because the incorporated applied affix and the overt preposition are expected to be in complementary distribution. Thus, Baker (1992:32-33) abandons the PI analysis of the applicative affix -ir - in Chichewa, at least with respect to the data in (28). Instead, Baker (1992) assumes, following Alsina and Mchombo (1990), that the applied affix attaches to the verb in the lexicon.

The Amharic facts are still problematic even if we assume that the affix -bbis attached to the verb in the lexicon. First, the lexical generation theory does not answer the question why -bb- is sometimes optional, as in (24a), and sometimes obligatory, as in (24b). Second, the lexical attachment of -bb- is problematic because -bb- does not occur on its own but is always accompanied by the object pronominal suffixes. The deletion of the latter is simply impossible, as shown in (24'a) and (24'b):

- (24') (a) aster bə-ləmma sak'ə- $\check{c}-\check{+}bb-(\check{*}at)$ A. at-L. laugh.pf.-3fS-(on)-(3mO) Aster laughed at Lemma
  - (c) aster ləmma-n sak'ə-č-ibb-(\*ət)
     A. L.-ACC laugh.pf.-3fS-(on)-(3mO)
     Aster laughed at Lemma

Thus, if one adopts the lexical generation of the prepositional affix, then one has to assume that the object affix is also generated in the lexicon because the two behave as a single morphological unit. If the object pronominal suffix can be lexically generated in constructions such as (24), then it also must be lexically generated in all other constructions where object pronominal suffixes occur. This is incompatible with the present framework. For independent reasons I assumed that agreement affixes are generated in the syntax as heads of functional projections.

To be sure, there may be different ways of accommodating the above facts in the lexical generation approach. The issue of whether the B-complex is generated in the lexicon or in the syntax, thus, is not resolved satisfactorily. However, the issue should not detract us from addressing the main problem: how split intransitivity interacts with the applicative construction. Thus, the analysis will assume, without further argument, that the B-complex is a syntactic object rather than a lexical one.

Before proposing an alternative analysis, I will first examine the descriptive facts regarding the Benefactive applicative of the unaccusative, the other major type of intransitive predicate.

## 5.2.2. Unaccusatives: The Ethical Applicative

The Amharic Benefactive applicative construction can be formed from unaccusative verbs. However, as we shall see shortly, there are crucial differences between the Benefactive applicative of unergatives and the Benefactive applicative of unaccusatives, thus providing further support for the intransitivity split observed in the previous chapters. Consider the following examples:

(29)	mət"t'a	a 'co	me'			
	a-mət	't'a 'bri	ng'			
(30)	(a)	∔ng∔da n	nət't'a			
		guest c	come.pf.3	mS		
		a guest came (arrive)				
	(b)	*ingida t	oə-aster	mət't	ta-(bb-at)	
		guest or	ı-A	come.p	of.3mS-(on-3fC	))
		(a guest arr	ived on A	.ster)		
	(c)	aster-(‡n)	∔ng∔da	mət't	.'a-*(bb-at)	
		A(ACC)	guest	come	e.pf.3mS-(on-3	f0)
		a guest arrived on Aster				
		lit. Aster a	guest arriv	ved on i	her	
(31)	(a)	w‡ša-w	motə			
		dog-DEF	die.pf.3	3mS		
		the dog died	1			
	(b)	*w∔ša-w	bə-aster	-	motə-(bb-at)	I
		dog-DEF	by-A.		die.pf.3mS-(or	1-3fO)
		(the dog died on Aster)				
	(c)	aster-(‡n)	₩∔ša-	w	mota-*(bb-e	at)
		A(ACC)	dog-L	DEF	die.pf.3mS-(o	n-3fO)
		the dog died	d on Aster	r		

We saw in Chapter 2 that the verb mət't'a 'come/arrive' is a typical Pattern I unaccusative. It takes the l-syntax affix a- to derive the causative, as shown in (29). The verb motə 'die' is also a Pattern I unaccusative, although with a suppletive transitive variant, gəddələ 'kill'.

Notice that there are a number of differences between the applicative of the unergative in (24b) and the applicative of the unaccusatives in (30c), and (31c). First, in the case of the unergative verb, the Benefactive argument occurs with the preposition ba- 'at/on'. In the case of the unaccusative verbs, the Benefactive argument cannot occur with a preposition. In other words, the non-applicative construction is simply unavailable with unaccusative verbs as shown in (30b) and (31b).

Second, compare the applicative of the unergative (24b) with that of the unaccusative in (30c), (31c). In the latter, the Benefactive argument appears in a clause-initial position and is marked by accusative Case only optionally. This is reminiscent of the Type 1 Experiencer predicates and a family of other related constructions examined in Chapter 4. We saw that constructions which involve physical and sensation states, temperature predicates, and possessives, among others, appear with quirky Case but control obligatory subject agreement. This similarity will be the key to the analysis of the applicative of unaccusatives.

I should point out that the Benefactive applicative is orthogonal to the internal distinction between unaccusatives. Thus, the construction is equally possible with Pattern II unaccusative verbs, as can be seen in (32):

- (32) (a) t'armus-u ta-ssabbara bottle-DEF INCH-break.pf.3mS the glass broke
  - (b) \*t'armus-u ba-aster ta-ssabbara-(bb-at)
     bottle-DEF by-A. INCH-break.pf.3mS-(on-3fO)
     (the glass broke on Aster)
  - (c) aster-(in) t'armus-u tə-ssəbbərə-\*(bb-at)
     A.-(ACC) bottle-DEF INCH-break.pf.3mS-(on-3fO)
     lit. Aster the glass broke on her (she is adversely affected)

Again, (32b) shows that the non-applicative construction is not possible, whereas as (32c) shows, the applicative version is perfectly grammatical. As in the Pattern I unaccusative verbs, the construction in (32c) shows that the benefactive argument is clause-initial and occurs with a quirky Case (an optional accusative).

The Amharic applicative of unaccusatives has the flavour of the so-called *ethical datives* (ED) construction which is common in languages such as Hebrew (cf. Borer and Grodzinsky 1986). The construction is known by the term ethical dative because, presumably, the affected argument is marked as dative.<sup>46</sup> Since in Amharic the malefactive argument is not marked as dative, I will employ the term *ethical applicative*. The applicatives of the Pattern I unaccusative verbs mət't'a 'come' and motə 'die' above can also be regarded as ethical applicatives. Further examples of the ethical applicative are presented in (33):

- (33) (a) məššə become.night.pf.3mS it became night
  - (b) aster-(in) məššə-bb-at
     A.-(ACC) night.pf.3mS-on-3fO
     lit. on Aster it became night on her
  - (c) aster-(in) məššə-ll-at
     A.-(ACC) night.pf.3mS-for-3fO
     lit. to Aster it became night for her

The event encoded by məššə 'become night' can adversely or favourably affect someone, hence the use of the B- or the L-complex in (33). Notice that whilst the meaning encoded by the ethical applicative is expressed by a periphrastic strategy in languages like English, it is expressed by the use of a complex predicate in Amharic.

**(i)** 

(ii) hem mitxatnim lə-Rani kol ha-zman

<sup>&</sup>lt;sup>46</sup> The Hebrew ethical dative has quite different properties from the one we are considering here. Consider the example below (from Borer and Grodzinsky 1986:179):

hem kol ha-zman mitxatnim li

they all the-time marry to-me

they are getting married on me all the time (and it bothers me)

One property of the Hebrew ethical dative is that the dative argument is always a clitic. A nonclitic argument cannot occur in the ethical dative as can be seen in (ii) below:

they marry to-Rani al the time Also, the ethical datives cannot be wh-moved. On the basis of these and other facts, Borer and Grodzinsky (1986) argued that the clitic in the ethical dative construction is attached lexically rather than syntactically. None of the properties shown in the Hebrew ethical dative are applicable in Amharic. The adversely affected argument does not have to be a pronominal. The only restriction in Amharic is that the adversely affected argument must be definite.

Although the ethical applicative is quite productive, it is constrained by some semantic-pragmatic restrictions. For instance the malefactive applicative cannot be used in the case of an event which adversely affects one's body parts:

- (34) (a) \*aster-(in) igr-wa ta-sabbara-bb-at
   A.-(ACC) leg-her INCH-break.pf.-on-3fO
   (Aster her leg broke on her)
  - (b) aster igr-wa tə-səbbərə
     A. leg-her INCH-break.pf.3mS
     Aster her leg broke

Intuitively, the reason for the ungrammaticality of the ethical applicative in (34a) is quite straighforward: a negative event which affects a body part is conceptualized as inherently malefactive and, hence, need not be encoded by a special construction.<sup>47</sup>

Therefore, summarizing the basic facts in Amharic, we have seen that the Benefactive applicative of intransitives is grammatical. Both unergatives and unaccusatives can be involved in the Benefactive applicative construction. We also observed that there are important differences between the Benefactive applicative of unergatives and that of unaccusatives. In the former, a non-applicative construction is possible, whereas the same is absent in the applicative of unaccusatives. Furthermore, we identified a correlation between the Benefactive applicative of unaccusatives and the ethical dative of other languages. In the next section, I will outline a proposal which will account for the Benefactive applicative of both types of intransitive predicates.

#### 5.3. The Case Assignment Mechanism

Let us begin with the constructions involving the unergative verbs. Consider the examples with the verb sok's 'laugh' repeated below as (35):

<sup>&</sup>lt;sup>47</sup> However, it also depends on the nature of the event that affects the body part. If someone gets sun-burned and his/her face gets darker, the malefactive can be used, as the event is not conceived of as inherently malefactive.

(35) (a) aster bə-ləmma sak'ə-č-(ibb-ət)
 A. at-L. laugh.pf.-3fS-(on-3mO)
 Aster laughed at Lemma

(b) aster lamma-n sak'a-č-\*(ibb-at)
 A. L.-ACC laugh.pf.-3fS-(on-3mO)
 Aster laughed at Lemma

Let us concentrate on (35a), the non-applicative construction. Recall from Chapter 2 that unergative verbs have a transitive double VP structure and can license an internal argument, the cognate object. Recall also that in Amharic unergative verbs can assign structural Case. I would like to suggest that the Benefactive argument of unergative verbs is an internal argument. In terms of a Jackendovian conceptual structure, it would mean that verbs such as sakk'ə 'laugh' have an implicit Path argument. I would like to argue that the Benefactive argument elaborates the Activity Event-type. For instance, with the verb 'laugh', the Thing 'laughed at' spells out the stimulus for the laughing event, thus making the Activity event more complete. Thus, the Benefactive is the syntactic realization of the implicit Path argument.

I assume that since the Benefactive argument is the syntactic realization of the implicit Path argument, it is mapped onto a PP. Suppose that P may or may not be filled by an overt preposition such as ba- 'at/on'. When P is filled, it assigns Case to its complement NP. The optional B-complex in the verb can be regarded as an optional agreement analogous to optional object agreement. Recall that in Amharic a definite object may trigger an optional object agreement as in (36):

(36) aster lamma-n ayya-č-(iw)
 A. L.-ACC see.pf.-3f-(3mO)
 Aster saw Lemma

Now consider (35b), the applicative construction. I would like to argue that the malefactive argument is generated as a complement of a null P (in the sense of Baker 1992). I assume, following Baker (1992:42-43), that a null P fails to assign Case to its complement, but allows the verb to assign structural Case. Since the unergative verb is a Case assigner, the Benefactive argument receives structural

Case. The B-complex cannot be optional because the Benefactive argument cannot be interpreted. In the absence of a lexically filled P, the interpretation of the Benefactive argument depends on the prepositional suffix, -bb- (malefactive), -ll- (benefactive).

In both (35a) and (35b), the B-complex is generated in AgrO. The malefactive argument checks Case in Spec-AgrO. The Agent argument moves to Spec-AgrS in the usual fashion. Thus, the basic structure of the applicative in (35b) can be schematized as in (37):



The structure of (35a), the non-applicative construction, would be similar to (37) except that the P is lexically filled by the preposition ba-. When the preposition is present, the Benefactive receives its benefactive/malefactive interpretation, and thus the B-complex can be omitted.

We have said that in the non-applicative construction the B-complex is like an optional object agreement. This claim is supported by the behaviour of indefinite Benefactives. Consider the relevant examples in (38):

- (38) (a) \*aster bə-səw sak'ə-č-ibb-ət
   A. at-someone laugh.pf.-3fS-on-3mO
   (Aster laughed at someone)
  - (b) \*aster səw-n sak'ə-č-ibb-ət A. someone-ACC laugh.pf.-3fS-on-3mO (Aster laughed at someone)
  - (c) aster bə-səw sak'ə-č
     A. at-someone laugh.pf.-3fS
     Aster laughed at someone

We already know the reason for the ungrammaticality of (38b): an indefinite object cannot get accusative Case, nor can it trigger object agreement. The ungrammaticality of (38a) shows that an indefinite complement of a preposition cannot trigger object agreement. Thus, indefinite Benefactives cannot occur with a B-complex. The only way an indefinite Benefactive can be expressed is without the B-complex, as shown in (38c) above.

Now let us see the applicative of unaccusatives, the ethical applicatives. Let us consider the construction with the Pattern II unaccusative verb təsəbbərə 'break (intr)', repeated below as (39):

(39) aster-(in) t'armus-u tə-ssəbbərə-\*(bb-at)
 A.-(ACC) bottle-DEF INCH-break.pf.3mS-(on-3fO)
 lit. Aster the bottle broke on her

I suggest that the Benefactive argument of unaccusative verbs is not an elaboration of the Achievement Event-type. The Benefactive of unaccusatives is rather an extra argument which is affected by the Achievement event. Since it is not a conceptually implicit Path argument, I assume that it is not mapped onto a PP. Rather, it is generated as an NP complement.

The argument designated by t'armus-u 'the bottle' in (39) is the Theme/Patient argument and is generated in its usual position, Spec-RP. The Benefactive argument is generated as a complement of the Root. Since unaccusative predicates do not assign Case, the complex verb cannot assign structural Case to the Benefactive argument. However, in the absence of any structural Case, the Benefactive argument is assigned inherent Case, in essentially the same way as the Case assignment of Type 1 Experiencer subjects (cf. Chapter 4).

Thus, the B-complex is generated as the head of AgrSP. The Benefactive argument moves into Spec-AgrS, whereas the Therme/Patient argument moves into Spec-AgrO. Recall that in Chapter 4, I have adopted a particular view of Case theory (cf. Harley 1995) in which there is no necessary link between the realization of morphological Case and specific Agr positions. Thus, the 'object' agreement is actually an obligatory subject agreement generated in AgrS.

Our analysis accounts for why the non-applicative construction of the ethical applicatives is ungrammatical. Consider the relevant example repeated below as (40):

- (40) (a) \*t'armus-u bə-aster tə-ssəbbərə-bb-at bottle-DEF on-A. INCH-break.pf.3mS-on-3fO (the bottle broke on Aster)<sup>48</sup>
  - (b) \*t'armus-u bə-aster tə-ssəbbərə *bottle-DEF on-A. INCH-break.pf.3mS* (the bottle broke on Aster)

We have said that the Benefactive of unaccusatives is not an implicit Path argument that elaborates the event. As a result, it is not realized as a PP. Thus, neither construction in (40), with the preposition ba-, is grammatical.

Our assumption that the B-complex is generated in AgrS in the applicative of unaccusatives accounts for the fact that the Benefactive argument is obligatorily clause-initial. The reverse word order, that is, where the Theme/Patient argument occurs clause-initially is illegitimate:

 $<sup>^{48}</sup>$  Note that since b<sub> $\theta$ </sub>- can be the preposition 'by', (40) is grammatical with the passive reading: 'the glass broke by Aster'.

(41) \*t'armus-u aster-(in) tə-ssəbbərə-bb-at
 bottle-DEF A.-(ACC) INCH-break.pf.3mS-on-3fO
 (the bottle broke on Aster)

As we saw in Chapter 4, the same kind of word order restriction is exhibited in possessive constructions: the possessor, which receives inherent Case, must occur in the clause-initial position.

Thus, taking the above assumptions together, we derive the ethical applicative construction as schematized in (42):

(42)



Hence, once the argument status of the Benefactive argument and its interaction with the B-complex is explained, nothing special needs to be said about the distinction between the Benefactive applicative of unergatives and that of unaccusatives. The Benefactive argument of unergatives behaves like a true object because it is assigned structural Case. In Amharic, unergative verbs are capable of assigning structural Case. On the other hand, the Benefactive argument of unaccusative verbs behaves like an Experiencer subject. Unaccusative verbs do not license an external argument and thus are incapable of assigning structural Case. Thus, the Benefactive of unaccusatives must be assigned inherent Case. Inherent Case assignment is already motivated in the analysis of a range of constructions which have arguments that exhibit quirky Case marking: predicates such as the Type 1 Experiencer.

Now, one may wonder why there is a -bb- or -11- suffix in ethical applicatives, if ethical applicatives are similar to other Experiencer predicates that exhibit quirky Case and agreement. I should point out that there is a fair bit of idiosyncrasy regarding the presence or absence of the -bb-, -11- suffix in the applicative of unaccusatives. Some unaccusative verbs may form the ethical applicative with or without the -bb-, -11- suffix with no obvious difference in meaning. In other words, unlike the applicative of unergatives which always require the B- or L- complex as a unit, the ethical applicatives may be formed without the prepositional suffix -bb-/-11-. A case in point is the verb motor 'die'. As we saw in (31c) this verb forms an ethical applicative with the prepositional suffix -bb- (malefactive). As we can see below, -bb- can be omitted with certain arguments:

- (43) (a) aster-(in) wiša-w mota-bb-at A.-(ACC) dog-DEF die.pf.3mS-on-3fO a dog died on Aster
  - (b) \*aster-(in) wiša-w mota-at
     A.-(ACC) dog-DEF die.pf.3mS-3fO
     (a dog died on Aster)
- (44) (a) aster-(in) zəməd motə-bb-at A.-(ACC) relative die.pf.3mS-on-3fO a relative (of hers) died on Aster
  - (b) aster-(in) zəmməd mot-at A.-(ACC) relative die.pf.3mS-3fO a relative (of hers) died on Aster

The construction in (43a) involves -bb-. (43b) shows that when -bb- is absent, the construction becomes ungrammatical. However, as shown in (44), when the Theme/Patient argument is substituted by a [+human] argument, either version (that is, with or without the presence of -bb-) is grammatical. As we said earlier, the interpretation of the Benefactive argument depends on the prepositional suffix: a malefactive reading is obtained with the suffix -bb-, whereas a benefactive reading is obtained with the suffix -11-. When the event in question is construed as obviously adversative, such as the death of a relative, the requirement that the -bbsuffix is present is relaxed. For another example, consider the verb t'affa

- (45) (a) gənzəb t'əffa
   money disappear.pf.3mS
   money is lost
  - (b) aster-(in) genzeb t'effa-bb-at
     A. money disappear.pf.3mS-on-3fO
     Aster lost some money
     Aster money is lost (on) her
  - (c) aster-(in) genzeb t'effa-t
     A. money disappear.pf.3mS-3fO
     Aster lost some money
     lit. Aster money is lost (on) her

The verb t'əffa 'disappear' is a typical Pattern I unaccusative verb by our CAUS-selection diagnostic. It can take the l-syntax causative a- to be causativised: a-t'əffa 'loose, extinguish, banish'. In (45a), the Theme/Patient argument gənzəb 'money' is generated in Spec RP. In (45b), there is an additional argument, Aster, who is adversely affected by the event denoted by the predicate. Within the proposed analysis, Aster is an affected argument generated as an NP complement of the Root. The affected argument is assigned inherent Case in exactly the same manner as argued for Type 1 Pattern B predicates. The obligatory pronominal suffix is in AgrS and the affected argument raises only to Spec-AgrOP and checks nominative Case.

Notice the contrast between (45b) and (45c): the former has the prepositional suffix -bb-, whereas the latter does not; there is no obvious meaning difference between the two constructions. Again, the alternation is governed by pragmatic knowledge. The loss of things such as gənzəb 'money' is conceived of as uncontroversially adversative and thus the presence of the special marking, the -bb- suffix to indicate the malefactive, may be deemed redundant.

Thus, although -bb- is required in ethical applicatives, it is not as obligatory as it is in unergative verbs. This is because with unergative verbs, the Benefactive argument is a 'real' argument as it elaborates the Activity Event-type. As already mentioned, when one laughs, there is, typically, a stimulus for the laughter. The function of the malefactive argument is to spell out the stimulus. With unaccusative verbs, the Benefactive is an 'extra' affected argument. Thus, whilst it is natural to ask whom somebody is laughing at, it is not natural to ask who is affected, say by the 'breaking of a bottle', in the absence of prior pragmatic cues or shared knowledge. Hence, the exact conditions which govern the presence or absence of the -bb - and -ll - suffixes in the derivation of ethical applicatives may not be entirely grammatical in nature but must also appeal to world knowledge and pragmatic constraints.

In this context, it is interesting to examine the applicative construction of the Australian languages that were mentioned earlier. Recall that in a number of Australian languages the only verbs that can take an applicative marking include verbs such as 'laugh' and 'cry'. What the applicative actually does is spell out the stimulus for the laughing or crying events, thus making the verbs more conceptually complete.

It is remarkable that in a number of languages, the same affix may be used either as a causative affix or as an applicative affix. Interestingly, when such an affix targets unergative verbs, it is interpreted as an applicative affix; otherwise it is a causative affix. I would like to argue that the present proposal provides a natural account for the polysemy of applicative affixes. I suggest that only an 1-syntax causative affix would be capable of functioning as an applicative.

Let us consider the relevant facts. As already mentioned, in Arabana-Wangkangurru (cf. Austin 1995:9), there is more than one causative affix. We are interested in the affixes -ma- and -la-. According to Austin, the causative affix -maencodes 'mediated causation' where the causee is animate. Thus consider the examples in (46) - (47):

-M

(46)	(a)	ngurla-	'to land'
	(b)	ngurla- <b>ma</b> -	'to make land' (e.g. as an aeroplane)

(47) (a) thangka- 'to sit'
(b) thangka-ma- 'to make (someone) sit'

The (b) examples of each pair demonstrate a causative construction. As opposed to the causative affix ma-, the causative affix -la- exhibits a split within intransitive verbs. When it is added to the unaccusative type of verbs it has a causative interpretation. When it is added to the unergative type of verbs, it has an applicative interpretation. Consider the relevant examples below:

(48) (	Causative -1a-
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(a)	kaji-	'to turn'
	kaji-la-	'to turn (it) over'
(b)	tharrka	'to stand'
	tharrka-la-	'to stand (it) up'

(49) Applicative -la-

New York

(a)	thudni-	'to cry'		
	thudni-la-	'to cry over, mourn'		
(b)	wiya	'to laugh'		
	wiya-la-	'to mock, deride, laugh at'		

Notice that when the affix -la- is attached to an unergative verb such as 'laugh' we do not obtain 'X laughed Y' but rather 'X laughed at Y'. I assume that the causative affix -ma- is an s-syntax affix. I interpret the notion of 'mediated causation' to mean external or s-syntax causation. Thus, -ma- which encodes mediated causation with an animate causee, is analogous to the external causative affix as- in Amharic or the periphrastic causative verb *make* in English. Thus, the causative is within the domain of a higher EP.

The affix -1e, on the other hand, is an 1-syntax causative analogous to the Amharic causative affix e. As the data in (48) shows, -1e- attaches to unaccusative

type verbs. The unergative verbs in (49), already have an l-syntax CAUS functor and thus cannot take another l-syntax causative. When such verbs appear with the lsyntax causative affix -la-, they cannot have a causative interpretation. Thus, the lsyntax causative affix -la- has two functions: (a) it adds a CAUS functor to a noncausative predicate, deriving a causative, and (b) it licenses an oblique argument, deriving the applicative. Both derivations take place within the domain of a single Event Phrase.

Note that this also relates neatly to the Amharic I-syntax causative a- which is typically used to derive the causative of unaccusatives, but with one class of predicates, ingestives (cf. §2.7) is used to license a Goal NP as an object, not unlike the applicative verb.

#### 5.4. Summary

In this chapter, I examined the relationship between split intransitivity and the applicative construction. In some languages the Benefactive applicative of intransitive verbs is ungrammatical. To the extent that such a construction is possible, it is sensitive to the intransitivity split between unergatives and unaccusatives. In a number of diverse languages, the applicative of an intransitive verb is allowed just when the verb is unergative. One way of accounting for this split was to assume that unergative verbs have a capacity to assign structural Case that is simply not available with unaccusative verbs (cf. Baker 1988a).

In Amharic, the Benefactive applicative construction is possible with both unergative and unaccusative verbs. However, whereas the unergative verbs can occur with a non-applicative construction in which the Benefactive argument appears with the prepositional element ba-, the same is not true with unaccusative verbs. This difference was captured by the proposal that the Benefactive argument is a realization of an implicit Path argument. Since the canonical syntactic realization of Path is a PP, the Benefactive is generated as a complement of a P. We assumed that the head of PP may or may not be filled by a prepositional element. When P is lexically filled, it assigns Case to its complement, the Benefactive. On the other hand, when P is null, it cannot assign Case to its complement. However, following Baker (1992), I assumed that a null P does not preclude a verb from assigning structural Case. Thus, the Benefactive gets the accusative Case from the complex predicate.

The B-complex which is the composite of a prepositional suffix and a pronominal suffix is optional when the Benefactive is assigned Case by a preposition. The B-complex is obligatory if P is null, because the semantic interpretation of the Benefactive argument depends on the choice of the prepositional suffix: -bb-(malefactive), -ll-(benefactive).

Regarding unaccusatives, I argued that the Benefactive argument does not elaborate the Achievement Event-type. It is rather an extra argument affected by the Achievement event. Thus, this argument is not mapped onto the canonical realization of Path, the PP. It is rather generated as an NP complement. Since unaccusatives do not assign Case the Benefactive can be licensed only if it gets inherent Case. The assignment of Inherent Case has already been motivated in Chapter 4 within the context of Pattern B SubjExp predicates. The B-complex of unaccusative verbs is an obligatory agreement that is generated in AgrS. The Benefactive argument moves into Spec-AgrS to check morphological Case.

The applicative construction in general is of independent theoretical interest. In addition to this, however, the Amharic applicative construction and its interaction with split intransitivity brought to the fore a number of interrelated theoretical issues. First, it provides yet another important piece of evidence for the unergative vs. unaccusative distinction. Second, the proposed analysis contributes to a better understanding of the Benefactive argument. The Benefactive argument of unergative verbs is an elaboration of the Activity Event-type. The Benefactive argument of unaccusative verbs, on the other hand, is an affected argument, not unlike Experiencer subjects.

Finally, the present framework also accounts for the polysemous function of applicative/causative affixes in some languages. It is demonstrated that only lsyntactic causatives can have an applicative function because the applicative verb provides an elaboration of the basic event and thus the derivation is entirely within the domain of l-syntax.

# **CHAPTER 6**

### **Transitivity Alternation with Light Verbs**

## 6.0. Introduction

In the previous four chapters, I examined transitivity alternations in Amharic, based on a particular framework of mapping from conceptual structure to syntax. I explored the idea that all verbs, including mono-morphemic verbs, have complex structure. In the present chapter, I investigate one construction which quite literally shows the phrasal character of verbal predicates. I argue that the construction can be accounted for by exactly the same theoretical apparatus laid out in the analysis of morphologically simple verbs.

I have argued that mono-morphemic verbs have a complex structure consisting of an Event-type functor, such as CAUS, INCH, BE and the Root. In some cases the Event-type functor is realized by overt morphology which is distinct from the Root. In other cases, the Event-type functor is realized by a zero form. It is logically possible for an Event-type functor to be realized by a morphologically independent form. Indeed, a construction which involves a morphologically independent Event-type functor is quite common as the following examples demonstrate:

- (1) (a) t'ərmus-u səbara new
   bottle-DEF broken is.pf.3fS
   the bottle is broken
  - (b) t'armus-u sabara hona
     glass-DEF broken become.pf.3mS
     the glass became broken

In these sentences, the verbs naw 'be' and hona 'become' co-occur with the participle element sabara 'broken'. In (1a) the Event-type of the construction is a State, whereas in (1b) it is an Achievement. Since everything else between the two sentences is exactly the same, the difference in Event-type must be due to the verbs naw 'be' and hona 'become'. Thus, it is reasonable to assume that the verbs naw

'be' and hone 'become' function as the morphological realizations of the Event-type functors BE (State) and INCH (Achievement) respectively. As the idiosyncratic lexical-semantic content of a morphologically simple verb is contributed by the Root, the basic verbal meaning of constructions such as (1) is contributed by the participle Root that co-occurs with the verbs.

Verbs such as *be*, *do*, *make* are cross-linguistically amongst the most common verbs which are employed to spell-out Event-types. However, in this chapter we will see that verbs which appear to have a more specific lexical meaning can also be used to encode Event-types. A case in point is the Amharic verb ala 'say'. Consider the following example:

(2) t'armusu sibbir ala glass-DEF break 'say'. pf.3mS the glass broke

In (2) the predicate consists of two morphological items: the non-finite form sibbir followed by the finite verb ala 'say'. The finite verb carries agreement, tense and aspect features. The equivalents of the non-finite item in other languages are referred to by a number of terms such as *Pre-Verb*, *Verbal Noun*, *Pre-Stem*, *Co-verb*, *Adjunct Nominal* (cf. Hosokawa 1991). The finite verb is also referred to by a number of terms including *Auxiliary*, *Finite Verb*, *Main Verb*, *Grammatical Verb*, *Generic Verb*, *Light Verb*. For the sake of terminological consistency, I will use the terms Verbal Noun (VN) and Light Verb (LV) to refer to the non-finite and finite forms respectively. The term Light Verb is familiar to most generatively oriented theories including P&P and LFG (see Jackendoff 1974, Grimshaw and Mester 1988, Jeong-Ryeol 1991, Saito and Hoshi 1994, Baker 1996). Thus, in (2) the predicate consists of the VN sibbir 'break' and the LV ala 'say'. I refer to a verb complex formed by the combination of a VN and a LV, such as (2), by the term *Light Verb Complex* (LVC).

The LVC raises a number of interesting theoretical issues. From the perspective of meaning, we would want to know: (a) what is the conceptual structure of the VN and the LV? (b) how is the meaning of the LVC computed from the meaning of its components? From the perspective of morpho-syntax, we would want to determine: (a) does the LVC exhibit the same syntactic properties as a simple verb? (b) is the LVC a V<sup>o</sup> category or a phrasal constituent? (c) is the LVC formed in the lexicon or derived in the syntax?

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These questions and related issues will be addressed in this chapter. I will argue that essentially the same machinery utilized to account for morphologically simple predicates can be utilized to account for the LVC.<sup>49</sup> I will show that the polysemous function of some verbs, that is, verbs which function both as a lexical verb and as a light verb, can be accounted for by motivating a single LCS representation without resorting to multiple lexical entries.

This chapter is organized as follows. In §6.1, I present general descriptive facts about the LVC. In §6.2, I briefly review previous accounts of LVCs. In §6.3, a detailed case study of the Amharic LVs all 'say' and adarrage 'make/do' is given. In §6.4, a brief survey of other light verbs is presented.

6.1. The Basic Facts6.1.1. The VN and the LV

Amharic has two productive LVs - alə 'say' and adərrəgə 'make/do'. These LVs combine with VNs to form a complex predicate. The same VN may combine with either of these LVs with a subsequent change in meaning. Thus (3a) is unaccusative, whereas (3b) is causative:

- (3) (a) t'ərmusu sɨbbɨr alə glass-DEF break 'say'. pf.3mS the glass broke
  - (b) lemma t'ermus-u-n sibbir aderrege
     L. glass-DEF-ACC break do/make. pf.3mS
     Lemma broke the glass

The use of the verb say as a LV appears to be unusual, particularly from the perspective of Indo-European languages. However, I will shortly show that the LV function of a verb meaning 'say' is in fact quite common cross-linguistically. What is interesting is that, in Amharic, the verb ala 'say' is used as a LV in addition to its 'lexical' use. This is shown in (4) below:

<sup>&</sup>lt;sup>49</sup> In our approach, no lexical verb is 'simple': every lexical verb is a composite of a Root and an Event-type functor; the latter can be realized by a zero form or an affix. Thus, when I say 'simple' it is relative to the LVC which has two morphologically independent components.

(4) ləmma yɨ-hedal alə
 Lemma 3m.go.imp-3MS 'say'.pf.3mS
 Lemma said: "He will go"

In (4), instead of a VN, a quotative phrase occurs with the verb ala 'say'. This is a typical quotative construction that can be found in many languages.

The VN which co-occurs with the LVs ala 'say' and adarraga 'make/do' in (3) takes neither nominal nor verbal inflection and occurs with a distinct template. In most tri-radical roots, the VN typically appears in two different templates, identified in the literature (cf. Beyene 1972) by the terms [±Intensive]:

(5)	(a)	CiCCiC	[+Intensive] : ≈intensively
	(b)	CeCeC	[ -Intensive ] : ≈slightly

Although, the [ $\pm$ Intensive] template encodes the presence or absence of a range of related meanings, the most common one has to do with the intensity of the event. A more accurate translation of the verb in sentence (5) is not simply the neutral 'break' but rather the intensive 'smash' where the manner of the event is encoded. The VN can occur in a reduplicated template with the meaning *distributive*.

(6) sibirbir ala
 break.DIST 'say'.pf.3mS
 it broke into pieces

Even though in most cases the shape of the VN root is predictable, in some cases it has idiosyncratic forms:

- (7) (a) k'uč' ala-č
   sit 'say'.pf-3fS
   she sat down
  - (b) bidig ala-č
     rise 'say'.pf-3fS
     she rose up

The items that correspond to k'uč'č' 'sit' and bidig 'rise' are examples of VNs which follow neither the Intensive nor the Distributive template. Such items sometimes occur as compounds to derive a more complex VN Root:

(8) k'uč'č'-bidig ala
 sit-rise 'say'.pf.3mS
 he sits down and rises up frequently.<sup>50</sup>

We shall see shortly that there are constraints on which VNs can occur with which LVs. In fact, the distribution of the two LVs in Amharic, ala 'say' and adar raga 'make', reveals that they essentially 'classify' the entire verbal lexicon into two distinct classes on the basis of Event-types: non-causative (State, Achievement) and causative (Activity, Accomplishment) respectively.

# 6.1.2. The Light Verbs

The class of LVs is closed, whereas the class of VNs is open. This has a parallel in the verbal system as a whole. We have seen in Chapters 2 and 3 that the Event-type encoding affixes  $a_3$ -, a-, and t- are, by definition, finite whereas the Root belongs to an open class. Most languages have LVs, although in the literature, such verbs are referred to by different terms. In English, for instance, verbs such as give, take, get, and put are used as LVs (cf. Jespersen 1924, Jackendoff 1974). In fact the term 'Light Verb' was introduced in Jespersen (1924) in reference to English. Consider, the examples in (9), (from Jackendoff 1974:481):

- (9) (a) John blamed Bill for the accident
  - (b) John put the blame on Bill for the accident

The two sentences in (9) are synonymous. In (9a) the morphologically simple verb *blame* is used, whereas in (9b) the nominal *blame* co-occurs with the verb *put*. Assuming that both constructions are causative, the Event-type functor CAUS is realized by a zero form in the morphologically simple verb, *blame*, whereas it is realized by the independent verb *put* in the LVC. As in the Amharic

<sup>50</sup> Notice that the event encoded by the compound k'uč'-bidig 'sit-rise' is a single event - not a sequence of two independent events.

example, it is the LV which is marked for verbal inflectional categories such as tense and agreement.

One of the better known LVCs comes from Japanese. Consider the examples in (10), (from Grimshaw and Mester 1988: 210):

- (10) (a) John-ga Bill-to HANASHI-o shiteiru
   John-Nom Bill-with talk-Acc suru
   John is talking to Bill
  - (b) Ya-ga mato-ni *MEICHUU*-o shita *arrow-Nom target-to hit-Acc suru* the arrow hit the target

In both examples the verb *suru* co-occurs with a nominal. Like the Amharic LVs, the verb *suru* takes the relevant verbal inflections, whereas the nominal encodes most of the lexical-semantic content of the predicate.

What we refer to here as a LVC is found productively in many typologically diverse languages. Among Afroasiatic languages, it can be found in Cushitic and Nilotic languages (cf. Armbuster 1960). A construction which is quite similar to the LVC is common in Australian languages, particularly in the non-Pama-Nyungan group of languages such as Yawuru (Hosokawa 1991), Nyulnyul (McGregor 1994), and Nyikina (Stokes 1982). It is also productively found in a number of Papuan languages (cf. Foley 1986 and references therein), such as Asmat, Hua, Kewa and Enga. Consider the examples in (11) and (12) from Yawuru (Hosokawa 1991:202) and Asmat (Foley 1986:119-120) respectively:

(11) Ingamana rdii + i-na-ra-nda cup(ABS)i break+3j-TR-AUX(spear)-PF

> nyamba-ni dyira this-ERG boy(ERG)j this boy has broken a glass

(12) (a) atow e*play do* play (b) yaki afsneeze hit sneeze

Notice that in the Yawuru example, the verb ra does not have its literal meaning, 'spear'. It is rather used as a LV and occurs with the lexical item rdii 'break' which actually carries the basic meaning of the predicate.

In languages like Arnharic and Japanese the LVC is used in addition to simple verbs. In Amharic, for most of the LVCs there are corresponding simple verbs. Compare the following examples:

- (13) (a) t'ərmusu sibbir alə
   glass-DEF break 'say'. pf.3ms
   the glass broke (in a smashing manner)
  - (b) t'ərmusu tə-səbbərə glass-DEF INCH-break.pf.3mS the glass broke

Although the same meaning is encoded by both the LVC and the simple verb, it does not mean that they are identical. As already mentioned, the LVC often has an additional meaning specification ([±Intensive]) which is absent or left unmarked in the simple verb. Furthermore, the correspondence is not perfect: it is often the case that there are gaps in the simple verb inventory which are filled by the LVC. For instance, in Amharic the state of 'being quiet' is expressed by the LVC zim ale for which there is no equivalent simple verb. Therefore, the Amharic LVC, while not the only way of forming a verbal predicate, is a productive strategy of expanding and elaborating the verbal inventory.

In many other languages, the LVC is essentially the only way of forming verbal predicates. Such is the case in most of the relevant Australian and Papuan languages (cf. Hosokawa 1991, McGregor 1994, Foley 1986 among others). Many of the relevant languages have a very limited stock of simple verbs, that is, verbs which can be used independently. For instance, in Yawuru (Hosokawa 1991), there are about 82 conjugable verb roots. Nyikina (Stokes 1982) has about 150. It is obvious that these figures are markedly lower than that of languages with an open class of verbs such as English.

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However, languages with a very impoverished inventory of verbs are, nevertheless, just as capable of encoding verbal concepts as languages such as English, thanks to the LVC. Languages like Yawuru compensate for the lack of independent finite verbs by an extensive use of the LVC. The finite verbs combine with VNs to derive new and more complex verbs. For instance, Yawuru has an open class of VNs which can combine with about 12 finite verbs to derive the LVC. The newly derived verbs encode the same concepts that may be expressed by simple verbs in other languages.

VNs may or may not belong to other parts of speech leading to some crosslinguistic variation. In Amharic the VN has a unique template which cannot be readily identified as any other syntactic category. In many cases, the VN is clearly ideophonic or onomatopoeic. In Japanese, the VN is typically an eventive nominal. On the other hand, in Yawuru, according to Hosokawa (1991), VNs (his 'Pre-Verbs') can belong to nouns, (non-finite) verbs, adjectives, adverbs, interjections, and ideophones. As we will see later, our framework which assumes that the VN is generated as a category-less Root neatly captures the fact that the VN may be unspecified for a category label.

Interestingly, the LVC is not derived in an arbitrary fashion. Thus, it is not the case that every logically possible VN + LV combination is permissible. In fact, not every finite verb can appear as a LV. Only a few finite verbs, not more than a dozen, are selected to productively combine with VNs. The finite verbs which function as LVs are remarkably similar cross-linguistically: they include verbs like *do, put, carry, take, get, catch, say.* Of course, there are some LVs which are found only in some languages due to the cultural saliency of the event encoded by the verbs in question, for example, 'spear' in Australian languages. Abstracting away from this fact, it is true that similar verbs function as LVs cross-linguistically. Is it an accident that languages which are as genetically and typologically diverse as Amharic and Yawuru utilize the verb meaning 'say' as a LV to form complex predicates? I will argue that there is a systematic principle which governs the choice of 'say' as a LV.

Therefore, the LVC is a productive, systematic, and unmarked strategy enabling expansion of the verbal stock of languages. For some languages, it is the *only* way of expanding the verb inventory. Ultimately, this difference between languages should be a reflex of some fundamental property.

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Of course, there is an important, and to some extent, theory-neutral question: what is the motivation for the LVC in languages like Amharic which have productive simple verbs. First, we note that from the perspective of meaning the LVC and its corresponding simple verb are not isomorphic. This itself may be sufficient reason for the co-existence of the LVC with the simple verb.

Second, the LVC is far more flexible in its morpho-syntax than simple verbs. In most languages which exhibit the LVC, the VN is used to introduce loan words into the language, like the Amharic polish adarraga 'lit. polish he did', 'he polished (something)'. Incorporating a loan verb into a language involves, among other things, the affixation of the loan verb with the native verbal inflection in accordance with the phonological and morphological requirements of the host language. This is often difficult if the source and target languages have markedly different phonotactics and morpho-phonological conditions. In Amharic, as in other Semitic languages, the morphological make up of a verb is such that the consonantal radicals carry the basic lexical meaning; different words are derived just by altering the arrangements of the radicals and vocalic segments. When a loan verb is introduced into Amharic, it becomes difficult and at times impossible to factor out the radicals if the loan word is not organized by the same morpho-phonological system. The LVC is an ideal way of circumventing this kind of problem. The LV is the only element which can carry the native verbal inflection, thus making it possible for the loan word to be incorporated more or less in its unmodified form.

Whatever turns out to be the correct source of motivation for the LVC, the cross-linguistic data suggests that the construction is a part of core grammar rather than a quirk of the periphery. In the next section, we will have a closer look at some of the cross-linguistic properties of LVs.

# 6.2. Properties of a Light Verb

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Now, what is special about the verbs which function as LVs? Many linguists assume that certain closed-class verbs are in some sense *semantically near-empty* or impoverished. Some claim that such verbs have general and abstract meaning when employed as LVs (cf. Heine 1993 and references therein). This is usually what is assumed for English verbs like *be, become, make, do*.

The traditional assumption about grammatical items in general is that the near-emptiness of meaning is *acquired* and not *inherent*. That is, most Light Verbs are not born as LVs, but rather are historically derived from lexical sources through

a process of both morpho-phonological and lexical-semantic 'depletion' or 'bleaching'. For instance, regarding the verb *be* in English, Jespersen (1924:131) claimed:

The verb *be* has become what it is through a long process of *wearing down* a more concrete signification ('grow'); it took a predicative in exactly the same way as many other verbs with a *fuller* signification still do: he *grows* old I *goes* mad! the dream will *come* true I my blood *runs* cold! he *fell* silent I he *looks* healthy | it *looms* large | it *seems* important | she *blushed* red | it *tastes* delicious | this *sounds* correct, etc. (italics mine, MA)

The basic idea is that when lexical verbs undergo the process of bleaching their meaning becomes more constant and less idiosyncratic - marking their transition from a lexical item into a grammatical item. Weinreich (1963:180) has the following to say about the nature of verbs such as *take*.

When we contemplate the varieties of "meanings" which a word like *take* has in English (*take offence, take charge, take medicine, take notice, take effect,* etc.), we come to the conclusion that *this is a case not of abnormally* overdeveloped polysemy of a word, but rather of its semantic nearemptiness. (emphasis mine, MA)

The basic meaning of *take* can be paraphrased in a Gruber-Jackendoff model as 'cause a thing to undergo a change in location' (cf. Jackendoff 1990). There are a number of verbs which incorporate this basic meaning but are also more specific. For example, English has a large class of specialized *take* verbs, such as the *steal* class of verbs (cf. Levin 1993:128ff). This class includes such verbs as *abduct, capture, confiscate, cop, emancipate, embezzle, thieve, wangle, winkle.* Each of these verbs are kinds of *taking* but also add something more, in particular, the manner of the 'taking'. Thus, for example, *abduct* is 'taking in an abducting manner.'

The idea that LVs are somewhat less idiosyncratic in their lexical-semantics than their lexical counter-parts is wide-spread. It is reminiscent of the well-known closed-class/open-class dichotomy (cf. Robins 1966) which dissects the entire lexicon into two classes. Basically, this dichotomy is based on the observation that open categories (such as Nouns and Verbs) have an indefinite number of members because each item of an open category encodes certain idiosyncratic meaning. On the other hand, closed categories (such as Adpositions) have a finite number of members because they have a relatively fixed and constant meaning. Thus, new members can be coined productively for open categories but not for closed categories. Pronouns in the nominal system, and auxiliaries in the verbal system are other typical exemplars of closed categories.

It is a well documented fact that closed-class categories can evolve out of open class categories (cf. Bybee 1985). For instance, in many languages auxiliary verbs and tense/aspect markers evolve out of lexical verbs when the latter gradually lose their idiosyncratic lexical content (cf. Heine 1993).

Although the assumption that LVs often evolve out of lexical sources is quite plausible, it has some drawbacks as a synchronic explanatory model. Language learners do not have the historical information that would be required to know the relationship between a LV and its lexical variant. This is particularly important when the LV and its alleged lexical variant co-exist. Thus, one must look for synchronic models of analysis to account for the relationship between a LV and its lexical variant.

6.2.1. Understanding the Light Verb6.2.1.1. Grimshaw and Mester (1988)

In one of the classic studies of the LVC, Grimshaw and Mester (1988), (G&M hereafter), claim that the Japanese light verb suru is thematically empty and inherits its thematic-role assigning property from the nominal that co-occurs with it. Consider the sentences in (14), (from G&M, p. 207):

- (14) (a) John-wa Mary-ni HANASHI-o shita
   John-Top Mary-to talk-Acc suru
   John talked to Mary
  - (b) John-wa Tookyoo-kara SHUPPATSU-o shita John-Top Tokyo-from departure-Acc suru John departed from Tokyo

- (c) Mary-ga John-to (kyonen) KEKKON-sita
   *-nom* -with last year marriage-did (married)
   Mary married John last year.
- (d) Mary-ga John-ni/-e toti-no ZY00T0-o sita
   -nom -to/-to land-gen giving-acc did
   Mary gave a piece of land to John.

The verb suru, glossed as 'do', co-occurs with a nominal. The nominal may occur without any Case marking or can be marked by accusative Case. G&M argue that the verb suru 'do' (sita in one of its inflected forms above) is a LV. By definition, a LV lacks thematic roles of its own but can inherit the thematic roles of the nominal. G&M assumed that the lexical entry of the LV *suru* would be as in (15), where the notation () indicates the lack of thematic roles:

(15) suru, ( ) <acc>

The same verb suru can also occur as a 'heavy', that is, 'lexical', verb. When it does, it has thematic roles of its own, just like other verbs, as shown in the following example:

(16) Mary-ga (suugaku-no) syukudai-o sita
 -nom math-gen homework-acc did
 Mary did the (math) homework.

G&M argued that the constructions in (14) pose problems to some standard assumptions about the theory of grammar. In (14) the argument structure of the sentence is determined by the argument structure of the nominal, rather than by the LV suru. In other words, the nominal seems to  $\theta$ -mark the arguments which are outside of its maximal projection, contrary to locality conditions on  $\theta$ -marking. G&M argue that the data in (14) are problematic if the locality conditions on  $\theta$ -role assignment are to be maintained. An NP is typically assumed to be opaque to thetamarking, that is, a verb cannot assign a theta-role into an NP nor can a noun assign a theta-role outside of its maximal projection. Then, since the Agent and Goal arguments are outside the NP, the question arises as to how these clausal arguments obtain their thematic roles. These arguments cannot be  $\theta$ -marked by the LV, because the LV does not have any influence on the argument array of the construction and presumably is devoid of any  $\theta$ -roles of its own.

In order to account for the assignment of thematic roles in the LV construction, while maintaining the idea that  $\theta$ -marking is local, G&M motivate the notion of *Argument Transfer*. The basic idea is that the nominal can transfer some or all of its thematic roles to the LV. Once the roles are transferred to the LV, they are assigned to the relevant arguments by the LV, thus, satisfying locality conditions. For instance, as (17a) below shows, the nominal zyooto 'giving' has three  $\theta$ -roles - Agent, Goal, and Theme and can transfer some of its roles to the LV as in (17c):

(17)	(a)	Nominal:	zyooto (Agent (Goal (Theme)))	
	(b)	Light Verb (LV):	suru ( ) <acc></acc>	
	(c)	Nominal + LV:	zyooto (Theme) +	
			suru (Agent (Goal)) <acc></acc>	

After establishing the need for Argument Transfer, G&M address the question of which  $\theta$ -roles can transfer to the LV. They observed that if the Theme argument appears as a clausal argument when other arguments such as the Goal are within the projection of the nominal, the resulting structure will be ungrammatical, as shown in (18):

(18) \*Mary-ga toti-o [NP John-e-no zyooto]-o sita -nom land-acc -to-gen giving -acc did

G&M tackle this problem by assuming that Argument Transfer operates in such a way that outer arguments, as defined by the Thematic Hierarchy, must transfer *before* lower arguments. Since Theme is the lowest argument on the Thematic Hierarchy, it can transfer only if the higher arguments are also transferred. G&M stated the constraint on Argument Transfer as in (19) based on the version of the Thematic Hierarchy presented in (20):

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- (19) (a) At least one internal  $\theta$ -role of the noun must be assigned to an argument outside the NP.
  - (b) If a  $\theta$ -role T is assigned outside the NP, then all  $\theta$ -roles that are higher than T in the thematic hierarchy must also be assigned outside the NP.
- (20) The Thematic Hierarchy (Agent (Experiencer (Goal/Source/Location (Theme))))

As pointed out by Saito and Hoshi (1994), G&M's analysis has some conceptual and empirical problems. Saito and Hoshi argued that the notion of Argument Transfer is an ad hoc principle which is not independently required elsewhere in the grammar. They proposed an alternative analysis which obviates the need for Argument Transfer. In a nutshell, they argued that the nominal, which cooccurs with the LV, incorporates into the LV by LF movement. The idea is that since LF movement is independently motivated, the analysis of the LV construction will follow without assuming ad hoc principles. We will return to the LFincorporation analysis shortly.

#### 6.2.1.3. Ritter and Rosen (1993)

The idea that certain verbs lack their own thematic specification and depend on their syntactic environment was also explored by Ritter and Rosen (1993), within the P&P framework. Ritter and Rosen (1993) have proposed that there is a class of predicates, which they call *functor* predicates, that have no thematic specification of their own but combine with other verbs to derive complex predicates. Their study is based on the analysis of the English verb *have* in sentences like those in (21), (from Ritter and Rosen 1993:531):

- (21) (a) David had Katie eat her vegetables
  - (b) The teacher had three students walk out on her

Ritter and Rosen claimed that all uses of *have*, including the causative and experiencer readings in (21a) and (21b) respectively, can be accounted for if *have* is thematically unspecified and gets its interpretation by combining with the lower verb. When *have* combines with a thematically specified verb, a complex predicate will be formed. This complex predicate is formed at the level of argument structure but is interpreted at the level of LF.<sup>51</sup>

Ritter and Rosen (1993) attempt to predict the difference between the *make* causative and the *have* causative. They present a number of syntactic tests to show that the causative construction with the verb *make* encodes two events whereas the causative construction with the verb *have* encodes a single event. Consider the following examples:

- (22) (a) The teacher didn't make Bill write the article, but he did it anyway
  - (b) \*The teacher didn't have Bill write the article, but he did it anyway

The contrast can be accounted for if *have* and the embedded verb *write* constitute a single event, so that "the writing must be negated along with the causation" (Ritter and Rosen 1993:529). Thus, causative constructions with *have* encode a single event because *have*, being a functor, does not specify an event. In other words, *have* and the verb it is added to share a single event specification. On the other hand, causative verbs such as *make* are lexically specified as having the meaning CAUSE. Thus, when *make* is combined with another verb in a causative construction, there are two events which have autonomous status, and thus, either can be negated independently.

Ritter and Rosen (1993) were able to predict the difference between *have*causatives and *make*-causatives in an elegant way. However, one conceptual problem with their approach is the assumption that functor verbs do not have any thematic specification. If this assumption is true, then it would be difficult to make a distinction among different functor verbs. As pointed out by Carpenter (1993), Ritter and Rosen's (1993) analysis does not capture the relative degree of

 $<sup>^{51}</sup>$  See also S. Rosen (1990, Ch.4) for a light verb account of restructuring phenomenon in Romance.

specification within functor verbs. Therefore, the assumption that functor verbs (equivalent to LVs) are devoid of any thematic information is probably too strong.

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In the remainder of this chapter, I will develop a formal account for the relationship between a LV and its lexical variant. I begin by presenting a case study of one LV, namely the verb ala 'say' and its role in the LVC. At the outset, the relationship between the LV ala 'say' and its more conventional lexical use as a quotative verb appears to be counter-intuitive. However, at the appropriate level of abstraction, the LV use of 'say' is predictable from its LCS and argument structure.

6.3. The Verb 'Say' <sup>52</sup> 6.3.1. Basic Assumptions

Let us take a closer look at the quotative sense of the verb alə 'say'. As already mentioned, the verb alə 'say' occurs as a lexical verb to frame a quotation:

(23)	ləmma	yihedal	ลโอ
	Lemma	go.imp-3mS	say.pf.3mS
	Lemma said:		

It was mentioned earlier that this verb occurs as an LV combined with a VN. More examples are given below:

(24)	(a)	t'ərmus-u	sibbir	alə		
		glass-DEF	break	'say'.pf.3mS		
		the bottle broke				
	(b)	k'i be-w	k'illit'	8]ə		
		butter-DEF	melt	'say'.pf3mS		
		the butter me	lted			
	(c)	aster č' <del>i</del> i	nn <del>i</del> k' alə <sup>.</sup>	-č		
		L. wo	rry 'say	y'.pf3fS		
		Aster is worr	ried			

 $<sup>^{52}</sup>$  An earlier version of this section was presented at WCCFL 14. See Amberber (1996) for details.

(d) ləmma zɨm alə
 L. quiet 'say'.pf. 3mS
 Lemma kept/became quiet

Notice that the syntactic position which is occupied by the quote in (23), is occupied in (24) by a form which we have called VN. Notice also that all grammatical features, including tense and agreement are encoded by the *say* verb and not by the VN. There is an obvious phonological similarity between the quotative verb ele of (23) and the LV ele of (24). However, whether there is a conceptual relationship between the two forms needs to be determined.

A number of studies (cf. Armbuster 1960 and references therein) have noted that the construction exemplified in (24) may have evolved from an onomatopoeic source. Synchronically, there are a number of constructions in which the form that co-occurs with ala can be cognized as an imitation or reproduction of a physical sound emitted by an object. Examples are given in (25):

- (25) (a) zinab-u t'əb t'əb alə
   rain-DEF t'əb t'əb 'say'.pf.3mS
   the rain dripped<sup>53</sup>
  - (b) bər-u k<sup>W</sup>a k<sup>W</sup>a alə door-DEF k<sup>W</sup>a k<sup>W</sup>a 'say'.pf.3mS the door knocked
  - (c) hisian-u ou ou ala
     child-DEF ou ou 'say'.pf.3mS
     the child screamed

Although the fact that the onomatopoeic item can appear with the verb ela 'say' is not perhaps surprising, as the verb is, after all, a quotative verb profiling vocalization, it is equally obvious that the items which obligatorily co-occur with ala in (24) are not onomatopoeic at all. Thus, one needs to gain more insight into the nature of this verb by investigating its LCS.

<sup>&</sup>lt;sup>53</sup> Armbuster (1960) has dubbed this phenomenon as an instance of 'animism', "the attribution of life and personality to inanimate objects and natural phenomena."

# 6.3.1.1. The LCS of the Quotative Verb 'Say'

It has been assumed (cf. Gruber 1976, Jackendoff 1990) that the verb say has a Theme argument which belongs to the ontological category Information. The rationale behind this proposal is that when one says something to someone, what is said can be conceived of as an entity moving from the speaker to the receiver, that is as a Theme. This implies that 'say' is a two-place predicate with Agent and Theme arguments.

However, this assumption is problematic for the analysis of the quotative verb because the quotation may or may not belong to the ontological category Information. The quotation may simply be an utterance without any informational content. Thus, alternatively one may suggest that the Event-type of the verb *say* may be more like that of a typical Activity, such as *laugh* or *dance*. However, even this is a problem because, whereas Activity verbs may occur without a cognate object, the quotative verb cannot occur without the quotation. Thus, *John laughed* is a complete sentence but \**John said* is not.

Determining the status of the complement of say is a long standing problem that has been addressed by a number of researchers including Davidson (1968), Partee (1973), Austin (1982) and Munro (1982), among others. The question that has been the focus of research is this: what is the syntactic and semantic status of the complement of *say*? In the following section, we briefly review the studies of Partee (1973) and Munro (1982).

### 6.3.2. The Transitivity of the Quotative Verb 'Say'

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The traditional assumption about the constituency relationship between a quoted sentence and verbs of *saying* is that the quoted sentence is like a standard object complement (cf. Rosenbaum 1967). However, this assumption has been questioned by Partee (1973) mainly on semantic grounds. Partee (1973) observes that sentences such as (26) - (27) impose a conflicting demand on the theory of grammar:

- (26) "I talk better English than the both of youse!" shouted Charles, thereby convincing me that he didn't.
- (27) When you said, "You won't be able to answer three of the questions," I guess I took it the wrong way.

While the assumption that the quoted sentence is syntactically and semantically part of the clause that contains it is consistent with the availability of ellipsis, the assumption is challenged by the fact that the quoted sentence "may be ungrammatical for the speaker of [26] and hence not generated at all by his 'own' grammar" (p.416). Thus, following Davidson (1968), Partee basically argues that the relationship between the quoted sentence and the main clause is mediated by other semantic elements as in (28):

- (28) (a) John said this: Alice swooned
  - (b) John said: "Alice swooned"

Partee then is led to the conclusion that the relationship between the quoted sentence and the main clause should be treated as a cross-discourse phenomenon rather than as a syntactic one. Of course, by shifting the problem from syntax proper to discourse, Partee did not see any reason for providing a syntactic representation for the quotative construction.

Munro (1982) has taken up the same problem by focussing on the issue of transitivity with respect to verbs of saying from a cross-linguistic perspective. Based on a number of morpho-syntactic facts such as case marking of the subject and the quoted material, Munro argues for the 'nontransitive' nature of *say* verbs.

I will show below that the problems discussed in Partee (1973) and Munro (1982) can be resolved in the syntax once we recognize that the Event-type of the verb 'say' is not lexically fixed but rather, is partly determined syntactically. I will argue that the quotation itself is the real predicate of a quotative construction.

Quotative constructions exhibit a number of syntactic peculiarities which are not found with other complement taking constructions. One outstanding property can be seen in co-reference options. Consider the contrast of coreference in the following:

(29)	<b>(</b> a)	John i said: "He * <sub>i, j</sub> will go"
	<b>(</b> b)	John i said (that) hei, j will go

In the quotative construction, (29a), the subject of the quoted clause cannot be coreferential with the subject of the *say* clause, whereas there is no such restriction in the case of the non-quotative construction, (29b). In some languages such as Amharic only the quotative construction is available:

(30) ləmmaj yi\*i,j-hedal alə
 Lemma 3mS-go.imp.3mS say.pf.3mS
 Lemmaj said: "He\*i,j will go"

Furthermore, the quotative construction appears unmarked for subordination. Thus, as pointed out by Munro (1982), an overt complementizer and quotation are in complementary distribution as shown in (31):

(31) (a) He said (\*that) "I'm going"(b) He said (that) I'm going

Therefore, the question is what is the semantic and syntactic status of the quotation in the quotative construction? I would like to claim that, although the quoted clause is indeed part of the *say* clause, the relationship is not one of a verb and its complement. I will take Munro's (1982) cautious conclusion about the 'not-perfectly transitive nature' of the verb *say* a step further and claim that *say* verbs are in fact intransitive in their valency. The appearance of the quoted clause as a direct object complement is an illusion created by the peculiar nature of the event encoded by *say*. Before going into the details of this proposal, I will first present Munro's

(1982), Munro, hereafter, arguments for the cross-linguistic non-transitive nature of the quotative verb say.

# 6.3.2.2. The Intransitivity of the Verb 'Say': Lack of Morphological Marking

Quotative constructions tend to have unmarked complements in many languages which otherwise mark the complement in some way. One such case has already been alluded to earlier with respect to the complementizer *that*. English does not allow the complementizer before the quotation clause. As pointed out by Munro, a similar situation can be found in languages with morphological object marking such as Chickasaw. This language does not allow object marking of a quoted material by the morpheme -ã, irrespective of whether the material is a noun phrase or a single noun, as shown below:

(32) "Ihoo" (\*-ā) aachi.
woman obj say
he says, "Woman"
(p. 303)<sup>54</sup>

6.3.2.3. Restrictions on Possible Objects of the Verb 'Say'

There are languages such as Godié, Hausa, and Classical Chinese which do not allow pronominal or more concrete objects with the verb *say*. In English there is no such restriction as *John said two words* is grammatical. In Hausa the quotative verb céè cannot be used with a non-quoted material:

(33) Yaa céè kalmà biyu
 he say word two
 He said, two words
 (p. 305)

ALC: NO

Munro remarks that (33) will be interpreted if the NP is itself considered as a quotation. Interestingly, the same restriction can be observed in Amharic as well. Whilst a closely related verb such as *tell* can take non-quotative objects, the verb say cannot:

<sup>&</sup>lt;sup>54</sup> Through out this section, page numbers refer to Munro (1982).

- (34) (a) ləmma hulət yə-ingliziña k'alat nəggərə-ñ
   L. two POSS-English words tell.pf.3mS-10
   Lemma told me two English words
  - (b) ləmma hulət yə-ingliziña k'alat alə L. two POSS-English words say.pf.3mS Lemma said: "Two English words"

Exactly as in Hausa, the sentence in (34b) is interpreted only if the object NP is understood as a quotation itself.

6.3.2.4. Lack of Morphological Agreement with the Verb 'Say'

When there is morphological agreement with a singular direct object, languages such as Cahuilla fail to show agreement only in the case of the verb *say*. Thus, consider the contrast in (35a), (35b), on the one hand, and (36) on the other. The agreement marker is the prefix pe-:

- (35) (a) Pe-n-'ayaw-qa mansaana-y it-I-want-pres apple-obj
   I want an apple
   (p. 306)
  - (b) Pe-n-'ayaw-qa hen-hichi-ka *it-I-want-pres I-go-incomp*  I want to go (p. 306)
- (36) Ni-ya-qa "Hen-hichi-ka" *I-say-pres I-go-incomp*I say, "I am going"
  (p. 306)

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6.3.2.5. Treatment of the Quotative Construction as Intransitive

In ergative languages the subject of the quotative verb say appears unmarked (absolutive) suggesting that the construction is treated as intransitive. Munro (1982) documented the 'say' constructions of Samoan and Yup'ik Eskimo. Thus, consider (37) from Samoan:

 (37) Na fai mai latou past say towards-me they They said it to me (p. 306)

6.3.2.6. Restrictions on Passivization

Munro observes that in English the passivized quotation construction has at best marginal grammatical status, as in ?\* "Help!" was said. In contrast, passivization is possible when the complement is not a quote (p. 307-8), as in A few words were said. Passivization is also possible when say has the sense of 'use a word', as in "Ain't " is said by few professors.

#### 6.3.2.7. Treatment of the Quoted Material as an Oblique

According to Munro, in some languages the quotation bears oblique case marking supporting the generalization that the quotation may not be a direct object complement. In Mojave, a language of the Yuman family, there is an optional oblique marking as shown in (38a). Interestingly, quotative constructions obligatorily bear morphological marking which formally resembles the oblique marking, as seen in (38b): (38) (a) 'inyep(-k) i'ii-m me-obl say-tns He said it about me (p. 307)
(b) M-isay-k '-i'ii-m you-fat-?? I-say-tns I say you're fat', I say, "You are fat" (p. 307)

#### 6.3.2.8. Treatment of the Quoted Material as a Non-Constituent

In some cases, the quoted material is treated as a non-constituent. This fact is observed with respect to auxiliary placement in Pima (Uto-Aztecan). It appears that Pima is rather flexible in its word order options, with one strict restriction. Although the order of subject, object and verb in a given clause may vary, the auxiliary must always be the second constituent:

(39)	(a)	Ian 'o s-ha-hoohit heg'u'uvi Ian 3(aux) stat-them-like art women
	(b)	S-ha-hoohit 'o heg'u'uvi heg Ian = Ian likes girls stat-them-like 3(aux) art women art Ian
	(c)	'u'uvi <b>'o</b> s-ha-hoohit heg Ian (p. 308)

The second position restriction is observed even when non-canonical constituents such as deictic particles (-b 'here') are involved:

1

(40) (a) Rina 'o-b heñ-ñeid Rina 3(aux)-here me-see

> (b) B-o heñ-ñeid heg Rina here-3(aux) me-see art Rina (p. 308)

However, the restriction on auxiliary placement is violated in quotative constructions as shown in (41):

(41) "S-heepit 'añ" b-añ kaij stat-cold I(aux) here-I(aux) say "I'm cold", I said (p. 310)

According to Munro (p. 310) the quotative construction constitutes the only example in which the auxiliary placement restriction is not observed. Munro speculated that "it is almost as though the quotation is being treated as not belonging to the sentence or to the 'say' clause for the purpose of auxiliary placement."

#### 6.3.2.9. Word Order Differences

Languages which otherwise permit extraposition of objects do not do so when quotations are involved. Munro cites Maricopa, another Yuman language, where extraposition of quotations in front of an overt subject of *say* is prohibited:

- (42) (a) Heather-sh i-m '-n'ay-sh va dany chew-k Heather-subj say-tns my-father-subj house this make-k Heather said, "My father built this house" OR Heather said that my father built this house
  - (b) \*'-n'ay-sh va dany chew-k Heather-sh i-m (p. 309)

The same fact can be observed in Amharic. Thus, compare the availability of extraposition in the non-quotative clauses (43a), (43b) with the quotative constructions (44a), (44b):

- (43) (a) aster lamma inda-matit'a tawk'ala-č
   A. L. that-arrive.pf.3mS imp.3fS.know-3fS
   Aster knows that Lemma has arrived
  - (b) lamma inda-matitia aster tawkiala-č L. that-arrive.pf.3mS A. imp.3fS.know-3fS that Lemma has arrived, Aster knows
- (44) (a) aster "lamma mat't'a" ala-č
   A. L. arrive.pf.3mS say.pf.-3fS
   Aster said: "Lemma arrived"
  - (b) \* "ləmma mət't'a" aster alə-č *L. arrived A. say.pf.-3fS*

In (43b) the complement clause of the verb *know* is preposed. On the other hand, we can see in (44b) that the quotation cannot be preposed.<sup>55</sup>

### 6.3.2.10. Similarity of the Quotative Construction to Other Intransitives

Finally, Munro documented the similarity of quotation syntax to that of other intransitive constructions by focussing on some examples of stylistic inversion in English. One of these constructions is the locative inversion:

(45) (a) My brother was/sat in front of the fire

(b) In front of the fire was/sat my brother

(p. 310)

L. arrived say.pf.-3fS A.

"Lemma arrived", said Aster

This construction is not relevant for the present discussion.

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<sup>&</sup>lt;sup>55</sup> In written narrative styles, the quotation can occur clause-initially if followed by the verb:
(i) "lemma met't'a" ale-č Aster

Munro noted that stylistic inversion can apply to quotative constructions as well, but not to direct object complements, as the contrast between (46) and (47) shows:

- (46) (a) John said/asked "What's up?"
  - (b) "What's up?" said/asked John
- (47) (a) Mary likes linguistics
  - (b) \*Linguistics likes Mary

Munro has also discussed ways in which some languages 'side-step' the transitivity issue with respect to the quotative verb say. One common strategy adopted by some languages is the use of affixes or particles to encode quotations, instead of an independent verb. In Yaqui a quotative particle which attaches to the verb of the quotation is employed:

(48) In kuna si yuk-ne-tia my husband much rain-fut-quot my husband says it is going to rain much (p. 310)

Quotative constructions also seem to exhibit special interrogative strategies to avoid the use of a *wh*-word to question the quotation. For instance, in most Yuman languages the verb *say*, together with the verbs *be* and *do* takes a special interrogative prefix. Interestingly, even languages like Italian exhibit a special property in questioning quotations. Thus, Munro notes that the common use of *how* for *l beg your pardon* is peculiar to the verb *say*:

(49) Come avete detto?what did you say?[lit. how did you say?, MA](p. 310)

To summarize, I have presented Munro's (1982) observations and arguments which provide cross-linguistic evidence of the intransitive (or the non-transitive) nature of the quotative verb say.

Now, if the quotative construction is indeed intransitive, then it is not clear how the quoted material can be a direct object complement of the verb *say*, as the traditional syntactic representation (cf. Rosenbaum 1967, Stockwell 1977), shown in (50) would suggest:



Unfortunately, Munro does not provide an alternative syntactic representation which would be more compatible with the observed intransitive nature of the verb say. <sup>56</sup> Therefore, in the next section I present a proposal which will account for most of the observed properties of the quotative verb say.

# 6.3.3. The Polysemy of the Verb 'Say'

The intriguing fact about the verb 'say' is that it can be used in two different senses, repeated below as (51a) and (51b):

(51)	(a)	ləmma	y÷hedal		ອໄອ
		Lemma	go.imp-3	mS	say.pf.3mS
		Lemma said:	" He will go"		
	(b)	t'ərmus-u <i>glass-DEF</i>	sibbir break.INT	alə 'say'.	pf-3mS
		the bottle bro	ke		

<sup>&</sup>lt;sup>56</sup> To the best of my knowledge, the problem of characterizing the syntactic status of the quotation clause has not been examined in contemporary theories such as the P&P framework. But see Branigan and Collins (1993) for a brief analysis of written narrative constructions such as "I will go", said/thought Mary.

The first and important step is to determine the relationship between the quotative and the LV use of the verb ala 'say'. The question is whether the two verbs are cases of accidental homonymy or are systematically related.

Pustejovsky (1995), following Weinreich (1964), points out that words can be ambiguous in two ways which can be referred to as (a) contrastive ambiguity and (b) complementary polysemy. The classic example of the first type of ambiguity is found with the two senses of the English noun bank in:  $bank_1$ 'financial institution' and  $bank_2$  'river shore'. These are two accidentally related nouns with distinct and unrelated meanings. On the other hand, as mentioned in Chapter 3, a typical example of complementary polysemy is found with the two uses of the verb door: Mary painted the door vs. Mary walked through the door, where door is a physical object or an aperture respectively. These are lexical senses which are manifestations of the same basic meaning (cf. Pustejovsky 1995:28ff).

I would like to argue that the two senses of the verb  $a_a$  'say' are not instances of accidental homonymy. If the Amharic quotative verb  $a_a$  'say' and the LV  $a_a$  'say' were simply accidentally related, one would not expect to find a verb meaning 'say' to function as a LV in other languages. Such an expectation would be akin to say that a verb meaning 'bank' would have the two distinct meanings in languages other than English.

As it turns out, a verb meaning 'say' can be used as a LV, in addition to its quotative use, in a number of typologically and genetically unrelated languages. Indeed, the phenomenon is quite common in a number of Afroasiatic languages including Nilotic (Nubian), Cushitic (Oromo and Agaw) and most of the modern Ethiosemitic languages (cf. Armbuster 1960). The use of a verb meaning 'say, sound' as a finite verb component of a complex predicate is very productive in a number of Australian languages, particularly in the non-Pama-Nyungan languages of the Kimberley region, including Yawuru (Hosokawa 1991), Nyulnyul (McGregor 1994), and Nyikina (Stokes 1982).

Nyikina has about 8 LVs and the most frequent one is the verb -i 'say'. In Yawuru there are eight productive LVs (referred to as Finite Verbs in Hosokawa 1991) which combine with VNs (Pre-Verbs) to form a complex predicate. Among the eight LVs, the verb dyu 'say' is the most frequent LV. Some representative examples are presented below (from Hosokawa 1991:206ff): (52) (a) darra + dγu belch + say belch

- (b) dyip + dyu *drop* + say drop off, spill
- (53) Yardap + i ny-dyu-n dyalangardi-ngarr crawl + 3-EN-Say-IMP sand.goanna-like he crawled like a sand goanna

Papuan languages belong to yet another linguistic area where a verb meaning 'say' is productively used to form verbal predicates. For instance, Enga (cf. Foley 1986) has about twelve LVs (referred to as generic verbs in the literature) which combine with VNs (referred to as adjunct nominals) to form verbal predicates. It is interesting to note that in Enga, out of the twelve LVs, the verb meaning 'say' is the most frequent one. A number of other Papuan languages, such as Asmat, Kewa and Hua (cf. Foley 1986), have a verb meaning 'say' that functions as a LV.

According to Waley and Armbuster (1934), the use of the verb meaning 'say' as an 'auxiliary' is attested in Classical Chinese. Thus, a sentence which can be literally read as "the way, it says it is distant" actually means "the way is distant" (Waley and Armbuster 1934:573).

Hence, the above observations dictate that the relationship between the LV 'say' and its quotative variant cannot be one of homonymy. Therefore, the alternative hypothesis, the assumption that the relationship between the two uses of the verb is one of polysemy, must be explored.

# 6.3.3.1. The Complement of 'Say' as a Predicate

Suppose that in languages where the complement of the verb 'say' is always realized as a quotation, the verb 'say' is itself a Light Verb. In other words, the verb 'say' is like other functor verbs even when it is used in a 'lexical' sense, that is, when it occurs with quotations. I would like to argue that the verb ala 'say' in Amharic is a functor verb similar to hone 'become'. Its LCS can be represented as in (54):

(54) ala 'say' [y INCH ]

No.

In phrase structure terms, I suggest that the quotation is directly generated as a Root whereas the verb ale 'say' is generated outside of the RP. Thus, the thematic role of the subject, that is, the 'sayer', comes from the quotation. Likewise, I assume that the thematic role of the argument in the LVC is determined by the VN which is generated as a Root. Thus, the quotative construction and the LVC, repeated below as (55) and (56) respectively, have the phrase structures modelled in (57a) and (57b) respectively (ignoring the structure above AspP):

(55)	ləmma	y÷hedal	อโอ
	Lemma	go.imp-3MS	say.pf.3MS
	Lemma said:		

(56) t'ərmus-u sɨbbɨr alə
 glass-DEF break 'say'.pf-3mS
 the bottle broke



Therefore, the VN and the quotation are paradigmatically equivalent in that both are generated as a head of the Root. Since the assumption that the quotation is a Root may appear counter-intuitive, I will present more evidence for its motivation. First, I note that the quotation does not belong to any syntactic category: it is category-less. This is clearly seen when the quotation is a mono-syllabic interjection word, as in *Mary said: "ouch!"* which cannot be assigned any syntactic category. I maintain that the quotation is still category-less even when it occurs as a fragment of other categories. Thus, generating the quotation in a category-neutral Root would be highly desirable.

Second, if the quotation is part of a predicate, and the verb say is a LV, then we would predict that similar LVs can easily be substituted for the verb 'say' in a quotative construction. This prediction is borne out by the data. Some languages can substitute the verb say with non-quotative verbs. This fact has already been documented for colloquial English (see Romaine and Lange 1991, Blyth, Recktenwald and Wang 1990 and references therein). Consider the relevant examples in (58), from Romaine and Lange (1991:230):

- (58) (a) She goes, "Mom wants to talk to you."...
  - (b) She's *like* "I don't believe it"

Consider (58a). It is clear that the verb go is not used in its lexical sense, that is, as a motion verb. If the verb go is not used in its lexical sense, then the thematic role of the 'sayer' could not have come from go but rather from elsewhere: the only candidate would be the quotation itself. Now, consider (58b). What is the verb of the clause? The only verbal category is the verb be, whose sole function is simply to carry verbal inflection. It is unstressed and typically occurs cliticized to the pronoun. It would be difficult to claim that the thematic role of the argument in the quotative construction is assigned by the verb be. Notice that the construction in (58b) occurs with the adverbial/adjectival form *like*. This element is used as a kind of deictic category, in the sense of Davidson (1968), and frames the quotation. Although, the syntactic status of *like* in (58b) is not clear, the point here is that the quotative verb 'say' can be substituted by other 'empty' verbs. This would make sense if 'say' itself is a light verb even when it occurs with a quotation.

According to our analysis, it would be quite natural to find languages which have quotative constructions without any verb at all. In such languages the quotation would simply be juxtaposed with the 'sayer'. There is evidence which supports this claim. According to Merlan and Rumsey (1991), in the Ku Waru language of Papua New Guinea the quotative verb is often optional. Thus, in (59) below (from Merlan and Rumsey 1991:342), there is no quotative verb: the quotation simply occurs with the single argument, the 'sayer':

(59) abayl-n mol, kangabola kang-yiyl-nga woman-Def-Erg no child man-Gen kang-yiyl-n kangabola na-nga mol man-Erg child I-Gen no

the woman says 'no, the child is the man's':

the young man says 'the child is not mine'

No.

Again, this would make sense only if the quotation itself is a predicate. Note that the situation is similar with copula constructions. In languages like English, attribution, identity, and existence are expressed by copula verbs as in *Mary is* 

*intelligent*. However, there are many languages, such as Dyirbal (Dixon 1976), which do not use a copula verb. In some of these languages, the equivalent of *Mary is intelligent* is expressed simply by juxtaposing the argument with the adjective: 'Mary intelligent'. The minimal assumption would be that in both types of languages, the argument gets its thematic role from the adjective. Likewise, the quotation of the verb 'say' is a predicate which, by virtue of being generated as the head of RP, assigns the thematic role to its argument.

The present analysis also makes sense of one other fact. I claimed that the quotation complement of the verb *say* is itself a predicate. Thus, the quotation complement is obligatory. If this is correct, the prediction would be that a quotation complement of a lexical verb would not be obligatory. That is precisely what we find with the so-called verbs of Manner of Speech (cf. Zwicky 1971), such as the English *shout, scream, yell, holler, whisper, shriek, lisp, growl, mumble, mutter,* etc. (see also Levin 1993). Manner of speech verbs are generated as heads of RP. Thus, the ungrammaticality of the construction *\*John said,* as opposed to the grammaticality of *John shouted/whispered/mumbled* arises from the fact that the verb *say* is a functor which must co-occur with an element in RP.<sup>57</sup> Thus, the minimal difference between quotative 'say' and a manner of speech verb is structural: 'say' is a functor verb that selects for an RP, whereas a manner of speech verb is a lexical verb that heads an RP.

Therefore, the quotation in the quotative construction and the VN in the LVC are equivalent. In both constructions, the verb ala 'say' is generated outside of the RP.

### 6.3.3.2. The Derivation of the LVC

Let us now have a closer look at the derivation of the LVC. Consider once again the relevant examples repeated below as (60):

(60)	<b>(</b> a)	t'ərmus-u	sibbir	alə
		glass-DEF	break	'say'.pf.3mS
		the bottle bro	ke	•

<sup>&</sup>lt;sup>57</sup> Notice that nothing said so far will exclude the appearance of some other material such as a quotation with manner of speech verbs, such as *John shouted "stop!"*. When this happens, the quotation has a different syntactic status, that of an adjunct, as proposed in Stowell (1981).

**(b)** k'ibe-w k'+111+t' alə butter-DEF melt 'say'.pf.3mS the butter melted (c) zim ləmma alə L. quiet 'say'.pf.3mS Lemma became quiet

The arguments in the above constructions are generated in Spec RP. These arguments get their thematic role from the VN which is generated as a Root like other lexical Roots. The only difference between a verbal Root and a VN Root is that the latter does not move overtly into Event-type functors, such as CAUS, INCH, BE. Thus, whereas a verbal Root and the Event-type functors form a single X<sup>o</sup> head, the VN Root and the LV remain distinct words.

However, the derivation of a simple verb and that of a LVC would be even more similar if we assume that the VN incorporates into the LV at LF as in Saito and Hoshi (1994). As mentioned earlier, the LF movement of a nominal for thetatheoretic reasons is motivated by Saito and Hoshi (1994) in their analysis of the Japanese light verb construction. Saito and Hoshi argued against the notion of Argument Transfer proposed by Grimshaw and Mester (1988) in their analysis of the Japanese *suru* construction. One conceptual problem pointed out by Saito and Hoshi (1994) has to do with the status of Argument Transfer in UG. They noted that since Argument Transfer is motivated only to account for the light verb construction, it is suspicious as an explanatory device. Thus, it would be desirable if the construction could be accounted for by independently motivated principles of grammar without resorting to construction specific principles.

The second problem raised by Saito and Hoshi (1994) concerns Grimshaw and Mester's (1988) requirement that Argument Transfer applies in an *outside-in* fashion. This requirement is motivated on the ground that the hierarchy of arguments should be preserved even after transfer. The problem is that after Argument Transfer there will be two independent theta role assigners. Given that the Thematic Hierarchy is concerned with the relationship of arguments of a single theta role assigner, Saito and Hoshi (1994) argue, it is not clear why the requirement affects two independent theta role assigners: the nominal and the LV. Saito and Hoshi's (1994) analysis of LF incorporation obviates the construction specific notion of Argument Transfer. In their theory, LF incorporation is motivated by  $\theta$ -role assignment.<sup>58</sup>

In the present framework, the LF movement of the VN into the LV is motivated by our principle that every Root must spell-out its Event-type. Since the LV is the realization of the Event-type functor INCH, the VN Root must incorporate, albeit covertly, into the LV.

Now if the proposed analysis is on the right track, it should be able to account for the fact that the verb ale 'say' cannot derive either Accomplishments or Activities, as shown in (61):

(61) (a) \*aster t'armus-u-n sibbir alə-č
A. glass-DEF-ACC break.VN 'say'.pf-3fS
(b) \*aster (zəffən) ziffin alə-č
A. (song) sing.VN 'say'.pf-3fS

There is a straightforward explanation for the ungrammaticality of these constructions. We said that the LV ala 'say' is an Event-type functor analogous to 'become'. Thus, the verb is monadic with only one argument. This means that the verb 'say' cannot be a realization of a causative predicate because the latter requires two arguments. Since in (61) there are two thematic arguments, it is not possible to employ the LV ala 'say'.

Thus, our analysis provides a unified account for both senses of the verb  $sl \Rightarrow 'say'$ . Our proposal goes beyond explaining the Amharic facts. It is now possible to understand the transitivity of the verb say in general. Munro's (1982) detailed cross-linguistic observation about the 'non-transitivity' of the verb 'say' follows from our analysis. The verb say is a functor verb which must combine either with a quotation complement or a VN complement. For all intents and purposes, the quotation is like a predicate rather than like an argument. It is not surprising then that a quotative construction behaves like an intransitive verb.

This concludes our discussion of the verb ala 'say'. In the following section we examine the properties of the verb adarrage 'make'.

 $<sup>^{58}</sup>$  Baker (1996:352-361) has independently argued for an LF incorporation of a 'predicate nominal' into a light verb. What Baker (1996) considers as a predicate nominal has properties which differ from those of the VN in the LVC. One of the differences is that the VN is not assigned Case by the LV.

6.3.4. The Verb adarraga 'Make/Do' in Amharic

Another productive LV in Amharic is the verb adarraga 'make'. Unlike the verb ala 'say', the verb adarraga encodes CAUS. Thus, consider the following examples:

(62) (a) aster tərmus-u-n sɨbbɨr adərrəgə-č-iw
 A. bottle-DEF-ACC break.VN cause.pf.-3fS-3mO
 Aster broke the bottle

(b) aster ya-agerwa-n zaffin A. POSS-country-ACC song

> ziffin adərrəgə-č sing.VN cause.pf.-3fS Aster sang a country song

(c) aster lamma-n widdid adarraga-č-iw
 A. L.-ACC love.VN cause.pf.-3fS-3mO
 Aster loved Lemma

In all the above constructions the verb adarraga spells-out the CAUS Event-type. As mentioned earlier, if we substitute the verb ala 'say' in the above constructions, the structure becomes ungrammatical. This contrast between the VN + ala 'say' complex and the VN + adarraga 'cause' complex can be explained naturally. Unlike the verb ala 'say', the verb adarraga 'make' has a fixed CAUS argument, analogous to that proposed for the English verb *make* by Ritter and Rosen (1993:533).

I should point out here that the verb adarraga 'make' is actually a composite of the causative affix a- and a prefix-requiring ([+P]) verb -darraga. Recall from Chapter 4 that [+P] verbs always require a prefix to spell-out their Event-type functors. Thus, the relevant aspects of the LCS for verb -darraga 'make' can be represented as in (63):

(63) -dərrəgə [+P] [x CAUS<sub>h</sub> y INCH]

The verb adarraga is directly generated as the head of VP. The VN is generated as the head of RP. Thus, consider (64) which is the phrase structure representation of (62a):



Now, since the verb adarraga always has a CAUS argument, it cannot be used to derive non-causative predicates. This can be seen in (65):

(65) \*t'ərmus-u sibbir adərrəgə
 glass-DEF break.VN cause.pf.3mS
 (the glass broke)

However, as for any other verb with a CAUS functor, the verb adarraga can be passivized with the prefix t-. Consider the sentence in (66):

(66) t'ərmus-u sibbir tə-dərrəgə
 glass-DEF break.VN PASS- caus.pf.3fS-3mO
 the glass was broken. (≠the glass broke)<sup>59</sup>

Notice that in (66) t- + dərrəgə does not have an inchoative reading. This follows directly from the idea of Event Headedness (cf. Pustejovsky 1995). In Chapter 2 we argued that if the CAUS functor is the head of the Event, it cannot be suppressed at the level of l-syntax. Since the CAUS functor is the head of the LCS in (63), it cannot be suppressed at l-syntax. Thus, tə-dərrəgə 'was made' cannot have an inchoative reading precisely for the same reason as mandatory agent verbs such as tə-gənnəba 'was build' cannot have an inchoative reading.

One construction which lends support to our analysis is that which involves loan verbs. In Amharic, a productive way, and often the only way, of adopting loan words involves the use of the LVC. Some examples are given below:

(67) d+r+j+t-u w+t+t-u-n pasčerayz aderrege institution-DEF milk-DEF-ACC pasteurise cause.pf.3mS the institution pasteurised the milk.

(68)	(a)	polish	adərrəgə	'he polished'
	(b)	tayp	adərrəgə	'he typed'
	(c)	p∔rint	adərrəgə	'he printed'

I assume that loan words such as *pasteurize* are treated as VNs. Loan verbs which do not conform to the morpho-phonological system of Amharic must occur in the LVC.

Now before concluding this chapter, I will explore one issue which has been taken for granted. Why is the LVC derived in the syntax instead of the lexicon?

 $<sup>^{59}</sup>$  Since the verb - dərrəgə 'make' is lexically marked as a [+P] verb, the passive morpheme tcan attach to it directly.

6.3.5. The LVC : Lexical or Syntactic6.3.5.1. Lexical Derivation: Evaluating the Evidence

A purely lexicalist approach to the derivation of the LVC will have to assume that all instances of a LVC are listed in the lexicon as single units and that these units become available to syntax after lexical insertion. Crucially, the internal structure of the LVC will be opaque to syntax. On the other hand, a syntactic approach to the derivation of the LVC will assume that the LVC is formed by independently motivated syntactic principles, and that the internal structure of the LVC is transparent to syntax.

One argument against the syntactic derivation of the LVC is the strict lexicalist view that the internal structure of a lexical item is not transparent to syntactic processes. However, this argument cannot be maintained for the LVC because the two constituents of the LVC can be separated by a variety of syntactically relevant entities. The evidence for this fact varies from language to language. In Amharic, items which split the VN from the LV include agreement prefixes, relativizing morphemes, complementizers, and negation markers. Thus, consider the examples in (69):

- (69) (a) t'ərmusu sɨbbɨr yi-lai the glass break 3mImp.-'say' the glass breaks/ will break
  - (b) sibbir ya-law t'armus break REL.-'say'.pf.3mS glass the glass which broke
  - (c) t'ərmusu sɨbbɨr ind-alə səma-hu
     the glass break COMP-'say'.pf.3mS heard.pf.-1S
     I heard that the glass broke
  - (d) t'ərmusu sɨbbɨr al-alə-mm the glass break NEG.-'say'.pf.3mS-NEG The glass did not break

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These examples are problematic for the view that the LVC is opaque to syntax. If the LVC is a complex V<sup>O</sup> inserted in the syntax, then the syntactic features should occur at the outer-edge of the complex and not inside. To be sure, one may counter our line of argument by arguing that the VN + LV complex is inserted in the syntax as a V<sup>O</sup> and then the LV moves out of (excorporates from) the V<sup>O</sup> to carry syntactic features, Agr, Comp, Neg, as schematized in (70):



However, the excorporation assumption is problematic when we consider the fact that it is not only inflectional affixes which can occur between the two components of the LVC.<sup>60</sup> The VN can be clefted by the use of the verb naw 'be' which occurs between the VN and the LV, as shown in (71b) below:

- (71) (a) t'armus-u naw sibbir y-alaw
   glass-DEF be.3mS break REL-'say'.pf.3mS
   it is the glass (that) broke
  - (b) t'emus-u sibbir new y-elew
     glass-DEF break be.3mS REL-'say'.pf.3mS
     lit. it is breaking that happened to the glass
     (i.e., it didn't simply fall)

It would be difficult to account for this fact if the LVC is treated as a lexical compound inserted into syntax as a V<sup>o</sup>. It would mean that syntactic processes such

 $<sup>^{60}</sup>$  Furthermore, technically, the mechanism of excorporation would be rather ad hoc as it is not required elsewhere in the grammar.

as relative clause and cleft formation have access to the internal structure of the  $V^0$ , an assumption that is unacceptable in a lexicalist framework.

Languages which are more liberal with respect to what they allow to occur between the two components of the LVC are even more problematic for the lexical generation of the LVC as a  $V^0$ . In Yawuru, some arguments may occur, albeit rarely, between the VN and the LV.<sup>61</sup>

- (72) (a) wamba dyunku+i-mirdibi-rn man(ABS) run+3-AUX(run.away)-IMPF a man is running
  - (b) dyunku wamba i-mirdib-rn run man(ABS) 3-AUX(run.away)-IMPF a man is running

The first sentence is the normal LVC type construction. In the second sentence the argument of the predicate comes between the two components of the LVC. If the LVC is formed as a  $V^{O}$ , it would be difficult to account for this fact.

A further difficulty for the lexical generation approach is the fact that at times the VN and LV occur in an inverted order. In Yawuru, when the VN follows the LV, there is an intonational pause (indicated by the slant "/"). Thus, consider (73b) from Hosokawa (1991:204):

(73) (a) wamba dyunku+i-mirdibi-rn man(ABS) run+3-AUX(run.away)-IMPF a man is running

<sup>&</sup>lt;sup>61</sup> There is a restriction, however, on what type of arguments can intervene between the Yawuru Pre-verb (VN) and Finite Verb (LV). Thus, the intervening argument must be (a) an intransitive subject (but not transitive object) (b) definite, and (c) must consist of only one word. We do not attempt to account for this issue here. One possible explanation may be that the verbs which allow such intervention are unaccusatives and thus the argument is incorporated from an underlyingly object position, obeying the ECP, along the lines argued for Mohawk by Baker (1988a). If this turns out to be true, then it is an additional argument for the syntactic derivation of the LVC. Otherwise, it would not be clear how incorporation may occur between two lexically combined elements unless one assumes that incorporation is also lexical. The important point here is that an intervening argument is not predicted if the VN+LV complex is lexically generated.

(b) wamba i-mirdibin / dyunku man(ABS) 3-Aux(run.away)-IMPF run

The observed facts for languages like Yawuru, which exhibit more freedom in the relative order of the VN and the LV, and in what is permitted to intervene between the VN and LV, are not problematic for the syntactic derivation as it recognizes that the two components of the LVC can be morphologically independent.<sup>62</sup>

On the other hand, the intervention and permutation facts are problematic for a lexical analysis, as in this analysis the two components of the LVC are part of a compound word. If the LVC with the VN+LV order is derived in the lexicon, there is no reason why the same cannot be said about the LVC with the inverted order, namely the LV + VN. There would be no principled reason to allow the lexical listing of one order and exclude the other. If both are lexically derived, it means that they are treated as different lexical items: the synonymous meaning between them will just be accidental.

Nevertheless, some lexicalists have attempted to account for the inversion problem and other related issues within a lexicalist approach. Confronted with similar issues in Warlpiri, Simpson (1991:118ff), working within the LFG framework, argues that "The simplest means of maintaining a lexicalist position while allowing a Preverb Verb construction to be, on occasion, two distinct phonological constituents, appears to be to generate the preverb and verb as a V' [V-bar] in the morphology". Thus, Simpson (1991), while recognizing the phrasal character of the VN + LV combination, attempts to maintain the lexical derivation of the construction by suggesting that it is generated in the lexicon as a V'.

This conclusion is forced on Simpson (1991) by the lexicalist hypothesis of equating words with syntactic atoms (cf. DiSciullo and Williams 1987). Simpson (1991:44) writes that "lexicalist theories have generally assumed [...] only words undergo lexical insertion at the terminal nodes of phrase structure trees. Words are the end-product of morphological processes, and they are the atoms of syntactic processes." The lexicalist assumption about the atomicity of words is formalized by principles such as the *Lexical Integrity Hypothesis* (Chomsky 1970), which requires that syntactic processes be blind to the internal structure of words.

 $<sup>^{62}</sup>$  This is not surprising as these languages are often characterized as non-configurational (cf. Hale 1983).

Within this context, thus, it is clear why Simpson (1991) proposes to generate the complex predicate in the lexicon as a V' constituent. This is not a perfect solution, by her own admission, and was put forth "in the absence of a more adequate approach" (Simpson 1991: 50). In fact, noting that her proposal fails to make a principled distinction between a lexical V' and a syntactic V', Simpson (1991:49) admits that a rigid distinction between morphology and syntax is difficult to maintain:

It does seem likely that a rigid distinction between morphological wordformation and syntactic phrase formation is impossible to maintain. Serial verb constructions, preverb-verb constructions, the interspersion of clitics and case-suffixes in Warlpiri, all suggest the need for some *semi-syntactic* word-formation." (emphasis mine, MA)

Of course, Simpson's move compromises the Strong Lexicalist Hypothesis (cf. DiSciullo and Williams 1987) in which all word-formation is confined to the lexicon. As we argued throughout this thesis, it is precisely through providing structural content to the notion of *semi-syntactic word-formation* that we can provide an adequate account of complex predicates. In our framework, the level of l-syntax allows for some degree of lexical idiosyncracy while maintaining the syntactic aspect of word formation.

### 6.3.5.2. Questioning the Verbal Noun

If the internal components of the LVC are syntactically transparent, as we have argued so far, it should be possible to *wh*-question the VN. The data shows that this is not possible:

- (74) (a) t'ərmus-u sɨbbɨr alə
   bottle-DEF break 'say'.pf.3mS
   the bottle broke
  - (b) ?t'ərmus-u min alə bottle-DEF what 'say'.pf.3mS what did the bottle say?
As (74b) shows, the VN component of the LVC cannot be wh-questioned.<sup>63</sup> The correct structure must have the verb hone 'become' as shown in (75) below:

(75) t'ərmus-u mɨn honə ? glass-DEF what become.pf.3mS what happened to the glass?

This fact may be taken as evidence for the syntactic opacity of the LVC. Notice that (74b) is not ungrammatical but anomalous as it invokes the quotative reading of the verb ale 'say' with an inanimate argument. I would like to suggest that this fact has nothing to do with the lexical generation of the LVC but rather is due to the independent property of wh-questions, namely wh-questioning requires a referential argument. Consider, for instance, the English periphrastic causative make:

- (76) (a) John made Bill cook dinner
  - (b) John made a cake
  - (c) What did John make?
  - (d) What did John make Bill do?

The question in (76c) is grammatical only if it is questioning (76b): it invokes the referential complement of *make*. The *wh*-operator is standing in for the referential arguments. If the event complement of *make* were to be questioned, the *wh*-operator must occur with the verb *do*, as in (76d). The same is true for the causative uses of *get* and *have*. With the verb *have*, for example, a *wh*-question substitutes a nominal complement and not a clausal complement:

- (77) (a) Mary had Bill clean the garage
  - (b) Mary has a car
  - (c) What did Mary have?
  - (d) What did Mary have done?

 $<sup>^{63}</sup>$  I was not able to check this for Yawuru or Djaru. However, in the related language Nyulnyul, according to McGregor (p.c.) the verb 'be' must be used in *wh*-questioning the PV + FV complex where FV is the verb 'say/do'.

Again (77c) is not an appropriate question for the event complement in (77a). Given that the syntactic status of periphrastic causative verbs such as *make* and *have* is quite uncontroversial (cf. Ritter and Rosen 1993), the *wh*-question fact cannot be evidence for a non-syntactic derivation.

Therefore, the syntactic derivation of the complex predicate is both conceptually and empirically motivated. Even though the VN and the LV do not form a single morphological unit, we have assumed that they do so at the level of LF. Adopting ideas from Saito and Hoshi (1994), we assumed that the VN incorporates into the LV at LF to form a complex predicate.<sup>64</sup> The motivation for the LF incorporation is not  $\theta$ -role assignment per se but rather what we have described as Event-type identification. The immediate advantage of our proposal is that it provides a single motivation for both types of incorporation: the covert incorporation of the VN Root into E to derive LVCs, and the overt incorporation of the verbal Root into Event-type functors to derive simple verbs.

# 6.4. Light Verbs and Underparsing

We have presented a detailed analysis of the LVC formed by the verbs ala 'say' and adarraga 'cause' in Amharic. It is beyond the scope of the present study to undertake in-depth analysis of other LVs in other languages. However, it is possible to sketch a possible direction of investigation for future research. With this in mind, let us consider the following examples from English:

- (78) (a) John put the book on the table
  - (b) John put the blame on Bill

In both its lexical use in (78a) and LV use in (78b), the verb *put* takes a causer argument as its highest argument. The verb *put* is one of the LVs which productively combines with VNs to derive the LVC in a number of languages such as Yawuru. In most cases, the derived LVC is itself causative. Thus, consider the examples from Yawuru in (79b) and (80b) below where the verb ma 'put' is used to derive a causative LVC (from Hosokawa 1991:222):

<sup>&</sup>lt;sup>64</sup> The formation of complex predicates by LF incorporation is independently motivated for other constructions such as Romance causatives (cf. Baker 1988a).

(79) (a) nyuwa + dyu (int) 'shift' (b) (tr) 'take away' nyuwa + **ma** (80)(a) dyudug + dyu (int) 'stop' (b) dyudug + ma (tr)'stop'

When the VNs in (79) - (80) combine with dyu 'say/sound' the derived LVC is intransitive, whereas when the same VNs combine with the verb ma 'put' the LVC is transitive. In some constructions, the verb ma 'put' has a function similar to the English periphrastic causative verb *make* (from Hosokawa 1991:223):

- (81) (a) Maldyu-gadya + i-nga-rn kamba dyarn'du laugh-INTENS + 3-AUX(be)-IMPF that woman (ABS) the woman is laughing
  - (b) Kamba-ni dyarn'du that-ERG woman(ERG)

maldyu+ i-na-m**a**-rn-ngayu laugh+3-TR-AUX(put)-IMPF-1ACC the woman makes me laugh

In the first sentence, the LV nga 'be' is employed to derive the LVC 'laugh+be'. In the second sentence, the same VN 'laugh' combines with the LV ma 'put' to derive the LVC 'laugh-make'.

The productivity of the verb ma 'put' is further demonstrated in constructions where the VNs are derived from borrowed items. Although, most of such combinations are compositional, some of them appear to be idiosyncratic (Hosokawa 1991:224):

(82)	(a)	dyaamam ("charm him") + ma	'charm, bewitch'
	(b)	kilinim ("clean him") + ma	'clean up'
	(c)	rulmap (roll him up") + ma	'roll it up'
	(d)	luudyim ("lose him") + ma	'have a miscarriage'

Thus, the verb *put* in most cases makes a specific contribution to the derived LVC: it encodes the CAUS Event-type head. Again the question is, do we have multiple lexical entries for each sense of the verb *put* or is it possible to have one LCS common to all?  $^{65}$ 

I would like to argue that when a causative verb such as put is used as a LV, it functions as a realization of the Event-type functor CAUS. I would like to propose that there is a UG principle which makes part of a verb's LCS opaque to the syntax. I call this principle Underparsing, borrowing the term from Grimshaw (1995) who proposed it in the context of the English light verb do. Grimshaw (1995), working within the framework of Optimality Theory, motivates the principle of Underparsing, a UG principle which unparses the LCS of a morpheme. The empirical motivation for this principle comes from do-support in English, in sentences such as what did she say. It is well known that in English a lexical head cannot move to head a functional projection, thus resulting in the ungrammaticality of sentences like \*What said she. Therefore, English must have a verb which will not violate the 'No Movement' constraint and yet which can occupy a functional position, presumably in order to provide morphological support to functional features. Grimshaw (1995) claims that Underparsing of the LCS of a morpheme is "a generally available process which languages are free to make use of, which is no more language particular than cliticization or wh movement."

If indeed UG allows the underparsing of lexical items in a certain constrained fashion, it will have far reaching consequences for the theory of grammar. Most importantly, it would form the basis for a formal theory of grammaticization, a notion which is at times taken as an epiphenomenon. This is a research area in its own right and it cannot be treated fully in the present study. However, I will briefly sketch one possible interpretation of Underparsing which would be useful in characterizing grammaticization.

Suppose that Underparsing is an operation which makes all Event-type functors, with the exception of the head functor, opaque to syntax.

<sup>&</sup>lt;sup>65</sup> A LV has a 'less specific' lexical content probably because it lacks what Hale and Keyser (1994) call *classificatory* meaning. In their analysis of denominal verbs such as *shelve*, Hale and Keyser (1994) claim: "Whatever else it means, *to shelve* means 'to put something (on a shelf or shelf-like place) in a 'shelving' manner'". Thus, simply putting a book on a shelf is not shelving. Furthermore, as Hale and Keyser (1994) pointed out, the material referred to as being shelved must be 'shelvable'. In *shelving the salt*, the salt must not be in a loose form, but rather in some kind of container. I assume that the classificatory meaning of every verb is part of the Root. It is an idiosyncratic aspect of the meaning of the Root. When one learns the meaning of the verb, one also learns its classificatory meaning. For example, the basic LCS schema for *shelve* might be paraphrased as something like, 'cause a thing to be placed on a thing in a *shelving* manner'.

(83) Underparsing of LCS Except for the head Event-type functor, all other functors become syntactically opaque.

Thus, when an Accomplishment verb is underparsed, only the head functor, which is by default CAUS, will be retained as the functor of the LV.

In order to see how Underparsing operates, let us take the verb *put* as an example. Since it is uncontroversial that the verb *put* is causative, I will assume, without further argument, that the LCS of *put* is as in (84) below, essentially adopted from Jackendoff (1990:80):

(84) put [CAUS h([Thing ], [BECOME ([Thing ], [Path AT ([Place ])])])]

Now suppose that this verb is subjected to Underparsing. Underparsing scans the LCS of the verb and makes all functors, except the head functor - CAUS - opaque to syntax. Thus, the LV *put* can be seen as a realization of only the CAUS component of the Accomplishment LCS.

This assumption predicts that the LV *put* cannot be used to derive LVCs which express non-causative events. As already shown above, the data from the relevant languages is consistent with this claim.

A further advantage of the Underparsing approach is its compatibility with an often noted diachronic process. It is known that in many languages some derivational affixes, including causativizing morphemes, have evolved from an erstwhile independent word (cf. Heine 1993). As noted in Hosokawa (1991:224), in a number of Australian languages, the affix -m-, which is obviously cognate with the Yawuru ma 'put', is employed as a causative affix. One possible way of elucidating this phenomenon would be to assume that some derivational affixes are simply the affixal counterparts of independent verbs with underparsed LCS.

## 6.5. Summary

In this chapter, I investigated the role of LVs in transitivity alternation. In particular, I presented a detailed case study of the Light Verb *say*. Since existing theories about the lexical-semantics of this verb were found to be inadequate, I proposed an alternative analysis, after carefully examining the verb's lexicalsemantics and morphosyntactic properties. I argued that the argument structure of the verb 'say' can be accounted for by treating it as a functor verb that selects for an RP. The head of RP can be spelled out syntactically either by a quotation, yielding the quotative construction, or by a VN, deriving the LVC. I demonstrated that the LVC is a productive way of forming a verbal predicate in a number of typologically diverse languages. In some of the languages, the stock of verbal roots is so limited that the LVC is the only way of forming verbal predicates to express concepts which in other languages are expressed by morphologically simple verbs.

I argued that the LVC is derived in the syntax by showing that the LVC is transparent to a number of syntactic processes including relativization and clefting. I assumed that although the VN and the LV are morphologically independent items, the VN incorporates into the LV at LF to form a complex predicate.

#### **CHAPTER 7**

#### Conclusion

In this chapter, I highlight some of the theoretical issues raised in the thesis and recapitulate the major claims made in the course of the analysis. I also discuss some consequences of the proposed analysis.

I began with the assumption that verbs have an internal structure which is transparent to syntax. A verb contains both non-compositional and compositional meaning components. The non-compositional meaning component includes the idiosyncratic information that functions to distinguish a given verb from all other verbs. The compositional meaning encodes, among other things, the Event-type of the verb. Certain events are conceptualized as dynamic whereas others are conceptualized as static. Some dynamic events are unbounded in their temporal structure whereas others have a natural end-point. We recognized four Event-types: Accomplishments, Activities, Achievements, and States. Every lexical verb has an Event-type 'tag', as it were, which we referred to as an Event-type functor. I assumed that there are three major functors: CAUS, INCH, BE which combine with each other in a principled way. Some Event-types are composed of two subevents. Thus, for instance, a typical Accomplishment verb encodes two subevents: the cause and the change of state. The relationship between subevents is governed by universal principles. Temporality is one such principle: certain subevents temporally precede other subevents. Thus, in a typical causative predicate the causing subevent temporally precedes the change of state subevent. Relative prominence is another principle. Some subevents are foregrounded and thus are grammatically more prominent than backgrounded subevents. The notion of Event Headedness (cf. Pustejovsky 1995) was invoked to capture the fact that certain subevents are specified as head subevents.

I argued that the Event-type functors are syntactically visible like any other formal features. I assumed that Accomplishment and Activity verbs have a double VP structure, whereas Achievements and States have a single VP (RP) structure. The higher VP is licensed only when there is a CAUS functor. In other words, verbs are formed in the syntax in accordance with syntactic principles such as the Head Movement Constraint. However, given that some aspects of verb formation exhibit idiosyncratic semantic, syntactic and morpho-phonological properties, it

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was necessary to adopt the idea that there are two levels of phrase structure: lsyntax and s-syntax, in the sense of Hale and Keyser (1993) and Travis (in press). In s-syntax, regular non-idiosyncratic verb formation takes place, whereas in lsyntax some degree of irregularity is allowed. I also argued that Event Headedness is an important notion in the mapping from the LCS to syntax. If a certain subevent is specified as a head, it must be present in the syntactic representation. Thus, verbs differ in whether or not they are specified for Event-type Headedness.

With the above assumptions in place, I set out to investigate transitivity alternations, on the basis of Amharic data. First, I addressed the Inchoative-Causative Alternation in Chapter 2. The question of whether unaccusative verbs are underlyingly dyadic or monadic was addressed. The finding was that they can be either. An Accomplishment verb which is underspecified for Event Headedness may or may not project its CAUS functor. In a language like English the non-projection of CAUS yields ambitransitive forms such as 'break (tr)'/ 'break (intr)'. In a language like Amharic, the non-projection of CAUS has a morphological reflex that shows up on the verb, the prefix ta-. What is interesting is that in Amharic the same form may be ambiguous between an inchoative reading and a passive reading. I argued that this ambiguity can be captured structurally by assuming that the suppression of CAUS takes place either in AspP in the case of the inchoative, and in EP in the case of the passive.

Event Headedness was crucial in the analysis of the various patterns of unaccusatives and causatives. There are three logical possibilities of Headedness given two subevents in a causative type LCS:

(1)	Underspecifie	ed for head	[x CAUS y INCH]	
	(a)	causative:	səbbərə 'break'	
	<b>(</b> b)	unaccusative:	tə-səbbərə 'break(intr)'	
		(morp)	hology is used to suppress CAUS	
		in l-sy	ntax)	
(2)	CAUS is the l	head	[x CAUS <sub>h</sub> y INCH]	
	(a)	causative:	gənnəba 'build'	
	(b)	unaccusative:	*not possible	
(3)	INCH is the h	lead	[x CAUS y INCH <sub>h</sub> ]	
	(a)	unaccusative:	fəlla 'boil'	
	(b)	causative:	a-fəlla 'boil (tr)'	
		(morph	nology is used to project CAUS	
in l-syntax)				

Notice that (2b) is not possible: when CAUS is the specified head, the predicate requires the syntactic projection of CAUS in l-syntax. According to the assumption that the head Event-type functor must project as the highest head in l-syntax, we would not expect (3b) to be grammatical. Indeed, (3b) is marked, in that it applies only to a very small class of verbs: the Boil verbs. However, the fact that it is allowed requires an explanation. It is argued that there is an asymmetry in the system: when a functor is the temporal head as well as the specified Event-type head, it must project. This requirement is met by CAUS, as in (2). The requirement is not met in (3): the specified Event-type functor, INCH, is temporally a non-head. Thus, its head status may be taken over by the temporal head, CAUS, yielding constructions such as a-falla 'boil'. However, since the projection of CAUS is a marked option, CAUS is licensed morphologically by a-.

Another marked option in the system is explored with respect to the socalled ingestive verbs. Recall that the causative affix a- always attaches to unaccusative predicates to derive causative predicates. Thus, a- selects for the true monadic Roots with the LCS [y INCH]:

(4) a- [y INCH]
 a- mat't'a
 CAUS-come.pf.3mS
 'bring'

The only exception where a- attaches to a dyadic Root occurs with ingestive predicates, such as balla 'eat' > a-balla 'feed'. A closer examination revealed that ingestive predicates exhibit unusual transitivity patterns in a number of typologically diverse languages. The solution to this problem was not to abandon the otherwise absolute generalization that the l-syntax causative verb attaches to monadic unaccusative predicates. Instead, I explored the possibility that the alternation takes place within the domain of l-syntax. A closer examination of the LCS of the ingestive predicates revealed that the verbs are actually ditransitive and take an Agent, Theme/Patient and Goal. The ditransitivity has one special property: the Agent and the Goal are linked to one argument and thus syntactically realized by one argument (the Agent). I argued that introducing an l-syntax Agent would be possible because the former Agent is not syntactically realized. This would be possible because the former Agent is conceptually linked with the Goal argument. The result is a dative shift type of construction where a Goal argument surfaces as the direct object of a ditransitive predicate yielding verbs such as a-balla 'feed'.

The distribution of the two causative affixes a- and as- showed that Amharic has a diagnostic for unaccusativity, which I called CAUS-selection: unergative verbs can be causativized only by the s-syntax affix as -. Since the ssyntax causative selects for an EP, the complex predicate may have three arguments, the (external) causer, the causee, and the basic object (if the verb is transitive). This raises well-known questions surrounding Case assignment and agreement. One of these questions is: which of the two internal arguments, the causee or the basic object, behaves as a true object? Taking object agreement as a possible diagnostic for an object-like property, I showed that the causee is a true object in that it asymmetrically controls object agreement. This is not a remarkable fact when considered in isolation. It becomes interesting only when we examine the Case assignment strategy of the language in general, particularly with respect to ditransitive predicates. Since it is often assumed that the Case assignment mechanism in ditransitives is similar to the Case assignment mechanism in morphological causatives, we would expect a similar asymmetry in the former. At the outset, the facts in Amharic appear to conflict. When the Goal argument of a ditransitive predicate occurs with the prepositional element 1a- 'to', there is no double object asymmetry. On the other hand, when the Goal argument is assigned accusative Case in a dative-shift type construction, the asymmetry re-emerges.

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The solution to this problem was developed as follows. In Amharic, accusative Case assignment and object agreement are determined by the definiteness of the object. Accusative Case assignment and object agreement are possible only when the object is definite. This is a common cross-linguistic property that can be found in languages such as Hindi (Mahajan 1990, 1991). I argued that when there is a single AgrO position and two competing object NPs, the object NP with richer grammatical features moves to AgrO. In a causative construction, the causee is always definite and typically [+animate]. By virtue of these features, it would be the causee that must move to AgrO, unless it occurs as an oblique phrase (marked by the preposition ba- 'by').

A lexically ditransitive verb, on the other hand, has two Agr positions, AgrO and an optional AgrIO. I argued that the ditransitive verb assigns dative Case to its Goal argument (which is realized as 1a-) and accusative Case to the Theme/Patient (which is realized as -n). Since both have independent Agr positions, either object can trigger agreement, thus accounting for the absence of the double object asymmetry. In contrast, when AgrIO is not available, there will be only AgrO and again the competition between the two objects is resolved by moving the one with richer morphological features. I showed that the Goal is typically definite and animate. By virtue of these features, the Goal has rich morphological features to check, and thus moves to AgrO. Again the observed asymmetry follows. Thus, Amharic appears to behave as a partial double object language, in one respect, but as a true double object language in another respect. The two can be reconciled by locating the difference in the independently required correlation between definiteness and agreement.

Any theory of transitivity alternations could not be complete without accommodating the notoriously intractable construction, the Experiencer predicate. The morphosyntactic property of Experiencer predicates has been testing the limits of many contemporary grammatical theories, particularly in the area of the mapping from lexical-semantics to syntax. In the context of Amharic, the first interesting observation was the fact that Subject Experiencer predicates cannot be causativized by the 1-syntax causative affix a-. This means that in terms of our unaccusativity diagnostics, Experiencer predicates behave as unergative verbs rather than as unaccusative verbs. I suggested, following Pesetsky's (1995) lead, that SubjExp predicates have a causative argument, referred to as the Ambient Causer (A-Causer). Once the viability of the A-Causer is motivated, the Amharic facts fall in

place. The presence of the A-Causer blocks the presence of another l-syntax causative and thus the verb manifests unergative type behaviour.

The other important fact is that a class of SubjExp predicates (Pattern B) exhibit two types of construction. In the first type, (Type 1), the Experiencer occurs with quirky Case and controls what looks like an object agreement. In the second type, (Type 2), the Experiencer checks nominative Case and controls subject agreement. In the latter construction, the verb occurs with the inchoative prefix ta-. At the outset, this is not a remarkable fact as many languages exhibit uniquely marked subjects in Experiencer predicates. However, the Amharic facts are intriguing for a number of reasons. First, the dative or accusative marked subjects of Experiencer predicates in other languages, such as Spanish and Icelandic, involve transitive Experiencer predicates such as 'like'. In Amharic, the quirky Case and agreement facts are exhibited only by typical intransitive Experiencer predicates such as 'be happy'. Second, when 'object' agreement is with the Experiencer, subject agreement is with a null argument, with the features 3ms. Third, an otherwise optional object agreement becomes obligatory. Fourth, not only Experiencer predicates but also a range of other constructions exhibit the same behaviour. These constructions include predicates which encode: physicalsensation, temperature/weather, and possession. I hypothesized that all these constructions, though superficially different, must receive a unified account. I also hypothesized that Type 1 and Type 2 constructions are thematic paraphrases. This means, by the UTAH, the arguments in both constructions must have an identical thematic relationship. Consider the relevant examples below:

- (5) (a) aster-(in) č'annak'-at
   A.-(ACC) worry.pf.3mS-3fO
   Aster is worried
  - (b) aster ta-č'annak'-ač *A. BE-worry.pf.-3fS* Aster is worried

I argued that the argument that checks nominative Case in (5a) is the Ambient Causer. The Experiencer argument receives inherent Case from the verb. What looks like 'object' agreement is, in fact, a morphological reflex of the inherent Case and is generated in AgrS. The Experiencer moves to Spec AgrS, while the Ambient Causer moves to Spec AgrO to check nominative Case. In (5b), the Ambient argument is suppressed at l-syntax, an option available to other non-head arguments of CAUS as well. When there is only the Experiencer argument, it checks nominative Case.

The theoretical import of this analysis is obvious. First, the status of the Ambient Causer as a real argument is established. Departing from the original assumption regarding the Ambient Causer (cf. Pesetsky 1995), the present study shows that the Ambient Causer can be realized by a zero morpheme like other l-syntax CAUS functors. Second, the split between two types of Experiencer predicates is accounted for by utilizing the independently motivated notion of inherent Case. Third, the otherwise intuitive connection between arguments of various constructions is formally described. Thus, for instance, both the possessor in a possessive construction and the Experiencer, in (5) above, are parallel, in as much as they receive the same type of quirky Case.

The assignment of inherent Case was extended further to account for ethical applicatives in Chapter 5. The characteristic property of the applicative construction in Amharic is that the verb is obligatorily marked by what I called the B-/L-complex. The B-/L- complex consists of a prepositional suffix, -bb- (malefactive) or -11- (benefactive), plus an object agreement suffix which refers to the Benefactive object. I assumed that the prepositional suffix that occurs in the B-/L-complex partially determines the interpretation of the Benefactive argument.

In Amharic, the Benefactive applicative of intransitive verbs is possible with both unaccusatives and unergatives. However, there is an asymmetry between the two types of intransitives. First, unlike unergatives, unaccusatives do not allow the Benefactive to be marked by a preposition. Second, with unaccusatives the B-complex cannot be optional. Third, the Benefactive argument of unaccusatives is clause-initial. The relevant examples are repeated below:

- (6) (a) aster lamma-n sak'a-č-\*(ibb-at)
   A. L.-ACC laugh.pf.-3fS-(on-3mO)
   Aster laughed at Lemma
  - (b) aster bə-ləmma sak'ə-č-ibb-ət
     A. on-L. laugh.pf.-3fS-on-3mO
     Aster laughed at Lemma

(c) aster bə-ləmma sak'ə-č
 A. on-L. laugh.pf.-3fS
 Aster laughed at Lemma

- (7) (a) aster-(in) t'armus ta-sabbara-\*(bb-at)
   A. -(ACC) bottle INCH-break.pf.3mS-(on-3fO)
   lit. Aster, a bottle broke on her
  - (b) \*ba-aster t'armus ta-sabbara-bb-at
     on-A. bottle INCH-break.pf.3mS-on-3fO
     (Aster a bottle broke on her)
  - (c) \*bə-aster t'ərmus tə-səbbərə
     on-A. bottle INCH-break.pf.3mS
     (Aster a bottle broke on her)

I argued that the basic difference between unergatives and unaccusatives with respect to the Benefactive applicative reduces to the argument status of the Benefactive argument. The Benefactive argument of unergative verbs is an elaboration of the Activity Event-type. The Benefactive argument spells out the stimulus of the Activity Event-type, thus making the event more complete. On the other hand, the Benefactive argument of unaccusative verbs does not elaborate the Achievement Event-type. It is an extra argument of an otherwise autonomous event.

I showed that the Benefactive of unergatives is generated as a complement of a P which may or may not be filled lexically. When P is lexically filled, the nonapplicative construction, either (6b) or (6c), is derived. When P is null, the applicative construction, (6a), is derived. I argued that since unergative verbs are structural Case assigners in Amharic, the complex predicate can inherit the Case assigning potential of the unergative predicate.

I then considered the applicative of the unaccusative, the ethical applicative, in (7). I argued that the Benefactive argument is mapped onto an NP and not onto a PP. This accounts for the ungrammaticality of (7b) and (7c). The Benefactive argument cannot receive any structural Case from the complex verb, because unaccusatives are not Case assigners. In the absence of any structural Case, I assumed that the Benefactive argument receives inherent Case. The B-complex is generated in AgrS as subject agreement. The applied object moves to Spec AgrS and behaves like the subject, exactly in the same way as the Type 1 Pattern B SubjExp predicates discussed in Chapter 4.

The applicative construction has become an important empirical domain in mainstream generative frameworks such as P&P (cf. Baker 1992, 1996) and LFG (cf. Alsina 1993). Most of the studies so far, by and large, have focused on Bantu, the language family to which the name 'applicative' owes its origin. In Bantu the Benefactive applicative of intransitive predicates is rather rare and marked. The situation seems to be the opposite in other language areas such as Australian languages. In many Australian languages (cf. Austin 1995) the applicative is restricted to intransitive predicates, and even then to the unergative type. Thus, in such languages what is rare is the applicative of transitives. The evidence from Amharic shows that the Benefactive applicative of both transitives and intransitives is legitimate. However, a distinction in Case assignment, agreement and word order occurs exactly along the lines of the unergative/unaccusative distinction.

The unaccusative vs. unergative split in Amharic is so pervasive that it is manifested in yet another type of construction: the LVC. I showed in Chapter 6 that in Amharic there are two productive LVs, the verb ele 'say' and the verb ederrege 'make'. The former is used to form unaccusative predicates, whereas the latter is used to form unergative predicates.

The use of the verb 'say' as a LV is exotic from the perspective of Indo-European languages. I showed that this is not the case in a number of diverse language areas of Africa, Asia, and Australia. The intriguing problem was how a verb which is otherwise used to frame direct discourse can also be used as a LV to form complex predicates. The standard lexical-semantic analysis of the verb 'say' was found to be inadequate. At the outset, the relationship between the quotative verb alə 'say' and the LV alə 'say' appeared to be a classic case of accidental homonymy. However, the significant question was this: if the two manifestations of the verb 'say' were cases of accidental homonymy in Amharic, why do we find the same phenomenon in a number of genetically and typologically unrelated languages?

Thus, the only plausible assumption was to hypothesize that the LV 'say' and the quotative verb 'say' are polysemous. The second working hypothesis was to assume that the relationship must be captured by a single LCS rather than by registering the verbs as separate lexical items. In order to motivate a single LCS, I explored the transitivity status of the quotative verb cross-linguistically based on the facts catalogued by Munro (1982). The evidence was conclusive: many languages

treat the verb meaning 'say' either as marginally transitive or otherwise as canonically intransitive.

I suggested that the quotation itself must be the predicate and that the verb 'say' is a functor verb that spells out the Event-type of the predicate. This enabled us to establish a paradigmatically parallel structure between the VN in the LVC and the quotation in the quotative construction. Both are generated as the head of RP and determine the thematic role of their arguments. Thus, I claimed that the quotative verb 'say' is functioning as a LV even when it occurs with a quotation.

The discussion regarding the LVC formed a logical extension of the discussion of morphologically simple verbs. I argued that the Event-type functor can be spelled out in one of three ways: (a) by a zero form (b) by an affix and (c) by an independent verb. In the case of the first two strategies, the Root moves into E in the overt syntax and morphologically combines with the Event-type functor. The result of this process is a morphologically simple verb, a verb that spells out its Event-type functor is realized by an independent verb, the Root (or the VN) does not overtly incorporate into the functor. The result of this process is the LVC. It was argued, following the suggestion of Saito and Hoshi (1994) for Japanese, that though the Root does not incorporate into the functor overtly, it does so at LF. Thus, the simple verb and the LVC have exactly the same structure and differ only in morphology. In the simple verb the Event-type functor is spelled-out by an affix (or a zero form), whereas in the LVC the functor is spelled out by an independent verb.

The cross-linguistic observation that only a handful of similar verbs can function as LVs was addressed briefly. It is argued that LVs can be derived by the UG operation of Underparsing (cf. Grimshaw 1995). This operation makes certain pieces of the LCS opaque to syntax. I put forth a formal proposal which constrains how Underparsing operates. I suggested that Underparsing operates in such a way that it can make all the components of an LCS opaque to syntax, except the head Event-type functor. Thus, when a causative verb is underparsed, only the CAUS functor is transparent to the syntax.

This proposal comes a long way from simply saying that LVs are semantically less-specific. In fact, the theory of Underparsing provides a framework within which a formal theory of grammaticization can be developed. One desirable consequence of the proposal is that it would be possible to provide a synchronic account for the often noted fact that certain verbs can function as

adpositions in some languages. For instance, the verb give is often used as the adposition 'for' or 'to' in a number of languages in Asia and Africa (cf. Lord 1993). The theory of Underparsing can be relativized with respect to syntactic categories. Thus, it could be stated that when a verb is grammaticized as an adposition, only its Path functor is syntactically transparent.

The use of LVs to derive a complex predicate is a UG option available for every language. In some languages the LVC is an additional resource used side by side with simple verbs. In such languages, it is likely that the LVC encodes some subtle meaning elements that are left as neutral in a corresponding simple verb. On the other hand, in other languages the LVC is the most productive way of constructing verbal meaning. Such languages have an impoverished lexicon of simple verbs. The inventory of verbs is expanded syntactically by the use of a handful of LVs which can combine with VNs.

Needless to say, there are a number of questions that must await future research. I will identify four major areas. The first is the question of how other types of transitivity alternations in other languages, such as the locative alternation, the conative alternation and the middle alternation (cf. Levin 1993) can be accounted for within the proposed analysis. Ideally, it would be desirable if all types of transitivity alternation follow directly from basic universal principles such as Event Headedness. The second question concerns the cross-linguistic status of the Co-Affix Constraint which is proposed on the basis of Amharic. Again, ideally a parsimonious theory of grammar would account for the grammatical facts with minimal language particular assumptions. Third, the interaction between the applicative construction and verb valency needs to be investigated further from a cross-linguistic perspective. This will help us determine the parameters that are responsible for the existence/absence of the applicative of intransitive predicates. The prediction we made regarding the polysemy of causative/applicative affixes is also an empirical issue that can profit from a comparative study. Fourth, the evolution of the LVC and its relationship with other properties of languages is an interesting area for further study. We also need to answer the question of how LVs which appear to encode the same Event-type functor are differentiated from each other.

This thesis has examined transitivity alternation involving inchoativecausative predicates, Experiencer predicates, the applicative construction, and the LVC. It argued for a particular view of the lexical-semantics/syntax interface in which phrase structure mirrors the organization of Event-types. It strongly advocated an economical model of grammar where polysemous predicates are accounted for syntactically without resorting to multiple lexical entries.

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