LONG DISTANCE AGREEMENT

How phases constrain Agree and how to get out of them

Selected Topics in Syntax Instructor: Suzana Fong ☑

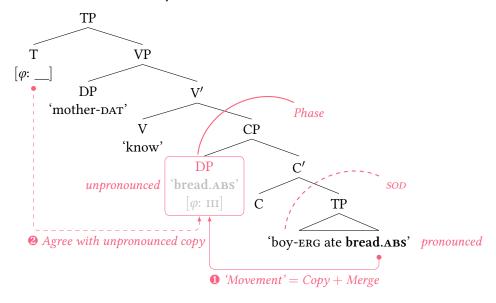
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4 "Long distance" agreement in Tsez

4.1 Overview

- * Theoretically, this is the derivation necessary to account for the occurrence of LDA in a language like Tsez:
 - (1) eni-r [už-ā magalu b-āc-'r-uli] b-iy-xo. mother-dat [boy-erg bread.iii.abs iii-eat-pst.prt-nmlz].iv iii-know-pres 'The mother knows the boy ate the bread.'



- ▶ The embedded ABS DP 'bread' has to move to the phase edge in order to escape the embedded CP's sop.
 - It is only at this position that it can be visible to a matrix φ -probe.

- ▶ But this movement has to be covert, since 'bread' is clearly realized inside the embedded clause, as if it had not moved at all.
- * Empirically, it must be demonstrated that 'bread,' despite appearances, does move.
 - ▶ This is exactly what Polinsky & Potsdam (2001) demonstrate (extensively and expertly).

4.2 Basics of Tsez

* Tsez is an sov language with ergative alignment. The subject of an intransitive verb and the object of a transitive verb are marked with ABS case. The subject of a transitive verb is in the ERG case.

(Tsez, Northeast Caucasian)

(2) a. ziya b-ik'i-s.
cow.III.ABS III-go-PST.EVID
'The cow left.'
b. eniy-ā ziya b-išer-si.

mother-erg cow.iii.ABS III-feed-pst.eviD

'The mother fed the cow.'

* In Tsez, nominals are divided into *classes*, which are revealed in agreement morphology that cross-references the nominal (in e.g. adjectives).

(3)	CLASS I		Class II	Class III	Class IV
	SG	Ø-igu uži 1-good boy.1	j-igu kid 11-good girl.11	b -igu k'et'u III-good cat.III	r-igu čorpa ıv-good soup.ıv
	PL	b-igu uži-bi 1-good boy.1-ABS.PL	r-igu kid-bi 11-good girl.11-ABS.PL	r-igu k'et'u-bi III-good cat.III-ABS.PL	r-igu čorpa-bi IV-good soup.IV-ABS.PL

- \triangleright Four nominal classes in the singular, cf. prefixes $/\emptyset$ j- b- r-/.
- \triangleright Two nominal classes in the plural, cf. prefixes /b-r-/.
- * Importantly, verbs agree in noun class with the ABS argument.
 - ▶ In both sentences in (2), the verb agrees with the class III noun 'cow.'



Exercise 1

Propose a derivation for the sentences in (2) that is based on a hybrid system where case is assigned according to a Dependent Case framework, while agreement falls under the jurisdiction of Agree.

4.3 LDA IN TSEZ IS INDEED AGREEMENT

- * ABS agreement in (2) is restricted to a monoclausal sentence.
- ★ When the internal argument of the verb is a clause, the verb agrees with the clause in class IV.¹

¹Alternatively, class IV can be interpreted as a default morpheme, recruited when a probe does not find an appropriate goal: in the absence of valuation (that results from Agree), default morphology is used to expone the probe.

(4)	a.	eni-r	[uži Ø-	āy-ru-łi] r -iy-:	ζО.		
		mother-dat [boy i-arrive-pst.prt-nmlz].iv iv-know-pres						
		'The mother knows the boy arrived.'						
	b.	eni-r	[už-ā	magalu	b-āc'-ru-łi] r-iy-xo.		
		mother-dat [boy-erg bread.iii.abs eat-pst.prt-nmlz].iv iv-know-pres						
		'The mother knows the boy ate the bread.'						

- * However, Tsez also allows agreement into an embedded clause.
 - (5) a. eni-r [uži Ø-ay-ru-li] Ø-iy-xo. (cf. (4a)) mother-dat [boy.i.abs i-arrive-pst.prt-nmlz].iv i-know-pres
 'The mother knows the boy, he arrived.'
 b. eni-r [už-ā magalu b-āc-'r-uli] b-iy-xo. (cf. (4b)) mother-dat [boy-erg bread.iii.abs iii-eat-pst.prt-nmlz].iv iii-know-pres
 'The mother knows that the bread, the boy ate.'
 - ▶ In (5a), the matrix verb agrees in class I with the embedded ABS argument 'boy.'
 - ▶ In (5b), the matrix verb agrees in class III with the embedded ABS argument 'bread.'
 - → (5b-5a) are instances of long distance agreement, i.e. agreement across a clausal boundary.
- * The clause containing the ABS argument LDA-ed with must be a complement and cannot be a high adjunct:
 - (6) a. [kid y-āy-zał] eni-r xabar b-iy-s.
 [girl.II.ABS II-arrive-WHEN] mother-DAT news.III.ABS II-know-PST.EVID
 'When the girl arrived, the mother found the news.'

 b. *[kid y-āy-zał] eni-r xabar y-iy-s.
 [girl.II.ABS II-arrive-WHEN] mother-DAT news.III.ABS II-know-PST.EVID

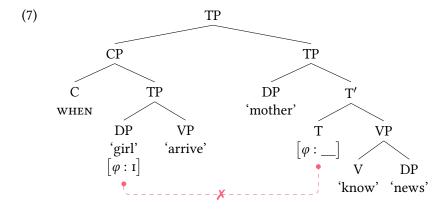
Intended: 'When the girl arrived, the mother found the news.'

- ▶ The clause 'when the girl arrived' is an adjunct and not a complement—'know,' in this case, subcategorizes for 'news' and the bracketed clause specifies the circumstances of the knowing event.
- ▶ Long distance agreement into that clause it is not possible (6b). Only local agreement with the clause/default agreement is possible (6a).



Exercise 2

Assuming that (7) is the correct representation of the adjunct clauses in (6a-6b), why is agreement not possible in (6b)?

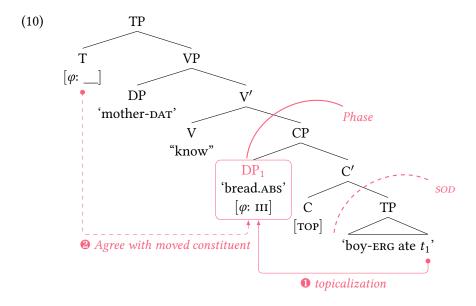


Why is the ungrammaticality of (6b) relevant to determine that LDA in (5b–5a) is indeed agreement?

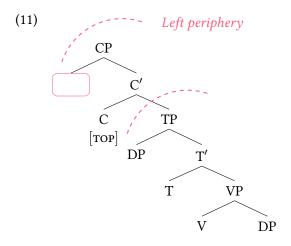
4.4 "LDA" AND TOPICHOOD

- We saw that, when a verb takes a clause as its complement, the matrix verb can agree with the clause itself (i.e. canonical agreement, (8a)) or with an embedded ABS argument (i.e. LDA, (8b)).
 - (8) a. eni-r [už-ā magalu b-āc'-ru-li] r-iy-xo. mother-dat [boy-erg bread.iii.abs eat-pst.prt-nmlz].iv iv-know-pres 'The mother knows the boy ate the bread.'
 - b. eni-r [už-ā magalu b-āc-'r-ułi] b-iy-xo. mother-dat [boy-erg bread.iii.abs iii-eat-pst.prt-nmlz].iv iii-know-pres 'The mother knows that the bread, the boy ate.'
- Polinsky & Potsdam (2001): sentences with canonical and with LDA are, in fact, not interchangeable. Rather, LDA follows this generalization:
 - (9) Topic Condition on Long-Distance Agreement

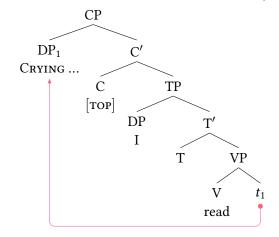
 LDA occurs when the referent of the embedded ABS DP is the topic of the embedded clause.
 - ▶ The escape hatch movement necessary for LDA to be possible is the result of the embedded ABS argument moving to a topic position in the left periphery:



- * Topic: roughly, the entity that a given utterance is about; usually, old information.
 - ▶ Topics are often moved to the **left periphery** of the clause.



- (12) A. Have you read Crying in H-Mart and The Joy Luck Club?
 - B. CRYING IN H-MART, I read (but not *The Joy Luck Club*).



- ▶ Topics contrast with foci.
 - Topic: conveys old information.
 - Focus: conveys new information.
 - → Topics and foci are mutually exclusively, because the same constituent cannot be new information and old information at the same time.
- * Foci can be identified by question—answer pairs. Specifically, the answer to a Wh-question is focused.
 - A. Who did Sindhu invite to the party? (14) A. Who invited Bill to the party? B. i. ... Sindhu invited BILL B. i. ... Sindhu invited BILL

ii. ... SINDHU invited Bill.

ii. ... SINDHU invited Bill.

- ▶ SINDHU is a focused subject in the answers. It is an appropriate answer only when the question is about the subject.
- ▶ BILL is a focused object in the answers. It is an appropriate answer only when the question is about the object.
- * Diagnosing topichood in Tsez:
 - 1. Focus-marked ABS DPs cannot be LDA-ed with (because of the incompatibility between topic and focus).
 - 2. ABS constituents in sentences that are incompatible with topichood (because the whole sentence conveys new information) cannot be LDA-ed with.
 - 3. An ABS DP that is the answer to a constituent question cannot be LDA-ed with (because the answer to a question is the focus of a sentence, which is incompatible with topichood).
- ☀ First, in Tsez, focused phrases are suffixed with -kin. ABS arguments marked with this affix cannot be LDA-ed with.
 - [t'ek-kin] (15)a. eni-r y-igu yał-ru-łi r-iy-xo. mother-dat [book.ii.abs-foc ii-good be-pst.prt-nmlz].iv iv-know-pres 'тне воок, The mother knows that it is good.'
 - b. * eni-r [tek-kin] y-igu yał-ru-łi y-iy-xo. mother-dat [book.ii.abs-foc ii-good be-pst.prt-nmlz].iv iv-know-pres *Intended*: 'THE BOOK, The mother knows that it is good.
 - Explanation: DPs LDA-ed with are topics and, as such, they cannot be foci at the same time.
- * Second, some sentences are simply incompatible with topichood, since these sentences convey all new information.
 - (16)y-egir-xo. Only conveys new information... a. snow.ii.Abs ii-send-pres 'It is snowing.' b. * isi-n y-egir-xo. ... so topics are not possible.

snow.ii.abs-top ii-send-pres

Intended: 'It is snowing.'

▶ Remarkably, if a clause that only conveys new information is embedded, the same ABS DP that cannot be topicalized (16) cannot be LDA-ed either:

- * Third, recall from (13–14) that the answer to a question is interpreted as focus, which is, furthermore, incompatible with topichood. Only a sentence with standard agreement can be the answer to a constituent question (18B-i)—the corresponding LDA sentence is infelicitous in the same scenario (18B-ii).
 - (18) A. [šebi r-igu zou-ā-λin] eni-r r-iy-ā?
 [WH.ABS IV-good be.PST-INTERR-COMP] mother-dat IV-know-PST.INTERR
 'What did the mother know to be good?'
 - B. i. eni-r [t'ek y-igu yał-ru-li] r-iy-si.
 mother-dat [book.ii.abs ii-good be-pst.prt-nmlz] iv-know-pst.evid
 'The mother knew that the book was good.'
 - ii. # eni-r [tek y-igu yal-ru-li] y-iy-si.
 mother-dat [book.ii.abs ii-good be-pst.prt-nmlz] ii-know-pst.evid
 'The mother knew that the book was good.'
 - ▶ (18A) is a constituent question.
 - ▶ In (18B-i), this is answered by the embedded ABS DP 'bread.' Being the answer to a question, 'bread' interpreted as bearing focus. In (18B-i), agreement is canonical.
 - ▶ (18B-ii), on the other hand, is an instance of LDA sentence. (18B-ii) is not a felicitous answer to this question.
 - For LDA with 'bread' to be possible, this DP must be topicalized.
 - *But*: if 'bread' is topicalized, it conveys old information, which is not what a constituent question requires.
 - → Infelicity of (18B-ii) as an answer to (18A).

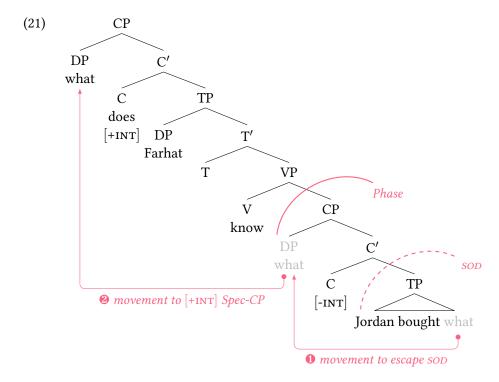
4.4.1 TAKING STOCK

- * Given how phases work, the existence of LDA in Tsez necessitates escape hatch movement, i.e. movement to the phase edge, Spec-CP, where the DP that is LDA-ed can escape the sod where it is generated, thereby becoming accessible to a matrix probe.
 - ▶ Polinsky & Potsdam (2001): this logic, in fact, corresponds to facts, since the LDA-ed ABS argument must move to a topic position in the left periphery.
 - ▶ That topicalization is involved in Tsez LDA is demonstrated by the fact that the LDA-ed DP displays the prototypical behavior of topics:
 - Incompatibility with focus.
 - Incompatibility with sentences that only convey new information.
- * Next: further support for the need for the LDA-ed argument to undergo escape hatch movement to a topic position.
 - ▶ If this movement is prevented, the *prediction* is that LDA should no longer be possible.

How to prevent movement of constituent α to position P: by plugging up P with another constituent β .

4.5 BLOCKING TOPICALIZATION

- * Consider the following sentences:
 - (20) a. Farhat knows [Jordan bought pizza].
 - b. ... Farhat knows [what₁ Jordan bought t_1].
 - c. ... What₁ does Farhat know [Jordan bought t_1]?
 - d. ... Farhat knows [who bought pizza].
 - e. ... What₁ does Farhat [know who bought t_1]?
- * Assuming that movement is successive-cyclically, a sentence such as (20c) is derived as follows:





Exercise 3

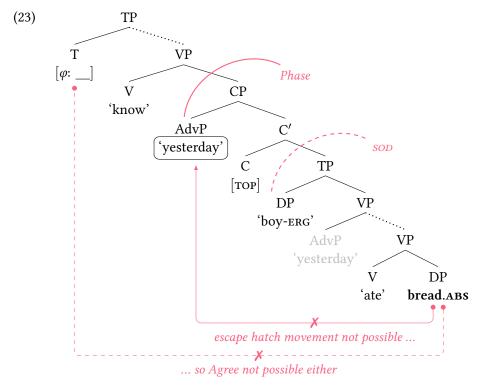
Assuming the correctness of (19), how can we analyze the ungrammaticality of (20e)?

- * With this background in place, we can go back to Tsez.
 - ▶ *Prediction*: LDA in Tsez requires movement to a topic position at the edge of the embedded phase. If this position is already plugged up by another constituent, LDA should no longer be possible.
 - ▶ This prediction is borne out by facts:

- ħuł (22)eni-r [už-ā magalu b-āc-'r-uli mother-dat [boy-erg yesterday bread.iii.abs iii-eat-pst.prt-nmlz].iv b-iy-xo. III-know-pres 'The mother knows that the bread, the boy ate yesterday.' b. * eni-r [huł] t_1 magalu b-āc-'r-uli už-ā mother-DAT [yesterday boy-ERG | bread.III.ABS III-eat-PST.PRT-NMLZ].IV
 - b-iy-xo.
 III-know-pres

Intended: 'The mother knows that, YESTERDAY, the boy ate the bread.'

- o (22a) is a familiar example of LDA: the matrix verbs agrees with the embedded ABS 'bread.'
- o (22b) shows that, if 'yesterday' is topicalized, LDA is no longer possible.
- ▶ The relevant parts of (22b) can be diagrammed as follows:

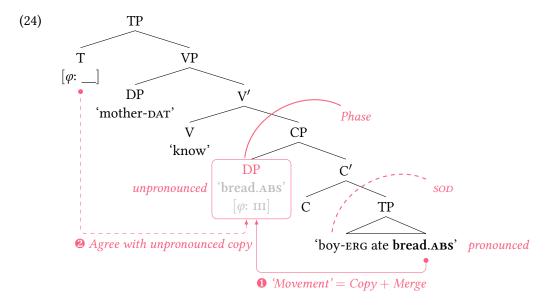


- o In (22b), 'yesterday' is topicalized.
- As a result, the embedded ABS 'bread' cannot be topicalized, since a syntactic position cannot be the target of movement if that position is already occupied (19).
- 'Bread,' thus, cannot evade the SOD, thereby becoming inaccessible to the matrix φ -probe.
 - → LDA no longer possible, as predicted.

5 Conclusion: escape hatch movement enables LDA

- * We now have all the pieces necessary to explain why LDA is possible in Tsez:
 - ▶ Embedded ABS DP is topicalized. This involves movement to the left periphery, which allows this DP to escape the SOD of the embedded phase.

- o Movement amply demonstrated by Polinsky & Potsdam (2001).
- Covert movement (modeled as the pronunciation of a lower copy, instead of the higher one) is available in the Grammar. All things equal, it should be possible for topicalization in Tsez too.
- * LDA in Tsez is, thus, derived as follows:



- * We saw a series of conditions imposed on Agree:
 - *Structural*: the probe must c-command the goal.
 - ▶ *Minimality*: there cannot be any other potential goal intervening between the probe and goal.
 - ▶ *Phasehood*: a phase is a set of nodes the complement of which is spelled-out an thus rendered inaccessible for further syntactic operations.
- * The latter condition leads to the prediction that Agree should not be established at long distance (i.e. Agree across a clausal boundary).
 - ▶ If a probe tries to LDA with a goal that is contained inside a SOD, it, in fact, cannot because the goal is spelled-out before the probe has the chance to Agree with it.
- * However, Phase Theory itself also predicts that Agree (or any other syntactic operation) should be possible if the goal moves to the edge of the phase.
 - ▶ This is in fact what we see in Tsez.
 - ▶ LDA is only possible when an embedded ABS argument is topicalized.
 - ▶ Topicalization is the result of movement to a position at the edge of the clause, i.e. Spec-CP.
 - \triangleright This removes the ABS argument from the SOD, allowing it to be accessible to a matrix φ -probe.
 - Rather than challenging the structural conditions on Agree, Tsez reinforces them.

REFERENCES

Polinsky, Maria, and Eric Potsdam. "Long-distance agreement and topic in Tsez." *Natural Language & Linguistic Theory* 19, no. 3 (2001): 583-646.