

LONG-DISTANCE AGREEMENT AND TOPIC IN TSEZ\*

**ABSTRACT.** This paper presents and analyzes a unique pattern of long-distance agreement (LDA) in the Nakh-Daghestanian language Tsez, spoken in the Caucasus. The phenomenon, in which a verb may agree with a constituent inside its clausal complement, poses a serious challenge to theories of agreement locality. In a number of formal syntactic theories, agreement between a head and an argument reflects some very local clause-mate configuration, often specifier-head. We demonstrate that this is inadequate for a satisfactory analysis of LDA and we propose an alternative that appeals to a less local configuration resembling head government. Crucial to our analysis of LDA is the generalization that LDA is triggered by a constituent which must be a topic. We argue that the agreement trigger moves covertly to an A' topic position within its own clause where it is in a local agreement configuration with the verb. Independent evidence for covert movement and the existence of configurations which block LDA support the analysis. The primary conclusion is that syntactic agreement cannot be reduced to a specifier-head configuration in all cases. The theory must allow a less local configuration in which the target simply governs the agreement trigger.

1. INTRODUCTION

In this paper, we will present and analyze an unusual pattern of agreement in Tsez, a language of the northeast Caucasus, that poses a particular challenge to current views on the syntactic analysis of predicate-argument agreement. In the Principles and Parameters framework and some early versions of the Minimalist Program (Chomsky 1993, 1995), agreement between a head and an argument reflects a particular local relationship:

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the head and the agreeing phrase are in a specifier-head configuration at some point in the derivation (Mahajan 1989; Koopman and Sportiche 1991; Chomsky and Lasnik 1993). A consequence of such a configuration is that the head and the agreeing phrase will be in the same clause at some level of representation. We demonstrate that this specifier-head requirement cannot be maintained for one Tsez agreement pattern. To account for this phenomenon, we argue for a less local conception of the agreement configuration, in line with other recent proposals (Benmamoun 1992; Bobaljik 1995; van Gelderen 1997; Chomsky 1998; Chung 1998).

In Tsez, verbs agree with the absolutive argument in noun class (classes I–IV). Verbs taking a clausal absolutive argument show two agreement patterns. In the usual case, which we call Properly Local Agreement (PLA), the verb shows class agreement with its absolutive clausal argument, (1a). In a more unusual case, here called Long-Distance Agreement (LDA), the verb agrees with an absolutive argument within the argument clause, as in (1b). Elements in the agreement relation are bold-faced.<sup>1</sup> The agreement relationship in (1b) appears to be non-local and thus problematic for theories of agreement which admit only the clausemate specifier-head configuration.

- (1)a. enir [užā magalu bāc'ruḥ] r-iyxo  
 mother [boy bread.III.ABS ate].IV IV-know  
 The mother **knows** [the boy ate the bread]  
 The mother knows the boy ate the bread.
- b. enir [užā magalu bāc'ruḥ] b-iyxo  
 mother [boy **bread.III.ABS ate**] III-know  
 The mother **knows** [the boy ate **the bread**]  
 The mother knows the boy ate the bread.

PLA and LDA are not in free variation. As we will show, the argument triggering LDA is restricted to being a topic of its own clause. Consequently, the full account of Tsez Long-Distance Agreement is closely tied to the analysis of two independent grammatical phenomena: the syntax of information structure and the morphosyntax of predicate-argument

<sup>1</sup> Abbreviations: ABS – absolutive, CAUS – causative, COMP – complementizer, DAT – dative, ERG – ergative, FOC – focus, FUT – future, GEN – genitive, INF – infinitive, INSTR – instrumental, INTERR – interrogative, NEG – negative, NMLZ – nominalizer, PL – plural, POSS.ESS – essive, possessive series, PRES – present, PRSPRT – present participle, PST – past, PST.EVID – past evidential, PST.NEVID – past non-evidential, PSTPRT – past participle, REFL – reflexive, SUPER – superessive, TOP – topic.

agreement. With respect to the former, we propose that the left periphery of Tsez clause structure may contain at least two  $X'$ -theoretic  $A'$ -projections, CP and Top(ic)P, whose specifiers are the target of *wh*-movement and topicalization, respectively. The maximal structure we argue for is given in (2):

$$(2) \quad [_{CP} \text{ specifier } [_{C'} C^{\circ} [_{TopP} \text{ specifier } [_{Top'} Top^{\circ} [_{IP} S O V ] ] ] ] ]$$

We propose that in the LDA pattern the embedded topic moves to the specifier of TopP of its own clause. In this position the topic is in a sufficiently local configuration with the embedding verb with which it agrees. This agreement configuration requires reference to downward c-command and most closely resembles head government (Rizzi 1990) or Chomsky's (1998) Agree operation. We demonstrate that the agreement configuration cannot be taken to be specifier-head.

The paper is organized as follows. Section 2 overviews relevant aspects of Tsez clause structure and the workings of agreement in the language. Section 3 investigates the syntax of topic and focus. We argue for the existence of topic- and focus-marking affixes and use them to motivate the clause structure in (2). Topicality and *wh*-phrases crucially interact with the phenomenon of Long-Distance Agreement, as is documented and analyzed in sections 4 and 5. Section 4 explores analyses of LDA that attempt to maintain specifier-head agreement and demonstrates that they are untenable. We support our own analysis in section 5, providing unique, if intricate, support for our conception of Tsez clause structure and some recent theories of the syntax of agreement. Section 6 closes with a discussion of the theoretical consequences of our proposals.

## 2. TSEZ GRAMMAR

Tsez is spoken by seven thousand people in the mountains of the northeast Caucasus and adjacent lowlands. It belongs to the Daghestanian branch of the Nakh-Daghestanian language family. Tsez has been little described before (Bokarev 1959; Imnajšvili 1963); the data for this paper derive from a larger project on the monographic description of Tsez (Comrie, Polinsky, and Rajabov to appear). Section 2.1 below presents some relevant facts about Tsez morphosyntax and section 2.2 introduces basic clause structure.

2.1. *Morphosyntax*

Tsez is a predominantly agglutinating, morphologically ergative language. The single argument of an intransitive verb and the object argument of a transitive verb are coded by the absolutive case, (3–4). The subject of a transitive verb is in the ergative case, as is indicated in (4).

- (3)      *ziya*              *b-ik'i-s*  
             *cow.III.ABS III-go-PST.EVID*  
             The cow left.

- (4)      *eniy-ā*           *ziya*              *b-išer-si*  
             *mother-ERG cow.III.ABS III-feed-PST.EVID*  
             The mother fed the cow.

In addition to the ergative construction in (4), Tsez has the so-called ‘affective’ or dative construction. With the majority of psych-verbs and verbs of perception, the experiencer subject is in the dative case and the stimulus is in the absolutive:

- (5)      *eni-r*              *ziya*              *b-ukay-s*  
             *mother-DAT cow.III.ABS III-see-PST.EVID*  
             the mother saw the cow.

Tsez nouns are divided into four classes. Verbs agree in noun class with the absolutive argument, with agreement being marked by the prefixes in (6):<sup>2</sup>

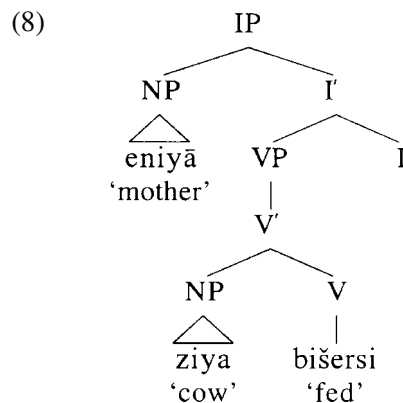
(6)		SINGULAR	PLURAL
	Class I	∅-	b-
	Class II	y-	r-
	Class III	b-	r-
	Class IV	r-	r-

<sup>2</sup> Not all Tsez verbs show agreement. Tsez phonotactics prohibits most initial consonant clusters, so that only vowel-initial verbs take agreement prefixes. Due to historical reasons, some vowel-initial verbs also do not show agreement.

## 2.2. Clause Structure

We assume the minimal clause structure in (8) for Tsez, corresponding to the transitive example repeated in (7):

- (7) eniy-ā      ziya      b-išer-si  
*mother-ERG cow.III.ABS III-feed-PST.EVID*  
 The mother fed the cow.



As illustrated in the structure, Tsez is a head-final language with SOV basic word order (see also Testelec 1998, pp. 259–271). Reflecting the general fact that all dependent categories precede the head, Tsez has postpositions, a distinction between tensed (finite) and non-tensed (medial) verb forms, and left-branching relative clauses.

The conception of an ergative language in which the ergative subject asymmetrically c-commands the absolutive object (Anderson 1976; Dixon 1979; Bobaljik 1993) contrasts with recent proposals in which the absolutive NP is in a structurally superior position and is the subject or has more subject-like properties than the ergative argument (Campana 1992; Murasugi 1992; Bittner and Hale 1996). For Tsez, however, the evidence in favor of the former, surface-oriented approach is very strong: the ergative NP behaves in all respects as being structurally superior to the absolutive NP. We confirm this with four diagnostics: superiority effects, allowable control structures, the distribution of reflexives, and the control of coreference across clauses.

First, an ergative *wh*-NP exhibits superiority effects and must front before the absolutive because it is structurally higher and thus closer to the clause-initial landing site of *wh*-phrases:<sup>3</sup>

- (9)a. *lu*            *šebi*        *žek'-ā*  
           *who.ERG who.ABS hit-PST-INTERR*  
           Who hit whom?
- b. \**šebi*        *lu*            *žek'-ā*  
           *who.ABS who.ERG hit-PST-INTERR*  
           (Whom did who hit?)

Second, only ergative NPs may be null in infinitival control structures with a transitive embedded verb, (10), which, under reasonable assumptions, is a property of the most superior argument (Bobaljik 1993; Chung 1998).

- (10)a. *doxtur*    [PRO *mu<sup>ʃ</sup>alim*    *ø-egir-a*] *r<sup>ʃ</sup>uλ'i-x*  
           *doctor.ABS*            *teacher.ABS I-send-INF threaten-PRES*  
           The doctor threatens to send the teacher.
- b. \**doxtur*    [PRO *mu<sup>ʃ</sup>alim-ā*    *ø-egir-a*] *r<sup>ʃ</sup>uλ'i-x*  
           *doctor.ABS*            *teacher-ERG I-send-INF threaten-PRES*  
           (The doctor threatens to be sent by the teacher.)

Third, the ergative NP in Tsez is structurally higher for the purposes of determining pronoun and anaphor distribution, as Anderson (1976) convincingly shows is the case cross-linguistically. In particular, the ergative NP can bind a reflexive in the absolutive, whereas the opposite binding pattern is ungrammatical, (11). If reflexivization is sensitive to structural command relations, then the ergative again asymmetrically c-commands the absolutive:

- (11)a. *eniy-ā*            *nełā že*    *žek'-si*  
           *mother-ERG REFL.ABS hit-PST.EVID*  
           The mother hit herself.

<sup>3</sup> Tsez *wh*-pronouns do not encode an animacy distinction (*who* versus *what*). We nevertheless gloss the ergative *wh*-phrase *lu* and the absolutive *wh*-phrase *šebi* with their closest English equivalents for the intended interpretation.

- b. \*eniw        neľā neľā/že neľā    žek'-si  
*mother.ABS REFL.ERG/REFL.ERG hit-PST.EVID*  
 (The mother hit herself.)

Fourth, it is the ergative and not the absolutive NP that controls coreference across clauses, a common subject property. In (12), the coreference relations are as in English. If the absolutive were higher than the ergative, one would expect the interpretation which is not available:

- (12) irbahin-ā<sub>i</sub>    muħama<sub>j</sub>        žek'-no    pro<sub>i/\*j</sub> ik'i-s  
*Ibrahim-ERG Mohammed.ABS hit-GERUND        go-PST.EVID*  
 Ibrahim hit Mohammed and left.  
 \*Ibrahim hit Mohammed and Mohammed left.

We conclude that the ergative NP is indeed the subject in Tsez as claimed in (8) and we adopt this clause structure in what follows.

Like many other head-final languages, Tsez allows leftward scrambling in both root clauses, (13), and embedded clauses, (14):

- (13)a. už-ā        hibore-d    bikori        žek'si  
*boy-ERG stick-INSTR snake.ABS hit*  
 The boy hit the snake with a stick.
- b. bikori užā hibored žek'si  
*snake boy stick hit*
- c. hibored užā bikori žek'si  
*stick boy snake hit*
- d. hibored bikori užā žek'si  
*stick snake boy hit*
- (14)a. kid-bā [už-ā    hibore-d    bikori žāk'-ru-ŋi]    esis  
*girl-ERG [boy-ERG stick-INSTR snake hit-PSTPRT-NMLZ] said*  
 The girl said that the boy had hit the snake with a stick.
- b. kidbā [bikori užā hibored žāk'ruŋi] esis  
*girl [snake boy stick hit] said*

- c. kidbā [hibored bikori užā žāk'ruhi] esis  
*girl [stick snake boy hit] said*

Long-distance scrambling is completely impossible. The ungrammatical examples in (15) and (16) show that embedded elements cannot scramble out of their clause, regardless of the type of embedded clause. At present, we have no explanation for this fact; however, as we will demonstrate below, it seems to be a robust and fundamental aspect of Tsez grammar. In fact, Tsez does not evidence any cross-clausal A'-movement:

- (15)a. kid-bā [už-ā hibore-d bikori žāk'-ru-li] esis  
*girl-ERG boy-ERG stick-INSTR snake hit-PSTPRT-NMLZ said*  
 The girl said that the boy had hit the snake with a stick.

- b. \* užā kidbā [hibored bikori žāk'ruhi] esis  
*boy girl [stick snake hit] said*  
 (The boy, the girl said had hit the snake with a stick.)

- c. \* bikori kidbā [užā hibored žāk'ruhi] esis  
*snake girl [boy stick hit] said*  
 (The snake, the girl said that the boy had hit with a stick.)

- (16)a. kid-bā [už-ā hibore-d bikori žek'-si-λin] eλis  
*girl-ERG [boy-ERG stick-INSTR snake hit-PST.EVID-COMP said*  
 The girl said the boy hit a snake with a stick.

- b. \* užā kidbā [hibored bikori žek'siλin] eλis  
*boy girl [stick snake hit] said*  
 (The boy, the girl said had hit a snake with a stick.)

- c. \* hibored kidbā [už-ā bikori žek'siλin] eλis  
*stick girl [boy snake hit] said*  
 (A stick, the girl said that the boy hit a snake with.)

For our purposes, it is important to recognize two kinds of sentential complements, illustrated above. Embedded finite clauses marked with the overt complementizer *-λin*, as in (16), we take to be categorially CPs. Nominalized participle clauses have the nominalizing suffix *-li*, as in (14) and (15).



We assume that *-li* clauses are minimally IPs, although they may project additional structure when needed.<sup>4</sup>

### 3. THE EXPRESSION OF TOPIC AND FOCUS

In this section we investigate the morphosyntax of topic and focus in Tsez with the goal of motivating the more articulated clause structure in (17), in which optional C(omplementizer) and Top(ic) Phrases dominate IP. Section 3.1 defines basic terminology, section 3.2 investigates topic marking and TopP in Tsez, and section 3.3 turns to focus elements and CP.

$$(17) \quad [_{CP} \text{specifier } [_{C'} C^{\circ} [_{TopP} \text{specifier } [_{Top'} Top^{\circ} [_{IP} S O V ] ] ] ] ]$$

#### 3.1. *Basic Information Structure Notions*

The sections below examine the syntax of information structure in Tsez. Following Prince (1981, p. 224), we understand information structure as “the tailoring of an utterance by a sender to meet the particular assumed needs of the intended receiver. That is, information packaging in natural language reflects the sender’s hypotheses about the receiver’s assumptions and beliefs and strategies” (see also Lambrecht 1994; Vallduví 1992). Our concerns in this domain will be confined to certain information-structural phenomena in Tsez that have specific grammatical realizations: topic and focus, which we define in turn.

Non-structural definitions of TOPIC converge on that the intuition that topics are subsumed by an “aboutness” condition (Reinhart 1982; Gundel 1985), summarized by Lambrecht (1994, p. 131): “A referent is interpreted as the topic of a proposition if in a given situation the proposition is construed as being about this referent; ... a constituent is a topic expression if the proposition expressed by the clause with which it is associated is pragmatically construed as being about the referent of this constituent.” Although the aboutness condition is not a categorical test for topichood (see Lambrecht 1994, pp. 152ff; Prince 1998 for violations), it adequately captures the relationship between topic and presupposition.<sup>5</sup>

<sup>4</sup> The suffix is sometimes omitted. This omission does not affect the interpretation and seems to be part of idiolectal variation.

<sup>5</sup> Assuming that each sentence has the topic-comment structure, the topic is what the proposition is about and the comment is the main predication about the topic. Such a view crucially relies on the thematic/categorical distinction (Kuroda 1972, 1990), where the categorical judgment involves the recognition of a logical subject (topic) and the predication

Certain kinds of expressions make superior topics whereas others are deviant or impossible as topics. As argued in Reinhart (1982), Lambrecht (1994), Prince (1998), and others, non-referring expressions cannot be topics. A practical consequence of this restriction is that definite descriptions can be topics but universally quantified noun phrases and anaphors cannot (Pesetsky 1987; Lambrecht 1994, p. 156; Erteschik-Shir 1998). Noun phrases with a weak quantifier are unusual, but not impossible as topics (Prince 1998). Unaccented pronouns are superior topics because they are familiar and accessible (Lambrecht 1994, p. 188).

In many languages, topics have a dedicated structural position, typically clause-peripheral. We will reserve the term TOPICALIZATION to denote syntactic fronting of a constituent for topic-marking purposes, whether it takes place overtly or not. It should be evident that an element may be a topic without undergoing Topicalization. This is true of Tsez, as we will show below. At the same time, Topicalization in the covert or overt syntax is also possible and required in some instances.

We define FOCUS operationally as the sentence constituent that can be identified through the question diagnostic:

- (18) *Focus Diagnostic* (Rochemont 1998, p. 337)

In a well-formed information question-answer pair, the focus is the constituent in the answer that corresponds to the constituent that is *wh*-questioned in the question.

To illustrate for Tsez, the focus in (19b) is *kidber* ‘to the girl’. The corresponding question-answer pair in English is organized the same way.

- (19)a. už-ā    lu-r        gagali        teχ-ā  
           boy-ERG who-DAT flower.ABS give-PST.INTERR  
           Whom did the boy give the flower?

- b. už-ā        gagali        kidbe-r    teχ-si  
           boy-ERG flower.ABS girl-DAT give-PST.EVID  
           The boy gave the flower TO THE GIRL.

For our analysis it is crucial that there is complementarity between topic and focus status in that no sentence constituent can be topic and focus of a judgment about it. The possibility of multiple topics, which we do not exclude, can be accounted for by the recursion of categorical judgments within a sentence. A sentence is well-formed as long as its topic is referential (Reinhart 1982) and can combine with the predicate forming a full proposition. In addition to the ‘aboutness’ condition, topics are associated with a number of semantic and contextual properties which can be suspended under appropriate pragmatic conditions (Givón 1983; Prince 1998).

simultaneously. This analytical assumption is usually taken for granted (but see Halliday 1967; Bach 1971, p. 165; Lambrecht 1994, ch. 5) and can be justified on the view that focus is interpreted as a variable in an open proposition (Jackendoff 1972, pp. 250–258).<sup>6</sup>

The fundamental assumption we rely on to relate information structure and syntactic structure is (20), following Kiss (1995, ch. 1), Lambrecht (1994, pp. 25–35), Vallduví and Engdahl (1996), and Erteschik-Shir (1998), among others.

- (20) The structuring of a proposition into topic, focus, and the remaining material is syntactically represented.

The two following subsections describe the morphological and syntactic strategies available for marking topics and foci in Tsez. We use them to develop a fuller view of Tsez clause structure and they will be relevant for our discussion of Tsez LDA in section 4.

### 3.2. *Topic Expression*

In this section, we demonstrate that Tsez has two topic-marking strategies. The first is the overt presence of the particles *-n(o)* or *-gon*, which as we demonstrate in section 3.2.1 are topic markers. In section 3.2.2, we use the topic-marking function of these particles to show that Tsez also has Topicalization.

#### 3.2.1. *Topic Particles*

Two Tsez particles, *-n(o)*<sup>7</sup> and *-gon*, are loosely translated as ‘as for’ or ‘talking about’:

- (21)a. už-ā-gon    hibore-d    bikori-n    neširu    bexursi  
*boy-ERG-gon stick-INSTR snake.ABS-no in the evening killed*  
 As for the boy, the snake, he killed it with a stick in the evening.
- b. bikori-n    hibore-d    už-ā-gon    neširu    bexursi  
*snake.ABS-no stick-INSTR boy-ERG-gon in the evening killed*  
 As for the snake, the boy, he killed it with a stick in the evening.

<sup>6</sup> The complementarity of topic and focus may be challenged by the fact that both topics and foci can be understood as contrastive (Partee 1991; Rooth 1992). However, Lambrecht (1994, 5.6), Vallduví and Vilkuna (1998), and McNally (1998) argue that contrastiveness is orthogonal to the topic-focus distinction.

<sup>7</sup> The particle *-n(o)* is realized as *-n* after a vowel and *-no* after a consonant.

The semantics of these particles thus suggests that they have a topic-marking function and we will argue that this is so: *-n(o)* marks plain topics and *-gon* marks contrastive topics. As a preliminary argument for this analysis, observe that neither particle can occur with *wh*-words, (22). This can be accounted for on the assumptions that *wh*-words are inherently focussed and topic and focus are mutually exclusive.

- (22) \* *šebi-gon*/\**šebi-n*      *už-ā*      *rexur-ā*  
*what.ABS-gon/what.ABS-no* *boy-ERG* *kill-PST.INTERR*  
 (What did the boy kill?)

Similarly, *-gon* and *-no* cannot mark answers to *wh*-questions, which we proposed as a diagnostic of focus. In the question-answer pair from (19), repeated below as (23), neither particle is possible in the answer *kidber* ‘to the girl’, which is in focus:

- (23)a. *už-ā*      *lu-r*      *gagali*      *teḵ-ā*  
*boy-ERG who-DAT flower.ABS* *give-PST.INTERR*  
 Whom did the boy give the flower?
- b. #*už-ā*      *gagali*      *kidbe-r-gon/* *kidbe-r-no* *teḵ-si*  
*boy-ERG flower.ABS girl-DAT-gon/* *girl-DAT-no* *give-PST.EVID*  
 The boy gave the flower TO THE GIRL

The general topic-marking function of both particles is further supported by distributional facts. Below, we examine the distribution of *-no* and *-gon* with non-referring expressions andthetic constructions.

The impossibility of *-no* and *-gon* with non-referring expressions provides a first argument for their topic-marking function. The requirement that topics be referential entails that universally quantified NPs and anaphors cannot be topics. (24) and (25) demonstrate that the particles *-no* and *-gon* cannot mark a quantificational NP and reflexive anaphor, respectively. Observe that the examples are grammatical without the particles. We account for this incompatibility if we bring together the generalization that non-referring expressions cannot be topics and the claim that the particles *-no* and *-gon* mark topics.

- (24)a. *žek'u-za-r*      *šebin*      *r-āq'-inči*  
*man-PL-DAT nothing.IV IV-be-FUT.NEG*  
 People will get nothing.

- b. \*žek'u-za-r šebín-gon/šebín-no r-āq'-inči  
*man-PL-DAT nothing.IV-gon/nothing.IV-no IV-be-FUT.NEG*  
 (Nothing, people will get.)

- (25)a. žed-ā žedā žedu-r yutku rodin  
*they-ERG themselves-DAT house made*  
 They built a house for themselves.

- b. \*žed-ā žedā žedu-r-gon/žedā žedu-r-no yutku rodin  
*they-ERG themselves-DAT-gon/themselves-DAT-no house made*  
 (For themselves, they build a house.)

The second argument for the topic-marking function of *-no* and *-gon* comes from their distribution in *thetic* constructions. Following Kuroda (1972, 1990), we distinguish between *categorical* and *thetic* sentences. In a *categorical* sentence, two acts, or JUDGMENTS, are involved: the recognition of a notional subject and a statement about that subject. As a consequence, a *categorical* sentence must have a subject-predicate structure, which is likely to map into a topic-comment structure. A *thetic* sentence, on the other hand, is unstructured and involves just one judgment: the recognition of the material in the statement. It consists only of a predicate. From the standpoint of information structure, a *thetic* sentence maps into an 'all new' or 'all-focus' structure (Sasse 1987; Lambrecht 1994, pp. 222, 233–235). In such a structure, the focus domain is the entire clause. This conception of a *thetic* sentence has an important consequence: because there is no presupposed information, no constituent in a *thetic* sentence can be a topic. Thus, the particles *-no* and *-gon* should be unable to appear on an NP in a *thetic* construction if they are indeed topic markers. After introducing *thetic* constructions in Tsez, we demonstrate that this expectation is confirmed.

*Thetic* judgments are normally expressed as existential, presentational, or impersonal sentences. Tsez examples of each are given in (26a–c):

- (26)a. istoli-ħ' gagali yot  
*table-SUPER flower.ABS be.PRES*  
 There is a flower on the table.
- b. zow-n zow-n-ānu xan  
*be-PST.NEVID be-PST.NEVID-NEG king*  
 Once upon a time there was a king.

- c. isi                    y-egir-xo  
*snow.II.ABS II-send-PRES*  
 It is snowing.

The corresponding examples in (27) confirm that the pivotal NPs in each case cannot bear the particles *-no* and *-gon*. The ungrammaticality of (27) is explained if these particles are indeed topic markers. We thus conclude that the particles have a topic-marking function and will gloss them as TOP below.

- (27)a. \*istoli- $\lambda'$             gagali-n/gagali-gon    yot  
*table-SUPER flower-**no**/flower-**gon** be.PRES*  
 (There is a flower on the table.)
- b. \*zow-n                zow-n- $\bar{a}nu$             xan-no/xan-gon  
*be-PST.NEVID be-PST.NEVID-NEG king-**no**/king-**gon***  
 (Once upon a time there lived a king.)
- c. \*isi-n/isi-gon            yegir-xo  
*show-**no**/snow-**gon** send-PRES*  
 (It is snowing.)

### 3.2.2. Topicalization

Accepting the topic marking function of *-no* and *-gon*, we can use these particles to demonstrate that Tsez also has a movement strategy for marking topics, Topicalization. Tsez may have the clause structure in (28) in which a Topic Phrase (TopP) dominates IP, following proposals in Culicover (1991), Hoekstra (1993), Müller and Sternefeld (1993), Kiss (1995), Rizzi (1997), and others. The structure is understandable since, cross-linguistically, topics are found clause-initially (see Lambrecht 1994, pp. 86–87, 199–205 for a useful discussion). Island effects and overt fronting support this phrase-structural proposal.

- (28) [<sub>TopP</sub> *specifier* [<sub>Top'</sub> Top° [<sub>IP</sub> S O V ] ] ]

We begin with island effects, which have been a standard diagnostic of A'-movement since Ross (1967). If the particles *-no* and *-gon* do indeed mark topics and must undergo Topicalization to TopP via Topicalization, they should not appear on those constituents which are inside islands, because the covert movement would yield an island violation. We confirm this prediction using the Coordinate Structure Constraint.

Tsez coordinate structures are formed with the suffix *-n(o)* ‘and’<sup>8</sup> or the proclitic *yā* ‘or’ on each of the conjuncts of the coordinate structure, as shown in (29a) for the disjunction case. The topic particles *-gon* and *-no* can appear on both conjuncts of the coordinate structure, (29b), encoding topicalization of the entire coordination. In (30), however, it is impossible to have the particles appear on only one of the conjuncts in the coordinate structure. This follows because covert Topicalization would require illicit movement out of the bracketed coordinate structure.

- (29)a. *už-ā yā yedu t’ek yā yedu gazyat t’et’ersi*  
*boy-ERG or this book.ABS or this newspaper.ABS read.PST.EVID*  
 The boy read this book or this newspaper.

- b. *už-ā yā yedu t’ek-gon/no yā yedu*  
*boy-ERG or this book.ABS-TOP/TOP or this*  
*gazyat-gon/ no t’et’ersi*  
*newspaper.ABS-TOP/ TOP read.PST.EVID*  
 This book or this newspaper, the boy read.

- (30)a. \**už-ā [yā yedu t’ek-gon/no yā yedu gazyat] t’et’ersi*  
*boy-ERG or this book.ABS-TOP or this newspaper.ABS read*

- b. *už-ā [yā yedu t’ek yā yedu gazyat-gon/no] t’et’ersi*  
*boy-ERG or this book.ABS or this newspaper.ABS-TOP read*  
 (The boy read this book or this newspaper.)

The existence of overtly fronted topic elements might seem to provide the most transparent argument for the correctness of the structure in (28) with a left-peripheral topic position. Overtly fronted topics are indeed possible, as (31a) shows; however, such overt fronting is optional, as shown by (31b).

- (31)a. *bikori-n už-ā bexursi*  
*snake.ABS-TOP boy-ERG killed*

<sup>8</sup> The suffix *-n(o)* ‘and’ is homophonous with the topic particle *-n(o)* ‘as for’. Although diachronically the two meanings may be related, synchronically they are distinct. This homophony rules out testing of the Coordinate Structure Constraint with *-no* because the desired sequence of the two *-no* morphemes is impossible. We suspect that the ungrammaticality of *\*-no-no* may be due to a language-particular morphophonemic constraint.

- b. už-ā      bikori-n      bexursi  
*boy-ERG snake.ABS-TOP killed*  
 The snake, the boy killed.

Examples such as (31a) might be taken as evidence for overt Topicalization, with an analysis in which the fronted topic has moved to the specifier of TopP. On the other hand, (31a) has an alternative analysis in which the topic is fronted via scrambling. Given the availability of scrambling in Tsez, as discussed in section 2.2, this analysis cannot be ruled out and thus such examples provide no evidence for TopP. The question is thus raised as to whether or not Tsez can be shown to have any overt Topicalization. We argue that it can and that the evidence comes from the differing behavior of adjuncts. Whether fronting is Topicalization or scrambling is ambiguous for arguments; however, it is unambiguous for adjuncts. Fronted adjuncts are necessarily interpreted as topics and hence are Topicalized. This fact can be used to support our proposal. The descriptive generalization is as follows:

- (32) i) If an adjunct is fronted, it must be interpreted as topic.  
 ii) If an argument is fronted it may, but need not, be interpreted as a topic.

If the first half of (32) is correct, it provides evidence for the left- peripheral topic position that we identified as [spec,TopP]. The unique landing site for fronted adjuncts is [spec,TopP], since they cannot undergo scrambling.

The main argument for treating fronted adjuncts as obligatory topics in Tsez comes from their interaction with the focus particle *-kin*. As we show below (section 3.3), the particle *-kin* induces a focus reading. This particle is incompatible with the fronted adjunct position. In the baseline instance, (33a), the *in situ* adjunct may optionally bear the focus particle. This adjunct without the focus particle may be fronted, (33b). It cannot be fronted bearing the focus particle, however, (33c). If the fronted adjunct in (33b, c) is indeed a topic, it would be expected to resist the focus interpretation induced by the focus particle, given the earlier assumption that topic and focus are mutually exclusive on the same element. We conclude that adjuncts become topics by fronting and that this fronting is an instance of overt Topicalization.

- (33)a. už-ā      k'et'u      iškolayor(-kin)      begirsi  
*boy-ERG cat.ABS to.school(-FOC) sent*  
 The boy sent the cat to school.



- b. iškolaɣor uʒ-ā k'et'u begirsi  
*to.school boy-ERG cat.ABS sent*  
 To school, the boy sent the cat.
- c. \*iškolaɣor-kin uʒ-ā k'et'u begirsi  
*to.school-FOC boy-ERG cat.ABS sent*  
 (It is to school that the boy sent the cat.)

At this point we summarize the topic-marking mechanisms made available by Tsez grammar:

- (34) *Topic-Marking Strategies in Tsez*
- i) particle *-no*, which marks a non-contrastive topic.
  - ii) particle *-gon*, which marks a contrastive topic
  - iii) covert to overt fronting to [spec,TopP] (Topicalization)

In particular, Topicalization suggests the following conception of Tsez clause structure which we adopt in what follows. We assume, with Doherty (1993), Grimshaw (1997), and references therein, that this additional functional structure is optional and is projected only when needed. Specifically, TopP is not projected if there is no topic in the clause.

- (35) [<sub>TopP</sub> *specifier* [<sub>Top'</sub> Top° [<sub>IP</sub> S O V ] ] ]

Proposing an A'-projection to which topics move leads to the expectation under standard assumptions that Tsez will also have long-distance Topicalization. This is not borne out. Like the scrambling operation discussed in section 2.2, Topicalization is also strictly clause-bounded. (36a) and (37a) illustrate that overt long movement is not available for either an adjunct or topic-marked argument, although clause-bounded movement is of course acceptable, as seen in (36b) and (37b). We illustrate here with nominalized *-li* clauses and the restriction holds of other clause types as well. The absence of long-distance Topicalization is consistent with the clause-boundedness of scrambling discussed above.

- (36)a. \*iškolaɣor kid [uʒ-ā k'et'u begā-ru-li]  
*to.school.TOP girl.II.ABS boy-ERG cat.ABS send-PSTPRT-NMLZ*  
 boʒizi yoq-xo  
*believe be-PRES*  
 (To school, the girl believes that the boy sent the cat.)

- b. kid [iškolayor už-ā k'et'u begā-ru-ŋi] božizi  
*girl.ABS to.school.TOP boy-ERG cat.ABS send-PSTPRT-NMLZ believe*  
 yoq-xo  
*be-PRES*

The girl believes that, to school, the boy sent the cat.

- (37)a. \*k'et'u-n kid [už-ā iškolayor begā-ru-ŋi]  
*cat.-TOP girl.ABS boy-ERG to.school send-PSTPRT-NMLZ*  
 božizi yoq-xo  
*believe be-PRES*

(The cat, the girl believes that the boy sent to school.)

- b. kid [k'et'u-n už-ā iškolayor begā-ru-ŋi]  
*girl.ABS cat.-TOP boy-ERG to.school send-PSTPRT-NMLZ*  
 božizi yoq-xo  
*believe be-PRES*

The girl believes that the cat, the boy sent to school.

### 3.3. Focus Expression

We now turn to the expression of focus in Tsez and examine two phenomena: the particle *-kin*, which we argue to be a focus marking particle, and the syntax of *wh*-phrases. The latter will lead us to adopt the clause structure in which CP may dominate TopP and IP.

#### 3.3.1. Particle *-kin*

The particle *-kin* is loosely translated as ‘indeed’ or ‘even’ and it can occur with any constituent other than the predicate. We briefly present evidence that *-kin* is a focus particle. First, we have suggested that simultaneous topic and focus marking on the same element is impossible. If this is right and *-kin* is a focus particle then we correctly predict that *-kin* will be unable to co-occur with the topic particles *-no* and *-gon* on the same element. One or the other, but not both markings may appear: *uži-r* boy-DAT ‘to the boy’, \**užir-no-kin* ‘boy-TOP-FOC’, \**užir-kin-no* ‘boy-FOC-TOP’, \**užir-gon-kin* ‘boy-TOP-FOC’, \**užir-kin-gon* ‘boy-FOC-TOP’.

Second, recall the question-answer diagnostic for focus in (18) above which indicated that the focus is the constituent that corresponds to the *wh*-phrase in a question such as (38a). The particle *-kin* can appear on the

constituent that answers this *wh*-question, (38b), but is infelicitous on other constituents when answering the same question, (38c).

- (38)a. už-ā    lu-r            gagali        teḵ-ā  
*boy-ERG who-DAT flower.ABS give-PST.INTERR*  
 Whom did the boy give the flower?
- b. už-ā        gagali        kidbe-r-kin    teḵ-si  
*boy-ERG flower.ABS girl-DAT-kin give-PST.EVID*  
 The boy gave the flower TO THE GIRL.
- c. #už-ā        gagali-kin        kidbe-r    teḵ-si  
*boy-ERG flower.ABS-kin girl-DAT give-PST.EVID*  
 The boy gave the FLOWER to the girl.

A final piece of evidence for the focus-marking function of *-kin* comes from its compatibility with the Phrasal Focus Rule, which states that a constituent X may be interpreted as a focus if the head of X or an argument of the head of X is marked as focus (Selkirk 1984, p. 207). This rule allows focus to spread from smaller to larger constituents. Selkirk proposed the rule to account for the well-known ambiguities in the focus interpretation of VPs with a prosodically prominent object in English. The English gloss in (39a) is ambiguous, with the two interpretations in (39b, c). The interpretory options for sentences with *-kin*-marked object phrases in Tsez are essentially the same as for the English examples with pitch accent-marked object phrases. Consequently, (39a) is ambiguous like its English gloss. If *-kin* is a focus marker, the ambiguity has the same explanation in both languages, even though they have distinct focus marking strategies. We conclude that the function of *-kin* is to mark focus.

- (39)a. už-ā        t'ek-kin        yissi  
*boy-ERG book.ABS-kin bought*  
 The boy bought a BOOK.
- b. už-ā [Focus t'ek-kin] yissi  
*What the boy bought was [a book].*
- c. už-ā [Focus t'ek-kin yissi]  
*What the boy did was [buy the book].*

3.3.2. *Wh-phrases*

In this final preliminary section, we investigate the syntax of *wh*-questions in order to complete our presentation of Tsez clause structure. In Tsez, *wh*-phrases may occur fronted or *in situ*. This is illustrated for arguments in (40) and for adjuncts in (41):

- (40)a. šebi už-ā iškolā t'et'erxo  
*what.ABS boy-ERG in.school reads*

- b. už-ā šebi iškolā t'et'erxo  
*boy-ERG what.ABS in.school reads*  
 What is the boy reading at school?

- (41)a. nā už-ā t'ek t'et'erxo  
*where boy-ERG book.ABS reads*

- b. už-ā nā t'ek t'et'erxo  
*boy-ERG where book.ABS reads*  
 Where is the boy reading a book?

Traditional analyses place fronted *wh*-phrases in the specifier of a C(omplementizer) projection, CP, and we assume that this is also appropriate for Tsez. With no additional assumptions, this correctly predicts that multiple fronted *wh*-phrases are impossible, (42a, b). One *wh*-phrase must remain *in situ*, (42c):

- (42)a. \*nā šebi užā t'et'erxo  
*where what boy read*

- b. \*šebi nā užā t'et'erxo  
*what where boy read*

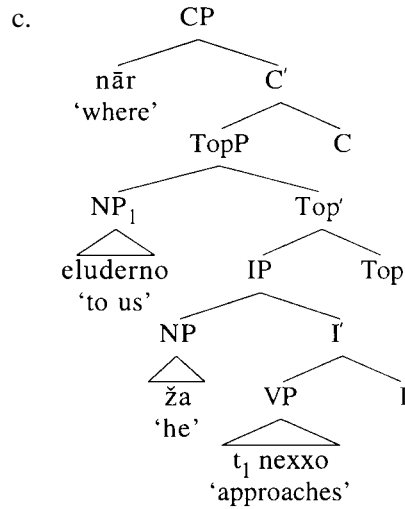
- c. nā užā šebi t'et'erxo  
*where boy what read*  
 Where does the boy read what?

Important for our concerns is the relative ordering of CP with TopP identified above. The data in (43) indicate that [spec,CP] is external to [spec,TopP]. A *wh*-phrase must precede a fronted topic, (43a), and the reverse order is impossible, (43b). The structure for (43a) is (43c), which we

take to be representative of the structure of examples with both a fronted *wh*-phrase and a fronted topic:

- (43)a. nār elude-r(-no) ža nex-xo  
*where we-DAT(-TOP) he.ABS approach-PRES*  
 Where will he approach us?

- b. \*elude-r(-no) nār ža nex-xo  
*we-DAT(-TOP) where he.ABS approach-PRES*  
 (Where will he approach us?)



Just as with scrambling and Topicalization, *wh*-movement in Tsez is clause-bounded. Long *wh*-movement is impossible, again regardless of the embedded clause type:

- (44)a. \*šebi enir riyxo [c'ohorā rok'āk'-ru-ŋi]  
*what.ABS mother knows [thief-ERG steal-PSTPRT-NMLZ]*  
 (What does the mother know that the thief stole?)

- b. \*šebi kid-bā [už-ā žek'-si-ŋin] eŋis  
*what.ABS girl-ERG [boy-ERG hit-PST.EVID-COMP] said*  
 (What did the girl say that the boy hit?)

This leads us to the following generalization regarding Tsez syntax:

- (45) A'-movement operations in Tsez are clause-bounded

(45) claims that Tsez does not have any cross-clausal A'-movement, covert or overt. We have demonstrated (45) with respect to three instances of A'-movement: scrambling, Topicalization, and *wh*-movement. Although we have illustrated (45) primarily using movement out of *-li* complements, it holds for all clausal complement types.

To summarize, we have proposed that Tsez has maximally the clause structure repeated in (46), exemplified by (43c). CP dominates TopP which dominates IP. As stated earlier, this functional superstructure is present only when required by the syntax.

$$(46) \quad [_{CP} \text{ specifier } [_{C'} C^{\circ} [_{TopP} \text{ specifier } [_{Top'} Top^{\circ} [_{IP} S O V ] ] ] ] ]$$

*Wh*-movement targets the specifier of CP and Topicalization targets the specifier of TopP, either overtly or covertly. These movements are local in that they cannot cross a clause boundary, per (45). By L(ogical) F(orm), these specifiers must be filled if CP and/or TopP is projected.

The motivation for these movements can be captured using Rizzi's (1991, 1997) *Wh*- and Topic Criteria or Minimalist feature checking as proposed in Belletti and Rizzi (1996). In making the latter explicit, we rely on Checking Theory as developed in Chomsky (1995). We assume the existence of interpretable features  $[_{TOP}]/[_{WH}]$ , associated with topic expressions and *wh*-phrases, respectively, and uninterpretable head features  $[_{TOP}]/[_{WH}]$ , associated with the heads  $Top^{\circ}$  and  $C^{\circ}$  respectively. These latter features, being uninterpretable, must be checked off and erased by LF or they will cause the derivation to crash because uninterpretable features are illicit LF objects (Chomsky 1995). The uninterpretable features can be checked by having the  $[_{TOP}]/[_{WH}]$  feature in  $Top^{\circ}/C^{\circ}$  attract an interpretable  $[_{TOP}]/[_{WH}]$  feature into its specifier. In other words, the uninterpretable features can be eliminated by Topicalization to  $[spec, TopP]$  and *wh*-movement to  $[spec, CP]$ , respectively. Since the movements can be covert or overt, we must stipulate that the head features  $[_{TOP}]/[_{WH}]$  may be strong or weak. A strong feature will result in overt movement, a weak feature will yield covert movement. If a head feature is present, however, the relevant movement will be forced by LF in order to check off the uninterpretable head feature. If multiple topics or *wh*-phrases are present, only one moves to the specifier and any others remain *in situ*. These *in situ* topics and *wh*-phrases are permitted since the features on the topics and *wh*-phrases themselves are interpretable and hence never erase or cause a derivation to crash.

## 4. LONG-DISTANCE AGREEMENT

In this and the following section, we discuss a unique pattern of non-local agreement which we call Long-Distance Agreement (LDA). LDA will turn out to provide support for our conception of Tsez clause structure from sections 2 and 3, because it crucially interacts with the information structure of a clause. Furthermore, the phenomenon is theoretically germane to a theory of agreement because, as the name suggests, it appears to be a non-local agreement relationship.

This section is organized as follows. Section 4.1 presents the fundamental properties of the LDA construction and section 4.2 discusses its theoretical relevance. Section 4.3 explores additional restrictions on the use of LDA. We demonstrate that LDA is present if and only if the embedded absolutive element is a topic in its clause. In sections 4.4 and 4.5, we show that the LDA phenomenon is problematic for current syntactic theories of agreement because of its apparent nonlocality. We instantiate several analyses that attempt to maintain mainstream assumptions about the syntax of agreement and we demonstrate that they are untenable.

4.1. *The Paradigm of Long-Distance Agreement*

The phenomenon of Long-Distance Agreement can arise when the absolutive argument of a predicate is expressed as a sentential complement. In such situations, two patterns of agreement are possible. The canonical pattern of agreement, which we call PROPERLY LOCAL AGREEMENT (PLA), is illustrated in (47). Under PLA, the predicate agrees with the sentential complement as a single class IV abstract nominal:

- (47)a. eni-r            [už-ā        magalu        b-āc'-ru-ti]  
           *mother-DAT [boy-ERG bread.III.ABS III-eat-PSTPRT-NMLZ].IV*  
           r-iy-xo  
           **IV** -*know-PRES*  
           The mother knows the boy ate the bread.
- b. eni-r            [uži        ø-āy-ru-ti]                            r-iy-xo  
           *mother-DAT boy.I.ABS I-arrive-PSTPRT-NMLZ].IV IV* **IV**-*know-PRES*  
           The mother knows the boy arrived.

In the above examples, the agreement triggering sentential argument, which belongs to class IV, is bracketed and the relevant agreement class information is given in boldface. In talking about agreement, we will use

the term PROBE to refer to the head that shows agreement and the term TRIGGER to refer to the constituent that the probe agrees with. In (47a) then, the probe is *riyxo* ‘knows’ and the trigger is the sentential complement *užā magalu bāc’ruli* ‘the boy ate the bread’.

In the more unusual pattern of LONG-DISTANCE AGREEMENT (LDA), the predicate agrees with the absolutive nominal inside the sentential argument.<sup>9</sup> In (48a), the matrix verb shows class III agreement triggered by the absolutive NP *magalu* ‘bread’ within the clausal complement. In (48b), it agrees in class I with the embedded absolutive subject *uži* ‘boy’. In all other respects, these examples are parallel to the data in (47).

- (48)a. *eni-r*            [*už-ā*        *magalu*        *b-āc’-ru-ḥi*]  
           *mother-DAT* [*boy-ERG*    *bread.III.ABS*    *III-eat-PSTPRT-NMLZ*]  
           **b-iy-xo**  
           **III-know-PRES**

The mother knows the boy ate the bread.

- b. *eni-r*            [*uži*        *ø-āy-ru-ḥi*]            **ø-iy-xo**  
           *mother-DAT* [*boy.I.ABS* *I-arrive-PSTPRT-NMLZ*] **I-know-PRES**

The mother knows the boy arrived.

A primary requirement for LDA is that the agreeing trigger be in an absolutive position in its clause. This is shown by (49), in which the dative NP *kidber* ‘girl’ cannot trigger LDA, and by (50), in which the illicit trigger is the genitive NP inside the absolutive:

- (49) \**eni-r*            [*už-ā*        *kidbe-r*        *magalu*        *tāḥ-ru-ḥi*]  
           *mother-DAT* *boy-ERG* *girl.II-DAT* *bread.ABS* *give-PSTPRT-NMLZ*  
           **y-iyxo**  
           **II-know**

(The mother knows the boy gave the girl bread.)

<sup>9</sup> LDA is not unique to Tsez. It is found in other Daghestanian languages, for example in closely related Hunzib (van den Berg 1995, pp. 190, 211, 240) and other languages of the family (Kibrik 1987). Cross-clausal patterns of agreement are also found in Hindi/Urdu (Davison 1988; Wunderlich 1994; Butt 1995), other Indic languages (Wali and Koul 1994), Hungarian, Mordva, Chukchi (Spencer 1991, p. 389), the Algonquian family (Dahlstrom 1991, 1995), and Icelandic (Andrews 1982). It is not clear that all these patterns constitute a single phenomenon.



- (50) \*enir [už-ā kidbe-s magalu b-āc'-ru-ti]  
*mother boy-ERG girl.II-GEN bread.ABS III-eat-PSTPRT-NMLZ*  
 y-iy-xo  
*II-know-PRES*  
 (The mother knows the boy ate the girl's bread.)

In addition to the requirement that the agreement trigger in LDA be an absolutive, it is also necessary that the trigger be within a clause that would otherwise trigger absolutive agreement. This requirement effectively blocks LDA when the trigger is within a clausal adjunct, as is *kid* 'girl' in (51a).

- (51)a. \*[kid y-āy-zał] eni-r xabar  
*girl.II.ABS II-arrive-WHEN mother-DAT news.III.ABS*  
 y-iy-s  
*II-know-PST.EVID*
- b. [kid y-āy-zał] eni-r xabar  
*girl.II.ABS II-arrive-WHEN mother-DAT news.III.ABS*  
 b-iy-s  
*III-know-PST.EVID*  
 When the girl arrived, the mother found the news.

In summary, LDA requires that the following necessary, but not sufficient, conditions be met (we return to an account of these restrictions in section 5):

- (52) *Morphosyntactic requirements for LDA*
- a. the trigger is an absolutive argument
  - b. the argument containing the trigger is in an absolutive position

Beyond these particular morphosyntactic restrictions, what is theoretically interesting about LDA is its apparent non-locality. The two elements that are in an agreement relation, the verb and the embedded absolutive, are not structurally local on the surface; they do not even seem to be in the same clause. Given that a properly restrictive theory of syntactic agreement should permit all and only those agreement configurations that we see in

natural language, LDA will be important for adequately constraining such a theory. At this point, we turn to a discussion of the theoretical issues surrounding agreement.

#### 4.2. *The Syntax of Agreement*

In Principles and Parameters Theory and its derivatives, agreement between a head and an argument is a structural phenomenon. A head can agree with an argument only if the two elements enter into an appropriate local syntactic configuration at some point in the syntactic derivation. In much work, this configuration is taken to be a specifier-head configuration within a single projection (Chomsky 1986; Kuroda 1988; Koopman and Sportiche 1991; Chomsky 1993; Chomsky and Lasnik 1993; Aoun et al. 1994; Mahajan 1989). We will call this the SPEC-HEAD AGREEMENT HYPOTHESIS:

- (53) *Spec-Head Agreement Hypothesis (SHAH)*  
 Agreement reflects a specifier-head configuration between the probe and the trigger at some level of representation

This state of affairs is illustrated in (54) for a right-headed projection with probe  $X^\circ$  and trigger  $NP_1$ .

- (54)  $[_{XP} NP_1 [_{X'} ZP X^\circ]]$

The motivation for this locality is that agreement is an instance of feature compatibility (Chomsky 1995; Chung 1998), in which the probe and trigger are assumed to check co-occurring agreement features. If gone unchecked, some of these unchecked, uninterpretable agreement features would cause the sentence's derivation to crash. If the necessary agreement feature checking configuration does not obtain overtly, it will need be created covertly, by LF.

The SHAH is a restrictive theory of agreement locality because of the limited licit agreement configurations it permits. One very clear corollary of the SHAH is that agreement between a head and a maximal projection is subject to a clause-mate restriction at the level at which the configuration is created. If two elements agree, then they will necessarily be in the same clause at some point. The Tsez LDA phenomenon is relevant to the hypothesis because we have an apparent case of agreement across a clause boundary. If the SHAH is to be maintained, the embedded agreement trigger must either be represented in or move into the verb's clause during the

derivation. In other words, in order to maintain the SHAH in the face of LDA, Tsez must respect the Clause-Mate Assumption (55):

(55) *Clause-Mate Assumption for Tsez LDA*

The agreement trigger is in the matrix clause at some level of representation

We show below that analyses that incorporate the Clause-Mate Assumption make incorrect predictions concerning the interaction of LDA and other aspects of Tsez syntax. We conclude that the Clause-Mate Assumption cannot be maintained for Tsez and that, consequently, the SHAH is insufficient to account for LDA. Before proceeding with this demonstration, however, we must complete our description of LDA.

#### 4.3. *LDA as a Topic-Marking Strategy*

Let us return to the examples of PLA and LDA, repeated respectively in (56):

- (56)a.   eni-r           [už-ā       magalu       b-āc'-ru-ḥi]  
           *mother-DAT [boy-ERG bread.III.ABS III-eat-PSTPRT-NMLZ].IV*  
           **r-iy-xo**  
           *IV-know-PRES*

The mother knows the boy ate the bread.

- b.   eni-r           [už-ā       magalu       b-āc'-ru-ḥi]  
       *mother-DAT [boy-ERG bread.III.ABS III-eat-PSTPRT-NMLZ]*  
       **b-iy-xo**  
       *III-know-PRES*

The mother knows that the bread, the boy ate.

Despite appearances, (56a, b) are not in free variation. Native speakers have very robust judgments about whether LDA or PLA should be used. As the distinct translations indicate, there is a subtle meaning difference, which we will clarify with the following data. (57a, b) illustrate a situation in which PLA is not an option and LDA is obligatory:

- (57)a. \*enir                      [už-ā                      magalu-n/magalu-gon  
           mother                      [boy-ERG                      bread.ABS-TOP/bread.ABS-TOP  
           b-āc'-ru-ḥi]                      r-iy-xo  
           III-eat-PSTPRT-NMLZ] IV-know-PRES  
           (The mother knows the boy ate the bread.)  
           The mother knows that the bread, the boy ate.
- b. enir                      [už-ā                      magalu-n/magalu-gon  
           mother                      [boy-ERG                      bread.III.ABS-TOP/bread.III.ABS-TOP  
           b-āc'-ru-ḥi]                      b-iy-xo  
           III-eat-PSTPRT-NMLZ] III-know-PRES

The sole difference between (56) and (57) is that in the latter the embedded absolutive is marked with the topic particles *-n(o)* and *-gon* discussed in section 3.2.1; however, LDA is now required. The contrast motivates the following condition on LDA:

- (58) *Topic Condition on Long-Distance Agreement*  
 LDA occurs when the referent of the embedded absolutive NP  
 is the (primary) topic of the embedded clause

The condition correctly captures the fact that LDA is required when the embedded absolutive must be a topic, (57). It also leads to the expectation that LDA will be impossible in situations where the embedded absolutive cannot be a topic. This prediction is fully borne out by empirical evidence, which we will review in the remainder of this section.

The interaction of LDA withthetic constructions supports the Topic Condition in (58). To see this, recall the distinction between categorical andthetic sentences. As discussed in section 3.2.1, the latter maps to an all-focus structure where no internal constituent can be a topic. (59a) repeats an example of athetic construction and (59b) reconfirms that topic marking of the NP is impossible:

- (59)a. isi                      y-egir-xo  
           show.II.ABS II-send-PRES  
           It is snowing.
- b. \*isi-n                      y-egir-xo  
           snow-TOP II-send-PRES  
           (It is snowing.)

Since there is no absolute topic, if a thetic construction is an embedded complement, LDA is correctly expected to be impossible, as (60b) shows:

- (60)a. *eni-r* [isi y-egir-xosi-*hi*]  
*mother-DAT [snow.II.ABS II-send-PRSPRT-NMLZ].IV*  
*r-iy-xo*  
*IV-know-PRES*  
 The mother knows that it is snowing.
- b. \**eni-r* [isi y-egir-xosi-*hi*] *y-iy-xo*  
*mother-DAT snow.II.ABS II-send-PRSPRT-NMLZ II-know-PRES*  
 (The mother knows that it is snowing.)

Focus-marked expressions also cannot trigger LDA. Continuing to assume that a focus element cannot simultaneously be a topic, it follows from the Topic Condition that, if the absolute trigger is marked as a focus element, LDA will be ill-formed. This prediction is also correct: when the absolute argument in the embedded clause is marked with the focus particle *-kin* (section 3.3.1), LDA is impossible:

- (61)a. *eni-r* [t'ek-kin y-igu yāl-ru-*hi*]  
*mother-DAT [book.II.ABS-FOC II-good be-PSTPRT-NMLX].IV*  
*r-iy-xo*  
*IV-know-PRES*  
 The mother knows that the BOOK is good.
- b. \**eni-r* [t'ek-kin y-igu yāl-ru-*hi*]  
*mother-DAT book.II.ABS-FOC II-good be-PSTPRT-NMLZ*  
*y-iy-xo*  
*II-know-PRES*  
 The mother knows that the BOOK is good.

Further evidence that LDA is blocked by focus comes from the question-answer focus diagnostic. Consider the question-answer pair in (62).<sup>10</sup> In response to the sequential question (62a), the answer with LDA is unacceptable (62b), and only PLA is possible (62c). The infelicity of the answer

<sup>10</sup> Because Tsez does not have partial or long-distance *wh*-movement, the only way to question an embedded clause constituent is to form a so-called 'sequential question' in which each proposition is questioned separately (Dayal 1996).

in (62b) follows because the embedded absolutive cannot simultaneously be a focus, as required by the focus diagnostic, and a topic, as required by LDA marking:

- (62)a. šebi            r-igu            zow-ā-ħin            eni-r  
*wh.ABS            IV-good            be.PAST-INTERR-COMP            mother-DAT*  
 r-iy-ā  
*IV-know-PST-INTERR*  
 What did the mother know to be good?

- b. #eni-r            [t'ek            y-igu            yāl-ru-ħi]  
*mother-DAT            book.II.ABS            II-good            be-PSTPRT-NMLZ*  
 y-iy-si  
*II-know-PST-EVID*  
 The mother knew that the book was good.

- c. eni-r            [t'ek            y-igu            yāl-ru-ħi]  
*mother-DAT            book.II.ABS            II-good            be-PSTPRT-NMLZ*  
 r-iy-si  
*IV-know-PST-EVID*  
 The mother knew that the book was good.

We can further test the Topic Condition by capitalizing on the restriction discussed in section 3.1 that non-referring expressions cannot be topics. As anaphors are referentially dependent upon their antecedent, we predict that they cannot function as topics and consequently cannot license LDA, even when they are in an absolutive position. This prediction is borne out, as shown by (63b). Only PLA in (63a) is possible in such cases:

- (63)a. eni-r            [už-ā            nesā že            žāk'-ru-ħi]  
*mother.DAT            [boy-ERG            REFL.I.ABS            beat-PSTPRT-NMLZ].IV*  
 r-iy-xo  
*IV-know-PRES*  
 The mother knows that the boy beat himself up.

- b. \*eni-r            [už-ā            nesā že            žāk'-ru-ħi]            Ø-iy-xo  
*mother-DAT            boy-ERG            REFL.I.ABS            beat-PSTPRT-NMLZ            I-know-PRES*  
 (The mother knows that the boy beat himself up.)

Nouns occurring in light verb (N–V) constructions also do not refer, hence the prediction that such nouns when they fill the absolutive position will not trigger LDA. (64) shows this to be correct, too. The embedded predicate is the light verb construction *kumek boda* ‘help’ (literally ‘help make’), in which *kumek* ‘help’ cannot trigger LDA.

- (64)    *babi-r*                      [*kidb-ā*                      *eni-r*                      *kumek*  
           *father-DAT*            [*girl-ERG*            *mother-DAT*            *help.III.ABS*  
           *b-oy-xosi-li*]                      *r-iyxo/\*b-iyxo*  
           *III-make-PRSPRT-NMLZ.IV IV-knows/\*III-knows*  
           The father knows that the girl is helping the mother.

In summary, we have shown in this subsection that there is a strikingly confirmed prediction that expressions which are incapable of being topics also cannot trigger LDA. This indirectly supports the proposal, (58), repeated in (65):

- (65)    *Topic Condition on Long-Distance Agreement*  
           LDA occurs when the referent of the embedded absolutive NP  
           is the (primary) topic of the embedded clause

(65) is a useful probe on the syntax of LDA.<sup>11</sup> In the following sections, we return to the theoretical issue presented earlier: the syntax and locality of agreement. As indicated above, LDA is important to an understanding of the syntax of agreement because it exhibits a cross-linguistically unusual pattern of non-local agreement. The goal of the following sections will be to consider analyses of LDA that attempt to maintain the restrictive SHAH. If the SHAH holds, then an analysis of LDA would have to incorporate the Clause-Mate Assumption, repeated below.

- (66)    *Clause-Mate Assumption for Tsez LDA*  
           The agreement trigger is in the matrix clause at some level of  
           representation

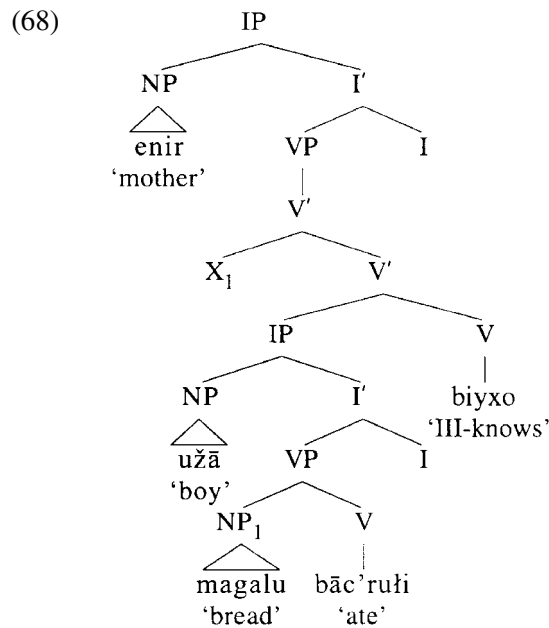
<sup>11</sup> Tsez has another construction in which LDA-like agreement is obligatory and the Topic Condition is inoperative: infinitival complements embedded under a one- or two-place predicate (‘be good’, ‘be able’, ‘want’). In that construction, the main predicate is an auxiliary and the construction is monoclausal. A monoclausal analysis, expressed in terms of Clause Union, has been proposed for agreement with infinitival complements in the genetically-related language Godoberi (Haspelmath 1996, 1999). As we show in section 4.5, the monoclausal analysis is untenable for Tsez LDA.

The Clause-Mate Assumption can be instantiated by base-generating the trigger in the matrix clause or by moving it there. We explore these two options in sections 4.4 and 4.5, respectively.

#### 4.4. *The Clause-Mate Hypothesis: A Base-Generated Matrix Representation*

One way in which the Clause-Mate Hypothesis for Tsez LDA, (66), might be implemented is base-generation in the matrix clause of a representation of the embedded absolute trigger. Concretely, for the LDA example in (67), the matrix verb will have two arguments: the complement clause and a null direct object. The null element in object position is a silent element X, coindexed with the embedded absolute, as represented in (68). For expository convenience, we show X as a sister to V'.

- (67) enir [užā magalu bāc'ruḷi] b-iyxo  
 mother [boy bread.**III**.ABS ate] **III**-knows  
 The mother knows the boy ate the bread.



The intuition behind this proposal is that an LDA example such as (67) has a meaning that is roughly paraphrased in English by (69):

- (69) The mother knows {of/about it} that the boy ate the bread.



LDA between the embedded absolutive and the matrix verb is mediated via the null element in object position. Spec-head agreement can then transparently take place in the matrix clause. The analysis gives a structural representation to the matrix argument that is expressed as a prepositional phrase in English and this argument serves to flag the existence of an embedded topic. The strategy makes sense if one recalls our claim that Tsez does not have a long-distance Topicalization option for promoting an embedded topic. Although the matrix element X is unpronounced, its presence is signaled by the non-canonical agreement on the verb.

At least four arguments undermine the idea that the embedded absolutive has a second representation in the matrix clause, all of which are independent of the LDA Topic Condition (65) and the information-structural status of the null element. The relevant evidence comes from considerations of the null argument's properties, successive cyclic LDA, scope effects, and reflexivization.

The first argument against the base-generation analysis is that the null element X is problematic from a language-internal perspective. Within the NP typology of Chomsky (1981), empty categories are either anaphors/traces, pronouns, PRO, or R-expressions and their distribution is governed by the Binding Theory, (70):

- (70) *Binding Theory* (Chomsky 1981)
- A. an anaphor is bound in its governing category
  - B. a pronoun is free in its governing category
  - C. an R-expression is free everywhere

When the full distribution of the null element is taken into account below, the Binding Theory requires that the null element be an anaphor or a pronominal. This is at odds with the inventory of empty categories that have independent motivation in Tsez.

First, the LDA example in (71) is compatible with X being a pronoun since X is transparently free. The grammaticality of (72), in which (71) is embedded under a subject coreferential with the null element, confirms this possibility. In (72), X is bound by the matrix subject yet is still free in its governing category. This position is possible only for pronouns.

- (71) enir X<sub>1</sub> [že ø-āk'i-ru-li] ø-iy-xo  
 mother X.I [he.ABS I-go-PSTPRT-NMLZ] I-know-PRES  
 The mother knows he left.

- (72) babir [enir X<sub>1</sub> [že ø-āk'i-ru-ŋi] ø-iyxosiŋi]  
*father<sub>1</sub> [mother X.I [he<sub>1</sub> I-go-PSTPRT-NMLZ] I-knows]*  
 r-iyxo  
*IV-knows*  
 The father<sub>i</sub> knows that the mother knows that he<sub>i</sub> left.

Second, the null element may also be an anaphor, as in (73), where it is locally bound by its clausemate subject. In this example, the embedded absolutive trigger is coreferential with the matrix subject. (74) confirms that the reciprocal anaphor is obligatory in the absolutive argument position if coindexed with the local dative subject.

- (73) [irbahin-er-no <sup>ſ</sup>ali-r-no]<sub>1</sub> X<sub>1</sub> [žedā žedu<sub>1</sub>  
*Ibrahim-DAT-and Ali-DAT-and X.I.PL each other.ABS.I.PL*  
 goŋ'i-x-ānu-si-ŋi] **b**-iyxo  
*invite-PRES-NEG-PRSPRT-NMLZ] I.PL-know-PRES*  
 [Ibrahim and Ali]<sub>i</sub> know that they have not invited each other<sub>i</sub>
- (74) [irbahin-er-no pat'i-r-no]<sub>i</sub> žedā žedu<sub>i</sub>/\*žedu<sub>i</sub>  
*Ibrahim-DAT-and Fatima-DAT-and each.other.ABS/\*them.ABS*  
 b-eti-x  
*I.PL-like-PRES*  
 Ibrahim and Fatima like each other.

The LDA data thus demonstrate that the null element is either an anaphor or a pronoun in Chomsky's (1981) system.<sup>12</sup> If the matrix representation analysis is to account for LDA, we will have to recognize a null pronoun and a null anaphor in Tsez. While Tsez is a pro-drop language and does have null pronouns, it does not permit null reflexives. As a result, if the analysis in (68) is to be adequate, it requires an *ad hoc* statement that Tsez has a null anaphor which only appears as a complement of verbs registering LDA. While this is a possible extension of the proposal, it is clearly an undesirable stipulation that makes the analysis unattractive.

<sup>12</sup> X is clearly not PRO. First, X is transparently Case-marked with absolutive Case. PRO is assumed to be Case-less (Chomsky 1981) or to receive only Null Case (Chomsky and Lasnik 1993). Second, PRO requires a controller for a referential interpretation. When one is not available, an arbitrary reading results. X does not have a controller nor is an arbitrary interpretation possible.

Two other restrictions remain similarly problematic under the analysis represented in (68). First, it is not evident why X must always be null, rather than alternating with an overt noun phrase:

- (75)    enir     $X_1$ /\*magalu/\*že [užā magalu<sub>1</sub>    bāc'ruli] **b-iyxo**  
          mother X/bread/it       [boy bread.**III**.ABS ate]       **III**-knows  
          The mother knows the boy ate the bread.

Second, the morphosyntactic requirements in (52) – that the trigger be an absolutive argument and that the argument containing the trigger be in an absolutive position – remain unexplained. We would first have to ensure that X is coindexed with the embedded absolutive trigger. If the relationship between X and the trigger is simply one of coindexation, however, it is unclear why the trigger should necessarily be absolutive. Coindexation is only sharing of referential indices (Lasnik 1981); it does not impose any restrictions on the Case(s) of the coindexed NPs and should not prohibit the coindexed elements from bearing distinct Cases. It is also unexplained why the trigger should necessarily be inside the absolutive argument. If X only needs to be coindexed with some element for identification purposes, it is unclear why this associate would have to be in such a restricted location. In conclusion, the null element X is not independently found in the grammar of Tsez and would have to have *ad hoc* restrictions placed on it in order for the analysis to succeed.

A second difficulty with the base-generation analysis comes from the impossibility of successive cyclic Long-Distance Agreement. Given that there is a higher clause representation of the embedded absolutive, this element should itself be a potential absolutive trigger for LDA on a still higher verb. Thus, postulating a covert element X in the matrix clause of an LDA example predicts that LDA should be able to cross multiple clause boundaries. We will now show that this is an incorrect prediction.

We begin with the configuration in (76b), in which the LDA example in (76a) serves as an embedded complement. The deeply embedded absolutive NP is coindexed with the intermediate null element,  $X_{1a}$  triggering LDA on the intermediate verb. The null element  $X_{1a}$  in the intermediate clause then serves as the absolutive trigger for the matrix verb since it is coindexed with a second null element,  $X_{1b}$  in the matrix clause. Since both null elements and the embedded absolutive bear the same index, both the matrix and intermediate verbs should show agreement with absolutive trigger. However, such cyclic LDA is impossible. As (76b) shows, the higher verb must have local agreement, not LDA. The null element analysis thus incorrectly permits LDA to cross multiple clause boundaries.

- (76)a. enir X<sub>1</sub> [užā magalu<sub>1</sub> bāc’ruḥi] b-iyxo  
*mother [boy bread ate] knows*
- b. babir X<sub>1b</sub> [enir X<sub>1a</sub> [užā magalu<sub>1</sub> bāc’ruḥi]  
*father X.III [mother X.III [boy bread.III.ABS ate]*  
*b-iyxosi-li] r/\*b-iyxo*  
*III-know-NMLZ] IV/\*III-know*  
 The father knows [the mother knows [the boy ate bread]].

The analysis we provide in section 5 below will account for the data in (76b), capturing the intuition that the absolutive trigger in (76b) is ‘too far away’ to agree with the matrix verb across the intermediate clause.<sup>13</sup>

Quantifier scope interactions provide yet another piece of evidence against the null element X. In Tsez, ordinary monoclausal constructions with two quantificational elements may be scopally ambiguous, just like their English counterparts. (77) demonstrates that the subject or object may take wide scope (the notation  $X > Y$  indicates that X has scope over Y).

- (77)a. šibaw y<sup>šw</sup>ay-ā sis k’et’u han-si  
*every dog-ERG one cat-ABS bite-PST.EVID*  
 Every dog bit a cat.  $\forall dog > \exists cat, \exists cat > \forall dog$
- b. sida y<sup>šw</sup>ay-ā šibaw k’et’u han-si  
*one.OBLIQUE dog-ERG every cat-ABS bite-PST.EVID*  
 A dog bit every cat.  $\exists dog > \forall cat, \forall cat > \exists dog$

In biclausal sentences, quantifiers may not take scope out of their own clause:

- (78)a. sis učitelər [IP šibaw uži ø-ik’ixosi-li] r-iyxo  
*one teacher every boy-I.ABS I-go-NMLZ IV-know*  
 Some teacher knows that every boy is going.
- b. Some teacher is such that he knows that every boy is going.  
 $\exists teacher > \forall boy$
- c. \*Every boy is such that some teacher knows that he is going.  
 $*\forall boy > \exists teacher$

<sup>13</sup> An anonymous reviewer suggests that (76b) might be ungrammatical with LDA simply because X<sub>1a</sub> is not a topic. Nothing prevents it from being a topic, however, so it should trigger LDA.

Most theories of quantifier scope interactions can handle the basic facts in (77) and (78). For concreteness, we adopt an account using Quantifier Raising (QR) – an LF operation that allows quantificational elements to adjoin to IP or VP for scope-taking purposes (May 1985). It gives the representation in (79) for the object wide scope reading of (77a):

- (79)  $[_{IP} \text{ sis } k'et'u_1 [_{IP} \text{ šibaw } \hat{y}^w\text{ay-}\bar{a} [_{VP} t_1 \text{ han-si } ] ] ]$   
*one cat.ABS every dog-ERG bite-PST.EVID*  
 Every dog bit a cat.  $\exists cat > \exists dog$

Positing a matrix representation for an embedded absolutive in the LDA construction leads to the expectation that the embedded absolutive will show more scope possibilities than otherwise expected because of this covert representation. Specifically, one would predict that it should be able to scopally interact with matrix clause elements. This prediction is false. The LDA variant of (78), in (80), has the same restricted interpretation options:

- (80)a.  $\text{sis } učitel\text{er } [_{IP} \text{ šibaw } už\text{i} \quad \emptyset\text{-ik'ixosi-li}] \emptyset\text{-iyxo}$   
*one teacher every boy-I.ABS I-go-NMLZ I-know*  
 Some teacher knows that every boy is going.  
 b. Some teacher is such that he knows that every boy is going.  
 $\exists teacher > \forall boy$   
 c. \*Every boy is such that some teacher knows that he is going.  
 $*\forall boy > \exists teacher$

This is an unexpected result if X is present in the matrix clause and can interact with matrix quantified expressions. In such a structure, the illicit reading in (80c) would have the putative LF structure in (81):

- (81)  $*[_{IP} X_1 [_{IP} \text{ sis } učitel\text{er } [_{VP} t_1 [_{IP} \text{ šibaw } už\text{i}_1 \text{ ik'ixosi}]\text{i}]$   
 $*[_{IP} X_1 [_{IP} \text{ one teacher } [_{VP} t_1 [_{IP} \text{ every boy}_1 \text{ go}]$   
 $\text{iyxo}]] ] ]$   
 $\text{knows}] ] ]$

In summary, positing a representation of the absolutive trigger in the main clause leads to the expectation that it will participate in scope ambiguities in that clause. We can avoid this incorrect conclusion by not having the element X in the analysis of LDA.

In addition to taking scope over other matrix quantificational elements, a matrix representation for the embedded absolutive should be able to serve as the antecedent for an anaphor in the matrix clause. We show that this prediction is also false.

In Tsez, an absolutive NP licenses a reflexive, including the possessive of an oblique argument:

- (82)    *babiy-ā    nesā nesiz<sub>i</sub>    yutkā    <sup>ʔ</sup>ali<sub>i</sub>    žek'si*  
           *father-ERG his.REFL    in.house Ali.ABS    hit*  
           The father hit Ali<sub>i</sub> in his<sub>i</sub> house.

Since the null element X under consideration is in the same structural position as the absolutive in (82), it too should be able to bind a reflexive in the same position. The LDA example in (83a) shows that it cannot. A reflexive in the matrix clause is not licit, whether or not LDA is present. The putative structure is in (83b), with X as the potential antecedent:

- (83)a. \**enir    [nesā nesiz yutkā]    [<sup>ʔ</sup>ali    ø-āk'i-ru-ti]    ø/r-iyisi*  
           *mother [his.REFL    in.house] [Ali.I I-go-PSTPRT-MLZ] I/IV-knew*  
           (The mother found out in his<sub>i</sub> house that Ali<sub>i</sub> had already left.)

- b. \*mother X<sub>1</sub> [in his<sub>1</sub>.REFL<sub>1</sub> house] [Ali<sub>1</sub> left] found out

The primary conclusion that we draw from these arguments is that there should not be a base-generated matrix representation for the embedded absolutive trigger in LDA. Positing such an element X makes a number of incorrect empirical predictions and raises several theoretical difficulties that do not arise if no such structural position is assumed.<sup>14</sup>

#### 4.5. The Clause-Mate Hypothesis: Movement into the Matrix Clause

As we have seen, a representation of the embedded absolutive is not base-generated in the matrix clause. We will now consider, and reject, an alternative in which the embedded absolutive is moved into the mat-

<sup>14</sup> Sandra Chung suggests an analysis to us in which X is an expletive coindexed with the embedded absolutive. Such an analysis would not run afoul of the cyclicity, scope, and reflexivization arguments we raise above. It would, however, require that verbs that register LDA subcategorize for an expletive object, an option that is claimed to be ruled out by Theta Theory (Chomsky 1981). Furthermore, we are still left without an explanation for why the associate must be the absolutive in the complement clause.

rix clause to create a spec-head configuration. For such an analysis, two questions need to be answered:

- (84)a. At what point in the syntactic derivation does the movement take place?
- b. What is the landing site of such a movement?

With regard to (84a), the movement and concomitant spec-head agreement could obtain either overtly in the visible syntax or else covertly during the derivation to LF. With regard to (84b), the movement would have to be either to an A-position or an A'-position. Hence, there are four families of analysis, depending upon whether the movement is overt or covert and to an A- or A'-position:

(85) *Movement Analyses for the Clause-Mate Assumption*

	A- MOVEMENT	A' - MOVEMENT
OVERT (SS)	a	b
COVERT (LF)	c	d

In eliminating these hypotheses, we will begin by developing the overt A-movement option, (85a), and presenting three arguments against it. We turn to the remaining movement analyses following that discussion.

Observe that, superficially, LDA shares characteristics with the well-known Raising-to-Object (RO) phenomena exemplified by (86c):

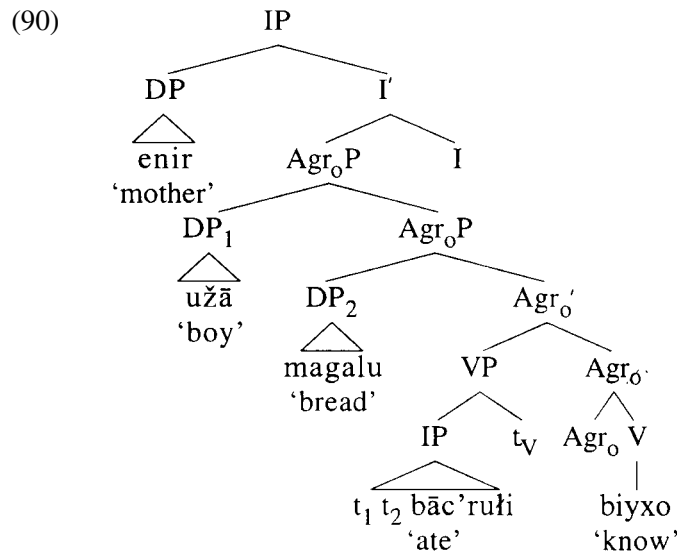
- (86)a. We expect [<sub>S</sub> that he will win]
- b. We expect [<sub>S</sub> for him to win]
- c. We expect him/\*he [<sub>S</sub> *t* to win]

Under RO, the subject of a non-finite complement clause behaves morphologically and syntactically, but not semantically, as if it were a direct object of the matrix predicate. In early analyses of RO (Rosenbaum 1967; Postal 1974) the argument raised overtly into a position in the matrix clause. Standard Government-Binding theory ruled out such analyses because the movement to a complement position violated the Projection Principle (Chomsky 1981). In recent work (Lasnik and Saito 1991; Koizumi 1993;





The first argument against the proposal in (89) comes from word order. An immediate objection is that the structure in (89) does not provide the right word order for (88). For the embedded clause constituents, it predicts OSV word order. While this word order is possible because of the availability of leftward scrambling in the embedded clause, the equally possible word order in (88) is not derived. In order to derive (88) with the agreement trigger *magalu* ‘bread’ in the matrix clause, the embedded subject *užā* ‘boy’ would also have to move into the main clause. This possibility is illustrated in (90), where, for concreteness, the scrambling is illustrated as adjunction to  $\text{Agr}_\text{OP}$ . The embedded absolutive trigger is still in the specifier of  $\text{Agr}_\text{OP}$ , where it is in a spec-head relationship with the matrix verb.



The derivation in (90) is illicit, however, given that cross-clausal scrambling is not allowed. Thus, the RO analysis is not compatible with surface word order facts.

(91) provides a second argument against the RO analysis of Tsez LDA:

- (91)a. enir    b-iyxo    [užā    magalu    bāc'ruŋi]  
*mother   III-knows [boy   bread.III   ate]*  
 The mother knows the boy ate the bread.

- b. [užā    magalu    bāc'ruŋi]    enir    b-iyxo  
*[boy   bread.III   ate]    mother   III-knows*  
 The mother knows the boy ate the bread.

The examples demonstrate that the entire embedded clause in an LDA example can be dislocated to the right periphery, (91a), or the left periphery, (91b). Crucially, the absolutive trigger stays internal to the complement clause and is not left in the preverbal position. The embedded clause is thus a constituent at Spell-Out. It is not a constituent in the structures (89) or (90), however. The constituency facts are thus incompatible with an analysis which moves the absolutive trigger out of its clause before Spell-Out.

Lastly, there is a theory-internal argument against an RO analysis, specifically in the case where LDA is triggered by an object absolutive. While the literature on Raising constructions is vast and Subject-to-Subject and Subject-to-Object Raising are cross-linguistically well attested, proposals for Object-to-Object Raising are scarce and poorly motivated.<sup>15</sup> Relativized Minimality (Rizzi 1990), stated in (92), provides the essential insight as to why Object-to-Object Raising should be impossible: it violates well-known conditions on the locality of movement.

- (92) *Relativized Minimality* (Rizzi 1990)  
 X antecedent-governs Y only if there is no Z such that  
     i) Z is a typical potential antecedent-governor for Y,  
     ii) Z c-commands Y and does not c-command X

Raising is an instance of A-movement and the trace of a raised NP must be antecedent-governed. In order for the raised object to antecedent-govern its trace, there must be no closer intervening potential antecedent. It is clear, however, that a subject under our conception of Tsez clause structure will count as a potential governor. Given the definition in (92), the subject is a potential governor that c-commands the object trace but does not c-command the raised object. Thus, Object-to-Object Raising is a straightforward violation of Relativized Minimality.

Word order considerations and widely-accepted locality requirements thus converge on the conclusion that LDA is not analyzable as overt movement of the absolutive agreement trigger into an A-position in the matrix clause (option (85a)). The scope and reflexivization facts in Section 4.4 further support this conclusion, since A-movement, unlike LDA, licenses new scope and binding relationships. Covert A-movement (option (85c)), in which the structure in (89) is an LF representation, is almost

<sup>15</sup> Object Raising has been proposed for Niuean (Seiter 1983), Fijian (Gordon 1979; Massam 1985), and Kipsigis (Jake and Odden 1979). However, there is reason to believe that these unusual cases may instantiate a Copy-Raising operation that leaves a pronominal copy of the raised nominal (Joseph 1976; Moore 1998).

equally problematic. The locality violation of Object-to-Object Raising argument would still carry over. In addition, the possibility of LDA in (91), where the embedded clause is extraposed, would require reconstruction and A'-movement out of the reconstructed clause. Furthermore, if Chomsky (1995) is correct that scope and binding relations are determined at LF, then the scope and reflexivization facts also argue against this movement.

The remaining two options, overt or covert A'-movement (options (85b, d)), can be instantiated by replacing the Agr<sub>OP</sub> projection with a generic A'-projection. However, they are equally untenable given that Tsez does not allow cross-clausal A'-movement, (45). This difficulty aside, neither option is compatible with the lack of scope interactions with matrix clause elements. A'-movement into the matrix clause should feed QR there. The overt A'-movement possibility, (85b), in particular cannot account for the word order and extraposition data in (88) and (91). Finally, given that A'-movement is believed to occur cyclically in a series of shorter movements, the lack of successive cyclic LDA marking demonstrated in section 4.4 is unexpected under covert A'-movement, (85d). The embedded trigger should be able to successively A'-move from one clause to another, triggering LDA on each verb along the way, very similar to wh-agreement found in a number of languages (see Chung 1998, pp. 234ff. for Chamorro and additional references). We thus conclude that no movement analysis of the absolutive trigger into the matrix clause can account for LDA.

Combined with the earlier conclusion that there is also no base-generation approach that places a representation of the absolutive trigger in the matrix clause, we arrive at the result that there is no satisfactory analysis of LDA in which the absolutive trigger is base-generated in the matrix clause or moved there. Accordingly, there is no empirically adequate analysis that maintains the Clause-Mate Assumption, (55). If the Clause-Mate Assumption is not valid, then the SHAH also cannot be right for Tsez. We must entertain the hypothesis that agreement is less local.

## 5. LDA AS AGREEMENT LOCALITY AT LF

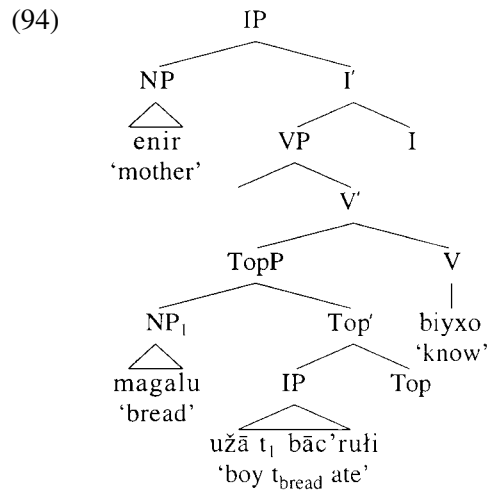
In this section we present our own analysis of LDA. The facts introduced above to demonstrate that LDA is not an intra-clausal phenomenon suggest three analytical desiderata. First, the absolutive trigger does not leave its own clause or have a syntactic representation in the higher clause. Second, since the agreement trigger has clear structural restrictions on it, LDA is constrained by some kind of locality. Third, the topic status of the embedded absolutive is crucial to understanding the phenomenon of LDA. These desiderata inform our proposal presented in section 5.1: we suggest that

a syntactic agreement configuration between the probe and the absolutive trigger is created at LF. The absolutive trigger undergoes covert movement to a peripheral A'-topic position in its own clause. In this position, it is in a local agreement configuration with the probe that closely resembles head government. Section 5.2 offers general support for the existence of LF movement in Tsez. Finally, section 5.3 presents interactions between LDA and other A'-operations which also follow from our analysis.

### 5.1. The LF Analysis of LDA

Our proposal relies on two independently motivated analytical findings from Section 3: first, a clause structure in which IP is optionally dominated by a TopicP and, second, the existence of covert LF Topicalization. The core of our proposal is presented in (94), which is the LF structure for the LDA example in (93).

- (93)    enir            [už-ā            magalu            b-āc'-ru-ḥi]  
          mother    [boy-ERG    bread.**III**.ABS    **III**-eat-PSTPRT-NMLZ]  
          **b**-iy-xo  
          **III**-know-PRES  
          The mother knows the boy ate the bread.



LDA arises from movement of the embedded absolutive topic to the specifier of TopicP in its own clause. In this A'-position, the absolutive is in a local configuration with the verb, triggering LDA. In the example above, the embedded topic *magalu* 'bread' moves covertly to the specifier of TopP in the complement of the matrix verb.

It is clear that the agreement configuration we require cannot be specifier-head. One relationship that would capture the desired locality is HEAD GOVERNMENT as defined in (95) (Chomsky 1986; Rizzi 1990). Informally, a head governs its specifier, its complement, an element adjoined to its complement, and the specifier of its complement. We propose that, in order for a verb to agree with an element, it must (head) govern it at LF. The crucial aspect of agreement under government is that this relationship potentially allows for agreement across a clause boundary.

- (95) *Head Government* (following Rizzi 1990, p. 92)  
 X head-governs Y iff  
   i)  $X \in \{A, N, P, V, H[+tense]\}$   
   ii) X m-commands Y  
   iii) no barrier intervenes  
   iv) Relativized Minimality is respected

A similar conception of agreement is provided in Chomsky (1998) within a Minimalist framework. As we understand that proposal, there is an operation Agree in the grammar which is feature matching between a probe P and an agreement trigger T. This matching must take place in a domain D(P) which is the sister of P. Agree is subject to a locality condition of closest c-command: a matching feature T is closest to P if there is no other matching feature T' in D(P) that c-commands T. This minimality condition ensures that a probe agrees with the closest trigger. The crucial elements are summarized in (96):

- (96) *Agree* (following Chomsky 1998, pp. 37–38)  
 P may agree with T if  
   i) there is feature identity between P and T  
   ii) P c-commands T  
   iii) Locality is respected

Agree shares much with its head government predecessor in (95). A crucial aspect of both proposals is the ability of a probe to look downwards to find an agreement trigger rather than simply up to its specifier. Along with other researchers (Benmamoun 1992; Bobaljik 1995; van Gelderen 1997; Chung 1998), we are thus arguing that specifier-head is insufficient as the sole structural configuration for the realization of agreement.

Our analytical proposal accounts for the three desiderata at the beginning of section 5. The most important claim of our proposal is that the absolute trigger is never structurally represented in the matrix clause. It remains in its own clause at all times, moving no higher than the specifier

of a Topic Phrase in its own clause. As a result, none of the arguments from section 4 are problematic for our analysis.

The locality of LDA is captured in our analysis by appealing to movement: LDA is dependent upon A'-movement of the topic. We saw in sections 2 and 3 that Tsez has only local A'-movement phenomena. With the stipulation in (45) that all Tsez A'-movement phenomena are clause-bound, LDA will be too, being dependent upon such movement. In particular, cyclic LDA or LDA across multiple clauses, which we saw in section 4.4 is impossible, will be ruled out.

The proposal also accounts for the morphosyntactic restrictions on LDA, repeated in (97).

(97) *Morphosyntactic Requirements for LDA*

- a. the trigger is an absolutive argument
- b. the argument containing the trigger is in an absolutive position

Under our account, the reason that the trigger must be an absolutive is simply because verbs only show agreement with absolutive arguments. Other case-marked elements may, in principle, participate in this topic-marking strategy, but they will not be able to trigger overt agreement. We expect, however, that such non-absolutive topics will block the appearance of LDA because they will usurp the specifier of TopP position. We demonstrate below that this prediction is borne out. The requirement that the trigger must be in an absolutive-marked clause (97b) also follows from our proposal. The analysis requires that the absolutive trigger be a topic in a constituent that has a topic position and whose specifier is governed by the verb. This rules out LDA across non-complements because the verb cannot govern into such clauses. Absolutive complement clauses are, in effect, the only structures that are governed by the verb and contain an internal absolutive position.

Lastly, we make explicit how our proposal captures the topic-marking function of LDA:

(98) *Topic Condition on Long-Distance Agreement*

LDA occurs when the referent on the embedded absolutive NP is the (primary) topic of the embedded clause

A necessary condition for LDA is movement of the embedded absolutive to a clause-peripheral position that can be governed by the verb. In portraying Tsez clause structure in section 3, we saw that the topmost projections in a clause are CP and TopP. We argued for the existence of LF topic movement to the specifier of TopP as evidence for this latter projection. These

pieces yield the topic condition: the independently-motivated movement to [spec,Top] places the absolutive in a clause-peripheral position where it is potentially in an agreement relation with the verb.<sup>16</sup>

In the next two sections we develop this line of analysis more thoroughly, justifying two aspects of our proposal. In section 5.2 we demonstrate that Tsez has LF A'-movement, and in section 5.3 we confirm a variety of predicted interactions between LDA and A'-movements beyond Topicalization.<sup>17</sup>

### 5.2. General Evidence for LF Movement

Our proposal relies on the availability of LF movement. We have already presented evidence for covert Topicalization in section 3.2.2. Here we demonstrate that Tsez has LF *wh*-movement and Quantifier Raising.

<sup>16</sup> Below we consider the interaction of LDA and *wh*-phrases in [spec,CP].

<sup>17</sup> One could maintain the Spec-Head Agreement Hypothesis by appealing to feature percolation in our analysis of LDA. Under this alternative, the embedded absolutive moves to [spec,TopP], as we propose above. In this position, the topic NP's agreement feature percolates to the TopP node. The entire TopP then moves to a specifier in the matrix clause where TopP agrees with the verb via the spec-head relation. Crucially, in this analysis the verb is agreeing, not with the topic, but with its complement clause which has inherited the topic's agreement feature.

If TopP bears the agreement feature of the topic in its specifier, then the entire embedded clause containing that topic NP should be assigned the noun class of the topic. For instance, an embedded clause containing a class III LDA trigger becomes a class III constituent. However, as (i-b) shows, the embedded clause retains its class IV specification in a situation of sentential anaphora (we are indebted to Janet Pierrehumbert for suggesting this line of argumentation).

- (i)a.    enir    [užā magalu    bāc'ruḥi]    b-iyxo  
          mother [boy bread.III ate]  
          The mother knows the boy ate the bread.
- b.       neḷā       [ža    r-igu/\*b-igu        yot-ḥin]    eḥis  
          she-ERG [this IV-good/\*III-good is-COMP] said  
          She says it (= that the boy ate the bread) is good.

Thus, it is genuinely the case that the verb is agreeing with the topic, not with its complement which has inherited non-canonical agreement features. This fact renders a feature percolation analysis problematic.

### 5.2.1. *LF Wh-Movement*

Certain *wh*-related phenomena have traditionally been taken to argue for the existence of LF *wh*-movement. These include Weak Crossover (WCO), Superiority, *wh*/quantifier scope interactions, and *in situ* island effects (May 1977; Huang 1982, 1995; Lasnik and Saito 1992; Hornstein 1995; Richards 1997; references therein and specific references cited below). Tsez exhibits these phenomena, which we illustrate below. If the LF-based analyses are correct, then we can conclude that Tsez also allows covert LF *wh*-movement.

Crossover effects have been a standard diagnostic for LF *wh*-movement since Chomsky 1977 (see Huang 1995). The examples in (99) illustrate weak crossover, in which the fronted *wh*-operator illicitly binds both its trace and a coindexed pronoun which does not c-command the trace.

(99)a. \*Who<sub>1</sub> did the story about her<sub>1</sub> scare t<sub>1</sub>?

b. \*Who<sub>1</sub> did his<sub>1</sub> mother invite t<sub>1</sub>?

*Wh-in situ* also gives rise to crossover violations, (100), which are accounted for by positing covert *wh*-movement of the *in situ wh*-phrase and assimilating the analysis of (100) to that of (99). The LF of (100b) in (100c) is then identical to (99b) in relevant respects:

(100)a. \*Who believes that the story about her<sub>1</sub> scared who<sub>1</sub>?

b. \*Who said his<sub>1</sub> mother invited who<sub>1</sub>?

c. \*(who said) [<sub>CP</sub> who<sub>1</sub> [<sub>IP</sub> his<sub>1</sub> mother invite e<sub>1</sub>]]

The examples in (101) confirm that Tsez *wh*-phrases induce weak crossover violations whether the *wh*-phrase is fronted, (101a), or not, (101b). Both examples can be given the same analysis if the derivation of (101b) includes LF *wh*-movement.

(101)a. \*šebi nesiz-(tow) babiy-ā žek'-ā?

*who.ABS his-own father-ERG hit-PST.INTERR*

b. \*nesiz-(tow) babiy-ā šebi žek'-ā?

*his-own father-ERG who.ABS hit-PST.INTERR*

(\*Who<sub>1</sub> did his<sub>1</sub> father hit?)

A second phenomenon attributed to LF movement is superiority effects (Chomsky 1973) exemplified by (102), (103). The contrasts below are



explained as a violation of the Empty Category Principle at LF (Aoun et al. 1981; Chomsky 1981; May 1985; Aoun and Li 1993).

(102)a. Who saw what?

b.\*What did who see?

(103)a. I don't know who ate what.

b.\*I don't know what who ate.

Tsez also exhibits superiority effects, (104). If the analysis of such contrasts involves LF movement, then the data again constitute evidence for covert *wh*-movement in Tsez.

(104)a. *lu*        *šebi*        *žek'-ā*  
*who.ERG who.ABS hit-PST.INTERR*  
 Who hit whom?

b.\**šebi*        *lu*        *žek'-ā*  
*who.ABS who.ERG hit-PST.INTERR*  
 (\*Whom did who hit?)

A third phenomenon widely accounted for with LF movement involves scope interactions (May 1985; Aoun and Li 1993; Ernst 1998; Oku 1999). Scope is reflected by LF c-command relations. It is well-known that *wh*-words can interact scopally with quantified expressions, as in the ambiguous (105a). The two interpretations are revealed by the possible answers in (105b, c). In (105b), *what* has wide scope yielding a single answer. In (105c), the universally quantified NP *every guest* has wide scope, generating a pair-list response:

(105)a. What did every guest bring?

b. Every guest brought chocolate. *what* >  $\forall$  *guest*

c. John brought dip, Kyle brought salad, Lee brought rice, etc.  
 $\forall$  *guest* > *what*

Tsez examples parallel to (105a) are also ambiguous. This is true with the *wh*-word fronted, (106a) or *in situ* (106b):

(106)a. *šebi*    *šibaw*    *y<sup>hw</sup>ay-ā*    *han-ā*  
*what*    *every*    *dog-ERG*    *bite-PST.INTERR*

- b. šibaw y<sup>ʔw</sup>ay-ā šebi han-ā  
*every dog-ERG what bite-PST.INTERR*  
 What did every dog bite?

If the wide scope reading of the *wh*-word in (106b) is obtained via LF *wh*-movement of *šebi* ‘what’, then there is again evidence for LF *wh*-movement.

A final diagnostic of covert *wh*-movement is the existence of *in situ* island effects. In some languages with *wh-in situ*, *wh-in-situ* is impossible in island configurations (Aoun et al. 1981; Huang 1982; Cole and Hermon 1998). As Huang (1982) first argued, the analysis of such effects can be assimilated to the movement analysis of islands if covert LF movement is posited. Covert movement out of the island will be just as impossible as overt movement.

The data in (107) demonstrate the impossibility in Tsez of *wh-in situ* in coordinate structures. (107a) is the grammatical baseline without a *wh*-word. (107b) shows that *wh*-movement from within the bracketed island leads to ungrammaticality. (107c) confirms that *wh-in situ* is also ruled out in this configuration. The examples in (107b, c) receive the same explanation if *wh*-movement can be either overt or covert.

- (107)a. už-ā t’ek-no tetrad-no r-is-si  
*boy-ERG book.ABS-and notebook.ABS-and II-IV.PL-buy-PST.EVID*  
 The boy bought a book and a notebook.
- b. \*šebi(-n) už-ā [t’ek-no t] r-is-ā  
*what.ABS-and boy-ERG book.ABS-and II-IV.PL-buy-PST.INTERR*  
 (What did the boy buy a book and?)
- c. \*už-ā [t’ek-no šeb(i-n)] r-is-ā  
*boy-ERG book.ABS-and what.ABS-and II-IV.PL-buy-PST.INTERR*  
 (The boy bought a book and what?)

We conclude that, if any of the above phenomena are correctly analyzed using LF *wh*-movement, then Tsez has this covert operation.

### 5.2.2. Quantifier Raising

Since May (1977, 1985), a standard generative analysis of quantifier scope ambiguities has appealed to the LF movement of Quantifier Raising (QR) to structurally represent the scope relationships. Scope is determined by

relative c-command at LF. The facts which QR accounts for in other languages are also present in Tsez, leading to the conclusion that Tsez also has this covert movement. In section 4.4, example (77), we saw that monoclausal constructions in Tsez with multiple quantified NPs are ambiguous in the same way as their English translations. QR provides a concrete mechanism for accounting for the inverse scope reading in which the object takes scope over the subject. The object moves covertly to a position which c-commands the subject. The interaction of quantified NPs with *wh*-phrases provides further evidence for the presence of QR. A quantified object in (108) interacts with a *wh*-phrase in subject position, creating the ambiguity spelled out in (108b, c) for the Tsez example in (108a). Crucially, the object may take scope over a subject *wh*-phrase yielding the interpretation in (108c) and its associated LF representation. The quantified NP has undergone QR.<sup>18</sup>

- (108)a. *lu šibaw k'et'u han-ā*  
*what.ERG every cat.ABS bite-PST.INTERR*  
 What bit every cat?
- b. What is such that it bit every cat? *what > ∀ cat*
- c. [*šibaw k'et'u*<sub>1</sub> [*lu* [<sub>VP</sub> *e*<sub>1</sub> *han-ā* ] ] ]  
*every cat.ABS who.ERG bite-PST.INTERR*  
 For every cat, what bit it? *∀ cat > what*

If QR is a necessary mechanism for an explanation of these facts, then Tsez has covert movement. In summary, under traditional assumptions, there is evidence for a range of LF movements in Tsez. This supports our analysis of LDA in which LF movement plays a crucial role. We have argued that its centrality is not an exceptional or *ad hoc* claim about Tsez grammar.

<sup>18</sup> These judgments differ from similar widely-discussed facts in English (May 1985, Lasnik and Saito 1992; Aoun and Li 1993) and Chinese (Aoun and Li 1993) where no such ambiguity is claimed. Although the English (i) is claimed to be unambiguous, we do not fully share this view (see also Kuno et al. 1999). With the embedded version, the judgment is even less clear. A pair-list answer seems perfectly possible in (ii), which seems to be identical to (i) in relevant syntactic respects.

- (i) Who kissed every boy?
- (ii) Tell me who kissed every boy!

### 5.3. Interactions between *LF* Movement and the Syntax of Agreement

Section 4 demonstrated in some detail that there are no interactions between *main clause* syntactic phenomena and LDA. This led, in section 5.1, to an analysis of LDA involving clause-internal covert movement. Our analysis leads to the expectation that there may instead be interactions between LDA and *embedded clause* syntactic phenomena. This turns out to be true. In this section we present three such interactions and show how they follow from our analysis. Section 5.3.1 demonstrates that LDA is blocked in the presence of a *wh*-phrase, a complementizer, or a non-absolutive topic in the embedded clause. Section 5.3.2 shows how these blocking phenomena follow from our conception of Tsez clause structure and the analysis of LDA.

#### 5.3.1. LDA Blocking

There are several interesting and surprising restrictions on LDA. Even when the morphosyntactic requirements in (97) are met, certain configurations involving *wh*-phrases, complementizers, and fronted topics prevent the matrix verb from agreeing with an embedded absolutive.

The data in (109) demonstrate that LDA is impossible when a non-absolutive *wh*-phrase is present in the embedded clause accompanying the potential absolutive trigger. In the examples below, only PLA with the class IV complement clause is possible. This restriction holds whether the *wh*-phrase is an argument or an adjunct and whether it is fronted or *in situ*.

- (109)a. enir            [lu            micxir            b-ok'āk'-ru-ŋi]  
           mother        who.ERG        money.**III**.ABS        **III**-steal-PSTPRT-NMLZ  
           **r/\*b-iyxo**  
           **IV/\*III-knows**  
           The mother knows who stole the money.
- b. enir            [nā            c'ohor-ā        micxir            b-ok'āk'-ru-ŋi]  
           mother        where        thief-ERG        money.**III**        **III**-steal-PSTPRT-NMLZ  
           **r/\*b-iyxo**  
           **IV/\*III-knows**  
           The mother knows where the thief stole the money.

- c. enir [neti c'ohor-ā micxir b-ok'āk'-ru-ŋi]  
*mother when thief-ERG money.III III-steal-PSTPRT-NMLZ*  
**r/\*b-iyxo**  
*IV/\*III-knows*  
 The mother knows when the thief stole the money.

A further restriction on LDA is illustrated by (110). LDA is impossible if the embedded clause is marked with an overt complementizer. In (110a), the absolutive clause is marked with a nominalizing suffix, as in all the above examples, and LDA is permitted. In (110b), in contrast, the absolutive clause contains a complementizer suffix and LDA is not possible. Properly Local Agreement is of course still possible with the complementizer.

- (110)a. eni-r [už-ā magalu b-āc'-ru-ŋi]  
*mother-DAT boy-ERG bread.III.ABS III-eat-PSTPRT-NMLZ*  
**b-iyxo**  
*III-knows*  
 The mother knows the boy ate bread.
- b. \*eni-r [už-ā magalu b-ac'-si-ŋin]  
*mother-DAT boy-ERG bread.III.ABS III-eat-PST.EVID-COMP*  
**b-iyxo**  
*III-knows*  
 (The mother knows that the boy ate bread.)

A final case of blocking is due to the presence of a non-absolutive topic in the embedded clause. We have already seen two topic marking strategies besides LDA. One is the fronting of an adverbial (section 3.2.2), and the other is the use of the topic particles *-n(o)* and *-gon* (section 3.2.1). The presence of either one in the embedded clause is sufficient to rule out LDA.

Fronted adverbials, which are Topicalized, as we demonstrated in section 3.2.2, prevent LDA, (111). In (111a), the adverbial *hut* 'yesterday' is in a base position, between the subject and the object and does not block LDA; the matrix verb can show either agreement. If the adverbial is Topicalized within the embedded clause, however, LDA becomes impossible, (111b):

- (111)a. eni-r                      [už-ā                      huł                      magalu  
*mother-DAT                      [boy-ERG                      yesterday                      bread.III.ABS*  
 b-āc'-ru-ḥi]                      **r/b-iy-xo**  
*III-eat-PSTPRT-NMLZ].IV IV/III-know-PRES*  
 The mother knows the boy ate bread yesterday.

- b. eni-r                      [huł                      už-ā                      magalu  
*mother-DAT                      yesterday                      boy-ERG                      bread.III.ABS*  
 b-āc'-ru-ḥi]                      **r/\*b-iy-xo**  
*III-eat-PSTPRT-NMLZ].IV IV/III-know-PRES*  
 The mother knows that yesterday the boy ate bread.

Elements that are overtly marked with the topic particle *-n(o)* or *-gon* also block LDA. This is illustrated in (112), where the topic-marked causee blocks LDA. Note that the morphological causative is monoclausal (Comrie 2000).

- (112) eni-r                      [aḥ-ā                      čanaqan-go-gon                      ziya  
*mother-DAT                      shepherd-ERG                      hunter-POSS.ESS-TOP                      cow.III.ABS*  
 bišr-er-xosi-ḥi]                      **r/\*b-iy-xo**  
*feed-CAUS-PRSPRT-NMLZ].IV IV/\*III-know-PRES*  
 The mother knows that the hunter, the shepherd made (him)  
 feed the cow.

LDA is not blocked by a topic in the matrix clause. This is in line with our view that LDA is not a main clause topic-marking strategy, but, rather, one that signals a topic in the embedded clause. Consequently, the higher clause is free to have its own topic element(s). In (113), either agreement option is possible despite the fact that the matrix subject is marked with the topic particle:

- (113) enir-no                      [c'ohorā                      micxir                      b-ok'āk'-ru-ḥi]  
*mother-TOP                      [thief                      money.III                      III-steal-PSTPRT-NMLZ].IV*  
**r/b-iyxo**  
*IV/III-knows*  
 As for the mother, she knows that the thief stole the money.

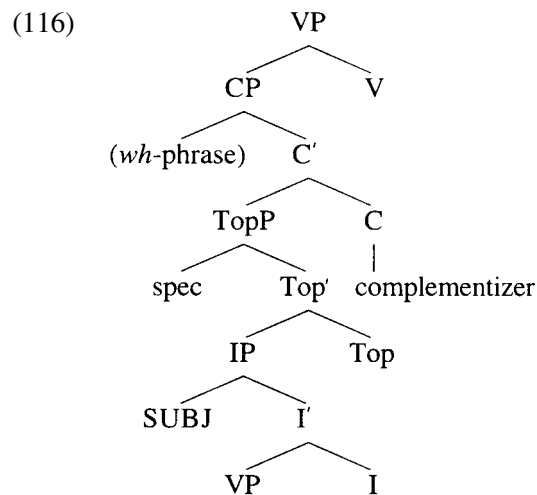
(114) and (115) summarize these restrictions that will be accounted for in the following subsection.

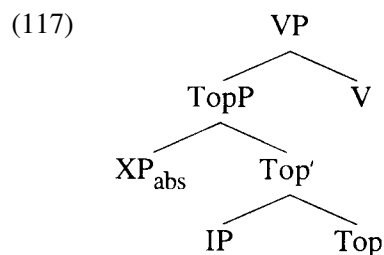
- (114) *Configurations which block LDA*
- a. a *wh*-phrase in the embedded clause
  - b. the complementizer *-λin*
  - c. a non-absolutive topic in the embedded clause
- (115) *Configurations which do not block LDA*
- a topic in the matrix clause

### 5.3.2. *Explaining the Blocking Restrictions*

Our analysis of LDA in section 5.1 predicts that LDA should be impossible whenever the required government-agreement relationship between the probe verb and the embedded absolutive trigger is disrupted. This prediction will be the core of the explanation that we offer for the above blocking restrictions.

We begin our explanation by repeating the Tsez clause structure we argued for in section 3 embedded under an agreement probe, (116). In comparison, (117) shows the configuration necessary for LDA:





At LF, an embedded absolutive agreement trigger appears in the specifier of TopP, as shown in (117). Additional structure is generally always possible, however, as shown in (116), and it is evident that at least two kinds of alternative structure can block the necessary configuration in (117): the presence of CP or the presence of a non-absolutive element in spec,TopP. These two government-blocking configurations can account for the blocking facts presented above.

If CP were to be projected in (117), it would block government of [spec,TopP] by the verb. This is the basis for the blocking of LDA by an embedded *wh*-phrase, (109), or complementizer *-λin*, (110). As seen in (116), the verb does not govern [spec,TopP], either because there is a closer governor C° because one or more of CP/TopP is a barrier (see the definition of head government in (95)). Consequently, the specifier of TopP cannot trigger agreement on the verb when a *wh*-phrase or complementizer, both evidence of a CP projection, is present.<sup>19</sup> Thus the blocking restrictions in (114a, b) are explained.<sup>20</sup>

The second case in which the agreement configuration in (117) is prevented is when the specifier of TopP is already filled with a non-absolutive

<sup>19</sup> Given our account, it is evident that the nominalizing suffix *-li* cannot be a complementizer or correspond to a projection in the syntax that could block government. A plausible line to pursue is that *-li* is a derivational suffix added in the lexicon.

<sup>20</sup> The specifier of CP is also a landing site whose occupation we predict should trigger LDA, in addition to blocking it. This could happen if the specifier of CP were filled by the absolutive *wh*-word *šebi* ‘who, what’. The absolutive *wh*-word is class IV by default but may be assigned a different class when it is discourse-linked to a pre-established contextual set. In this latter case, the *wh*-phrase can indeed trigger LDA:

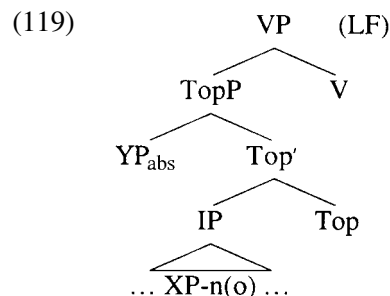
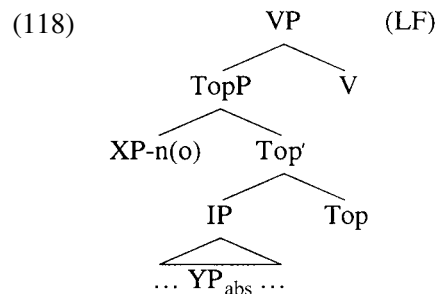
- (i)      enir      [šebi      y-āk’i-ru-li]      y-iy-x-ānu  
           mother wh.**II**.ABS II-go-PSTPRT-NMLZ **II**-know-PRES-NEG  
           The mother does not know who [of women] left.

While these facts would seem to be interesting evidence in support of our proposal, we have not adequately explored the syntax and interpretation of such examples to be confident of the argument and we leave it for future investigation.



topic. Consequently, an overtly fronted topic will block LDA and the blocking caused by fronted adverbial topics is immediately accounted for. Overtly fronted adverbials are, by hypothesis, in [spec,TopP]. The verb probe can govern such an adverbial but will not agree with it because it is not in the absolutive. The lower absolutive, however, will be barred from triggering agreement on the verb because the position it needs to occupy, the specifier of TopP, is already filled.

The same explanation can be extended to the blocking by XPs marked with the topic particle *-n(o)*. Such XPs move covertly to [spec,TopP] and usurp the position that the embedded absolutive requires. The LF representation corresponding to the data in (112) is (118). In order for this explanation to go through, however, we must ensure that the particle-marked topic moves to [spec,TopP] before the embedded absolutive does. That is, we must rule out the alternative LF representation in (119). At present, we have no account of this ordering.<sup>21</sup>



Lastly, our analysis straightforwardly explains the claim in (115) that topics in the matrix clause do not interfere with LDA, the example repeated in (120). Since main clause topics move covertly to a topic position in their

<sup>21</sup> An anonymous reviewer suggests a superiority approach to the required ordering. Unfortunately, any topic in the embedded clause blocks LDA, regardless of its structural position with respect to the absolutive NP.

own clause, they cannot interfere with movement in the embedded clause. There are two separate Topic Phrases and two non-interacting movements to respective TopP specifiers.

- (120) enir-no            [c'ohorā   micxir        b-ok'āk'-ru-ŋi]  
           *mother-TOP*    [*thief*        *money.III*    *III-steal-PSTPRT-NMLZ*].*IV*  
           **b-iyxo**  
           *III-knows*  
           As for mother, she knows that the thief stole the money.

In summary, we propose that the unusual blocking restrictions on the LDA phenomenon follow from our covert movement analysis of LDA. They are precisely those configurations which interfere with government of the embedded agreement trigger in the specifier of TopP by the probe.

## 6. CONCLUSIONS

In this paper, we have presented and analyzed a unique pattern of Long-Distance Agreement (LDA) in the northeast Caucasian language Tsez. The construction has two interesting properties that we would like to highlight in closing.

First, given the empirical generalization that we state as the Topic Condition in (121), it is evident that Tsez LDA is a case in which a grammatical property serves a clear semantic function. Specifically, morphological agreement in Tsez has an information-structural function, marking the local topicality of the agreement trigger.

- (121) *Topic Condition on Long-Distance Agreement*  
       LDA occurs when the referent of the embedded absolutive NP is  
       the (primary) topic of the embedded clause

This use of agreement is unusual enough to warrant explicit comment. While we have not explored the consequences of (121) in this paper, we believe it is important to make note of it for future research.

Second and more centrally, we have argued that Tsez LDA is not local. Under the assumption that agreement is a syntactic phenomenon with a configurational foundation, we have argued that LDA cannot be reduced to a clause-mate configuration between the agreement probe and trigger. Section 4 demonstrated that the LDA probe and trigger remain in distinct clauses. This conclusion about LDA is problematic for theories of

agreement that either explicitly stipulate or axiomatically derive the claim that all agreement relationships are clause-bounded. These theories include those that restrict the agreement configuration to specifier-head in the syntactic structure or head-argument in the argument structure. Instead, LDA requires a theory of agreement in which an agreement probe can 'see' outside of its argument structure and into its syntactic complement, across a clause boundary. Such a theory entails that a probe will be able to look downward for a trigger. The syntactic agreement configuration must include at least c-command of the trigger by the probe beyond immediate sisterhood. At the same time, a minimality restriction nevertheless applies to the command requirement – other elements in the command domain can interfere with the search for a trigger. As we have shown, these two aspects are neatly incorporated into a theory of agreement in which government between the probe and trigger is the relevant relationship. This claim is earlier and independently argued for in van Gelderen (1997). Chomsky's (1998) Agree operation also seems to contain the necessary pieces.

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