DIFFERENTIAL SUBJECT MARKING IN KAZAKH

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This dissertation investigates the syntactic underpinnings of differential subject marking in Kazakh. Differential subject marking (DSM) is the phenomenon whereby subjects of certain clauses get differentially case marked. In Kazakh, we find nominative–accusative or nominative–genitive subject case alternations in (i) nominalized complement clauses, (ii) finite embedded clauses headed by the complementizer *dep*, and (iii) relative clauses. While some functionalist-typological approaches and related analyses couched in Optimality Theory predict that DSM is the mirror image of Differential Object Marking (DOM), the dissertation shows that this is not borne out. The emerging picture is that Kazakh DSM is constructed exclusively by syntactic processes and there is no need to resort to extra-syntactic mechanisms to explain the attested DSM patterns. In the course of this investigation, the dissertation engages with theoretical questions such as A/$\bar{\text{A}}$-dependencies and their properties, locality, the mapping between the syntactic and semantic components of grammar, and the role of defectiveness, the Activity Condition and abstract Case in motivating syntactic movement.

I begin the discussion with the genitive–nominative case alternation attested on the nominalized embedded clause subject. A detailed empirical investigation of the interpretation of genitive and nominative subjects show that the former have anaphoric definite reference, whereas the latter are non-anaphoric. I show that this difference in interpretation is underpinned by a positional distinction: the genitive phrase is located at the clause edge, while the nominative subject is lower in the structure. I demonstrate that subject movement to the clause edge is not driven by ϕ-features, instead I propose that the operation called "Subject Shift" is responsible for the movement of the presuppositional (anaphoric) noun phrase to the clause edge position.

I then turn to examining Kazakh hyper-raising constructions, i.e., embedded finite *dep*-clauses that display nominative–accusative subject case alternation. I draw on novel approaches to the A/$\bar{\text{A}}$ distinction and bring them in conversation with novel Kazakh data. Concurring with a line of inquiry that argues that complementizers can bear ϕ-probes and therefore the edge of the clause is an A-position, I propose that the *dep* complementizer in embedded clauses bears a ϕ-probe that triggers A-movement to the clause edge, where the subject gets dependent accusative case. As the landing site of this A-movement is outside of the non-presuppositional domain, the accusative subject is interpreted as a presuppositional (anaphoric) expression. This way, the analysis contributes both to theoretical approaches to hyper-raising by arguing against defectiveness-based approaches, and to theoretical proposals on the A/$\bar{\text{A}}$-distinction.

Finally, I investigate the nominative–genitive subject case alternation in relative clauses, which co-occurs with an ostensively non-local subject agreement marker. This extremely well-attested phenomenon in Turkic, Mongolic and Finno-Ugric languages has received three different analyses in the literature: (i) the genitive subject undergoes raising to Spec,DP of the modified noun phrase, (ii) the relative clause is defective, which makes the subject permeable to enter into Agree with the D head of the modified noun phrase, and (iii) the genitive-marked noun phrase is base-generated in the possessor position. This work demonstrates that the third analysis is the correct one for Kazakh and puts forth the novel claim that the possessor controls a PRO subject in the relative clause subject position. Furthermore, I present the novel observation that the movement to the left of the genitive-marked noun phrase is an instance of intermediate scrambling (it can create new binding relations, it remedies WCO but is also reconstructs for Condition A). This way, the dissertation also contributes to the literature on scrambling and control.

BIOGRAPHICAL SKETCH

Eszter Ótott-Kovács was born in Szeged, Hungary in 1988. She received her MA and PhD in Altaic Studies from the University of Szeged under the supervision of Éva Kincses-Nagy and András Róna-Tas. It was during this time that she started conducting fieldwork on the Turkic language Kazakh, which she maintains an interest in to this day. Between 2011 and 2016, she worked at the Department of Altaic Studies at the University of Szeged as an assistant lecturer teaching Turkish and courses related to historical Turkic linguistics and Turkic philology. In 2016, she entered the graduate program in linguistics at Cornell University, where she worked on a variety of theoretical linguistic topics related to the Turkic languages Kazakh, Kyrgyz and Turkish under the supervision of Miloje Despić (dissertation committee chair), Molly Diesing and John Whitman. These topics include the Syllable Contact Law, evidentiality, structure of the verb phrase, pluractionality, verbal reciprocals, and differential subject marking. In the course of these projects she conducted on-site and online fieldwork on Kazakh and Kyrgyz. During her graduate studies, she served as the Finance Committee Chair for the Graduate and Professional Student Assembly, and she taught as a teaching assistant at Cornell University and the University of Toronto.

Nagyszüleimnek

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TABLE OF CONTENTS

Biographical Sketch . . . iii
Dedication . . . iv
Acknowledgements . . . v
Table of Contents . . . vii

1 Introduction **1**
1.1 Key facts and outline of the proposal . . . 5
1.1.1 The differentially-marked subject's position . . . 5
1.1.2 Motivating movement . . . 7
1.2 General discussion on Negative Concord in Kazakh . . . 15
1.2.1 Licensing Negative Concord Items via Agree . . . 19
1.2.2 Op¬ is needed to account for the propositional disjunction *ne...ne* . . . 22
1.2.3 Strong or Weak PIC? . . . 29
1.2.4 Some predictions by the Weak PIC . . . 33

2 Extending the Mapping Hypothesis
The Nominative-Genitive Alternation in Nominalized Complement Clauses **36**
2.1 Introduction . . . 36
2.2 NCI licensing and the position of the embedded subject . . . 40
2.2.1 NCI licensing by matrix negation . . . 40
2.2.2 Embedded clause-internal NCI licensing . . . 43
2.2.3 Interim summary . . . 45
2.3 The movement to the clause edge is not triggered by ϕ-features . . . 46
2.3.1 The issue with D . . . 47
2.3.2 A-movement to the clause edge? . . . 53
2.4 Extending the Mapping Hypothesis . . . 60
2.4.1 Genitive subject and anaphoric definite interpretation . . . 60
2.4.2 Proposal . . . 73
2.5 Conclusions . . . 88

3 Optional Hyperraising
Accusative-Nominative Subject Case Alternation in dep-Clauses **89**
3.1 Introduction . . . 89
3.2 Setting the scene . . . 96
3.3 Preliminary discussion . . . 104
3.3.1 Subject case and agreement marking patterns . . . 104
3.3.2 Is *dep* a complementizer? . . . 108
3.3.3 Complementation and adjunction . . . 114
3.4 The position of the nominative and accusative subject . . . 120
3.4.1 Matrix constituents and the embedded subject . . . 121
3.4.2 NCI licensing and the embedded subject . . . 123
3.4.3 Embedded clause constituents and the accusative subject . . . 127
3.4.4 Scrambling the embedded clause . . . 129

3.4.5 Interim summary . . . 130
3.4.6 Interlude: Against anaphoric dependency and prolepsis . . . 133
3.5 The accusative DP and A-movement to the matrix clause . . . 140
3.5.1 Passivization . . . 141
3.5.2 Binding and WCO amelioration effects . . . 143
3.6 Analysis . . . 145
3.6.1 Janitzio P'urhepecha and Khalkha Mongolian . . . 147
3.6.2 Proposal . . . 155
3.6.3 Summary of the proposal . . . 179
3.7 Conclusions . . . 181

4 Control and Intermediate Scrambling
An Investigation of Kazakh Relative Clauses 183
4.1 Introduction . . . 183
4.2 Is the genitive subject inside the RC? . . . 188
4.2.1 Previous accounts . . . 191
4.2.2 The genitive subject is not RC-internal . . . 197
4.2.3 Interim summary . . . 212
4.3 Analysis . . . 213
4.3.1 The genitive RC subject is in Spec,DP . . . 213
4.3.2 Developing the proposal . . . 215
4.3.3 Scrambling to the left of the genitive phrase . . . 229
4.4 Conclusions . . . 239

5 Conclusions 240

CHAPTER 1

INTRODUCTION

Turkic languages are known to have differential object marking, i.e., the phenomenon when the direct object optionally receives accusative case depending on the object's syntactic position and semantic interpretation (Enç 1991, Diesing 1992, Zidani-Eroğlu 1997b, Kelepir 2001, Von Heusinger and Kornfilt 2005, Baker and Vinokurova 2010). According to Diesing's influential account, quantificational objects of the type <<e,t>,t> undergo a semantically motivated movement out of the vP, i.e., out of the domain of the existential closure, to a higher syntactic position, a phenomenon known as Object Shift (Diesing 1990, 1992, Diesing and Jelinek 1995). Accusative is assigned to the object in the higher syntactic position; the object remaining within the scope of the existential closure receives no phonologically overt case marking (at least in Turkic languages; other languages, e.g., Cuzco Quechua, allow overt case marking in the lower position as well, see Baker 2015:§4.2.3). A Kazakh example illustrating this is given in (1). Object Shift-induced differential object marking is an extremely well-attested phenomenon cross-linguistically (e.g., in Romanian (Farkas 1978), Hebrew (Danon 2006), Kannada (Lidz 2006); for other languages see (Aissen 2003)). The exact mechanism underlying the differential object case assignment has gained significant attention in the linguistic literature as it bears on questions at the heart of theoretical linguistics, such as the role of case/Case in Agree operations, theories on morphological case assignment, syntactic locality domains, and the interaction of the semantic and syntactic components of the grammar. Given the importance of these questions for linguistic theory, it is not surprising that several divergent views have arisen. A non-exhaustive list of different analyses follows: (i) OT approaches utilizing harmonic scales combining semantic roles and iconicity (markedness) (Aissen 1999, 2003; for an extension of Aissen's approach see Keine 2010, Keine and Müller 2015); (ii) approaches interpreting differential argument marking as a reflection of the DP/NP distinction (Lyutikova and Pereltsvaig 2015); (iii) con-

figurational/dependent case approaches that consider vPs to be potential spell-out domains (Baker and Vinokurova 2010, Baker 2015, Levin and Preminger 2015).

(1) a. Ajʃa [$_{VP}$ kitap-$\boxed{\emptyset}$ okɯ]-dɯ.
Aisha [book-**Ø** read]-PST.3
'Aisha did book reading.'

b. Ajʃa kitap$_i$-$\boxed{\text{tɯ}}$ [$_{VP}$ t_i okɯ]-dɯ.
Aisha book-**ACC** [read]-PST.3
'Aisha read the book.'

In addition to Differential Object Marking, Turkic languages also exhibit another type of differential argument marking: Differential Subject Marking (for a typological overview see Aikhenvald et al. 2001, De Hoop and De Swart 2009). Differential Subject Marking is attested on the subject of different types of embedded clauses. This dissertation explores three Kazakh[1] subordinate clause types that allow differentially-marked subjects: (i) nominalized complement clauses,(ii) finite embedded clauses headed by the complementizer *dep*, (iii) relative clauses. The examples (2) through (4) illustrate the investigated constructions. The subjects of the nominalized complement clause in (2) and the relative clause in (4) may bear either nominative or genitive case; the subject of the subordinate *dep*-clause in (3) can be either nominative or accusative.

(2) a. Ajʃa [patʃajɯm-$\boxed{\emptyset}$ Almatɯ-ga bar-gan-ɯn] ajt-tɯ.
Aisha [queen-**NOM** Almaty-DAT go-PRF-3]ACC say-PST.3
'Aisha said [that the Queen went to Almaty].'

[1]Kazakh is a Kipchak Turkic language spoken by about 16.4 million L1 speakers in Kazakhstan, China, Mongolia, Turkmenistan and Uzbekistan (Ethnologue).

b. Ajʃa [patʃajɯm- nɯŋ Almatɯ-ga bar-gan-ɯn] ajt-tɯ.
Aisha [queen- GEN Almaty-DAT go-PRF-3]ACC say-PST.3
'Aisha said [that the Queen went to Almaty].'

Nominalized complement clauses

(3) a. Ajʃa [patʃajɯm- Ø Almatɯ-ga bar-dɯ dep] ajt-tɯ.
Aisha [queen- NOM Almaty-DAT go-PST.3 C] say-PST.3
'Aisha said [that the Queen went to Almaty].'

b. Ajʃa [patʃajɯm- dɯ Almatɯ-ga bar-dɯ dep] ajt-tɯ.
Aisha [queen- ACC Almaty-DAT go-PST.DEFAULT C] say-PST.3
'Aisha said [that the Queen went to Almaty].'

Finite *dep*-clauses

(4) a. [Patʃajɯm- Ø erteŋ bar-atɯn] ʒer alɯs-ta.
[queen- NOM tomorrow go-PRSP] place far-LOC
'The place [where the Queen will go tomorrow] is far.'

b. [Patʃajɯm- nɯŋ erteŋ bar-atɯn] ʒer-i alɯs-ta.
[queen- GEN tomorrow go-PRSP] place-3SG far-LOC
'The place [where the Queen will go tomorrow] is far.'

Relative clauses

Chapter 2 discusses the nominalized complement clauses, chapter 3 investigates the *dep*-headed finite subordinate clauses, and relative clauses are the topic of chapter 4. The

overarching question these chapters investigate is whether it is possible to analyze Differential Subject Marking (henceforth, DSM) on par with Differential Object Marking (DOM). Specifically, (i) is there a single syntactic motivation that underlies differential subject case marking in all of these embedded clauses? (ii) If so, how does this analysis fit into cross-linguistic DSM patterns?

Fuctionalist, typological and OT approaches, which treat case marking as an independent linguistic process that can be derived from the interaction between the syntactic structure (object, subject etc. position) and markedness scales, would predict DSM to be the mirror image of DOM (Aissen 1999, 2003, Aikhenvald et al. 2001, De Hoop and De Swart 2009). To greatly simplify their argumentation, *the higher up* the object is on the prominence scale[2] (where 1/2 person pronouns are at the high end of the scale and inanimate non-specific nouns are at the low end) the likelier it is that it gets a "more marked" (e.g., non-nominative) case marking. The opposite pattern is predicted for subjects: *the lower down* the subject is on the prominence scale, the likelier it is that it get differential case marking. This dissertation investigates how Kazakh DSM patterns can contribute to our understanding of cross-linguistic principles underlying differential argument marking. These questions also tie in with central issues in case theory within the generative framework: how are cases such as accusative, genitive and nominative are assigned? The case-under-Agree, dependent case theory (Marantz 2000) and mixed approaches, such as Baker and Vinokurova 2010, Baker 2015, all propose different analyses. By taking a close look at differential case marking, we can test out the predictions made by these hypotheses.

[2]A possible formulation of the relevant prominance scale is given in (i) cited from Aissen 2003.
(i) Personal pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP

1.1 Key facts and outline of the proposal

To answer these questions each dissertation chapter explores the following issues: (i) What is the position of the nominative and the non-nominative subject? (ii) Is there movement to these positions? (iii) What motivates the movement to these positions? (iv) What is the source of the case marking in this position? This section gives a short overview of each of these issues and offers a short outline of the proposed analyses.

1.1.1 The differentially-marked subject's position

Using various diagnostics such as word order facts and Negative Concord Item licensing, I establish that nominative embedded subjects are in the canonical subject position (Spec,TP) in each clause type, whereas non-nominative subjects are higher in the structure: they are either at the clause edge or in a clause-external position. Data coming from Negative Concord Item licensing, which is an Agree operation (Zeijlstra 2004, 2008, 2012) that obeys syntactic locality constraints (the weak PIC, Chomsky 2001), offer us an opportunity to compare the differentially-marked subjects' positions across different embedded clause types (§1.2 offers a general overview of my underlying assumptions about Kazakh Negative Concord and its locality domain). (5) presents a summary of Negative Concord Item embedded subjects under matrix negation. The table shows that nominative NCI subjects cannot be licensed by the matrix Negative Operator, in contrast non-nominative NCI subjects are acceptable. The unavailability of NCI licensing with nominative subjects indicates that these subjects are not in the accessible syntactic domain to enter into Agree relation with the matrix Negative Operator. In contrast, the non-nominative subjects are in a higher position, which is accessible for matrix operators.

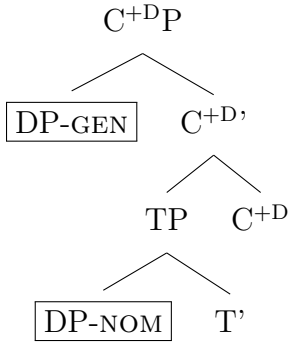
(5) NCI subjects under matrix clause negation

Nominalized clause	NOM NCI subject	✗
	GEN NCI subject	✓
Finite *dep*-clause	NOM NCI subject	✗
	ACC NCI subject	✓
Relative clause	NOM NCI subject	✗
	GEN NCI subject	✓

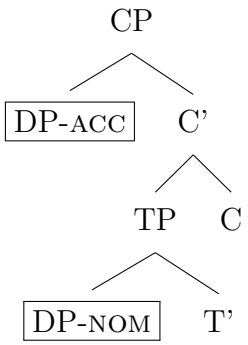
(6) shows the position of the differentially-marked subjects in each clause types. Utilizing word order facts, chapter 2 and 3 establish that the non-nominative subject in nominalized complement and *dep* clauses is situated inside the subordinate clause yet it is accessible to matrix operators. This is only possible if the non-nominative subject is located at the clause edge. Chapter 4 argues at length that the genitive "subject" in relative clauses is actually in the clause-external possessor position (the box in the tree marks the relative clause, the genitive DP is in the Spec,DP, i.e., the canonical possessor position).

(6)

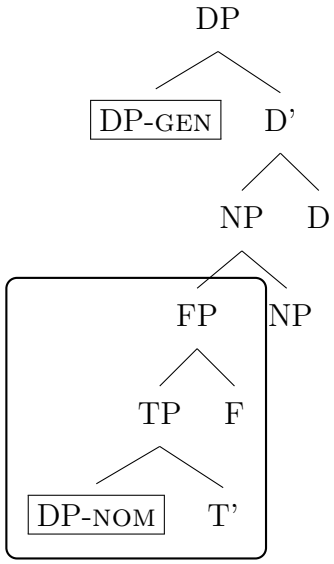
a. Nominalized clause



b. *Dep*-clause



c. Relative clause



The location of differentially-marked subjects clearly points toward the conclusion that differential subject marking has syntactic underpinnings: the subject in the canonical subject position is nominative-marked, whereas the subject located higher in the structure gets non-nominative case.

1.1.2 Motivating movement

The next question that the dissertation engages with is whether the non-nominative subject is moved to a higher position, and if so what motivates the movement. At first blush, it might seem that some notion of clausal defectiveness (together with the need-for-Case principle) plays a role in the subject DP's upward movement and in the subsequent case assignment. Different versions of this general idea have been proposed by a number of authors for different clause types (a non-exhaustive list: Zidani-Eroğlu 1997a, Kornfilt 1977, 2007, 2008, 2015, Major 2022, 2023). For instance, a potential defectiveness-based approach might want to

say that there are two types of *dep*-clauses, as shown in (8): one type of *dep*-clause has a non-defective T head bearing uninterpretable ϕ-feature establishes Agree with the highest available DP, assigns nominative case to the DP and moves it to its specifier. The other type of *dep*-clause would have a defective T head, without ϕ-features (one could stipulate that the C head is also defective, i.e., lacks ϕ-features to pass down to T). As the embedded domain is defective, the matrix v head can establish Agree with the external argument. The external argument enters into Agree relation with the matrix v and it moves to the object position in the higher domain, where it gets accusative marking. The subject agreement suffixes on the embedded predicate seem to support this analysis: (7) shows that there is full ϕ-agreement with the nominative embedded subject, but default (phonologically zero) agreement with the accusative subject.

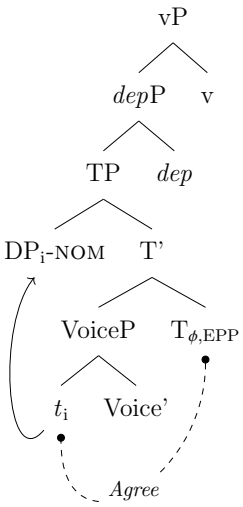
(7) a. Ajʃa [men- Ø Almatɯ-ga bar-dɯ-m dep] ajt-tɯ.
Aisha [I- **NOM** Almaty-DAT go-PST-**1SG** C] say-PST.3
'Aisha said [that I went to Almaty].'

b. Ajʃa [men- i Almatɯ-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha [I- **ACC** Almaty-DAT go-PST-**DEFAULT** C] say-PST.3
'Aisha said [that I went to Almaty].'

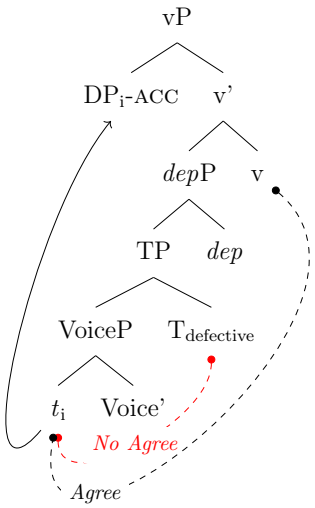
Finite *dep*-clauses

(8) Defectiveness-based analysis of the NOM-ACC case "alternation" in *dep*-clauses (to be dismissed)

a. Non-defective T: NOM subject



b. Defective T: ACC subject



Defectiveness-based approaches have been proposed for relative clauses (RCs) as well: according to such analyses the RC is defective, therefore it does not project a phasal domain, making the highest DP accessible to outside probes. In a configuration such as (10a), the external argument of the RC is accessible to the D head of the noun phrase modified by the RC. The RC-external D head assigns genitive to the RC subject under Agree. The corresponding Kazakh example is given in (9a).

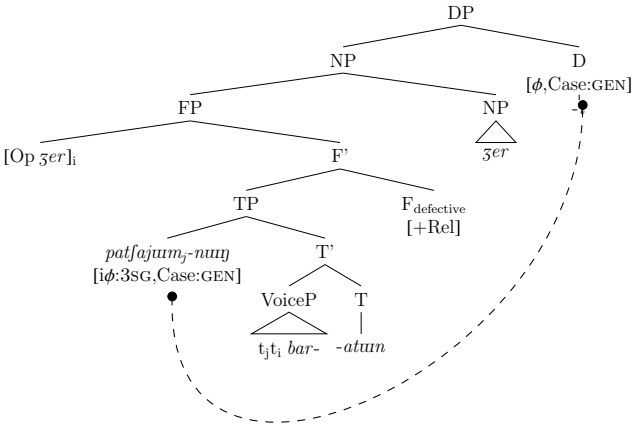
Similarly, one might propose that nominalized embedded clauses with a genitive subject (the relevant example is repeated in (9b)) have a defective (or non-existent) C head, which makes the embedded domain accessible to the nominalizing D head. This hypothetical account is given in (10b).

(9) a. [Patʃajɯm- nɯŋ bar-atɯn] ʒer-i alɯs-ta.
[queen- **GEN** go-PRSP] place-3SG far-LOC
'The place [where the Queen will go] is far.'
Relative clause with genitive subject

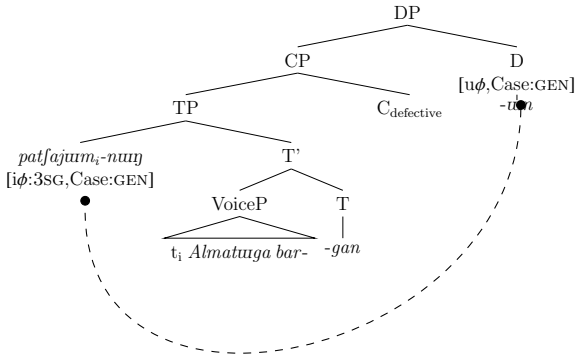
b. Ajʃa [patʃajɯm- nɯŋ Almatɯ-ga bar-gan-ɯn] ajt-tɯ.
Aisha [queen- **GEN** Almaty-DAT go-PRF-3]ACC say-PST.3
'Aisha said [that the Queen went to Almaty].'
Nominalized complement clause with genitive subject

(10) Defectiveness-based analysis of the NOM-GEN case "alternation" in RCs and nominalized complement clauses (to be dismissed)

a. RC (GEN subject)



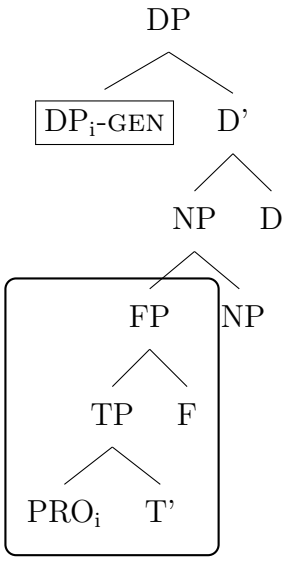
b. Nominalized clause (GEN subject)



The dissertation shows that this analysis, however intuitive-looking, cannot account for the empirical data. As relative clauses are outliers in many respects, I start the discussion here with them. Chapter 4 establishes that RCs with nominative and genitive subjects are not in complementary distribution, the only notable difference between them is that the genitive DP is interpreted as the possessor *and* as the RC subject. For this reason, I

consider RCs with the nominative and genitive subjects as different RC-forming strategies, which cannot be derived from one other. I argue that the genitive DP does not originate in the relative clause. Several empirical facts argue against a movement (raising) analysis of the genitive DP: (i) the idiomatic meaning disappears when a (subject) idiom chunk gets genitive marking; (ii) the genitive-marked anaphor cannot reconstruct for binding; (iii) the genitive-marked phrase containing a pronoun does not reconstruct for scope. The absence of reconstruction effects argues against a movement analysis, and favors the view that the genitive DP is base-generated relative clause-externally. The dissertation puts forth the novel proposal that the DP base-generated in the possessor position controls a PRO subject in the relative clause.

(11) GEN-subject in relative clauses



In contrast, the non-nominative subject undergoes *movement* to the edge of the embedded clause in both nominalized and *dep*-clauses. Recall that both the non-nominative Negative Concord Item subject in nominalized and *dep*-clauses can be licensed by matrix negation (see (5)), indicating that the subject is in the same locality domain with the matrix clause's neg-

ative operator. On the other hand, word order facts (embedded clause-internal material can precede the non-nominative subject) suggest that the subject is embedded clause-internal. The only way to reconcile these two fact is if we assume that these non-nominative subjects are at the edge of the subordinate clause.

Chapters 2 and 3 demonstrate that the properties of movement to the clause edge in nominalized and *dep*-clauses are notably different for one another. Drawing on featural approaches to the A/Ā-distinction (Obata and Epstein 2011, Van Urk 2015, Keine 2019, Safir 2019) and novel work on hyper-raising constructions arguing that defectiveness is not the (only) relevant driver of raising (Halpert 2012, 2015, 2019a, 2019b, Deal 2017, 2018, Zyman 2017, 2018, Fong 2019, Gong 2022, i.a.), I show that the subject undergoes A-movement to the clause edge position of the *dep*-headed clause, motivated by the embedded C head's ϕ-features, which this type of C head does not pass down to T. Crucially, subject movement to the clause edge in nominalized complement clauses does not exhibit A-properties. (13) below offer an overview of the proposed derivations.

Out of the various pieces of empirical evidence supporting this contrast, it is worth highlighting here how the accusative (in *dep*-clauses) and the genitive (in nominalized complement clauses) Negative Concord Item subject patterns under embedded clause-internal negation. The summary of the subject NCI data under embedded clause-internal negation is given in (12). It is not surprising that nominative NCI subjects can be licensed by clause-internal negation (§1.2 argues at length that the Negative Operator is located above TP), however it is unexpected that the non-nominative subjects in *dep* and nominalized clauses pattern differently. I argue that this distinction arises due to the type of the movement: the accusative subject in the *dep*-clause A-moves to the clause edge, consequently it does not reconstruct to a lower position to be within the scope of the Negative Operator. The genitive subject of the nominalized complement clause does not undergo A-movement, therefor it can undergo reconstruction. Chapter 2 and 3 provide further diagnostics coming from *wh*-scope

reconstruction and extraction facts in support of this conclusion.

(12) NCI subjects under embedded clause-internal negation

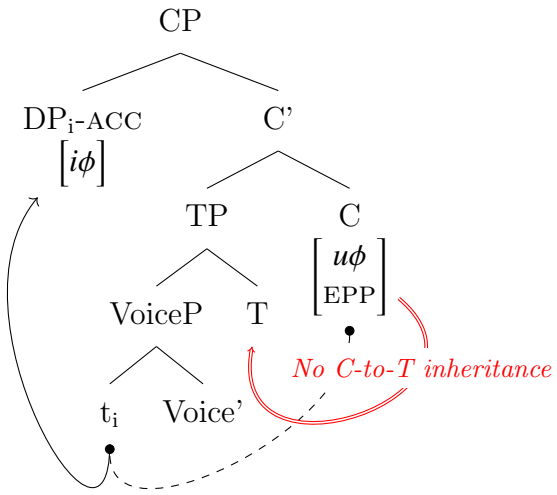
Finite *dep*-clause	NOM NCI subject	✓
	ACC NCI subject	✗
Nominalized clause	NOM NCI subject	✓
	GEN NCI subject	✓

Chapter 2 and 3 argue at length that these (and other) empirical differences between accusative (in *dep*-clauses) and genitive subjects (in nominalized complement clauses) arise due to the clausal heads' features. The ϕ-features on the C head in *dep*-clauses do not undergo C-to-T feature transmission, shown in (13a). As a result, the C head retains the uninterpretable ϕ-features, which trigger A-movement to the specifier of CP (as per the featural approach to the A/$\bar{\text{A}}$-distinction, whereby ϕ-features drive A-movement). In this respect, Kazakh *dep*-clauses appear to have identical properties to hyper-raising constructions in Khalkha Mongolian (Fong 2019, Gong 2022) and Janitzio P'urhepecha (Zyman 2017, 2018)).

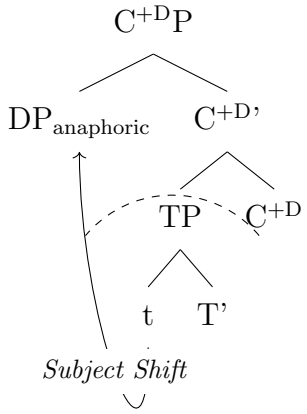
In contrast, movement to the clause edge is *not* driven by ϕ-features in nominalized complement clauses (i.e., it is not A-movement). Based on a detailed investigation of the meaning difference between genitive and nominative subjects in nominalized clauses, I submit the observation that genitive subjects have anaphoric definite reference (in the sense of Schwarz 2009), whereas nominative subject cannot be anaphoric (they are interpreted either as unique definite or indeifinte). I propose a syntactic operation modelled on Object Shift (Diesing 1990, 1992), whereby certain types of presuppositional DPs, namely anaphoric DPs, undergo so-called Subject Shift. This is shown in (13b).

(13)

a. ACC-subject in *dep*-clauses



b. GEN-subject in nominalized clauses



Thus, the investigation reveals that differential subject marking in Kazakh emerges in various syntactic configurations due to various triggers, and that there is not a single underlying driving force behind the attested subject case alternations. This way the dissertation contributes to the literature on Differential Subject Marking by showcasing how purely syntactic processes can underpin subject case alternations.

1.2 General discussion on Negative Concord in Kazakh

As Negative Concord and Negative Concord Item licensing will play a central role in determining the differentially-marked subjects' position, this introductory section spells out my assumptions on these phenomena.

The phenomenon when a clause contains two (or more) negative elements, yet the interpretation of the clause is not construed with double (or multiple) negation but single negation, is called Negative Concord (Labov 1972, Progovac 1988, Progovac 1994, Haegeman and Zanuttini 1996, Giannakidou 2000, Zeijlstra 2004, Giannakidou 2006, Collins and Postal 2014, Giannakidou and Zeijlstra 2017). The sentence in (14) contains two negative elements: *eʃkim* 'nobody' and the so-called negative suffix on the verb -*MA*. Despite there being two negative elements, (14) cannot be interpreted as double negation, the only available interpretation is the one with single negation.

(14) **Eʃkim** kœl-ge bar-**ma**-dɯ.
n.who lake-DAT go-**MA**-PST.3
Only available: 'Nobody went to the lake.' (single negation)
Not possible: *'Nobody did not go to the lake.' (double negation)

When elements like *eʃkim* 'n-who' occur in a clause without sentential negation, as in (15), the construction is ill-formed. The ungrammaticality in (15) arises because *eʃkim* does not itself express negation; rather it requires to be licensed by a c-commanding head carrying the [iNEG] feature. As only the element expressing the logical negation (i.e., the one with the [iNEG] feature) is interpreted as negation, the absence of the double negation reading in (14) is accounted for.

(15) ***Eʃkim** kœl-ge bar-dɯ.
n.who lake-DAT go-PST.3
Intended: 'Nobody went to the lake.'

Given these properties, I treat *eʃkim* 'n-who', along with other similar words formed with *eʃ*-, such as *eʃkaʃan* 'n-when', *eʃ nærse* 'n-thing' etc.,[3] as "n-words" or Negative Concord Items (Giannakidou (2006), Giannakidou and Zeijlstra (2017)).[4] The definition of NCIs is given in (16).

(16) An expression α is an NCI iff:
(a) α can be used in structures containing sentential negation or another α-expression yielding a reading equivalent to one logical negation; and
(b) α can provide a negative fragment answer.
(Giannakidou 2006)

(15) demonstrated that negative elements such as *eʃkim* satisfy the (a) part of the definition in (16). (17) shows that *eʃkim* is also in compliance with (16b), as *eʃkim* can serve as a fragment answer. As a result, *eʃkim* can be considered a Negative Concord Item given the definition in (16).

(17) –Kim kœl-ge bar-dɯ? –Eʃkim.
who lake-DAT go-PST.3 –n.who
'–Who went to the lake?' –'Nobody.'

[3]Note that in a lot of previous work these are (erroneously) called Negative Polarity Items; see Jeretič 2022 for arguments why these are to be treated as Negative Concord Items.

[4]Below I argue that the negative suffix *-MA* is not the locus of interpretable NEG features, rather it bear [uNEG]. The justification for this, admittedly unusual, approach is provided in §1.2.2. Note that the same claim was put forth by Jeretič (2023) in connection with the Turkish negative suffix /mA/ based on different argumentation than the one presented in this work.

Negative Concord Items are to be distinguished from Negative Polarity Items (NPIs) (Zeijlstra 2008, 2006, Penka 2011, inter alia).[5] NPIs, in contrast to NCIs, cannot occur as fragment answers. For instance, the English NPI *anybody* cannot be used as a fragment answer to the question in (18). In languages that have NCIs, such as Czech, Greek, Hebrew, Hungarian, Italian, Japanese, Polish, etc. (Zeijlstra 2008), the NCI can be used as a fragment answer, as illustrated by the Hungarian NCI *senki* 'n-body' in (19) (Surányi 2006, Szabolcsi 2018). Kazakh *eʃkim* in (17) clearly patterns with NCIs, but not with NPIs.

(18) –Who went to the lake? –#Anybody.

English NPI

(19) –Ki ment el a tó-hoz? –Senki.
who go.PST.3 PRTL the lake-ALL –n.body
'–Who went to the lake?' –'Nobody.'

Hungarian NCI

Crucially, NPI licensing is subject to different locality constraints than NCI licensing (Giannakidou 2000, Zeijlstra 2008). As discussed in detail in §1.2.1, Negative Concord is an Agree relation (Chomsky 1995a, 2000, 2001), thus the relevant locality domain for NCI licensing is the phase. In contrast, NPIs can be licensed across phase boundaries in a way that it does not follow well-known locality conditions, i.e., either the strong (Chomsky 2000) or the weak versions of the Phase Impenetrability Condition (Chomsky 2001). This is illustrated by the English NPI *anybody* in (20), which can be licensed by the negation in the matrix clause. In (20) the NPI object is not in a syntactic position (e.g., Spec,CP) that

[5]See Zeijlstra (2008) for detailed arguments why NCIs are not a special type of NPIs, a position defended in Giannakidou 1997, 2000 and 2006.

would be accessible for matrix operations, yet the NPI can be licensed. This demonstrates that NPI licensing does not follow established locality constraints for Agree operations.[6]

(20) John did**n't** say [that he saw **anybody**].

ENGLISH NPI

In contrast, NCI licensing obeys phase-based locality conditions (Zeijlstra 2004, Zeijlstra 2008). (21) demonstrates that the Hungarian NCI *senki* in the embedded object position cannot be licensed by matrix negation. This is expected if NCI licensing adheres to the principles of the Phase Impenetrability Condition (Chomsky 2000, 2001). (22) shows that Kazakh *eʃkim* patterns as an NCI, and not as an NPI, as it cannot be licensed by matrix negation.

(21) *János$_i$ **nem** mond-ta, [hogy *pro*$_i$ lát-ott **senki-t**].
János **NEG** say-PST.3 [that see-PST.3 **n.body-ACC**]
Intended: 'János didn't say that he saw anybody.'

HUNGARIAN NCI

(22) *Ajʃa$_i$ [*pro*$_i$ **eʃkim-di** kœr-gen-in] ajt-**pa**-dɯ.
Aisha [**n.who-ACC** see-PRF-3].ACC say-**MA**-PST.3
Intended: 'Aisha didn't say that she saw anybody.'

Identifying *eʃkim* as an NCI is crucial for this work, as I am going to draw on evidence from NCI subjects in showing that differentially-marked embedded subjects are in different

[6]See Zeijlstra 2008 for additional data on NPI licensing in adjunct islands.

syntactic position. It is crucial for this argumentation to know that the negative-element licensing respects standard syntactic locality conditions.

1.2.1 Licensing Negative Concord Items via Agree

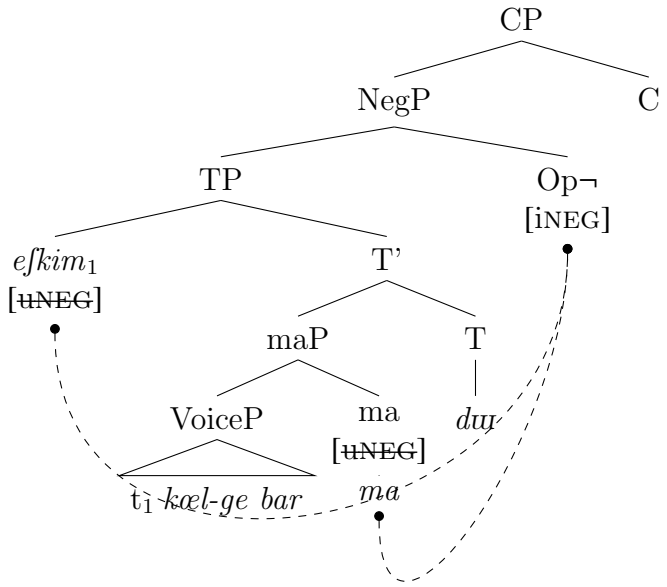
I follow Zeijstra (2004, 2008, 2012) in assuming that the source of the interpretatble negative feature [iNEG] is not the negative suffix -*MA* in (23), but an abstract negative operator, Op¬, in a position higher than TP, i.e, it outscopes the subject. For the same claim in connection with Turkish see Jeretič 2023. I also present further independent arguments in favor of a high Op¬ operator in §1.2.2. That is, under this approach, sentential negation is supplied by Op¬, and *eʃkim* and the negative suffix -*MA* are bear [uNEG] feature, which gets valued via establishing Agree with the c-commanding Op¬.

(23) **[Op¬** [**Eʃkim** kœl-ge bar-**ma**-dɯ]].
[NEG [**n.who** lake-DAT go-**MA**-PST.3]]
Only available: 'Nobody went to the lake.' (single negation)
Not possible: *'Nobody did not go to the lake.' (double negation)

Notice that under the analysis in (24), the heads bearing [uNEG] probe upwards to find a goal with [iNEG]. That is, this is an instance of Upward Agree (Zeijlstra 2004). The directionality of Agree has been a heavily studied area of research, some arguing that such bottom-up evaluation exists or even that these are the only type of Agree (Zeijlstra 2004, 2008, 2012, Bjorkman and Zeijlstra 2019, Arregi and Hanink 2022). Others argue that Agree operates in a top-down fashion (Preminger 2013, Rudnev 2021, Bárány and Wal 2022). Negative Concord clearly challenges the latter downward Agree approaches, as in languages with NC the [iNEG] is often syntactically higher than elements with [uNEG]. In

this work, I adopt the Upward Agree approach for Negative Concord Item licensing,[7] but I note that there are attempts to recast NC in terms of Downward Agree (Deal 2022). The presented analysis could be easily reformulated in the spirit of Deal (2022).

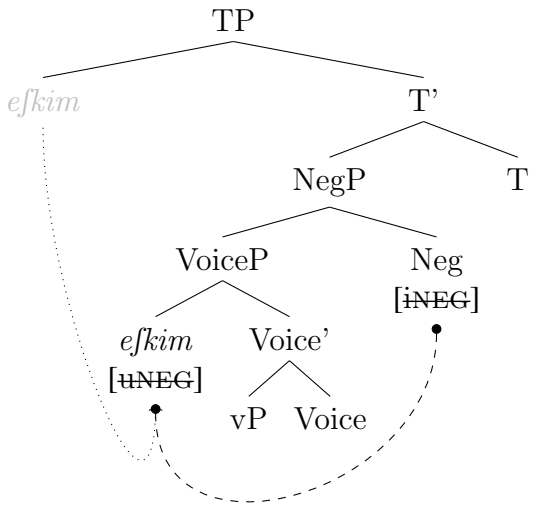
(24) Proposed NC configuration



Zeijlstra argues that positing a Op¬ affords the analysis greater explanatory scope. First, under an approach where the negative head *-MA* bears [iNEG], the NCI subject would need to reconstruct back from Spec,TP to Spec,VoiceP, shown in (25). In (25), the dotted line indicates reconstruction of the Negative Concord Item. Zeijlstra argues that such reconstruction never pertains to other indefinite subjects, thus (25) would be an unusual configuration.

[7]But for other types of Agree operations (e.g., ϕ-Agree) I apply the downward Agree approach.

(25) A potential NC configuration (to be dismissed)



Secondly, Zeijstra argues that fragment NCI answers, such as (26), are better accounted for by an analysis with an abstract Op¬. If NCIs are licensed by *-MA*, a negative verb is expected to be present in the underlying representation of fragment answers, which gets subsequently elided. Ellipsis is supposed to take place under semantic identity (Merchant 2001), however, the preceding question is not negated, thus it is not clear how *bar-ma-dɯ* could undergo ellipsis without the identity requirement being satisfied.[8]

(26) –Kim kœl-ge bar-dɯ? –Eʃkim ~~bar-ma-dɯ~~.
who lake-DAT go-PST.3 –n.who ~~go-MA-PST.3~~
'–Who went to the lake?' –'Nobody ~~didn't go~~.'

The next section looks at Kazakh-internal evidence that provides independent justification in favor of the Op¬ analysis put forth in (24).

[8]See Giannakidou 2006 for arguments how the ellipsis might still take place in sentences such as (26), and Zeijlstra 2012 and Zeijlstra 2013 for counter-arguments.

1.2.2 Op¬ is needed to account for the propositional disjunction ne...ne

This section focuses on the Kazakh disjunctive *ne...ne* 'either...or' constructions and how they bear on the position on the negative operator in Kazakh. *Ne...ne* can coordinate tensed propositions or non-propositional elements (e.g., two DPs). As the former will be instructive regarding the position of the sentential negation projection, the following discussion mostly centers around the propositional coordination constructions.

(27) provides an example of the Kazakh *ne...ne* coordinating two tensed propositions, "*Aisha danced*" (=*p*) and "*Ainur sang*" (=*q*). *Ne...ne* has a disjunctive interpretation, i.e., p ∨ q. Relevantly for the argumentation to follow, *ne...ne* does not express a conjunctive relation between the coordinands, that is, it cannot mean * p ∧ q.

(27) **Ne** Ajʃa bi bile-di **ne** Ajnur æn ajt-tɯ.
either Aisha dance dance-PST.3 **or** Ainur song say-PST.3
Only available: 'Aisha danced or Ainur sang.' **p ∨ q**
Not available: *'Aisha danced and Ainur sang.' * p ∧ q
Not available: *'Aisha didn't dance, nor did Ainur sing.' * ¬(p ∨ q)

Readers familiar with Turkish might find the meaning of (27) odd, as the corresponding Turkish sentence (28) with *ne...ne* expresses a quite different meaning than its Kazakh counterpart. The only available interpretation in Turkish is with the negation[9] scoping over the disjunction (Şener and İşsever 2003, Jeretič 2022), that is, ¬(p ∨ q), which is equivalent to ¬p ∧ ¬q (De Morgan's law). That is, when the Turkish *ne...ne* coordinates two propositions such as "*Deniz danced*" and "*Tunç sang*," the interpretation is that neither one of these happened, i.e., "*Deniz didn't dance* **and** *Tunç didn't sing.*" This is crucially

[9]Notice the absence of the negation suffix -*mA* on the verbal predicate, yet the clause is interpreted as negated.

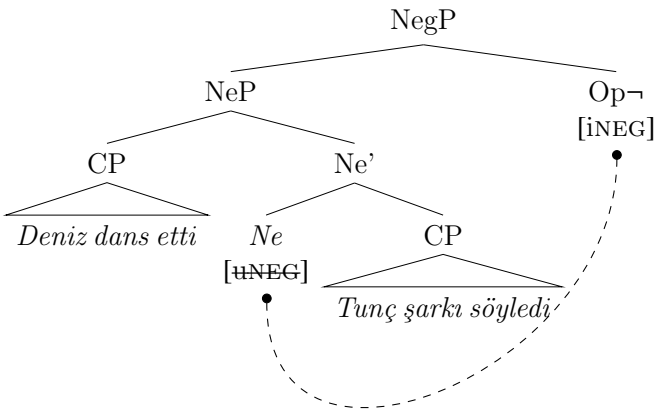
different from Kazakh, where there is no negation in the sentence, the interpretation of propositions coordinated with *ne...ne* is a simple disjunction, p ∨ q.[10] That is, when the Kazakh *ne...ne* coordinates two propositions such as "Aisha danced" and "*Ainur sang*," the interpretation is that one (and only one) of these happened, i.e., "*Aisha didn't dance* **or** *Ainur didn't sing*."

(28) **Ne** Deniz dans et-ti **ne** Tunç şarkı söyle-di.
neither Deniz dance do-PST.3 **nor** Tunç song say-PST.3
Only available: 'Deniz didn't dance, nor did Tunç sing.' **¬(p ∨ q)**

TURKISH (Jeretič 2022, ex. (21))

Jeretič (accepted) convincingly argues that the interpretation of the Turkish sentence in (28) can be accounted for if one assumes that *ne* is a NCI, and there is a phonologically zero negative operator scoping over the *ne*-coordination phrase, NeP. (29) offers the syntactic representation based on Jeretič's proposal.

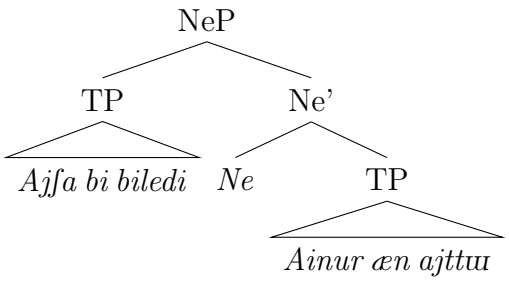
(29) Jeretič's proposal for Turkish propositional coordination



[10]For the same empirical observation about Kazakh and additional examples see Muhamedowa 2016: 66.

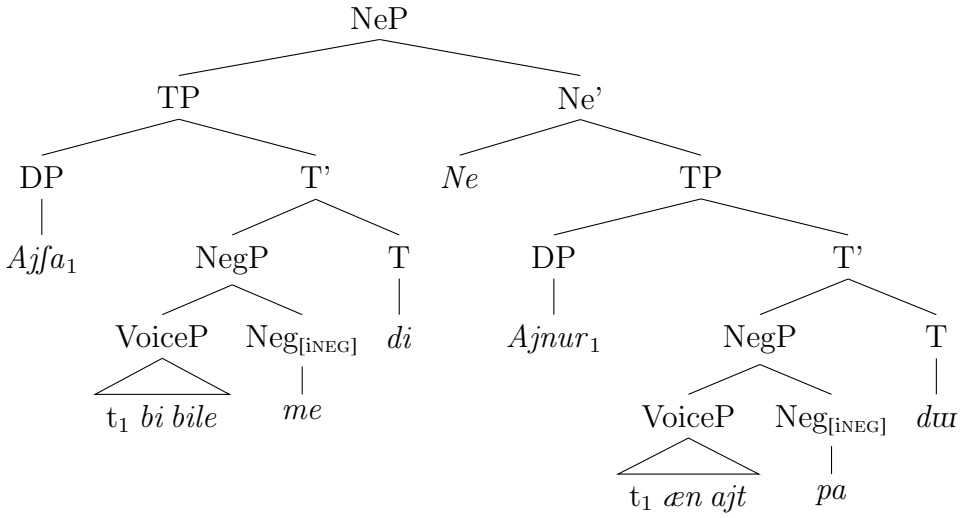
The difference between the Turkish and Kazakh construction is that the Kazakh does not have a sentential negative operator scoping over the NeP, shown in (30), and that Kazakh *ne* does not carry the [uNEG] feature, i.e., it is not an NCI. The difference in the category of the coordinated proposition (in Turkish it is CP, in Kazakh it is TP) is addressed below.

(30) Kazakh propositional coordination



The complication comes when we consider propositional coordinations with the negative suffix -*MA* on the verbal predicate. If the negative suffix is the locus of the sentential negation, the prediction is that Kazakh *ne...ne* sentences with the coordinand verbal predicates marked with -*MA*, such as (32), could *only* express the meaning ¬p ∨ ¬q. The syntactic representation of this prediction is given in (31).

(31) Structure assuming that -*MA* is the spell-out of sentential negation (to be dismissed)



However, this prediction is not borne out. While the interpretation ¬p ∨ ¬q is indeed available (see the (a) interpretation in (32)), there is another available meaning[11] for the Kazakh sentence in (32): ¬p ∧ ¬q. This latter interpretation would only be viable under the approach in (31) if *ne...ne* could also express the AND relation. However this is not the case: the *ne...ne* sentence in (27) does not express the AND relation between the propositional coordinands (cf. the absence of p ∧ q interpretation in (27)).

(32) **Ne** Ajʃa bi bile-**me**-di **ne** Ajnur æn ajt-**pa**-dɯ.
either Aisha dance dance-**MA**-PST.3 **or** Ainur song say-**MA**-PST.3
(a) 'Aisha didn't dance or Ainur didn't sing.' **¬p ∨ ¬q**
(b) 'Neither did Aisha dance nor did Ainur sing.' **¬p ∧ ¬q**

Thus, the approach that treats the negation suffix -*MA* as sentential negation cannot explain the (b) interpretation of (32). So how can we account for (b)? First off, the inter-

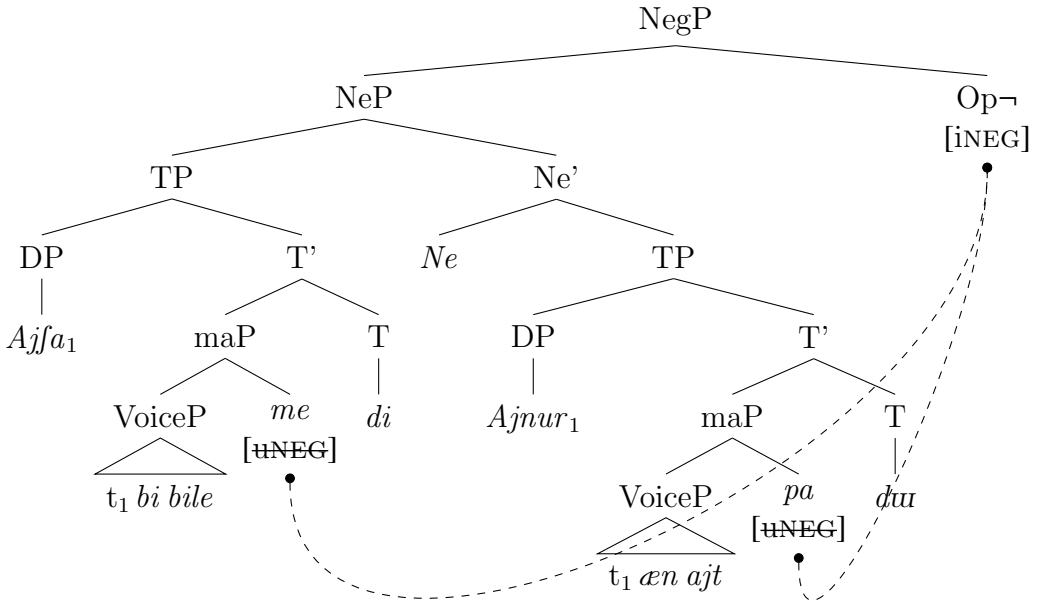
[11]My consultant notes that the (b) interpretation is much more readily available than the one in (a).

pretation given in (b), ¬p ∧ ¬q, is equivalent to the negation of the disjunction of *p* and *q*, i.e., ¬(p ∨ q), as shown in (33).

(33) ¬p ∧ ¬q ⇔ ¬(p ∨ q)

As we know that *ne...ne* is a disjunction, the (p ∨ q) part of "¬(p ∨ q)" can be attributed to the OR relation expressed by *ne*. The question is where the negative operator comes from. Similarly to Jeretič's proposal to Turkish (and in line with Zeijlstra's (2004, 2008, 2012) ideas about the location of sentential negation), I suggest that there is a phonologically zero Op¬ over the NeP. This representation is shown in (34). The only remaining question is where the -*MA* suffix on the verbal predicates (*bi bile*-**me**-*di* 'dance dance-**MA**-PST.3', *æn ajt*-**pa**-*dɯ* 'song say-MA-PST.3' in (32)) originates from. Under this approach, -*MA* bears uninterpretable negative features, i.e., it is an NCI, and its uninterpretable feature gets valued by entering into an Agree relation with the sentential negation operator Op¬.

(34) Representation of the interpretation ¬(p ∨ q) of (32)



Thus, this approach successfully accounts for the presence of the -*MA* negative suffix on the coordinated predicates and for the (b) interpretation in (32). The only remaining issue is to explain the (a) interpretation, which is offered in (35). Here, *ne...ne* coordinates two NegP, that is, Op¬ scopes below the disjunction. The suffix -*MA* is yet again an NCI, which gets licensed by the c-commanding Op¬.[12]

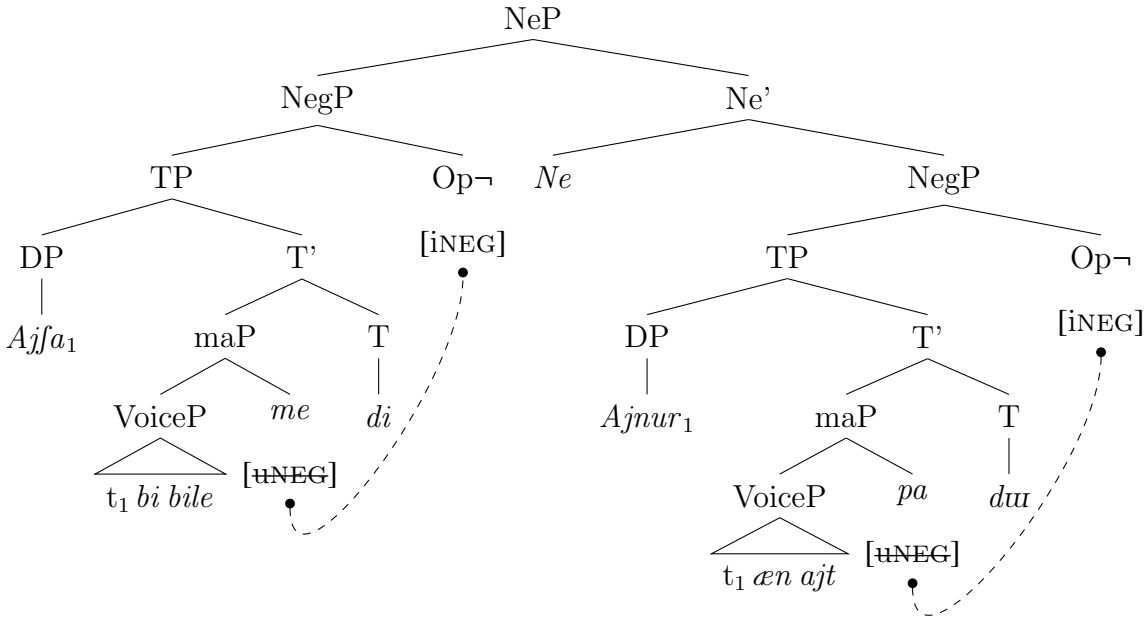
[12]I am assuming that the coordinated clauses are of the category TP, not CP (like Jeretič assumes for Turkish). In Kazakh, the Op¬ over NeP can license object NCIs; one such example is given in (i), where Op¬ can license *eʃ nærse* 'n-thing' in the object position. As I show in this section, Negative Concord is an Agree operation that abides by the Weak Phase Impenetrability Condition (Chomsky 2001). If the coordinated clauses were CPs, the Agree relation would need to be established across two strong phase heads, C and Voice for Op¬ to license the NCI object. The Weak PIC does not allow this. As (i) is grammatical, I assume that the coordinated clauses are TPs, and so there is only one strong phase head between Op¬ and *eʃ nærse*, a configuration that allows Agree to be established.

(i) Ne [$_{TP}$Ajʃa [$_{VoiceP}$**eʃ nærse** ʒe]-me-di] ne [$_{TP}$Ajnur [$_{VoiceP}$**eʃ nærse** iʃ]-pe-di].
either [$_{TP}$Aisha [$_{VoiceP}$**n thing** eat]-NCI-PST.3] or [$_{TP}$Ainur [$_{VoiceP}$**n thing** drink]-NCI-PST.3]
(a) 'Either Aisha didn't eat anything or Ainur didn't drink anything.'
(b) 'Neither did Aisha eat anything nor did Ainur drink anything.'

I also note that the corresponding Turkish sentence with an NCI object is disallowed, further strengthening the claim that there is a distinction between the coordinated phrasal categories between Kazakh and Turkish.

(ii) *Ne [$_{CP}$Deniz [$_{VoiceP}$**hiçbir şey** ye]-di] ne [$_{CP}$Tunç [$_{VoiceP}$**hiçbir şey** iç]-ti].
neither [$_{CP}$Deniz [$_{VoiceP}$**n thing** eat]-NCI-PST.3] nor [$_{CP}$Tunç [$_{VoiceP}$**n thing** drink]-NCI-PST.3]
Intended: 'Neither did Deniz eat anything nor did Tunç drink anything.'
TURKISH, Burak Öney, pc.

(35) Representation of the interpretation ¬p ∨ ¬q of (32)



This section showed that taking the suffixal negation as the locus of sentential negation leads to incorrect predictions with respect to the interpretation of propositional disjunctions (the Turkish and the Kazakh data are summarized in (36)). In contrast, analyzing the *-MA* suffix as an NCI and the sentential negation to originate from an Op¬ above TP can correctly account for both of the possible interpretations of the propositional disjunction in (32). This analysis is exactly what Zeijlstra 2004, 2008, 2012 proposes for "Strict" NC languages, such as Kazakh, and I am going to use this approach in my account of the Kazakh NC and NCI licensing below.

(36) Summary of the Turkish and Kazakh *ne...ne* data

	ne [XP VP] ne [XP VP]	**ne [XP VP-/ma/] ne [XP VP-/ma/]**
Turkish	$\neg(p \vee q)$	$\neg(\neg p \vee \neg q)$
Kazakh	$p \vee q$	1. $\neg p \vee \neg q$ 2. $\neg(p \vee q)$ (not predicted if /MA/ is Op¬)

1.2.3 Strong or Weak PIC?

If Negative Concord is an Agree operation, it is predicted to obey the same locality constraints as other Agree operations. This section offers evidence that this is true for Kazakh NC (for similar conclusions with somewhat different argumentation see Kayabaşı and Özgen 2018[13] with respect to the related language Turkish).

I adopt the idea that the bottom-up syntactic derivation proceeds in a cyclic fashion (Chomsky 2000, 2001, 2005, 2008, Uriagereka 1999, 2012, Fox and Pesetsky 2005, Svenonius 2004). Following a large body of linguistic literature, I consider derivational cycles as dynamic search spaces defined in terms of phases (for a general overview see Chomsky 2000, 2001, 2005, 2008, McGinnis and N. Richards 2005, Gallego 2010, Citko 2014). Locality effects on Agree can thus be attributed to domain constraints as defined by phases. The exact nature of accessible locality domains has been a heavily studied area of research both empirically and theoretically (Chomsky 2000, 2001, Müller 2004, M. D. Richards 2004, 2011). Broadly speaking, there are two proposals to define accessible domains, known as the Strong and Weak Phase Impenetrability Condition (henceforth, PIC). These are given in (37a) and (37b).

(37) a. **Strong version of the Phase Impenetrability Condition** (Chomsky 2000)
In phase α with head H, the domain of H is not accessible to operations outside of α; only H and its edge are accessible to such operations.

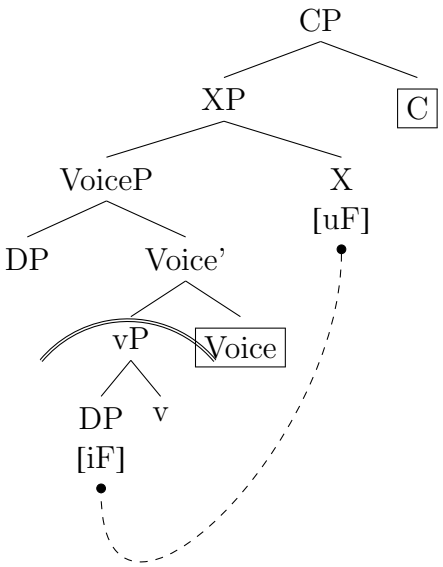
b. **Weak version of the Phase Impenetrability Condition** (Chomsky 2001)
In phase α with head H, the domain of H is accessible to operations outside of α only until the next (strong) phase head is merged.

[13]Note that Kayabaşı and Özgen (2018) call the investigated phenomenon "NPI licensing," but it would be better characterized as NCI licensing, cf. Jeretič 2022.

The Strong and Weak PIC make different predictions in configurations where there is one phase head between the probe and the goal. One such configuration is given in (38), where the probe is on the X head and the goal is on the object DP inside the vP. There is one strong phase head between X and the object DP, Voice. According to the Strong version of PIC, the object DP inside the vP is not accessible to the probe on the head X, because there is an intervening strong phase head, Voice. Under the Strong PIC, only the Voice head and the Spec,Voice position are accessible for the probe on X. The Weak PIC, on the other hand, makes different predictions: this locality constraint allows X to access the object DP inside the vP, as the complement of Voice remains accessible for outside probes until the next strong phase head (e.g., C) is merged. That is, Agree can be established in (38) according to the Weak PIC but not according to the Strong PIC.[14]

[14]The Strong PIC makes incorrect predictions with respect to raising out of infinitival clauses in English, e.g., in the sentence "[$_{\text{TP}}$ Aisha$_1$ [$_{\text{vP}}$ seems [$_{\text{TP}}$ t_1 to enjoy music]]]." This lead Chomsky (2000) to distinguish two types of phase heads: weak and strong phase heads. Under this approach, the v head of the vP *seem* would be considered a "weak head." Subsequent research established that v (or in more recent terminology: Voice) heads cannot be considered "weak," and the weak–strong phase head distinction is not warranted (Legate 2003). Consequently, the Weak PIC provides a more adequate definition of locality domains for English.

(38) A configuration where Strong and Weak PIC make different predictions



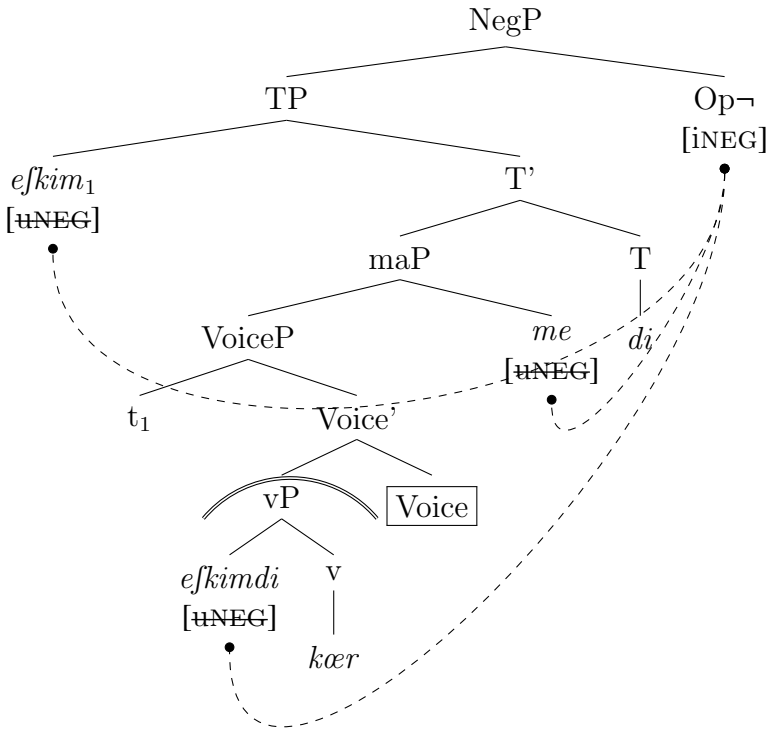
This in sight, consider sentence (39), where there are several NCIs, the relevant for us is the NCI in the object position, *eʃkim-di* 'n.who-ACC'. If Negative Concord is an Agree operation, it is expected to obey one version of the PIC. The question is, which version of the PIC does NC abide by in Kazakh.

(39) [Op¬ [**Eʃkim eʃkim-di** kœr-**me**-di]].
[NEG [**n.who n.who-ACC** see-**MA**-PST.3]]
'Nobody saw anybody.'

Following Zeijlstra (2004, 2008, 2012), I take the Neg head to be above TP but below CP. That is, there is only one intervening phase, namely Voice, head between Neg and the object NCI, shown in (40). This is the exact configuration where Strong and Weak PIC make different predictions. The Strong PIC predicts that the NCI cannot be licensed in the object position, as only the Voice head and the Spec,Voice position are accessible to the Neg head under this approach. In contrast, the Weak PIC allows Agree to be established

between the object NCI and Neg, as the domain of Voice is available in the derivation until the next strong phase head, C, is merged. As demonstrated by the grammatical sentence in (39), the object NCI can be licensed in this configuration. Thus, the predictions made by the Weak PIC are the accurate ones.

(40) Representation of (39)

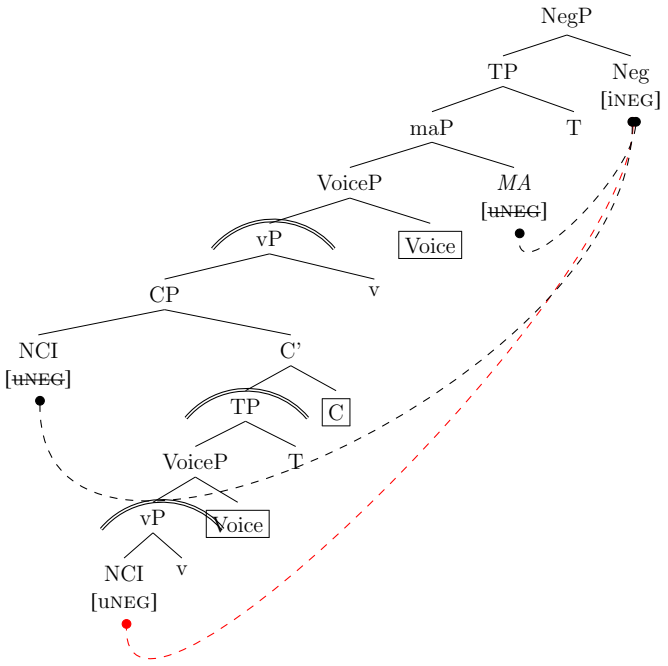


The Strong PIC incorrectly predicts that the object NCI *eʃkim-di* in (39) cannot be licensed. However, the Weak PIC makes the accurate prediction that Agree can be established between the object NCI and Neg in the configuration in (40). For this reason, I will take the Weak PIC as the correct locality generalization about Kazakh Negative Concord.

1.2.4 Some predictions by the Weak PIC

Turning to embedded clauses, the Weak PIC predicts that matrix clause-internal negation could only license NCIs in the Spec,CP position, but not below C. This is shown in (41). According to the Weak PIC, the complement of the embedded C becomes unavailable to outside probes once the next strong phase head merges. This strong phase head is the Voice head of the matrix predicate. Consequently, matrix negation is not predicted be able to license NCIs in embedded object position.

(41) Predicted NCI licensing in embedded clauses with matrix negation



(42a) demonstrates that this prediction is borne out. Negation in the matrix clause 'Aisha didn't know...' cannot license an NCI in the embedded clause's object position. Compare the ungrammatical (42a) with the well-formed (42b), where there is no NCI in the embedded clause.

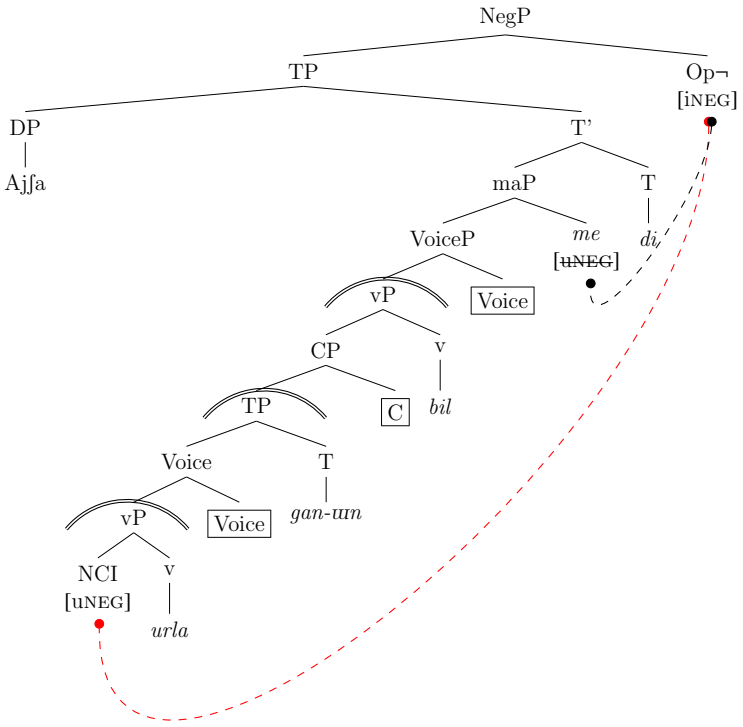
(42) a. *Op¬ Ajʃa [bala-lar-dɯŋ **eʃ nærse-ni** urla-gan-ɯn] bil-me-di.
NEG Aisha [child-PL.GEN **n thing-ACC** steal-PRF-3]ACC know-MA-PST.3
Intended: 'Aisha didn't know [that the children stole anything].'

b. Op¬ Ajʃa [bala-lar-dɯŋ **bir nærse-ni** urla-gan-ɯn] bil-me-di.
NEG Aisha [child-PL.GEN **one thing-ACC** steal-PRF-3]ACC know-MA-PST.3
'Aisha didn't know [that the children stole something].'

The reason for the ungrammaticality in (42a) is that the domain of the embedded CP (i.e., TP) is not accessible to outside probes once the matrix predicate's Voice projection is merged, shown in (43).[15] As Neg is outside of VoiceP, it cannot access the domain of CP. The object NCI thus cannot be licensed.

[15]Note that this representation does not include the embedded clause subject. I turn to the question of embedded subjects in the following subsection.

(43) Representation of (42a)



Based on these data, I conclude that the Weak PIC is the correct locality domain generalization for Negative Concord in Kazakh. The following chapters investigate the position of the embedded clause subjects relying on NCI licensing by matrix and embedded clause-internal negation.

CHAPTER 2

EXTENDING THE MAPPING HYPOTHESIS
THE NOMINATIVE-GENITIVE ALTERNATION IN NOMINALIZED COMPLEMENT CLAUSES

2.1 Introduction

This chapter investigates the subject case alternation in Kazakh nominalized complement clauses. In (44), the subject of the embedded nominalized clause is the *Queen*, which can bear either the nominative or the genitive case.[1]

(44) a. Ajʃa [patʃajɯm- $\boxed{\text{Ø}}$ keʃe Almatɯ-ga bar-gan-ɯn] ajt-tɯ.
Aisha [queen- **NOM** yesterday Almaty-DAT go-PRF-3]ACC say-PST.3
'Aisha said [that the Queen went to Almaty yesterday].'

b. Ajʃa [patʃajɯm- $\boxed{\text{nɯŋ}}$ keʃe Almatɯ-ga bar-gan-ɯn] ajt-tɯ.
Aisha [queen- **GEN** yesterday Almaty-DAT go-PRF-3]ACC say-PST.3
'Aisha said [that the Queen went to Almaty yesterday].'

This subject case alternation poses a serious challenge for linguistic accounts on the structure of clausal nominalizations, syntactic dependencies and Case Theory. According to the widely accepted view, nominalized clauses, indicated in square brackets in (44), have a verbal core (TP or CP) and nominal outer layer (DP) (Borsley and Kornfilt 1999, Kornfilt and Whitman 2011, Baker 2011, Asarina 2011, Gribanova 2018, Pietraszko 2019, Bondarenko and Davis 2021, inter alia). It is clear that the genitive subject case originates from the

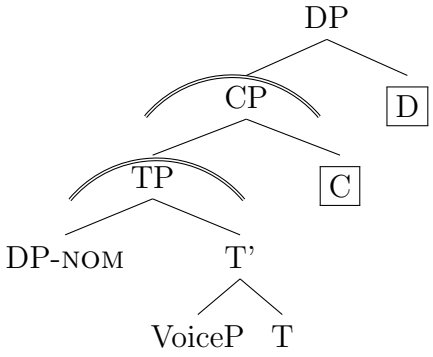
[1]The nominative is realized by a phonologically zero form. The exponent of the genitive is /NIŋ/, its phonologically determined allomorphs are *-niŋ*, *-nɯŋ*, *-diŋ*, *-dɯŋ*, *-tiŋ*, *-tɯŋ*.

outer D head (Marantz 1991, Miyagawa 2011, Baker and Vinokurova 2010). Given well-established analyses of locality domains and case assignment (Chomsky 2000, Chomsky 2001, Baker 2015), for the nominative to surface under a DP-shell, there needs to be at least one intervening phase head between D and the embedded subject. (45a) shows that this is attainable if we assume that the D head embeds a CP (assuming that the C is phasal head). Under this analysis, it is unclear how to derive the genitive case.

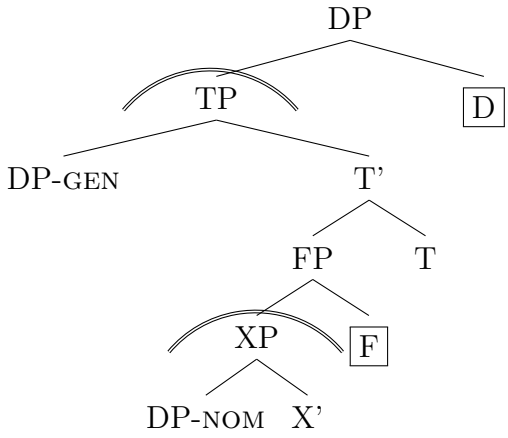
Alternatively, one could assume that the D head embeds a TP with the genitive subject in the Spec,TP position and when the subject is nominative, it remains low below a mysterious F phase head between TP and VoiceP, as shown in (45b). This proposal poses several empirical and theoretical challenges: there is no independent evidence that the F head is part of the nominalized clause's representation (e.g., there is no exponent that spells out F), at the same time, its theoretical status is dubious, as the inventory of phase heads is assumed to be a small set of functional heads (Voice, C, D) that are the loci of uninterpretable features (Chomsky 2000, 2001, 2005, 2008, McGinnis and N. Richards 2005, Gallego 2010, Citko 2014). Thus, it is unclear if the F head even exists, and if it does, what its status would be within the syntactic theory.

(45)

a.



b.



Alternatively, one could try to brush the case alternation aside, claiming that an optional PF-deletion targets the genitive case. This approach predicts that genitive and nominative subjects induce the same inferences, as the deletion of the genitive occurs on the PF-branch. (46) and (47) show that this is not borne out. (46a) contains a matrix predicate, *believe*, which gives rise to the inference that the negation takes scope from the embedded predicate, shown in (46b). That is, (46a) entails (46b). This phenomenon is known as NEG-raising (Gajewski 2005, Collins and Postal 2014, Zeijlstra 2018). Notice that the embedded subjects are genitive in both (46a) and (46b).

(46) a. Ajʃa [eʃkim-niŋ saguz urla-gan-un]-a sen-**be**-j koj-du.
Aisha [**n.who-GEN** chewing.gum steal-PRF-3]-DAT believe-**MA**-y/A AUX-PST.3
'Aisha didn't believe that anybody (of a group) stole a chewing gum.'

b. ⇒ Ajʃa [eʃkim-niŋ saguz urla-**ma**-gan-un]-a sen-di.
Aisha [**n.who-GEN** chewing.gum steal-**MA**-PRF-3]-DAT believe-PST.3
'Aisha believed that nobody (of a group) stole a chewing gum.'

If the genitive is deleted at PF, it is predicted that the entailment relation in (46) is maintained if the first sentence contains a genitive embedded subject and the second a nominative. As shown in (47), this is not borne out. When the subjects' case marking is different, the entailment relation does not hold between (47a) and (47b). That is, the PF-deletion approach cannot be maintained.

(47) a. Ajʃa [eʃkim-niŋ sagɯz urla-gan-ɯn]-a sen-**be**-j koj-dɯ.
Aisha [**n.who-GEN** chewing.gum steal-PRF-3]-DAT believe-**MA**-y/A AUX-PST.3
'Aisha didn't believe that anybody (of a group) stole a chewing gum.'

b. ⇏ Ajʃa [eʃkim-Ø sagɯz urla-**ma**-gan-ɯn]-a sen-di.
Aisha [**n.who-NOM** chewing.gum steal-**MA**-PRF-3]-DAT believe-PST.3
'Aisha believed that nobody stole a chewing gum.'

This indicates that there is a structural configuration underlying the nominative–genitive alternation. This chapter investigates the syntactic underpinnings of the case assignment in Kazakh nominalized embedded clauses. Based on Negative Concord Item licensing facts in §2.2, I show that genitive subjects are at the embedded clause edge position, whereas nominative subjects are situated in the lower Spec,TP (for similar claims about other Turkic languages see Gribanova 2013, Bondarenko and Davis 2021). §2.3 argues that the subject movement to the clause edge is *not* A-movement, as the genitive subjects can reconstruct back for NCI and *wh*-licensing, which, as I show, is disallowed for A-moved noun phrases. §2.4 presents novel evidence that the distinction that underlies the nominative–genitive alternation is anaphoric definiteness (Schwarz 2009, Jenks 2015, 2018). Genitive subjects are always interpreted anaphorically, whereas nominatives are unique definite descriptions. I argue that the movement to the clause edge is motivated by the referential index in the syntactic representation of anaphoric definite noun phrases. The implications for Case Theory

are discussed in §2.4.2.4: genitive in this configuration is analyzed as a lexical case.

2.2 NCI licensing and the position of the embedded subject

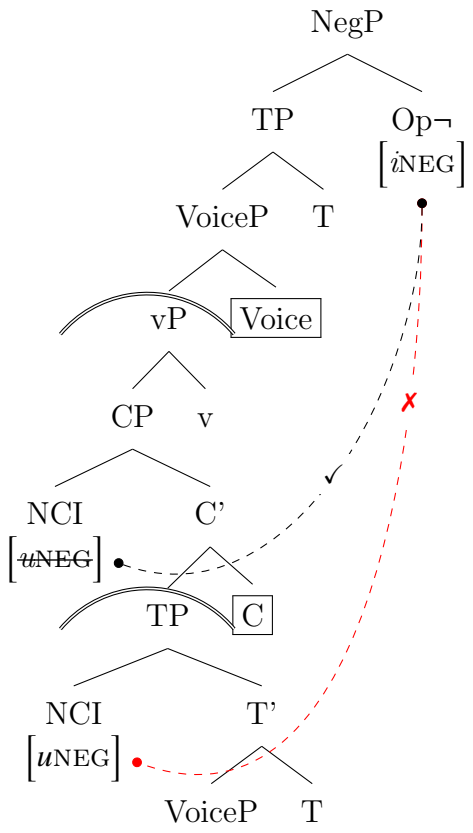
The goal of this section is to investigate where the nominative and the genitive embedded clause subjects are located. I utilize Negative Concord Item licensing data under embedded clause-external and internal negation to identify the position of the genitive and nominative-marked NCI subject. Recall that §1.2 argued for the following properties of Kazakh NCI licensing: (i) Negative Concord is an Agree operation; (ii) Negative Concord adheres to the weak PIC; (iii) a phonologically covert Negative Operator located above the TP bears the interpretable negation feature. The NCI-licensing data in nominalized clauses suggest that genitive subjects are at the embedded clause edge position, while nominative subjects are lower in the structure.

2.2.1 NCI licensing by matrix negation

The Weak PIC predicts that matrix negation can only license an NCI if it is at the edge of the embedded clause, but not in a lower position because the complement of the clausal head is opaque for operations initiated from a position above matrix Voice. This is shown in (48). Thus, the Weak PIC predicts that matrix negation can license a subject NCI at the clause edge,[2] but not in Spec,TP or in any lower position.

[2]I address the question of nominalization below. For now, I only represent Kazakh embedded clauses as CPs.

(48) Predicted NCI licensing patterns under matrix negation



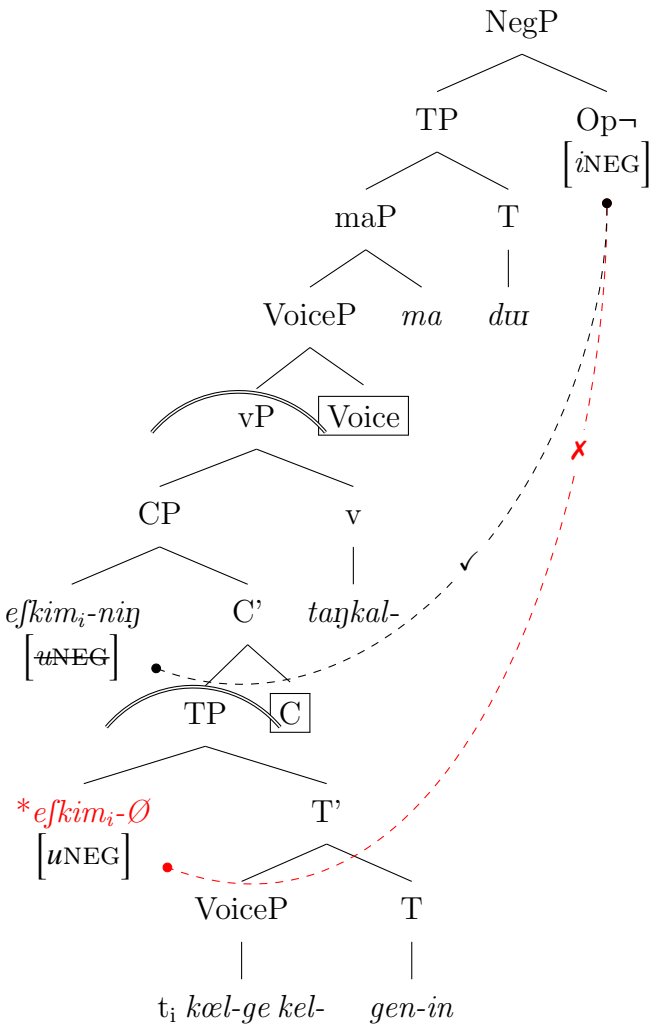
The first empirical observation is that the matrix negation can only license genitive subject NCIs but not nominative ones. In (49a) and (49b), the matrix clause contains sentential negation, there is no negation in the embedded clause. (49a) shows that the nominative NCI subject renders the sentence ungrammatical, while no such problem arises with the genitive NCI subject in (49b). The contrast in acceptability between (49a) and (49b) strongly implies that the genitive and the nominative subjects are in different syntactic positions.

(49) a. ***Op¬** Ajʃa [eʃkim-Ø kœl-ge kel-gen-in]-e taŋkal-ma-dɯ.
NEG Aisha [n.who-NOM lake-DAT come-PRF-3]-DAT be.surprised-MA-PST.3
Intended: 'Aisha wasn't surprised [that someone came to the lake].'

b. **Op¬** Ajʃa [eʃkim-niŋ kœl-ge kel-gen-in]-e taŋkal-ma-dɯ.
NEG Aisha [n.who-GEN lake-DAT come-PRF-3]-DAT be.surprised-MA-PST.3
'Aisha wasn't surprised [that someone (of a group) came to the lake].'

Given the predictions by the Weak PIC, the only way to account for the grammaticality of the genitive NCI subject is if we assume that it is at the embedded clause edge position, as this is the only position where the matrix clause sentential negation can license an embedded clause-internal NCI. This is shown in (50). (50) also represents why the nominative NCI subject is not acceptable in this configuration: the reason is that it is lower in the structure, situated in a domain that is opaque for probes above the matrix Voice head. I assume that the nominative NCI is the canonical subject position, i.e., in Spec,TP.

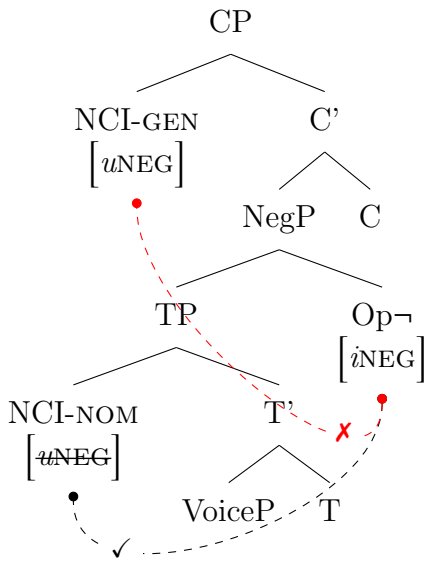
(50) Representation of (49a) and (49b)



2.2.2 Embedded clause-internal NCI licensing

If (50) is on the right track, the prediction is that embedded clause-internal negation would display the inverse pattern: only nominative NCIs are expected to be licensed, but not genitive ones. This is shown in (51). If the genitive subject is at the clause edge position, it is not expected to be licensed by Op¬, because it is not within the scope of the negative operator. In contrast, the nominative NCI is predicted to be available under embedded clasue-internal negation.

(51) Predictions for embedded clause-internal negation



These predictions are only partially borne out, as embedded clause-internal negation can license both nominative and genitive subject NCIs. The embedded clause-internal negation can license the nominative subject NCI *eʃkim* 'n-who' in (52a) and the the genitive subject NCI *eʃkim-niŋ* 'n.who-GEN' in (52b).

(52) a. Ajʃa [**Op¬** eʃkim-Ø kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [**NEG** n.who-NOM lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
'Aisha was surprised [that nobody went to the lake].'

b. Ajʃa [eʃkim-niŋ **Op¬** kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [n.who-GEN **NEG** lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
'Aisha was surprised [that nobody (of a group) went to the lake].'

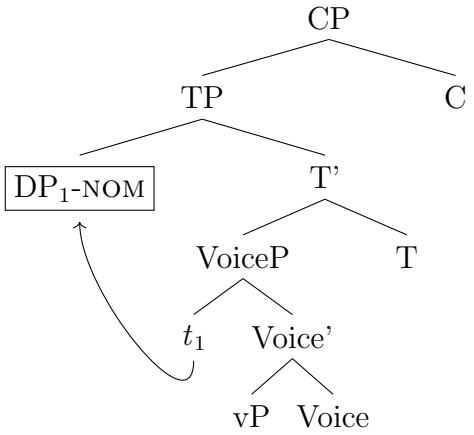
This confirms that the nominative subject is in Spec,TP, but leaves some questions relating to the genitive subject's position. These issues will be resolved in §2.3.2.2, where

I argue that the genitive subject can reconstruct for NCI licensing. That is, the reason why clause-internal negation can license genitive NCIs is that the NCI reconstructs back to Spec,TP, where it is under the scope of Op¬, therefore the NCI can get licensed.

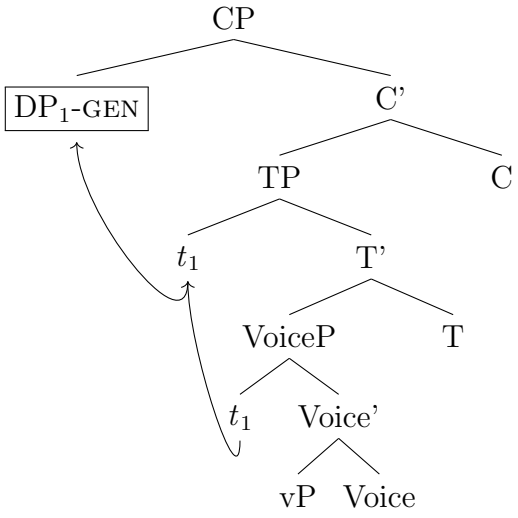
2.2.3 Interim summary

This section examined NCI licensing in the embedded clause subject position to determine where the nominative and genitive subjects are located. The emerging picture is that genitive is at the clause edge (matrix negation can license NCI-GEN), shown in (54), whereas nominative is lower in the structure (matrix negation cannot license NCI-NOM, clause-internal negation can), as represented in (53).

(53) Position of the nominative subject in the embedded clause (to be revised)



(54) Position of the genitive subject in the embedded clause (to be revised)



2.3 The movement to the clause edge is not triggered by ϕ-features

The trees in (53) and (54) do not yet include an important detail: the nominalizing head. It has long been observed that the investigated complement clauses have nominal properties, the most salient of these is that the complement clause predicate bears case marking and it may assign genitive to its subject. First, we need to revise the proposed structures in (53) and (54) so that they can account for the nominal complement clause properties, including the availability of the genitive case. This section investigates the question of how we can account for the two available positions for the subject DP and the associated differential case assignment. This question can be broken down into two interrelated issues: (1) movement, and (2) genitive case assignment.

2.3.1 The issue with D

The idea that clauses can be nominalized goes back to the advent of generative linguistics (Lees 1965, Rosenbaum 1965). But despite being an old idea, clausal nominalizations present some major challenges to linguistic theory. This section first offers a short overview of theories relating to clausal nominalizations, then it explicates how the Kazakh nominative-genitive subject case alternation poses a challenge to standard assumptions about nominalizations.

Kazakh complement clauses display characteristics typically associated with verbal *and* nominal categories. The following (55) and (56) offers a non-comprehensive list of the nominalized embedded clauses' verbal and nominal properties.

(55) Verbal properties: The embedded clause...
- accepts VP-level adverbs;
- accepts negation;
- allows accusative marking on the direct object of the embedded predicate;
- allows independent tense modification.

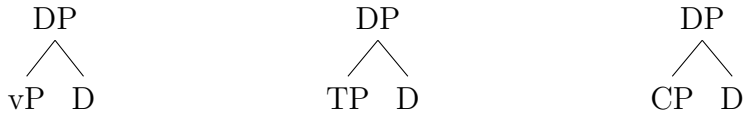
(56) Nominal properties: The embedded clause...
- appears in argument position;
- bears case marking;
- can have a subject in the genitive;
- exhibits nominal subject agreement marker.

By exhibiting "mixed" nominal and verbal properties, this type of clauses poses a challenge to the idea that categories such as "verb" and "noun" are discrete, and there are no

"intermediate" categories that are half-verbs and half-nouns (Baker 2003, 2011). To counter this challenge, an influential body of literature proposes that verbal properties are contributed by verbal projections, which constitute the "verbal core" of the embedded clause, and nominal properties are supplied by nominal projections that are added on top of the verbal core (Borsley and Kornfilt 1999, Kornfilt and Whitman 2011, Baker 2011, and subsequent work).

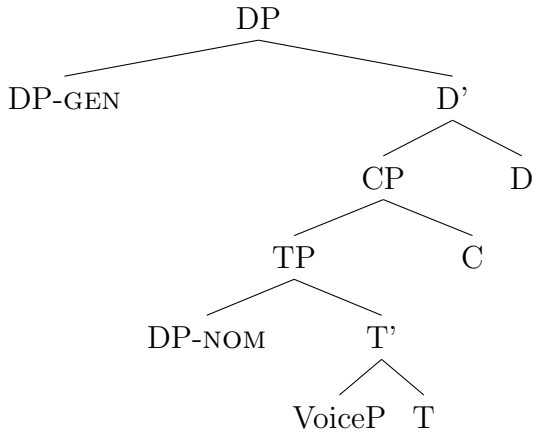
Kornfilt and Whitman (2011) provide a typology of nominalizations where a single nominal projection or several nominal projections may contain a verbal core of different sizes, such as vP, TP or CP. Crucially, following Borsley and Kornfilt (1999), Kornfilt and Whitman (2011) allow the verbal core to be directly followed by the nominal functional projection D, shown in (57). Such "direct DP-shells" are disallowed under theories usually formulated within the $\bar{X}$-theory framework (see Grimshaw 1991, Grimshaw 2000 building on Jackendoff 1977, Chomsky 1986, Fukui 1986), as under these theories nominal functional projections, such as D, can only be projected over a *lexical* category, i.e., NP (or nP). Influentially, Borsley and Kornfilt (1999) argue that direct DP-shells or, in other words, "mixed extended projections" of the sort shown in (57) do exist, where the functional projection D can directly follow non-nominal categories, such as vP, TP or CP. Borsley and Kornfilt's direct DP-shell proposal has since proven to be desirable both theoretically and empirically by a large number of studies (Roussou 1991, Adger and Quer 2001, Takahashi 2010, Hartman 2012, Kastner 2015, Bogal-Allbritten and Moulton 2018, Pietraszko 2019, among many others).

(57) Direct DP-shell as proposed by Borsley and Kornfilt (1999) and Kornfilt and Whitman (2011)



Given this backdrop, it stands to reason to analyze Kazakh complement clauses as a direct DP-shell over CP (or TP)[3]. This approach is motivated by the absence of an associated lexical noun that could project nominal functional projections.[4] (58) shows the hypothesized position of the genitive and nominative complement clause subjects under the direct DP-shell analysis. The genitive subject would need to be at the clause edge, that is, in Spec,DP to be in the domain of matrix operators (e.g., Op¬). In contrast, the nominative subject would be in a lower position, such as Spec,TP, in a domain that is not accessible to matrix operators.

(58) Potential structure of the Kazakh complement clause (to be revised)

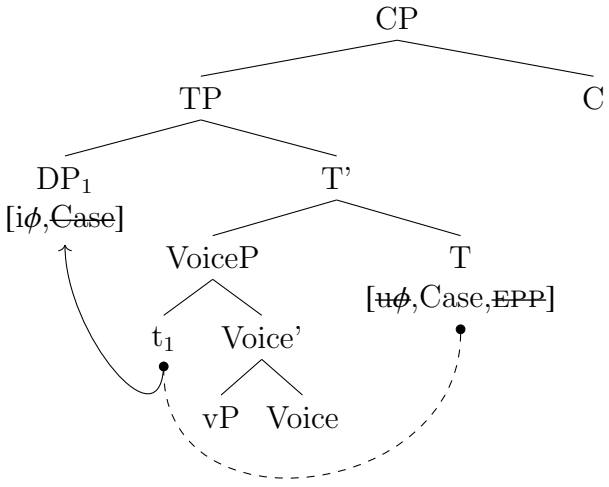


[3]This work does not argue explicitly against the TP-labeling, but several of the ideas put forth below are only compatible with an approach that takes the complement clause to be a CP. For instance, such complement clauses can host *wh*-questions (with embedded scope) or topics, both of which are licensed by a C-head. If the embedded clause is a TP, it is unclear how *wh*-questions and topics can be licensed.

[4]Note that there are some approaches that posit a lexical noun in the complement clause, most notably Aygen 2002a, Aygen 2002b and Asarina 2011.

Let us start the discussion with how a standard Minimalist analysis (in the sense of Chomsky 2000, 2001) would model the availability of the two subject positions and the differential subject marking in these positions. The T head bears uninterpretable ϕ-features and the EPP feature.[5] Because it needs to value its uninterpretable ϕ-features for the derivation to converge, T probes down, and finds the highest available DP, carrying uninterpretable features. In (59) this is the external argument in Spec,VoiceP carrying uninterpretable abstract Case features.[6] T establishes Agree with the DP in Spec,VoiceP, and the uninterpretable features get valued. Crucially, the uninterpretable features are deleted from the narrow syntax[7] in the course of feature valuation, as uninterpretable features would be indistinguishable from interpretable features at LF, causing the the derivation to crash.

(59) Possible derivation of a nominalized complement clause, step-1



[5]Note that there is no overt agreement morphology marked on the T head, instead morphological agreement is marked on the nominalizing clausal head. One could assume, for instance, that in this configuration the (valued) ϕ-features on T are impoverished at PF. Crucially, it is not viable, within this framework, to argue that T only bears EPP features but no uninterpretable ϕ-features, because then it could not license the subject DP, which would remain active and would need to move to the Spec,DP position to get licensed. In this configuration the only available morphological case marker would be the genitive, thus nominative could never surface, contrary to fact.

[6]I am assuming that noun phrase licensing is carried out via abstract Case features. The morphological case can be determined either under Agree (Chomsky 2000, 2001) or by an independent case assigning mechanism such as Dependent Case Theory (Marantz 1991, Baker 2015), or by a hybrid model (Baker and Vinokurova 2010, Baker 2015).

[7]These features are argued to remain visible on the PF branch.

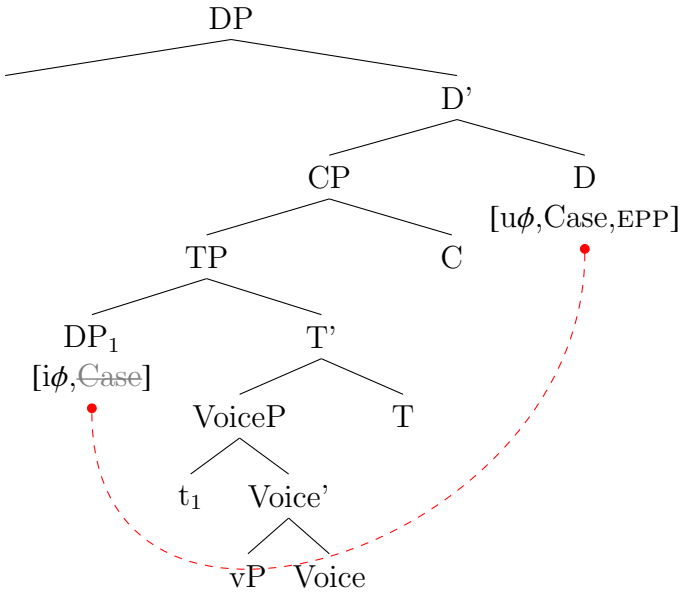
As the next step, the D head is merged, shown in (60). A plausible assumption under this fictitious Minimalist derivation is that the D head bears uninterpretable [uϕ] and EPP features, and can assign genitive to a DP (either under Agree or as unmarked morphological case). The assumption that D bears uninterpretable ϕ-features seems an appealing one given that the agreement suffix is overtly marked on the D head.

(60) demonstrates that this derivation cannot converge, as the probe on D cannot find an active goal to establish Agree relation with and to value its uninterpretable ϕ-features. The DP in Spec,TP position is not an active goal, as it does not have any unvalued uninterpretable features, because its Case features were valued by the T head at an earlier stage of the derivation.

Alternatively, the Agree between the subject in Spec,TP and the D head can be ruled out based on locality. For instance, one could assume that the Activity Condition can be subject to parametric variation (Baker 2008: Ch.5). That is, in some languages DPs with valued Case may enter into Agree relationship with probes in the same locality domain. Even if this is the case in this configuration, the D head can never establish Agree with the subject in Spec,TP because they are not in the same locality domain (according to either the Weak or the Strong PIC). That is, in this configuration the subject could never move to the edge of the embedded domain. Consequently, the uninterpretable ϕ-features on D cannot be valued and deleted, which causes the derivation to crash, the subject cannot move to the clause edge position and it cannot get genitive case. This is not a desirable outcome.[8]

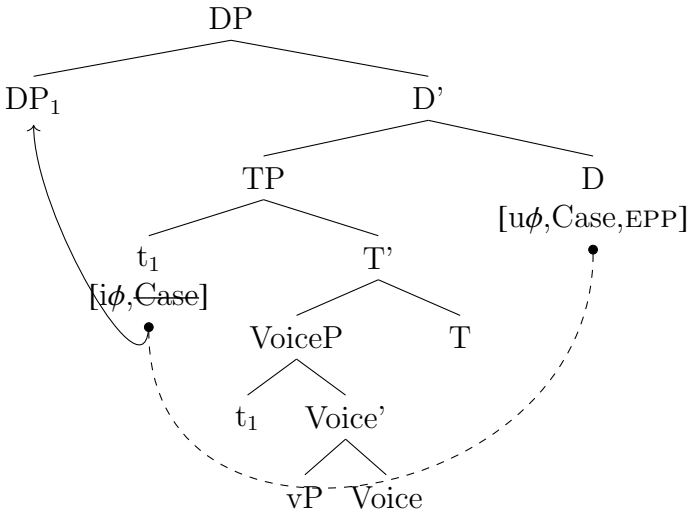
[8]In an influential analysis, Baker and Vinokurova 2010 argues that nominative and genitive (subject) cases are assigned under Agree in Sakha, a related Turkic language. That is, they claim that the genitive subject case is assigned via Agree by D. Importantly, the Sakha are Kazakh empirical data appear to be different in significant respects. In Sakha, nominative does not seem to be allowed in complement clauses (unless the subject is incorporated into the verb). As nominative does not surface in Sakha, the problems laid out in this section do not arise. Given these differences, I presume that the syntactic structures of the Kazakh and Sakha complement clauses are not identical: Sakha either does not have a T head (a position taken in Baker and Vinokurova (2010) and Baker 2011), or it does have a T head but a defective one, which does not bear [iϕ]-features. In contrast, complement clauses in Kazakh do have a T head bearing [iϕ]-features.

(60) Possible derivation of a nominalized complement clause, step-2 (to be dismissed)



At this point, one might be tempted to argue that maybe there is no C head between the D and the T heads, as shown in (61). This would make the subject in Spec,TP accessible to the D head. However, in this configuration (assuming a parameterized Activity Condition) the subject will always move to the clause edge. Thus, the nominative subject (in a lower position) could never surface.

(61) Possible derivation of a nominalized complement clause (without the C head) (to be dismissed)



Thus, the analysis that derives the subject movement to the edge of the embedded clause via ϕ-Agree with the D head cannot account for the empirical data. The following section lays out an additional problem for the ϕ-Agree-approach: ϕ-Agree-motivated movement to the embedded clause edge would constitute A-movement (as per the featural approach to the A/Ā-distinction, see Van Urk 2015 i.a.). The next section shows that movement to the clause edge does not exhibit A-properties, therefore the movement to the embedded clause edge cannot be driven by the clausal head's ϕ-feature.

2.3.2 A-movement to the clause edge?

2.3.2.1 What A-movement would look like

While the specifier of C is traditionally considered an Ā-position, there is an emerging body of literature that argues that, in some configurations, Spec,CP is an A-position (Tanaka

2002, Yoon 2007, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022). Chapter 3 puts forth a proposal along these lines arguing that the edge of finite *dep*-clauses is an A-position. This chapter demonstrates that A-movement to the clause edge position bleeds reconstruction for *wh*-scope and (embedded clause-internal) NCI licensing. The relevant data are given below. (62b) shows that the accusative subject, which A-moves to the Spec,CP position of the *dep*-clause, does not reconstruct for NCI licensing. The nominative NCI subject is acceptable. (63b) illustrates that the accusative *dep*-clause subject does not reconstruct for *wh*-licensing. Nominative *wh*-subjects are acceptable.

(62) a. Ajʃa [eʃkim-Ø kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**NOM** lake-DAT go-**MA**-PST.3 C] say-PST.3
'Aisha said [that nobody went to the lake].

b.??* Ajʃa [eʃkim-di kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**ACC** lake-DAT go-**MA**-PST.3 C] say-PST.3
Intended: 'Aisha said [that nobody went to the lake].

ACC subject in *dep*-clause does not reconstruct for NCI licensing

(63) a. Ajʃa [kim-Ø Almatɯ-ga bar-dɯ dep] sura-dɯ.
Aisha [**who-NOM** Almaty-DAT go-PST.3 C] ask-PST.3
Yes: 'Who did Aisha ask such that (that person) went to Almaty?' (matrix scope)
Yes: 'Aisha asked who went to Almaty.' **(embedded scope)**

b. Ajʃa [kim-di Almatɯ-ga bar-dɯ dep] sura-dɯ.

Aisha [**who-ACC** Almaty-DAT go-PST.DEFAULT C] ask-PST.3

Yes: 'Who did Aisha ask such that (that person) went to Almaty?' (matrix scope)

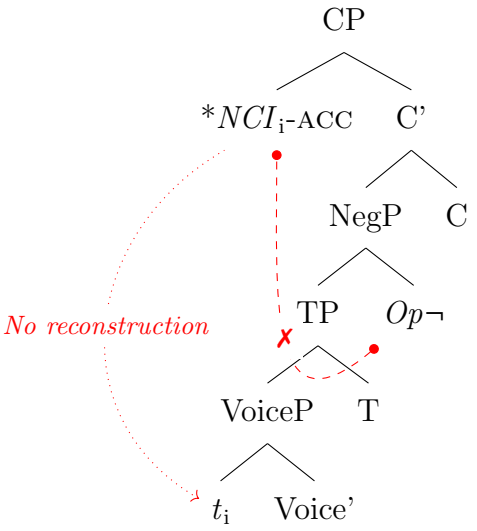
Not: 'Aisha asked who went to Almaty.' **(*embedded scope)**

ACC subject in *dep*-clause does not reconstruct for *wh*-licensing

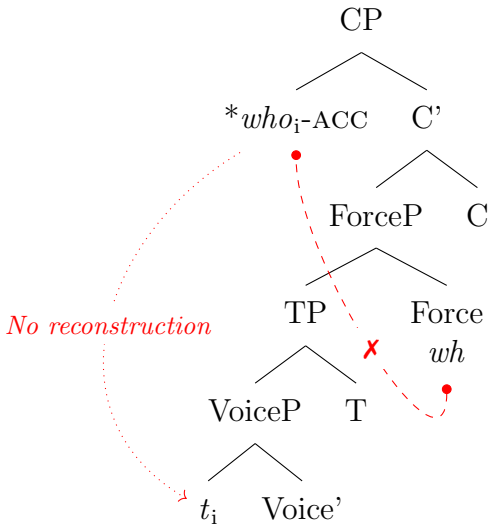
Chapter 3 argues that the unacceptability of (62b) and (63b) is due to A-movement to the clause edge position. That is, the A-moved DP does not reconstruct back for NCI and *wh*-licensing. This is illustrated in the tree representations below.

(64)

a.



b.



2.3.2.2 The genitive subject is not in an A-position

Circling back to the nominative-genitive case alternation in nominalized clauses, the prediction is clear: if the clause edge position, where the genitive subject is located, is an A-position, the genitive-marking on the subject *wh*-element is expected to be ill-formed, similarly to the pattern attested in the *dep*-clause in (63).

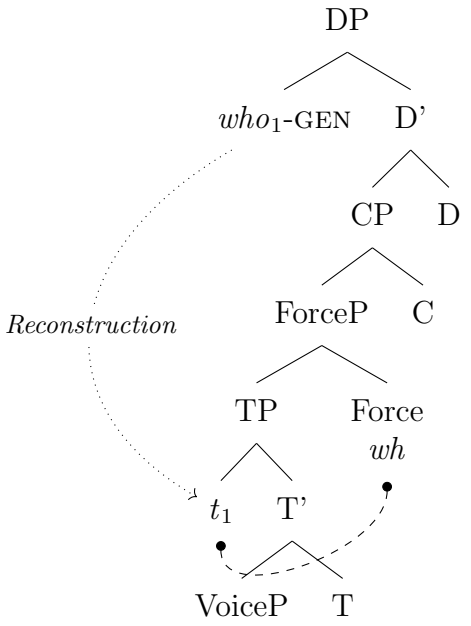
Crucially, this prediction is not borne out. As expected, the nominative subject can be a *wh*-element in (65a), but so can the genitive subject in (65b) (with the embedded scope reading). The word order difference between (65a) and (65b) is irrelevant for the purposes of this analysis. (65b) is more likely to be uttered in a context where it is part of the common ground that "someone called Saule." As "Saule" is discourse-old, it is more natural for speakers to front it.

(65) a. Ajʃa [**kim-Ø** Sæule-ni ʃakɯr-gan-ɯn] sura-dɯ.
Aisha [**who-NOM** Saule-ACC call-PRF-3]ACC ask-PST.3
'Aisha asked who called Saule.' (embedded scope only)

b. Aisha is having lunch with five people. She knows that someone out of these five people called Saule, but she does not know exactly who.
Ajʃa [Sæule-ni **kim-niŋ** ʃakɯr-gan-ɯn] sura-dɯ.
Aisha [Saule-ACC **who-GEN** call-PRF-3]ACC ask-PST.3
'Aisha asked who (out of a group) called Saule.' (embedded scope only)

This indicates that the genitive-marked DP reconstructs for *wh*-licensing. Chapter 3 demonstrates that this type of reconstruction is illegal for A-moved DPs, also shown in (64b). Thus, I conclude that the genitive subject in (65b) is *not* A-moved to the edge of its clause. (66) represents the LF-reconstruction of the genitive subject by the dotted lines. The subject DP reconstructs back to Spec,TP, which is under the scope of Force, as a consequence the *wh*-element can get licensed.

(66) Representation of genitive *wh*-licensing with embedded scope (65b)



These facts are also related to the mysterious NCI-licensing data that we left unresolved in §2.2.2. In §1.2, I argued at length that Op¬ is below CP but above TP. This predicts that Op¬ can license nominative NCI subjects, as in (67a), but not genitive NCI subjects. But, contrary to our expectations, Op¬ can license the genitive NCI subject in (67b).

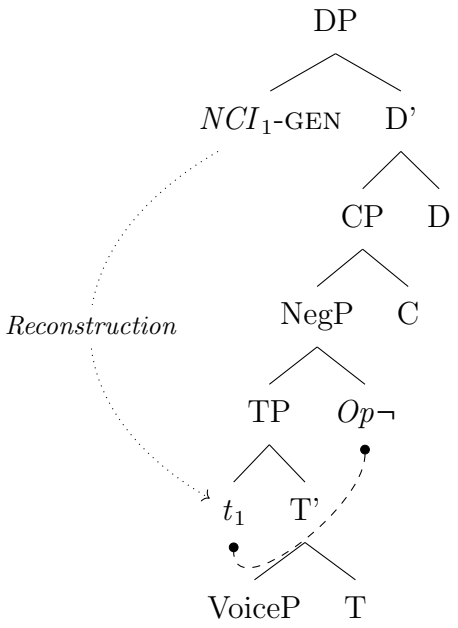
(67) a. Ajʃa [**Op¬** eʃkim-Ø kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [**NEG** n.who-NOM lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
'Aisha was surprised [that nobody went to the lake].'

b. Ajʃa [eʃkim-niŋ **Op¬** kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [n.who-GEN **NEG** lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
'Aisha was surprised [that nobody (of a group) went to the lake].'

These data are not mysterious any longer under the proposed analysis. If the DP is

not A-moved to Spec,DP, it can reconstruct back for NCI licensing. In (67b), the NCI reconstructs back to Spec,TP, where it is under the scope of the negative operator. This is shown in (68).

(68) Representation of genitive NCI licensing with clause-internal negation (67b)



In this section, I contrasted A-moved accusative-marked subject in *dep*-clauses with the genitive subjects of nominalized clauses. The former does not exhibit reconstruction for NCI and *wh*-licensing, due to its A-properties. In contrast, the genitive subject in nominalized clauses reconstructs for *wh* and NCI licensing. This suggests that the genitive DP is *not* A-moved to the clause edge position. Thus, the movement to the clause-edge cannot be motivated by the clausal head's ϕ-features. The next section explores an alternative analysis, whereby the subject DP moves to the clause edge when it has anaphoric definite reference.

2.4 Extending the Mapping Hypothesis

2.4.1 Genitive subject and anaphoric definite interpretation

As alluded to in the introductory section to this chapter, the nominative and genitive subjects are not in free variation. While speakers might initially report that the nominative or genitive marking does not make any difference in terms of meaning, upon detailed investigation it emerges that the nominative and genitive-marked subjects are used in complementary distribution. This section explores this distinction to motivate the movement to the embedded clause edge position.

The main conclusion of this section will be that genitive subjects have anaphoric definite interpretation, while nominative subjects are unique definites or non-specific indefinites.[9] In §2.4.1.1, I give a short overview on the anaphoric–unique definite distinction, followed by a short section in §2.4.1.2 demonstrating that Kazakh morphologically distinguishes this contrast in general. §2.4.1.3 shows how the anaphoric–unique definiteness distinction plays out for the nominative and genitive nominalized complement clause subjects.

2.4.1.1 Uniqueness and Anaphoricity in a nutshell

The study of definite descriptions goes back to the very beginning of modern semantics (Frege 1892, Russell 1905, Strawson 1950, Heim 1982, Roberts 2003, among many others). A recurring theme in the debate surrounding the semantics of definite descriptions has been whether they are better characterized in terms of uniqueness or anaphoricity. I pick up the

[9]The non-specific indefinite interpretation arises when the subject stays in its base-generated position, Spec,VoiceP. This draft does not address this configuration in detail, but I assume these external arguments do not rise to Spec,TP because they are not DPs but some smaller category, e.g., NP, consequently, they cannot be targeted by the ϕ-probes on T.

thread with Schwarz's (2009, and subsequent) work showing that languages make use of both unique and anaphoric definiteness, and some languages morphologically distinguish them. One such language is German where the definite article following a preposition can be spelled out differently depending on whether the noun phrase is interpreted as unique or anaphoric definite (Schwarz 2009). Similar morphological distinctions have since been reported for several languages, such as Thai (Jenks 2015), Mandarin (Jenks 2018), Akan (Arkoh and Matthewson 2013) among others (for a typological overview of definiteness marking see Despić 2019 and Moroney 2021).

Schwarz (2009) distinguishes different types of definite uses, summarized in (69). Unique definites are identifiable for the discourse participants from preexisting world knowledge (global uniqueness), from the larger situational setting (situational uniqueness), or based on knowledge about the unique part(s) of some entity (part-whole bridging). The referents of anaphoric definites are discourse-old, they are identifiable based on the preceding discourse context. Schwarz recognizes three subtypes of anaphoricity: anaphoric definites, cases of produces-product bridging, and donkey anaphoras.

(69) Types of definite uses (based on Schwarz 2009)

Uniqueness	
Global uniqueness	the Queen of England
Situational uniqueness	the desk (when there is only one desk in the room)
Part-whole bridging	I went to a mosque. **The roof** was old.

Anaphoricity	
Anaphoric	A girl and a boy entered the room. **The boy** was crying.
Producer-product bridging	Aisha watched an opera yesterday. **The librettist** was Auezov.
Donkey anaphora	Every farmer that has a donkey beats **the donkey**.

2.4.1.2 Interlude: Uniqueness and Anaphoricity in Kazakh

Definite descriptions in Kazakh have not been the subject of linguistic studies. The most well-studied member of the Turkic language family in this respect is Turkish, which lacks definite articles and expresses definiteness using bare nouns. This has led to a debate in the literature about whether Turkish lacks a DP projection and utilizes a type-shifting operation to express definiteness (most prominently advocated for by Bošković and Şener 2014), or whether the language has a phonologically zero D head (Lyutikova and Pereltsvaig 2015, inter alia). This chapter is not directly concerned with this debate, the main goal here is to draw attention to the fact that the morphological forms of different definiteness types are understudied both descriptively and theoretically in these languages, and to show that Kazakh morphologically distinguishes the two types of definiteness.

Kazakh, similarly to Turkish, does not have definite articles. But in Kazakh, unlike in Turkish, not every type of definiteness can be expressed by bare nouns. Bare nouns can serve as unique definite descriptions, anaphoricity cannot be expressed by a bare noun, instead a demonstrative has to be used.

Global and situational uniqueness can be conveyed by a bare noun. In (70a), the global unique noun phrase 'the Queen' is a bare noun, while (70b) illustrates a situationally unique definite, 'the table', spelt out by a bare noun. Global and situational unique definite descriptions are expressed by bare nouns regardless of the grammatical function of the noun phrase, i.e., in subject, object, etc. positions.

(70) a. Aisha and Aigul live in England. Aisha asks: What's in the news these days? Aigul says:

Patʃajɯm kajtɯs bol-dɯ.

queen demise COP-PST.3

'The Queen has died.'

b. Aisha and Aigul are in an office, where there is only one desk. They're waiting is silence, but Aisha suddenly turns to Aigul and whispers:

Stol œte kɯmbat eken.

desk very expensive COP.EVID.3

'The desk was very expensive, I hear.'

Part-whole bridging examples pattern differently from the above-mentioned unique definites: bare nouns are marginal in this context (as in (71a)), and some other strategy is utilized to convey definiteness, my consultants volunteered possessive marking on the noun phrase, as shown in (71b). This is not surprising given that it is cross-linguistically attested that part-whole bridging constructions are marked by possessive morphology (e.g., in Güilá Zapotec (Arrieta-Zamudio 2021), and in Ch'ol (Carol-Rose Little, p.c.)).

(71) Aisha is telling a story: Yesterday I visited the mosque on Baitursynov St. for the first time...

a. **?Tœbe** œte kœne eken.

roof very old COP.EVID.3

'The roof seemed very old.'

b. **Tœbe-si** œte kœne eken.
roof-POSS.3 very old COP.EVID.3
'Its roof seemed very old.'

In contrast, anaphoricity cannot be expressed by bare nouns. Anaphoric definite noun phrases in object position must be marked with a demonstrative. In (72a), the anaphoric definite 'the boy' cannot be expressed by the bare noun, the demonstrative needs to be used in this context, illustrated in (72b).

(72) Aisha is telling a story: A girl and a boy entered the room...

a. **#Bala-nɯ** keʃe teatr-da kœr-di-m.
boy-ACC yesterday theater-LOC see-PST-1SG
Intended: 'I saw the boy in the theatre yesterday.'

b. **Ol bala-nɯ** keʃe teatr-da kœr-di-m.
that boy-ACC yesterday theater-LOC see-PST-1SG
'I saw the boy in the theatre yesterday.'

The demonstrative must be used with anaphoric noun phrases in all syntactic positions except in subject position. As demonstrated in (73a), when the anaphoric DP is the subject, it can be a bare noun, or it can be marked by a demonstrative (in (73b)). The exceptional behavior of anaphoric definite descriptions in subject position is not surprising: the exact same patterns have been described for Mandarin as well, where unique definites are bare nouns, while anaphoricity is expressed by a demonstrative except in subject position where bare nouns are allowed to serve as anaphoric definite descriptions (Jenks 2018). Jenks

accounts for the exceptionality of subject position by appealing to the discourse function of DPs in subject position: these are continuing topics whose pragmatic function eliminates the requirement of using the demonstrative (for the formal implementation of this analysis see Jenks 2018).

(73) Aisha is telling a story: A girl and a boy entered the room...

a. **Bala** on ʒas-ta eken.
boy ten year-LOC COP.3
'The boy was 10 years old.'

b. **Ol bala** on ʒas-ta eken.
that boy ten year-LOC COP.3
'The boy was 10 years old.'

Producer-product bringing examples, such as (74a), cannot be constructed with either bare nouns or demonstratives, some other strategy needs to be used. My consultants suggested using a relative clause in this context, as in (74b).

(74) Aisha is telling a story: I went to the theater yesterday. I really liked the opera...

a. **#Ol ʒazwʃɯ** Æwezov eken.
that writer Auezov COP.3
Intended: 'The librettist was Auezov.'

b. **Opera-nɯ ʒaz-gan** Æwezov eken.
opera-ACC write-RC Auezov COP.3
'It was Auezov who wrote the opera.'

Finally, donkey anaphoras seem to be exceptional in that they allow bare nouns (75b), demonstratives (75c) or possessive morphology on the DP (75a). While the possessive strategy appears to be the most natural way to express the donkey anaphora, (75b) and (75c) are also acceptable. As donkey anaphoras are not central to this chapter, I leave it for future research to explain why both bare nouns and demonstratives are acceptable in this context.

(75) a. Eseg-i bar ærbir fermer **eseg-in** ur-adɯ.
donkey-POSS.3 COP every farmer **donkey-POSS.3.ACC** hit-PRS.3
'Every farmer who owns a donkey beats his/her donkey.'

b. Eseg-i bar ærbir fermer **esek-ti** ur-adɯ.
donkey-POSS.3 COP every farmer **donkey-ACC** hit-PRS.3
'Every farmer who owns a donkey beats the donkey.'

c. Eseg-i bar ærbir fermer **ol esek-ti** ur-adɯ.
donkey-POSS.3 COP every farmer **that donkey-ACC** hit-PRS.3
'Every farmer who owns a donkey beats the donkey.'

(76) offers a summary of the Kazakh definiteness marking patterns.

(76) Types of definiteness marking in Kazakh

Uniqueness	
Global uniqueness	bare noun
Situational uniqueness	bare noun
Part-whole bridging	?bare noun, other strategy

Anaphoricity	
Anaphoric	subject: bare noun, demonstrative; non-subject: *bare noun, demonstrative
Producer-product bridging	*bare noun, other strategy
Donkey anaphora	other strategy, bare noun, demonstrative

2.4.1.3 The interpretation of nominative and genitive subjects

After establishing that Kazakh morphologically distinguishes different types of definiteness, this section turns to the discussion of subject case in complement clauses. The novel observation I present here is that genitive subject case marking is only available on anaphoric definite DPs, while nominative is used elsewhere.

2.4.1.3.1 Unique definite subjects

The complement clauses in (77a) and (77b) have a global unique definite subject, 'the Queen'. This subject is discourse-new, as it has not been previously mentioned in the given context. (77a) shows that in this context only nominative case is acceptable, the use of genitive subject case, as in (77b), results in infelicity.

(77) Two friends who live in England are chatting. They are both very busy people and don't have time to watch the news. They get the news from their friend, Aisha. A: What's on the news? Did Aisha say something? B:...

a. Ajʃa [patʃajɯm-Ø koronavirus-tan awɯr-ɯp ʒat-kan-ɯn] ajt-tɯ.
Aisha [queen-NOM Covid-ABL be.sick-IP AUX-PRF-3]ACC say-PST.3
'Aisha said that the Queen is sick with Covid.'

b. #Ajʃa [patʃajɯm-nɯŋ koronavirus-tan awɯr-ɯp ʒat-kan-ɯn] ajt-tɯ.
Aisha [queen-GEN Covid-ABL be.sick-IP AUX-PRF-3]ACC say-PST.3
Intended: 'Aisha said that the Queen is sick with Covid.'

We see the same pattern in the case of situationally unique subjects: in (78a) and (78b), there is a discourse-new subject, 'the desk', which is unique in the situation described in the context (there is only one desk in the room). This situational unique definite DP patterns identically as the global unique subject in (77a): only nominative case is allowed, as in (78a), while genitive marking in (78b) results in infelicity.

(78) Aisha and Aigul are in an office, where there is only one desk. They're waiting is silence, but Aisha suddenly turns to Aigul and whispers:

a. [Stol-Ø œte kɯmbat eken-in] esti-di-m.
[desk-NOM very expensive COP-3]ACC hear-PST-1SG
'I heard that the desk was very expensive.'

b. #[Stol-dɯŋ œte kɯmbat eken-in] esti-di-m.
[desk-GEN very expensive COP-3]ACC hear-PST-1SG
Intended: 'I heard that the desk was very expensive.'

Part-whole bridging subjects are yet again outliers in two ways: they require possessive marking, and they do not pattern with global and situational unique definite complement clause subjects in that they allow nominative as well as genitive case marking. In (79), the complement clause subject is the definite description 'the roof', which is a unique part of the contextually salient entity *the mosque*. Just as in other part-whole bridging constructions

(see (71b)), possessive marking is obligatory, illustrated by the infelicitous version without the possessive in (79c). With the possessive-marked bridging subject both the nominative (in (79a)) and the genitive (in (79b)) case marking is allowed.[10]

(79) Aisha is telling a story: Yesterday I visited the mosque on Baitursynov St. for the first time...

a. [Tœbe-si-Ø œte kœne eken-in] esti-di-m.
roof-POSS.3-NOM very old COP-3]ACC hear-PST-1SG
'I heard that the roof is very old.'

b. [Tœbe-si-niŋ œte kœne eken-in] esti-di-m.
[roof-POSS.3-GEN very old COP-3]ACC hear-PST-1SG
'I heard that the roof is very old.'

c. #[Tœbe-Ø/niŋ œte kœne eken-in] esti-di-m.
[roof-NOM/GEN very old COP-3]ACC hear-PST-1SG
Intended: 'I heard that the roof is very old.'

2.4.1.3.2 Anaphoric definite subjects

In contrast to unique definite subjects, anaphoric definite subjects only allow genitive marking. In (80), the complement clause subject is the anaphoric definite 'the Queen', which makes reference to the discourse-old *Queen*. Nominative subject case marking is disallowed on such anaphoric definite DPs, genitive is the only available option.

[10]I stipulate that possessive marking might induce some inference that the denoted individual is in the common ground, which makes the genitive available, too.

(80) Two friends who live in England are chatting. A: What's up with the Queen, any news about her? B: Yes,....

a. #Ajʃa [patʃajɯm-Ø koronavirus-tan awɯr-ɯp ʒat-kan-ɯn] ajt-tɯ.
Aisha [queen-NOM Covid-ABL be.sick-IP AUX-PRF-3]ACC say-PST.3
'Aisha said that the Queen is sick with Covid.'

b. Ajʃa [patʃajɯm-nɯŋ koronavirus-tan awɯr-ɯp ʒat-kan-ɯn] ajt-tɯ.
Aisha [queen-GEN Covid-ABL be.sick-IP AUX-PRF-3]ACC say-PST.3
Intended: 'Aisha said that the Queen is sick with Covid.'

Anaphoric definite subjects of the producer-product bridging type pattern the same way: they disallow nominative case marking, as in (81a), only genitive (in (81b)) can be used felicitously in this context.

(81) Aisha is telling a story: I went to the theater yesterday. I really liked the opera...

a. #[ʒazwʃɯ-Ø Æwezov bol-gan-ɯn] esti-di-m.
[writer-NOM Auezov COP-PRF-3]ACC hear-PST-1SG
Intended: 'I heard that the librettist was Auezov.'

b. [ʒazwʃɯ-nɯŋ Æwezov bol-gan-ɯn] esti-di-m.
[writer-GEN Auezov COP-PRF-3]ACC hear-PST-1SG
'I heard that the librettist was Auezov.'

2.4.1.3.3 Anaphoric definiteness and domain restriction

The reader might have noticed that some genitive-marked subjects in some earlier examples do not appear to be like canonical anaphoric definite noun phrases. These are the NCI (or more broadly, quantificational) and *wh*-subjects. The relevant examples are given below with contexts.

(82) sets up a context where some people went down to the lake, and at the same time it establishes that there is a salient group of people, *Aisha's family*, who did not go to the lake. The genitive-marking conveys a restriction of the NCI's quantificational domain, so that the NCI expresses that nobody *of the salient group*, i.e., Aisha's family, went down to the lake.[11] Crucially, the nominative-NCI in (82b) is not felicitous in this context, because it is not the case that (globally) *nobody* went to the lake (cf. "Some strangers are spending time by the lake" in the context).

(82) Ainur is telling a story: Aisha and her family are spending the afternoon in a park close to a lake. (Some strangers are spending time by the lake.) Aisha's family usually loves going to the lake, but this afternoon none of them walked down to the lake.

a. Ajʃa [eʃkim-niŋ Op¬ kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [n.who-GEN NEG lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
'Aisha is surprised [that nobody (of her family) went to the lake].'

b. #Ajʃa [Op¬ eʃkim-Ø kœl-ge bar-ma-gan-ɯn]-a taŋkal-dɯ.
Aisha [NEG n.who-NOM lake-DAT go-MA-PRF-3]-DAT be.surprised-PST.3
Intended: 'Aisha is surprised [that nobody went to the lake].'

[11] Also note that a partitive noun phrase can always be inserted into such genitive-subject clauses. E.g., *otbasɯ-nan* eʃkim-niŋ [family.POSS.3-ABL n.who-GEN] 'nobody *of her family*'.

Similar explanation pertains to genitive *wh*-elements in subject position. In (83), there is a salient group of people, the five people with whom Aisha is having lunch, that restrict the domain that the genitive-subject *kim* 'who' refers to. Nominative *wh*-subjects have no such domain restriction.

(83) Aisha is having lunch with five people. She knows that someone out of these five people called Saule, but she does not know exactly who.

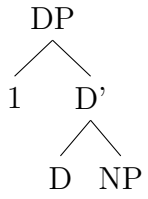
Ajʃa [Sæule-ni **kim-niŋ** ʃakɯr-gan-ɯn] sura-dɯ.

Aisha [Saule-ACC **who-GEN** call-PRF-3]ACC ask-PST.3

'Aisha asked who (out of a the five people) called Saule.' (embedded scope only)

The key similarity between anaphoric definite descriptions and NCI and *wh*-elements can be captured in terms of the underlying syntactic representation. Schwarz (2009) argues that the anaphoric determiner phrase has a referential index (a variable) in its specifier position, as shown in (84). The index *1* is interpreted with respect to an assignment function λx.x=g(1). The difference between unique and anaphoric definite expressions is that the unique definites do not contain a referential index in their representation.

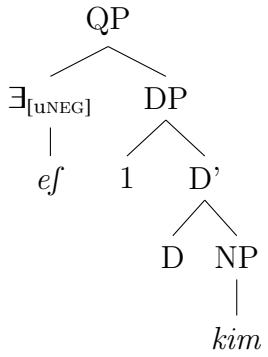
(84) Structure of the anaphoric determiner (Schwarz 2009, Jenks 2018)



I propose that Kazakh NCIs (along with other quantifier phrases) and *wh*-words can have two underlying representations, one with the referential index (e.g., just like the anaphoric

definite) and the other without the referential index (unique type). Consider the representation of the NCI in (85), which follows Matthewson (2001) in assuming that quantificational phrases universally contain a determiner phrase. It is predicted by Schwarz's analysis that the quantifier can compose with both type of definite noun phrases, i.e., with both unique or anaphoric definites (see Schwarz 2009: 313). Kazakh offers a striking confirmation of this prediction.

(85) Representation of the anaphoric NCI (n-who [of a group])



When NCIs and *wh*-elements are genitive-marked they have the underlying representation with the referential index. Nominative NCI and *wh*-subjects have the same structure as unique definites, i.e., without the referential index.

2.4.2 Proposal

The starting point of the discussion in this section was that the genitive subject is at the edge of the embedded clause, and we set out to investigate how the subject ends up in this position. §2.3.2 demonstrated that the movement to the clause edge cannot be driven by the clausal head's uninterpretable ϕ-features, because the movement to the clause edge is *not* A-movement. Then §2.4.1 turned to investigate the difference in interpretation between

nominative and genitive subjects. The subject case marking patterns on definite subjects are summarized in (86). The table shows that there is a clear correlation between anaphoric definite interpretation and genitive marking.

(86) Definiteness type and subject case marking on nominalized complement clauses

Uniqueness		
Global uniqueness	NOM	*GEN
Situational uniqueness	NOM	*GEN
Part-whole bridging	POSS+NOM	POSS+GEN

Anaphoricity		
Anaphoric	*NOM	GEN
Producer-product bridging	*NOM	GEN
Donkey anaphora	NA	

Given the correlation between anaphoric definite interpretation and genitive case marking, it seems to be clear that anaphoricity drives the movement to the clause edge resulting in the subsequent genitive marking. To implement this idea, I propose that certain types of presuppositional subjects, namely the ones with referential index, undergo upward movement to adjoin the CP. This way, this upward movement is analogous to Object Shift (Diesing 1992), whereby presuppositional direct objects move to adjoin a higher domain (e.g., in Turkish/Turkic the object adjoins the VoiceP/vP, see Kelepir 2001). Before turning to the details of this analysis, I offer a short overview of the implementation of Object Shift, upon which I model the "Subject Shift" to the clause edge position.

2.4.2.1 Object Shift

Building on Milsark's (1974) distinction of strong (unambiguously presuppositional) and weak (ambiguous between presuppositional and cardinal) determiners,[12] Diesing (1992)

[12]The core empirical observation underlying this distinction is that a group of determiners (the weak ones) can compose with the existential predicates, whereas another group of determiners are incompatible with

argues that noun phrases with strong determiners (i.e., presuppositional DPs) undergo movement to a higher domain, whereas noun phrases with weak determiners (under non-presuppositional interpretation) remain in the verb phrase. This phenomenon is known as Object Shift. It has been widely argued that Turkish/Turkic exhibits Object Shift in the narrow syntax, whereby the presuppositional object moves to adjoin a higher domain (Enç 1991, Zidani-Eroğlu 1997b, Kelepir 2001, Von Heusinger and Kornfilt 2005, Baker and Vinokurova 2010), as in (87). The shifted object gets accusative marking, whereas the object in its base-position gets unmarked/default case (see Baker 2015 for a detailed discussion on how Object Shift may feed dependent case).

This way, Diesing argues, the presuppositional interpretation can be syntactically represented (in the narrow syntax). She proposes an algorithm, which she calls the Mapping Hypothesis, that maps the vP[13] to the so-called nuclear scope and the material above the VoiceP to the restrictive clause. This is essentially a syntactic rendering of the logical interpretation of presuppositional expressions (following Kamp 1981 and Heim 1982). Diesing proposes that the so-called existential closure applies at the vP-level (represented with the dashed arch in (87)),[14] where the existential quantifier binds the expressions within its scope. The existential interpretation of the lower object thus falls out of this account.

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them. This is shown in (i).

(i) a. **There is/are** *a/ some/ a few/ many/ three* fly/flies in my soup. (Weak determiners)

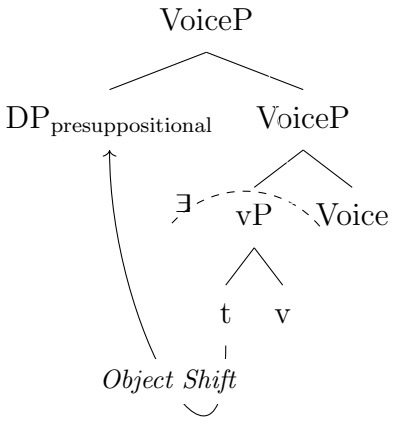
b. ***There is/are** *the/ every/ all/ most* fly/flies in my soup. (Strong determiners)
(Diesing 1992: 59)

[13]I updated Diesing's terminology; in her work she says that the VP is mapped to the nuclear scope, in more recent terminology this corresponds to the vP.

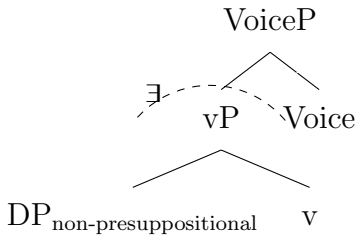
[14]I assume that the external argument is introduced above the shifted object.

(87)

a.



b.



2.4.2.2 Subject Shift

The proposal to account for the nominative–genitive alternation in nominalized clauses is similar to Diesing's Object Shift. In the domain of C,[15] the anaphoric DP (i.e., definite expressions with referential index) undergoes Subject Shift to adjoin the CP.[16] This is shown in (88a). In contrast, the DP that is not anaphoric remain in the canonical subject position, as in (88b).

[15]One could argue that the Subject Shift takes place in the narrow syntax in some languages but at LF in others. Similar claims have been made about the Object Shift as well.

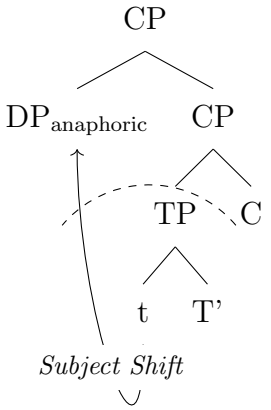
[16]One might wonder why only anaphoric definite expressions are eligible for Subject Shift but not other presuppositional DPs. This might be related to a hierarchy of determiners: Diesing (1992: 61-65) notes that the weak–strong determiner contrast can be conceptualized on a hierarchy where determiners are ordered on a hierarchical scale (following Ioup 1975), such as in (i). I speculate that anaphoric determiners could also be part of this scale, placed high up in the hierarchy, and the Subject Shift's cut-off point is higher on the hierarchy than the Object Shift's. As a result, Subject Shift only affects anaphoric expressions, whereas Object Shift operates on other types presuppositional DPs as well.

(i) Ioup's hierarchy
each > every > all > most > many > several > some > a few

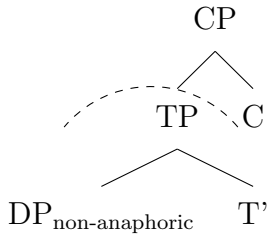
Diesing 1992: 64

(88)

a.



b.



Thus, just like in the case of Object Shift, moving out of the lower phase into the higher phase corresponds to the assignment of (a type of) presuppositional interpretation, namely anaphoricity. Additionally, one might want to speculate that the phasal categories (Voice and C) can both initiate tree splitting algorithms. In both case, the partitions define a presuppositional and a non-presuppositional domain. That is, subject anaphoricity can be syntactically construed: anaphoric definite DPs raise to a higher domain, whereas non-anaphoric DPs remain low. When the subject does not contain a referential index (i.e., when it is non-anaphoric) it does not undergo Subject Shift.

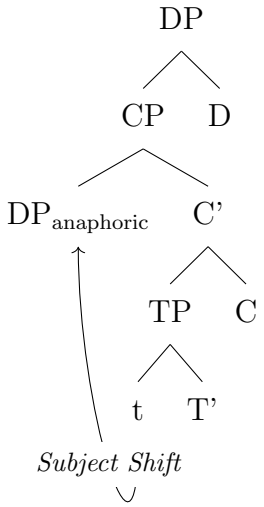
This way, the proposed analysis attempts to reflect three important empirical observations: (i) the genitive subject is at the clause edge, (ii) the movement to the clause edge is not triggered by ϕ-features (i.e., it is not A-movement), and (iii) the genitive-marked subject at the clause edge has anaphoric definite reference whereas the lower (nominative) subject cannot be anaphoric. That is, movement to the higher domain is motivated by the DP's presuppositional property. Note that Kazakh/Turkic may not be the only language (family) that exhibits differential subject interpretation: Diesing (1988, 1990, 1992) discusses German bare plural subjects, which can have differential interpretation depending on the syntactic

position of the subject.

2.4.2.3 The categorial feature of the clausal head

The reader might have noticed that the Subject Shift's landing site in (88a) is a CP-adjoined position, with no mention to the nominalizing head. Once we add the nominalizing D head to the structure, the shifted subject is not at the edge of the embedded clause. In this configuration two phase heads would separate the higher (genitive) subject from the matrix negative operator. If this is the case, the genitive NCI subject is predicted to be not licensed by matrix negation, contrary to fact.

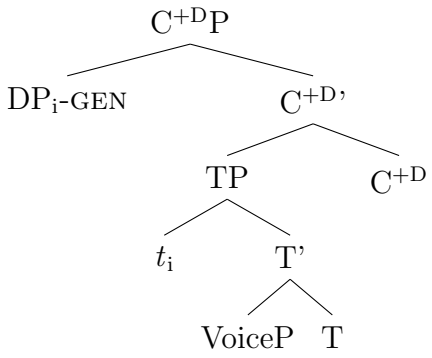
(89)



There are two potential ways to resolve this problem: (i) one might want to stipulate that the anaphoric DP further moves to Spec,DP, or (ii) that the embedding clausal C head is bundled with D. As, at this point, it is not clear to me what the potential driving force behind the former analytical option would be, I tentatively propose that the latter analysis is better suited to account for the data.

The proposal is given in (90). It submits that the C head is a nominalized head, represented with the [+D] on C, and the genitive subject is in the specifier of this C^{+D} projection, which is also the edge of the embedded clause. As the subject is at the edge of its clause, it is accessible to matrix operators.

(90) Proposed structure of the Kazakh complement clause



The broader consequence of the proposal in (90) is that UG does not only allow direct DP-shells but also the bundling of two heads into one: C and D. Similar claims have been made about Voice and little-n (Alexiadou 2001, Šereikaitė 2020, also see Baker and Vinokurova 2009 for a similar proposal), and more broadly about Voice-bundling possiblities by Pylkkänen 2008, Coon and Preminger 2012, Harley 2017, inter alia. If UG allows Voice to be bundled with, for instance, little-v or little-n, the bundling of C and D should not be ruled out a priori.

As Voice and little-n bundling is parallel to the investigated C+D bundling, it is worth taking a closer look at such a proposal. Šereikaitė (2020) investigates complex event nominalizations in Lithuanian, where the nominalized verb phrase's external argument is genitive and it has agentive semantics. An illustrative example is offered in (91). Šereikaitė (2020) shows that such structures display several verbal characteristics (e.g., causative morphology is admissible, inner aspect marking is available, etc.), yet they are outwardly nominal and

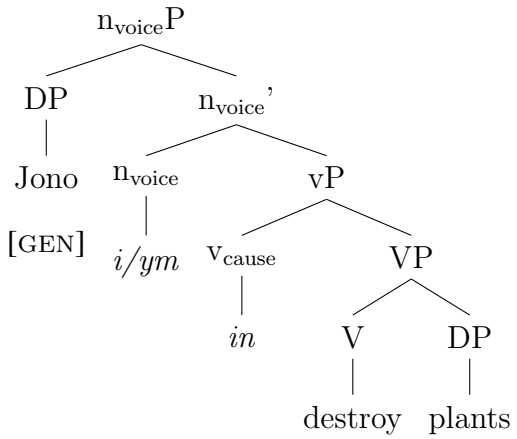
they assign genitive case to the external argument, *Jon-o* 'Jono-GEN' in (91). Crucially, the genitive external argument has agentive semantics, which is widely accepted to originate from the Voice projection (Kratzer 1996). Šereikaitė (2020) extensively argues that the nominalizing little-n and Voice are not two separate projections, rather they are bundled into one head, shown in (92).

(91) [Jon-o augal-ų su-naik-in-im-as per kelias minutes]
Jono-GEN plants-GEN PFV-destroy-CAUS-NMLZ-NOM.M.SG within couple minutes
vis-us nutebin-o.
everyone-ACC surprise-PST.3

'Jonas' destruction of the plants within a couple of minutes surprised everyone.'

LITHUANIAN, Šereikaitė 2020: 160

(92) Structure of (91) (Šereikaitė 2020: 161)

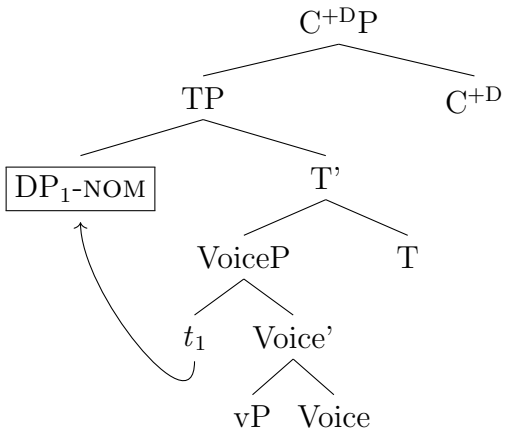


Thus, the proposal is that in Kazakh complement clauses the C and D heads are bundled into one complex head, based on parallels from other languages where bundling of a verbal and nominal head was suggested. If the proposal in (90) is on the right track, it posed the

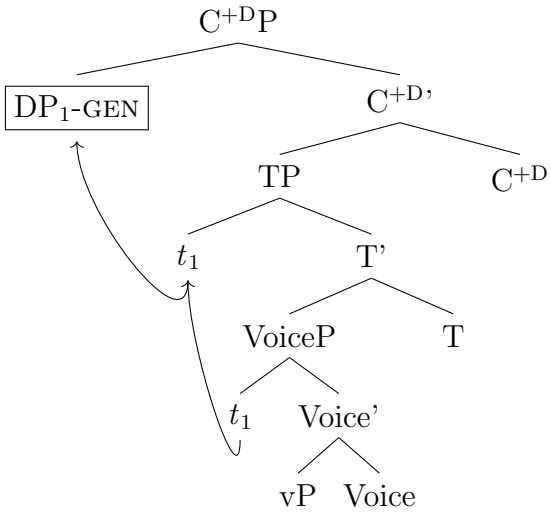
question what heads may be bundled, and if there are any constraints for head-bundling. I leave these questions for future research.

(93) Position of the nominative and genitive subjects (final version)

a.



b.



2.4.2.3.1 A note on scrambling over the genitive subject

It has been proposed in the literature that DPs, even though they constitute a phasal domain (Bošković 2005), do not provide an escape hatch for successive cyclic movement (Bosque and Gallego 2014, Reeve 2019, Van Urk 2019, Bondarenko and Davis 2021). This view predicts that scrambling a non-subject argument into a clause-initial position when the subject is at the edge of the nominalized phrase is ill-formed, as the scrambled argument would need to land in a Spec,$C^{+D}P$ position preceding the subject (assuming multiple specifiers (N. Richards 1997, N. Richards 1999, inter alia)).

(94) Scrambling the object in front of the genitive subject → predicted to be ill-formed

[$_{C^{+D}P}$ **DP(object)$_1$** [$_{C^{+D}P}$ DP(subject)$_2$-GEN [$_{TP}$ t_2 [$_{VoiceP}$ t_2 [$_{vP}$ t_1]]]]]

The Kazakh data does not support this prediction: Kazakh does not only allow scrambling the object over the nominative subject, as in (95a), but also over the genitive subject. (95b) demonstrates that, despite the predictions in (94), the embedded clause object can scramble[17] to the left of the genitive subject.[18]

(95) a. Ajʃa [**bul kitap-tɯ** Ajnur-**Ø** okɯ-gan-ɯn] bil-edi.
Aisha [**this book-ACC** Ainur-**NOM** read-PRF-3].ACC know-PRS.3
'Aisha knows [that Ainur read this book].'

b. Ajʃa [**bul kitap-tɯ** Ajnur-**dɯŋ** okɯ-gan-ɯn] bil-edi.
Aisha [**this book-ACC** Ainur-**GEN** read-PRF-3].ACC know-PRS.3
'Aisha knows [that Ainur read this book].'

[17]This is an instance of intermediate scrambling (for a detailed discussion on intermediate scrambling see §4.3.3) as the scrambled phrase exhibits both A and Ā-properties (it can create new binders, can ameliorate WCO effects, and reconstructs for binding).

[18]I also note that scrambling over the subject subverts NCI licensing in the subject position by a matrix negative operator. Recall that a matrix Op¬ can only license an NCI in the embedded clause if the NCI is the genitive-marked subject. The relevant data point is repeated in (ia). The matrix negative operator cannot license NCIs in any other positions in the embedded clause, including in the nominative subject position. This pattern was used as evidence that the genitive-marked subject is at the clause edge. (ib) shows that if an element, in this case the dative argument *kœl-ge* 'to the lake', is scrambled over the genitive NCI subject, the matrix negation cannot license the NCI.

(i) a. **Op¬** Ajʃa [eʃkim-niŋ kœl-ge kel-gen-in]-e taŋkal-ma-dɯ.
NEG Aisha [n.who-GEN lake-DAT come-PRF-3]-DAT be.surprised-MA-PST.3
'Aisha wasn't surprised [that someone (of a group) came to the lake].'

b. ***Op¬** Ajʃa [**kœl-ge** eʃkim-niŋ kel-gen-in]-e taŋkal-ma-dɯ.
NEG Aisha [**lake-DAT** n.who-GEN come-PRF-3]-DAT be.surprised-MA-PST.3.
Intended: 'Aisha wasn't surprised [that someone (of a group) came to the lake].'

The disruption of NCI licensing in (ib) is not surprising given robust cross-linguistic evidence regarding extraction from embedded clauses with multiple specifiers: when there are multiple specifiers in a clause, only the highest one can participate in movement out of the clause (Rackowski and N. Richards 2005, Bošković 2016, among many others). As movement is driven by the same syntactic operation as Negative Concord, namely Agree, it is expected that only the phrase in the highest specifier position can participate in NCI licensing, and NCI licensing in lower positions is blocked. Consequently, (ib) is ungrammatical because there are multiple specifiers in the embedded complement clause, and only the highest one can establish Agree with matrix operators. As the NCI subject is not in the highest specifier position, the NCI licensing fails, and the sentence is rendered ungrammatical.

The overall conclusion is that Kazakh seems to allow intermediate scrambling to the specifier of DPs (this seems to be generally true for Kazakh DPs, see the discussion in chapter 4).[19]

2.4.2.4 Implications for Case Theory

The last remaining question involves genitive case assignment. There are two generally agreed upon ways to assign genitive to a DP. Genitive could either be an "unmarked case" within the Dependent-Case Theory framework (Marantz 1991, Baker 2015, Levin and Preminger 2015, Preminger 2021), or it could be a case assigned via Agree (Baker and Vinokurova 2010).

I start the discussion with the first option: genitive is an unmarked case. According to the Dependent Case Theory's case calculus in (96), first lexical cases are assigned as determined by the lexical properties of heads, then dependent cases are calculated. Unmarked cases are determined in the c-command domains of the CP and DP. If a noun phrase has no case value at this point of the derivation and it is in the same spell-out domain with a c-commanding C head, the noun phrase gets nominative or absolutive. If the noun phrase is in the same

[19] I note that Bondarenko and Davis 2021 claim that in Balkar, a Turkic language spoken in the Kabardino-Balkar Republic and in the Karachay-Cherkessia Republic (Russian Federation), the embedded clause's object can be scrambled over a nominative subject, shown in (ia), whereas (ib) demonstrates that scrambling the object over the genitive subject is disallowed. If these data are indeed correct, it would require further explanation why Kazakh allows scrambling over the genitive subject but not Balkar.

(i) a. Ustaz-Ø [tauuš et-dir-ip **alma-ni**$_k$ bala-si-**Ø** t_k aša-ʁan-i-n]
teacher-NOM noise make-CAUS-CONV **apple-ACC** child-POSS-**NOM** eat-NFUT-POSS-ACC
ešit-ti.
hear-PST
'The teacher heard [that her child ate her apple loudly.]'

b. *Ustaz-Ø [tauuš et-dir-ip **alma-ni**$_k$ bala-si-**ni** t_k aša-ʁan-i-n]
teacher-NOM noise make-CAUS-CONV **apple-ACC** child-POSS-**GEN** eat-NFUT-POSS-ACC
ešit-ti.
hear-PST
Intended: 'The teacher heard [that her child ate her apple loudly.]'
BALKAR, Bondarenko and Davis 2021

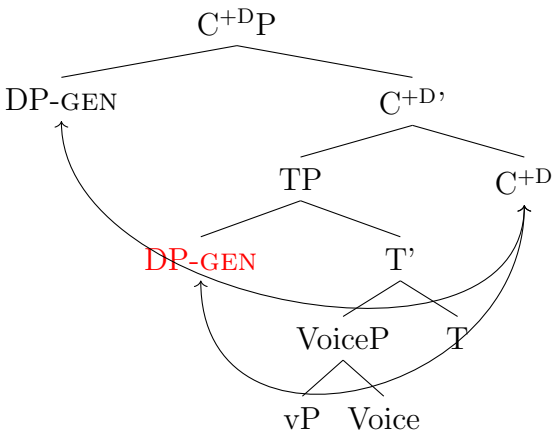
phase with a c-commanding D head, it is assigned genitive. Default case pertains to noun phrases that did not get morphological case in the previous three steps.

(96) Case calculus in Dependent Case Theory (Marantz 1991, Baker 2015)

a. Lexically governed case (e.g., oblique cases, quirky case)
b. Dependent case (accusative, ergative)
c. Unmarked case (nominative, absolutive, genitive)
d. Default case

This makes the correct prediction that the DP in Spec,$C^{+D}P$ is in the genitive but comes with an undesirable consequence: the DP in Spec,TP is also predicted to be assigned genitive. This is because Spec,TP, where the nominative subject is supposed to surface, is in the same phase as the D head, consequently, nominative would always be blocked in this configuration. This is an unwanted outcome.

(97) Predictions made by the Depended Case Theory

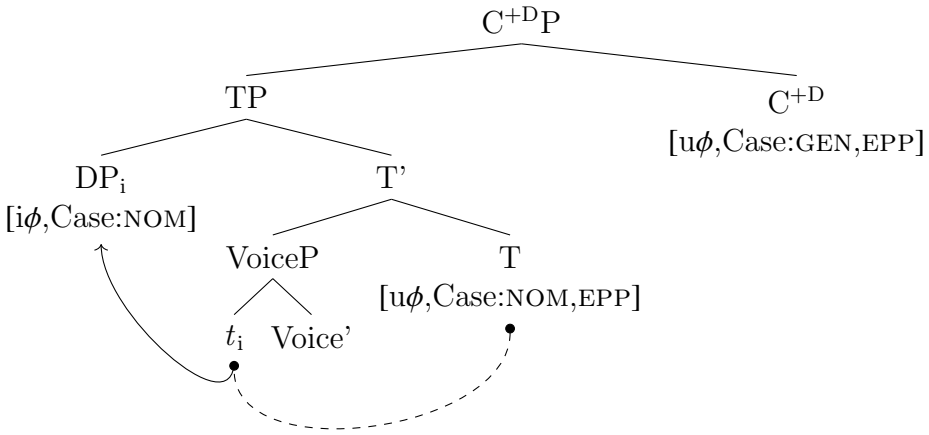


Turning to the second option, advanced in Baker and Vinokurova (2010), there can be two modalities of case assignment where some instances of morphological case are determined

by the dependent-case calculus and others via ϕ-Agree. According to this approach dependent cases (e.g., accusative) are assigned in the Dependent Case Theory-fashion, whereas nominative and genitive are assigned via ϕ-Agree with T and D, respectively. §2.3.2 already established that ϕ-features cannot be involved in the movement of the subject to the clause edge, as it can be shown that the DP is not A-moved, but for completeness's sake it is worth reviewing the main arguments against why genitive assignment under ϕ-Agree.

The problems emerging under this account are the inverse of the ones presented in (97). According to Baker and Vinokurova's Hybrid Case Assignment Model, nominative case originates from the T head, and it is assigned in a standard Minimalist way (Chomsky 2000, 2001) via ϕ-Agree. As represented in (98), the ϕ-probe finds the highest available DP, establishes Agree with it, values the DP's unvalued Case features with the nominative, and moves it to its specifier position.

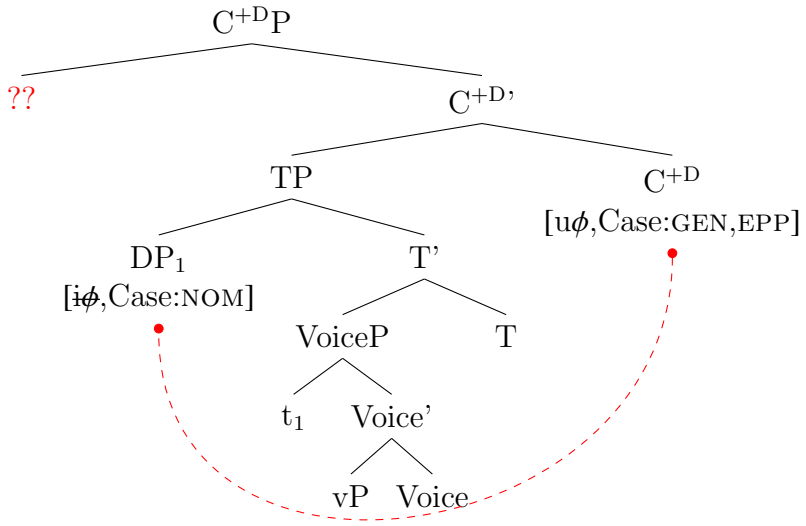
(98) Predictions made by Hybrid Case Assignment, Step-1



In the next step, D, which also bears ϕ-features,[20] probes down, but at this point of the derivation there is either (i) no accessible DP with unvalued case features (due to the Activity Condition), therefore the probing fails, and no DP ends up with genitive case, shown in (99), or (ii) under a parameterized Activity Condition approach, the DP in Spec,TP is available to the nominal head and it always gets genitive. Under this scenario, no DP ends up with nominative case.

[20]Again, recall that movement to the clause edge triggered by ϕ-feature can independently be refuted, as argued in §2.3.2.

(99) Predictions made by Hybrid Case Assignment, Step-2



Thus, these analyses cannot straightforwardly account for the nominative-genitive case patterns in nominalized clauses (at least given the syntactic configurations I am considering here). My proposal is that the genitive on the subject of nominalized clauses is a lexical case assigned after the noun phrase is moved to the specifier position of $C^{+D}P$. Thus, the typology of morphological case should be amended to include genitives that are assigned as lexical cases. Kazakh is not the only language where genitive appears to be a "locally assigned" case. Van Urk (2015: 86–92) discusses that when the subject in Dinka is in the "middle field," which is an intermediate position (labelled as TP) between VoiceP and CP, it gets genitive marking. When the subject moves to Spec,CP, which is an A-position in Dinka, the genitive marking disappears. Similar examples can be found in Nilotic languages where the locally assigned "marked nominative" contrasts with the absolutive case (König 2008).

2.5 Conclusions

This chapter investigated the nominative–genitive subject case alternation in the nominalized complement clauses. Negative Concord Item licensing facts suggest that there is a syntactic distinction underlying this subject case alternation: the genitive DP is at the clause edge whereas the nominative-marked subject is lower in the structure, plausibly, it is situated in the canonical subject position in the embedded clause.

Crucially, the subject movement to the clause edge does not bleed embedded clause-internal NCI and *wh*-licensing, suggesting that the subject DP is not A-moved to this higher position (see the next chapter for more detail on how A-moved DPs evade embedded clause-internal NCI and *wh*-licensing). Following the featural approach on the A/$\bar{\text{A}}$-distinction, this pattern indicates that the movement to the clause edge is not driven by ϕ-features.

Based on the novel observation that genitive-marked DPs (in this syntactic configuration) have anaphoric definite reference whereas the nominative ones are non-anaphoric (either unique definites or indefininites/pseudo-incorporated), I propose that certain types of presuppositional DPs (namely anaphoric definites) undergo Subject Shift to adjoin the embedded clause. The C head (similarly to Voice) initiates a tree splitting mechanism that defines two partitions of a presuppositional and a non-presuppositional domain.

I further argued that the genitive case is assigned in the clause edge position (in a spec-head configuration) as a lexical case. This way the proposal also contributes to the typology of morphological case by proposing that genitive can be a lexical case (as opposed to an unmarked case, or a case assigned via ϕ-Agree).

CHAPTER 3

OPTIONAL HYPERRAISING

ACCUSATIVE-NOMINATIVE SUBJECT CASE ALTERNATION IN DEP-CLAUSES

3.1 Introduction

The subject of Kazakh root clauses is in the nominative, which has a phonologically zero exponent, and an overt marker following the Tense suffix on the predicate indexes agreement with the subject's person and number features. (100a) shows that the first person singular subject is nominative, and the -[m] suffix, following the past tense exponent -[dɯ], indicates agreement with the subject in person and number. Full ϕ-agreement on the predicate of the root clause is obligatory, as demonstrated by the ungrammatical (100b), where there is a no (or only a default) agreement marker on the predicate. Accusative subject case marking (see *men-i* 'I-ACC' in the given examples) is disallowed under either under default or full ϕ-agreement.

(100) a. Men-[Ø/*i] Almatɯ-ga bar-dɯ-[m].
I-**NOM/*ACC** Almaty-DAT go-PST-**1SG**
'I went to Almaty.'

b. *Men-[Ø/i] Almatɯ-ga bar-dɯ-[Ø].
I-**NOM/ACC** Almaty-DAT go-PST-**DEFAULT**
Intended: 'I went to Almaty.'

This chapter investigates the nominative–accusative case "alternation" on the subject of embedded clauses headed by *dep*. An illustrative example is offered in (101). When

the subject is nominative, as in (101a), there is full ϕ-agreement on the embedded clause predicate indexing the person and number of the subject. (101b) shows that subjects of *dep*-clauses can be accusative, and there is no overt agreement marker[1] on the predicate. (For intricacies of the subject case and agreement data, see §3.3.1.)

(101) a. Ajʃa [men-$\boxed{\emptyset}$ Almatɯ-ga bar-dɯ-$\boxed{\text{m}}$ dep] ajt-tɯ/ ojla-dɯ/
Aisha [I-**NOM** Almaty-DAT go-PST-**1SG** C] say-PST.3/ think-PST.3/
esti-di.
hear-PST.3

'Aisha said/thought/heard [that $\text{I}_{\text{SPEAKER/Aisha}}$ went to Almaty].'

b. Ajʃa [men-$\boxed{\text{i}}$ Almatɯ-ga bar-dɯ-$\boxed{\emptyset}$ dep] ajt-tɯ/ ojla-dɯ/
Aisha [I-**ACC** Almaty-DAT go-PST-**DEFAULT** C] say-PST.3/ think-PST.3/
esti-di.
hear-PST.3

'Aisha said/thought/heard [that $\text{I}_{\text{SPEAKER}}$ went to Almaty].'

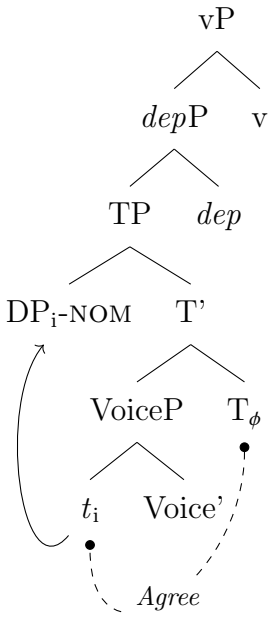
A reasonable initial hypothesis would submit that the lack of agreement and accusative subject case correlate with each other. Specifically, the absence of full ϕ-agreement signals the defective nature of the embedded domain. The defective embedded T cannot license the subject, which subsequently moves to the matrix clause for Case. The matrix little-v licenses the embedded subject DP and assigns accusative to it. This is shown in (102b). Additionally, T can optionally be non-defective (i.e., it bears uninterpertable ϕ-features), it can enter into Agree relation with the closest DP and assign nominative to it. This is how

[1]I will refer to this as a default agreement marker, but this choice has no impact on the proposed analysis. Also note that this phonologically zero agreement marker is homonymous with the 3rd person agreement marker, which is also phonologically zero.

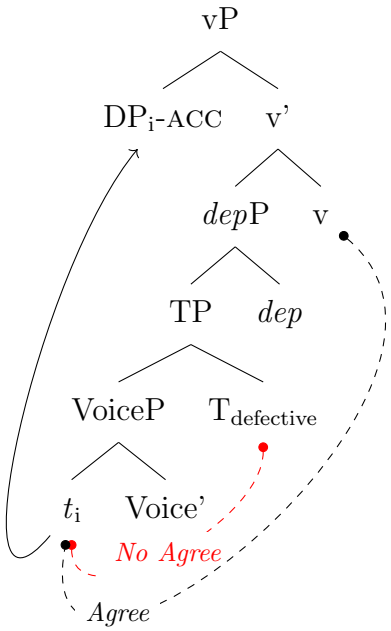
the nominative subject case marking pattern arises, as shown in (102a). This (or a version of this) approach has been proposed for other Turkic languages (most significantly for Turkish) by a number of authors such as Zidani-Eroğlu 1997a, Kornfilt 1977, 2007.

(102) Defectiveness-based analysis of the NOM-ACC case "alternation" (to be dismissed)

a. Nominative subject, full ϕ-agreement



b. Accusative subject, default-agreement



This approach would essentially argue that non-nominative (e.g., accusative) subject case marking arises as the result of raising into the matrix clause, which is motivated by defectiveness of the embedded clause. This view follows in the footsteps of a long line of scholarship that maintain that raising into the matrix clause is the consequence of defective embedded domains (Ura 1994, Alexiadou and Anagnostopoulou 1999, Uchibori 2000, 2001, Rodrigues 2004, Martins and Nunes 2005, Ferreira and Nunes 2009, inter alia). Certainly, this seems to be true in English, where raising is obligatory out of infinitival (i.e., defective), but banned out of full-CP (i.e., non-defective) clauses, as shown in (103).

(103)

a. *Aisha expected [$_{\text{INF}}$ **I** to go to Almaty]. (*no raising from INF)

b. Aisha expected **me**$_{\text{i}}$ [$_{\text{INF}}$ t_{i} to go to Almaty]. (raising from INF)

c. Aisha expected [$_{\text{CP}}$ that **I** go to Almaty]. (no raising from CP)

d. *Aisha expected **me**$_{\text{i}}$ [$_{\text{CP}}$ that t_{i} go to Almaty]. (*raising from CP)

This straightforward story is challenged by data such as (104). The verb *kork-* 'be afraid' takes an ablative complement; accusative marking is ill-formed, as shown in (104a). (104b) and (104b) illustrate that *dep*-clauses can compose with matrix clauses containing the matrix predicate 'be afraid.' These embedded *dep*-clauses exhibit the exact same pattern that was described above: (i) clauses with nominative embedded subject display full ϕ-agreement, (ii) accusative subjects co-occur with default agreement. The sentence in (104c) cannot be explained by the defectiveness-based approaches: if the embedded *dep*-clause in (104c) is defective, triggering the movement of the embedded subject to the matrix clause, we predict that the resulting case should be ablative, not accusative. That is, accusative case marking on the subject in (104c) is mysterious from this perspective.

(104) a. Ajʃa men-nen/*men-i kork-tɯ.
Aisha I-**ABL**/*I-**ACC** be.afraid-PST.3
'Aisha was afraid of me.'

b. Ajʃa [men-Ø Almatɯ-ga bar-dɯ-m dep] kork-tɯ.
Aisha [I-**NOM** Almaty-DAT go-PST-1SG C] be.afraid-PST.3
'Aisha was afraid because/thinking that I went to Almaty.'

c. Ajʃa [men-i Almatɯ-ga bar-dɯ dep] kork-tɯ.
Aisha [I-**ACC** Almaty-DAT go-PST.DEFAULT C] be.afraid-PST.3
'Aisha was afraid because/thinking that I went to Almaty.'

Even more damning is example (105).[2] The matrix verb 'make (someone) surprised' takes a direct object, 'Saule,' marked with accusative.[3] When a *dep*-clause composes with the matrix predicate, the embedded subject can be either nominative or accusative. If the *dep*-clause in (105b) is defective and the subject must raise to matrix clause, it is unclear how it would get its accusative case. Note that double accusative is disallowed, as shown in (105c), abstracting away from the irrelevant interpretation 'Aisha surprised her mother, (whose name is) Saule.'

(105) a. Ajʃa [mama-sɯ-Ø œl-ip kal-dɯ dep] Sæule-ni
Aisha [mother-POSS.3-**NOM** die-IP AUX-PST.3 C] Saule-**ACC**
taŋ kal-dɯr-dɯ.
be.surprised-CAUS-PST.3

'Aisha surprised Saule because/thinking her mother died.'

[2]These sentences can*not* mean 'Aisha surprised Saule by (saying that) her mother died.'

[3]The default accusative exponent is /NI/, its allomorphs are [ni], [nɯ], [di], [dɯ], [ti], [tɯ]. Following the first and second person singular pronouns the accusative allomorph is [i]. Following the third person possessive suffix /(s)I/, the accusative is signalled by the presence of [n]. It is debated whether [n] is part of the possessive suffix and shows up in the context of a zero accusative marker, or it should be considered the spell-out of the accusative case. I leave this question open here.

b. Ajʃa [mama-sɯ-n œl-ip kal-dɯ dep] Sæule-ni
Aisha [mother-POSS.3-**ACC** die-IP AUX-PST.3 C] Saule-**ACC**
taŋ kal-dɯr-dɯ.
be.surprised-CAUS-PST.3

'Aisha surprised Saule because/thinking her mother died.'

c. *Ajʃa mama-sɯ-n Sæule-ni taŋ kal-dɯr-dɯ.
Aisha mother-POSS.3-**ACC** Saule-**ACC** be.surprised-CAUS-PST.3

These data suggest that defectiveness-based analyses cannot account for the subject case marking in *dep*-clauses. To concur with Halpert's (2019) position, "the hyper-raising[4] pattern has presented problems for approaches to raising that are built to account for the English-type profile." This way, this chapter contributes to a growing body of literature (such as Tanaka 2002, Zeller 2006, Halpert 2012, 2015, 2019, Şener 2008, 2011, Deal 2017, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022) that investigates cross-linguistic (hyper-)raising data that are at odds with defectiveness-based analysis. The overarching goal of this line of research is to propose a unified framework (with built-in parametric variation) that can account for the cross-linguistically attested data. Accordingly, Halpert 2012, 2015, 2019 develops an analysis where not clausal defectiveness, but matrix EPP features and intervention effects induced by the embedded clause head can account for hyperraising patterns. A parallel line of research emphasizes the importance of the embedded clause head. Specifically they argue that features on the embedded clause head drive raising to the embedded clause edge, from which position the DP can interact with matrix probes and optionally raise into the matrix clause (Zyman 2017, 2018, 2023, Fong 2019, Gong 2022). This chapter provides further support for this latter approach, but suggests that to account for the cross-

[4]The term hyperraising refers to raising out of finite clauses. The accusative marking on the embedded subject constitutes an example of hyperraising as a DP can raise from a finite clause.

linguistic variation, we need (at least) three parameters: (i) matrix EPP, (ii) (nominal vs. non-nominal) properties of embedded clauses, (iii) features of the embedded clause head.

In terms of previous research on Kazakh and related Turkic languages, properties of Turkic hyperraising constructions have gained significant attention in the literature (Pullum 1975, Kornfilt 1977, 2007, É. Á. Csató and Brendemoen 1986, Zidani-Eroğlu 1997a, Moore 1998, Şener 2008, 2011, Baker and Vinokurova 2010, Shklovsky and Sudo 2014, Baker 2015, Predolac 2017, Özyıldız 2017, Özyıldız et al. 2019, Major 2021, 2022, 2023). There are three main families of raising analysis: (i) the defectiveness of the embedded clause drives movement to the matrix clause's Spec,vP position (Zidani-Eroğlu 1997a, Kornfilt 1977, 2007); (ii) *dep* (or equivalent form) heads an (intermediate) vP projection above the embedded clause,[5] and the defectiveness of the embedded clause drives movement to this intermediate vP phrase (Major 2021, 2022, 2023, Özyıldız et al. 2019); (iii) Ā-features on the embedded clause head drive movement to the edge of the embedded clause (Şener 2008, 2011, also see Predolac 2017 for a somewhat different version of this general idea).

Building on prior work, this chapter puts forth the following analysis for Kazakh hyperraising: the complementizer, spelt out by *dep*, contains an A-probe that motivates movement to the embedded clause's Spec,CP position. Accusative case is assigned in a dependent case-fashion in Spec,CP. Due to the the tree splitting mechanism introduced in the previous chapter, the DP at the clause edge receives presuppositional interpretation. The DP at the edge of the complement clause may also undergo optional A or Ā-movement to the matrix clause and it can participate in other operations originating in the matrix clause (e.g., Negative Concord Item licensing by a matrix negative operator).

The chapter is structured as follows: §3.2 discusses cross-linguistic data and analyses indicating that defectiveness-based approaches cannot account for the cross-linguistically

[5]This approach builds on the historical origin of the word *dep*: the verb *de-* 'say' combines with the adverbial (converbial) marker /(I)p/, i.e., in its transparent use *dep* means 'saying.'

attested hyperraising patterns. §3.3 turns to the Kazakh data; §3.3.1 offers an initial descriptive overview; §3.3.2 and §3.3.3 offer a discussion on some concepts that are fundamental for the proposed analysis: §3.3.2 argues that *dep* is a complementizer, and §3.3.3 presents some discussion on the type of relationship that holds between the *dep*-clause and the matrix predicate. §3.4 investigates the position of the embedded nominative and accusative subjects and demonstrates that the accusative subject is in the embedded Spec,CP position; §3.5 shows that the accusative embedded subject can undergo A-movement to the matrix clause. The analysis is formulated in §3.6: §3.6.1 takes a closer look at analyses for languages that have similar hyperraising patterns; §3.6.2.1 and §3.6.2.2 make the case that the embedded subject A-moves to Spec,CP; §3.6.2.3 adds that the DP at the clause edge has presuppostional (anaphoric) interpertation; §3.6.2.4 argues that accusative is a dependent case. §3.7 concludes.

3.2 Setting the scene

Early work on raising constructions in the generative tradition (e.g., Jacobs and Rosenbaum 1968, Postal 1974) was mainly based on English data such as (106). In English, raising is banned out of a CP, as in (106b), but it is obligatory out of clauses that do not constitute an entire CP, as illustrated by the contrast between (106c) and (106d). The standard explanation for this pattern utilizes the Activity Condition and the noun phrase's need for Case. In the embedded CP in (106a), the subject gets Case in the embedded clause, and as per the Activity Condition (Chomsky 2001), it is not visible for subsequent Agree operations. Consequently, matrix probes cannot target the embedded subject making raising unavailable. As pointed out by Halpert (2019b), the Phase Impenetrability Condition (Chomsky 2000, 2001) can also rule out the ungrammatical raising from a CP: as the embedded subject is not at the clause edge, it is not permitted to raise to the matrix domain. On the flip side,

raising is mandatory from the infinitival clause, which cannot assign Case to its subject due to its defective T projection. The subject's unvalued Case features (Chomsky 2000, 2001) would prevent the derivation from converging, therefore it needs to raise to the higher domain where it can get Case. That is, the embedded domain's defective nature combined with the subject DP's need for Case motivate the raising in the infinitival clause.

(106)

a. It seems [$_{\text{CP}}$ that **he** made bread].

b. *__He__$_{\text{i}}$ seems [$_{\text{CP}}$ that t_{i} made bread].

c. *It seems [$_{\text{INF}}$ **he** to have made bread].

d. __He__$_{\text{i}}$ seems [$_{\text{INF}}$ t_{i} to have made bread].

However, the discovery of cross-linguistic variation in raising patterns has cast doubt on the validity of the mainstream explanation sketched out above. The relevance of the Activity Condition and the need for Case has been challenged by the abundance of empirical evidence showing that many languages allow raising out of a CP, a phenomenon called hyperraising. A non-exhaustive list of languages that allow hyperraising: Buryat (Bondarenko 2017), Japanese (Tanaka 2002), Khalkha Mongolian (Fong 2019, Gong 2022), Nez Perce (Deal 2017), Passamaquoddy (Bruening 2001, 2002), P'urhepecha (Zyman 2017, 2018), Turkish (Şener 2011), Sakha (Baker and Vinokurova 2010), Uyghur (Major 2022, Major 2023a), Zulu (Zeller 2006, Halpert and Zeller 2015, Halpert 2019b).

A well-known case study comes from Zulu (Bantu), which exhibits the exact opposite pattern than English: it allows raising from a CP but not from an infinitival clause. First, consider (107), which illustrates the optional hyperraising from the embedded CP: the embedded subject remains in its base-position in (107a) but it can also raise into the matrix

clause, as in (107b). Crucially, the embedded clause predicate always shows agreement with the embedded subject (I discuss the agreement patterns attested in the matrix clause in connection with the example in (111)). This indicates that the embedded subject always undergoes Agree in the clause from which it originates, and as a result its uninterpretable Case feature is valued in the embedded clause. Hence, it should not be amenable for subsequent operations as per the Activity Condition. However, this prediction is contradicted by data such as (107b), which clearly demonstrates that the embedded subject can raise into the matrix clause. Examples such as (107b) can be found in all of the above mentioned languages. Thus, the robust cross-linguistic empirical observation that raising is allowed from CPs (in some languages) undermine the relevance of the Activity Condition.

(107) a. **ku**-bonakala [$_{CP}$ ukuthi **uZinhle** **u**-zo-xova ujeqe]
17S-seem [that AUG.1Zinhle 1S-FUT-make AUG.1bread]

b. **uZinhle**$_{i}$ **u**/**ku**-bonakala [$_{CP}$ ukuthi t_{i} **u**-zo-xova ujeqe]
AUG.1Zinhle 1S/17S-seem [that 1S-FUT-make AUG.1bread]
'It seems that Zinhle will make steamed bread.'

ZULU, Halpert 2019b: 136-7, ex. (35)-(36)

Additionally, data such as (107b) also cast doubt on the role of Case as the driving force behind raising. The claim that the need for Case motivates raising cannot be maintained for the Zulu example in (107b) as the embedded subject gets Case in the embedded clause, thus its unvalued Case features cannot be the reason why the DP moves to the matrix clause. Additional Zulu data further challenge the relevance of Case in raising constructions. Consider (108), which contains an infinitival embedded clause. In Zulu, infinitival clauses are not permeable to raising, the infinitival subject must remain in the infinitive clause. This is unexpected under the assumption that the need for Case drives raising to the matrix clause.

(108) ***uZinhle**$_i$ **u**-bonakala [$_{INF}$ t_i **uku**-(zo)-xova ujeqe]

AUG.1Zinhle 1S-seem [INF-(FUT)-make AUG.1bread]

Intended: 'It seems that Zinhle will make steamed bread.'

ZULU, Halpert 2019b: 136, ex. (35c)

Data from other languages further challenges the role of Case in motivating the movement to the upstairs clause. Deal (2017) shows that in Nez Perce nominative (as in (109a)), ergative (in (109b)) and even accusative-marked DPs (in (109c)) can undergo raising[6] to the superordinate clause. Raising cannot be motivated by the need for Case in these instances as the DPs that undergo raising are unambiguously Case-marked.

(109) a. Harold-nim hi-**nees**-nek-se [$_{CP}$ **hitemenew'eet** hi-wsiix

Harold-ERG 3SUBJ-**O.PL**-think-IMPERF [student.NOM 3SUBJ-be.PRES.PL

wiweepcux].

smart

'Harold thinks the students are smart.'

b. Taamsas-nim hi-**nees**-nek-se [$_{CP}$ mamay'as-**nim**

Taamsas-ERG 3SUBJ-**O.PL**-think-IMPERF [children-ERG

poo-payata-six Angel-ne].

3/3-help-IMPERF.SPL Angel-ACC]

'Taamsas thinks the children are helping Angel.'

[6]Deal argues that this is an instance of covert raising, which means that the DP is spelt out in the embedded clause but it covertly raises to the higher domain. The raisining is evident from the object agreement marker in the superordinate clause, which indexes the raised DP's ϕ-features. Deal convincingly argues that the object agreement on the matrix predicate is not the result of Long Distance Agreement fed by Ā-movement (Polinsky and Potsdam 2001, Branigan and MacKenzie 2002). She shows that when the relevant DP is in Ā-position in the embedded clause, it cannot establish Agree with the matrix predicate.

c. ‘Aayat-onm hi-**nees**-nek-se [$_{CP}$ watiisx mamay’as-**na**
woman-ERG 3SUBJ-**O.PL**-think-IMPERF [one.day.away children-ACC
Angel-nim hi-naas-wapayata-ya].
Angel-ERG 3SUBJ-O.PL-help-PRF]

‘The woman thinks Angel helped the children yesterday.’

NEZ PERCE, Deal 2017, ex. (10), (11), (16)

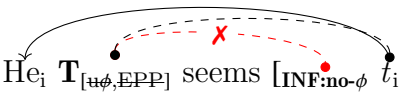
Given these cross-linguistic data, the universal explanatory power of the Activity Condition and the need for Case principle as the blocking and driving forces behind raising becomes untenable. Thus, accounts[7] trying to derive raising patterns by appealing to the defectiveness vs. completeness of an embedded domain cannot fully account for the cross-linguistic variation attested in raising. Naturally, this does not necessarily mean that this type of analysis is wrong for any given language, but the very least it raises the question how much water such Case-based analyses hold.

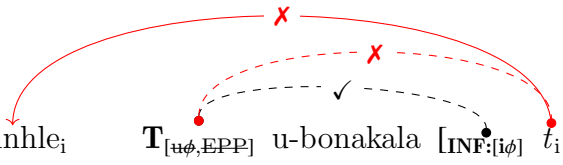
Halpert (2012, 2015, 2019a, 2019b) develops an analysis that is better suited to account for the attested cross-linguistic variation in (hyper)raising patterns. She argues that raising (or the lack thereof) is the result of the interplay of a matrix EPP feature and Intervention Effects induced by the embedded clausal head.

In some languages, embedded CPs and TPs have ϕ-features, which can establish Agree with matrix probes and they can satisfy the matrix probe’s EPP feature. If an embedded clause has the matching featural specification to satisfy the matrix probe’s featural needs,

[7]There are many such accounts. Just a few examples: (i) based on a cross-linguistic investigation, Ura (1994) maintains that raising takes place when the embedded T cannot assign Case to the subject; (ii) Rodrigues 2004, Martins and Nunes 2005, Ferreira and Nunes 2009, inter alia argue that in Brazilian Portuguese the embedded T is ϕ-defective therefore it cannot assign Case to its subject; (iii) Alexiadou and Anagnostopoulou (1999) submit that when the embedded T is defective with respect to semantic Tense in Greek subjunctives, Case cannot be assigned; (iv) Uchibori (2000, 2001) proposes a similar analysis for Japanese subjunctives. For a detailed overview on previous work within this line of thought see Halpert 2019b and Zyman 2023.

the domain becomes opaque for further probing targeting embedded clause-internal phrases. This way, the embedded CP or TP, if they carry ϕ-featuers, can inhibit subsequent probing into the embedded domain and block raising. Halpert argues that this is the source of the difference between English and Zulu raising from infinitival clauses; the relevant data are repeated in (110). In both cases, the matrix T head has uninterpretable ϕ and EPP-features, T probes down to satisfy its unvalued features. The difference between the two languages is that the infinitive does not bear ϕ-features in English but it does in Zulu. In Zulu, the matrix T enters into an Agree relation with the infinitival TP, as, according to the A-over-A Condition (Chomsky 1964, Rackowski and N. Richards 2005), the infinitival TP is a closer goal for T than the embedded clause subject. After Agree is established, T's ϕ and EPP features are satisfied (note that the infinitival clause can move to the subject position in Zulu). At this point, there are no other unvalued features left, and therefore raising a phrase out of the embedded clause is impossible. In contrast, the English infinitive does not carry ϕ-features, the matrix T thus probes into the embedded clause and finds the closest goal, the embedded subject. Agree between T and the embedded DP is established followed by movement to the Spec,TP position.

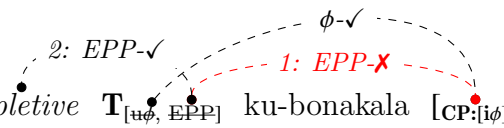
(110) a. 

b. 

Intended: 'It seems that Zinhle will make steamed bread.'

ZULU, Halpert 2019b: 136, ex. (35c)

Then why is hyperraising from a CP optionally allowed in Zulu? In the repeated Zulu examples below, the embedded CP bears ϕ-features therefore it can enter in an agreement relation with the matrix T (note that the 17S-agreement in Zulu indexes the embedded clause). However, the CP cannot satisfy the probe's EPP feature (CP subjects are either impossible or marginal in Zulu). At this point, there are two options: either a phonologically zero expletive can be inserted, as in (111a)[8] or the T head can further probe to satisfy its EPP feature. In this latter configuration, T can probe *into* the embedded CP and trigger raising of the closest available DP.[9] As the matrix T establishes a relation with both the embedded CP and the embedded subject, it can spell out the ϕ-features of either the CP or the raised DP. This is the reason why we see the variable agreement on the matrix predicate under hyperraising in (111b).[10]

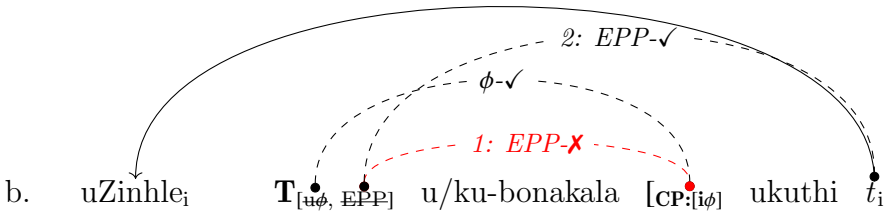


(111) a. *expletive* $\mathbf{T}_{[u\phi,\ \sout{\text{EPP}}]}$ ku-bonakala $[_{\mathbf{CP}:[i\phi]}$ ukuthi uZinhle u-zo-xova ujeqe]
17S-seem [that AUG.1Zinhle 1S-FUT-make AUG.1bread]

[8]Halpert (2019a) independently motivates the existence of phonologically zero expletives in Zulu.

[9]The idea is that when the CP enters into Agree with the matrix T, it becomes permeable to subsequent probing by T (cf. Rackowski and N. Richards 2005, Van Urk and N. Richards 2015).

[10]Note that under Halpert's account, raising from the CP in English is prohibited because the CP acts as a defective intervenor. In a nutshell, she suggests that CPs (similarly to the infinitival clauses) can interact (in the sense of Deal 2022) with the matrix T head but it cannot satisfy T's ϕ-features (possibly because it does not have have ϕ-features, cf. Iatridou and Embick 1997, Davies and Dubinsky 2009, Hartman 2012, Moulton 2015). This interaction-without-satisfaction relation renders the CP an intervenor for subsequent probing by T, and raising cannot take place out of the CP.



b. uZinhle$_i$ **T**$_{[u\phi,\ \sout{EPP}]}$ u/ku-bonakala [$_{CP}$:[iϕ] ukuthi t_i u-zo-xova
AUG.1Zinhle 1S/17S-seem [that 1S-FUT-make
ujeqe]
AUG.1bread]

'It seems that Zinhle will make steamed bread.'

ZULU, Halpert 2019b: 136-7, ex. (35)-(36)

In conclusion, English-centric views of raising maintain that the Activity Condition and the need for Case (as the result of defective embedded domain) are the inhibiting and driving forces behind raising. Both of these are properties related to the embedded DP; that is, the features of the embedded DP coerce or prohibit raising. However, this analysis cannot be extended cross-linguistically. There is abundant evidence that features of the embedded DP cannot be responsible for the raising patterns attested in a number of languages (e.g., hyperraising from CPs, no raising from Zulu infinitives, hyperraising of overtly case-marked DPs in Nez Perce). An alternative account is developed by Halpert, who submits that matrix probes (especially the EPP) drive raising, whereas intervention effects (i.e., the A-over-A condition, which blocks raising out of Zulu infinitival clauses, or defective intervention, which blocks hyperraising out of English CPs) are responsible for blocking raising. Under this account, raising is regulated by matrix features and locality as defined by intervention effects.[11]

This chapter takes Halpert's approach as its starting point but proposes that the matrix EPP is not the only potential driving force behind raising. I defend the view that features of

[11]The conclusions drawn from the Zulu raising patterns prompt Halpert to reevaluate the role phases play in (hyper)raising: her analysis suggests that the A-over-A condition and defective intervention are the relevant factors that determine locality. She does not attribute any privileged status to phase-based locality. Deal (2017), in connection with the above-mentioned Nez Perce covert hyperraising, mostly concurs with Halpert's analysis but argues that phases are still relevant locality domains for other types of operations, e.g., matrix complementizer agreement cannot index embedded-clause materials. Thus, she maintains that phases should be considered relevant for locality.

the embedded clause head may also trigger raising to the edge of the embedded clause, where the DP is accessible to matrix probes. This position has been proposed for languages such as Khalkha Mongolian (Fong 2019, Gong 2022) and Janitzio P'urhepecha (Mexican isolate) (Zyman 2017, 2018). This chapter provides evidence that a DP can undergo movement to Spec,CP in the embedded *dep*-clause, from which position it may undergo optional movement to the matrix clause. I propose that the movement to the embedded Spec,CP is triggered by uninterpetable ϕ-features on the embedded C head.

3.3 Preliminary discussion

This chapter turns to the discussion of the Kazakh data. §3.3.1 gives a descriptive overview of the subject case and agreement marking patterns. §3.3.2 argues that *dep* is a complementizer (contra Major 2021, 2022, 2023). §3.3.3 presents a discussion on the type of relationship that holds between the *dep*-clause and the matrix predicate. This section shows that there are (at least) two types of *dep*-complementizers: (i) one heading complement clauses, (ii) one heading adjunct(-like) clauses.

3.3.1 Subject case and agreement marking patterns

All Kazakh native speaker consultants agree that *dep*-headed embedded clauses can have (i) a nominative subject and the full ϕ-agreement on the embedded predicate, as illustrated in (112a); or (ii) an accusative subject with a default (phonologically zero) agreement marker on the predicate, as in (112b).[12]

[12]Notice that the nominative indexical is shiftable, whereas shifting is not available for the accusative-marked indexical. Indexical shift in Turkic has a large literature, see Shklovsky and Sudo 2014, Major 2022 and references therein. The shifting facts in (112a) and (112b) can be explained if we assume that the Monster, which shifts the indexical, is located below the CP projection (as proposed by Shklovsky and Sudo 2014). As I will argue, the accusative subject is at the clause edge (Spec,CP) position, where it is not within

(112) a. Ajʃa [men-Ø Astana-ga bar-dɯ-m dep] ajt-tɯ.
Aisha [I-**NOM** Astana-DAT go-PST-**1SG** C] say-PST.3
'Aisha said [that $I_{SPEAKER/Aisha}$ went to Astana].'

b. Ajʃa [men-i Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha [I-**ACC** Astana-DAT go-PST-**DEFAULT** C] say-PST.3
'Aisha said [that $I_{SPEAKER}$ went to Astana].'

However, this clear picture is complicated by the data below. One of my consultants also accepts (iii) nominative subject with default agreement, in (113a),[13] and (iv) accusative subject with full ϕ-agreement on the embedded predicate, as in (113b). The consultant who accepts these sentences makes the comment that "they are not as perfect as [the examples above] but I would use them in spoken language." I shall also note that there are speakers who are fiercely opposed to sentences such as (113a) and (113b).

(113) a. %Ajʃa [men-Ø Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha [I-**NOM** Astana-DAT go-PST-**DEFAULT** C] say-PST.3
'Aisha said [that $I_{SPEAKER}$ went to Astana].'

b. %Ajʃa [men-i Astana-ga bar-dɯ-m dep] ajt-tɯ.
Aisha [I-**ACC** Astana-DAT go-PST-**1SG** C] say-PST.3
'Aisha said [that $I_{SPEAKER}$ went to Astana].'

the scope of the Monster, therefore it cannot be shifted. In contrast, the nominative subject is in a lower position (below the Monster), thus it can undergo indexical shift.

[13]What makes this pattern particularly unusual is that no such data have been reported for any other Turkic language. I suspect that the nominative subject case might be only apparent here, as it is possible that the accusative case morpheme undergoes deletion at the morphological component of the grammar. The consultant's comment corroborate this assumption: she notes that *men* here "feels the same as *meni*." If this is true, it would mean that nominative subjects cannot co-occur with default agreement.

However, even the consultant who accepts (113a) and (113b) finds these subject case and agreement patterns unacceptable with nominal predicates. First, (114a) and (114b) demonstrate that nominative subject with full ϕ-agreement and accusative with default agreement are perfectly acceptable with nominal embedded predicates. However, the consultant who accepts (113a) and (113b) rejects nominative subjects with default agreement and accusative subjects with full ϕ-agreement when it comes to nominal predicates, shown in (114c) and (114d).

(114) a. Ajʃa [men-Ø ʒaksɯ student-pin dep] ajt-tɯ.
Aisha [I-**NOM** good student-**1SG** C] say-PST.3
'Aisha said that $I_{SPEAKER/Aisha}$ am a good student.'

b. Ajʃa [men-i ʒaksɯ student-Ø dep] ajt-tɯ.
Aisha [I-**ACC** good student-**DEFAULT** C] say-PST.3
'Aisha said that $I_{SPEAKER}$ am a good student.'

c. *Ajʃa [men-Ø ʒaksɯ student-Ø dep] ajt-tɯ.
Aisha [I-**NOM** good student-**DEFAULT** C] say-PST.3
Intended: 'Aisha said that I am a good student.'

d. *Ajʃa [men-i ʒaksɯ student-pin dep] ajt-tɯ.
Aisha [I-**ACC** good student-**1SG** C] say-PST.3
Intended: 'Aisha said that I am a good student.'

The table in (115) offers a summary the Kazakh subject case and agreement marking patterns in *dep*-clauses.

(115)

Embedded predicate type	Subject case	Agreement on embedded predicate	Acceptability
Verbal predicate	NOM	full ϕ-agreement	✓
	ACC	default agreement	✓
	NOM	default agreement	%
	ACC	full ϕ-agreement	%
Nominal predicate	NOM	full ϕ-agreement	✓
	ACC	default agreement	✓
	NOM	default agreement	✗
	ACC	full ϕ-agreement	✗

Dispute on these data points does not come as a surprise as agreement marking patterns in this type of embedded clause are notoriously controversial. For instance, Kornfilt (1977) presents Turkish data showing that embedded clauses with accusative subject cannot exhibit full subject agreement on the embedded predicate, as shown in (116). The same pattern is reported in Zidani-Eroğlu 1997a, Kornfilt 1996, 2007. Additionally, Kornfilt, based on data in Pullum 1975, notes there might a dialect of Turkish where the reverse agreement pattern holds: in this putative dialect, (116a) would be ungrammatical but (116b) is well-formed. É. Á. Csató and Brendemoen (1986) present a slightly different picture: they offer data where the so-called "Dialect A" speakers have the same internal grammar as illustrated in (116), i.e., they only allow accusative with no agreement, but "Dialect B" speakers find both (116a) and (116b) grammatical, that is they allow accusative subjects with or without agreement. Moore (1998) corroborates Csató and Brendemoen's findings, but he mentions that Dialect A speakers were in the minority compared to Dialect B speakers in his study. Subsequent work seems to entirely dismiss the existence of Dialect A and maintains that only Dialect B exists, at least in modern standard Istanbul Turkish (Şener 2008, 2011 and subsequent).[14]

[14]There are other data points that remain controversial. For instance, Major (2023b) points out that judgements are split when the clause is embedded by the matrix verb *de-* 'to say,' in which case *diye* is obligatorily absent. In this configuration, speakers are split between accepting and rejecting the full agreement marker on the embedded predicate.

(116) a. Emre ben-i vur-ul-du-Ø san-ıyor.
Emre I-**ACC** hit-PASS-PST-**DEFAULT** believe-PROG.SG3
'Emre believes me to have been shot.'

b. *Emre ben-i vur-ul-du-m san-ıyor.
Emre I-**ACC** hit-PASS-PST-**1SG** believe-PROG.SG3
Intended: 'Emre believes me to have been shot.' (Judgements are from Kornfilt 1977)

TURKISH, Kornfilt 1977: 738, ex. (5)

In this work, I formulate my proposal mainly based on the Kazakh data that is acceptable for all speakers but I will suggest a morphological account for the patterns that are not acceptable for all speakers. Specifically, I will propose that the agreement features in the ACC-ϕ-agreement pattern get copied from the C head and lowered to T at the morphological component. The NOM-default agreement pattern arises due to a morphological deletion of the accusative case morpheme in the context of pronouns.

3.3.2 Is dep a complementizer?

Dep, which I analyze as the complementizer, is historically a morphologically complex verb form consisting of the verb stem *de-* 'to say' and the adverbial marker /(I)p/.[15] The verb form *de-p* can be used this way syncronically, as shown in (117). In this usage *de-p* can only be interpreted as denoting a *saying* event.

(?)?%Melisa ben-i git-ti-(m) de-di.
Melisa I-**ACC** go-PST-(**1SG**) say-PST.3SG
'Melisa said I left.'

TURKISH, Major 2023b, ex. (49a)

[15]In the Turkological literature the term "converb" is used to describe this morpheme.

(117) Ajʃa$_{i}$ [*pro*$_{i}$ birdeŋe de-p] ket-ip kal-dɯ.
Aisha [something say-ADV] leave-IP AUX-PST.3
'(After) saying something, Aisha left.'

In the examples in (101) and (104), *dep* does not denote a *saying* event: for instance, when 'Aisha thinks that I went to Almaty,' Aisha does not need to perform an actual *saying* event for the sentences in (101) to be true. Similarly, in the sentence in (104) 'Aisha was afraid because I went to Almaty,' Aisha does not have to utter the content of the embedded clause.

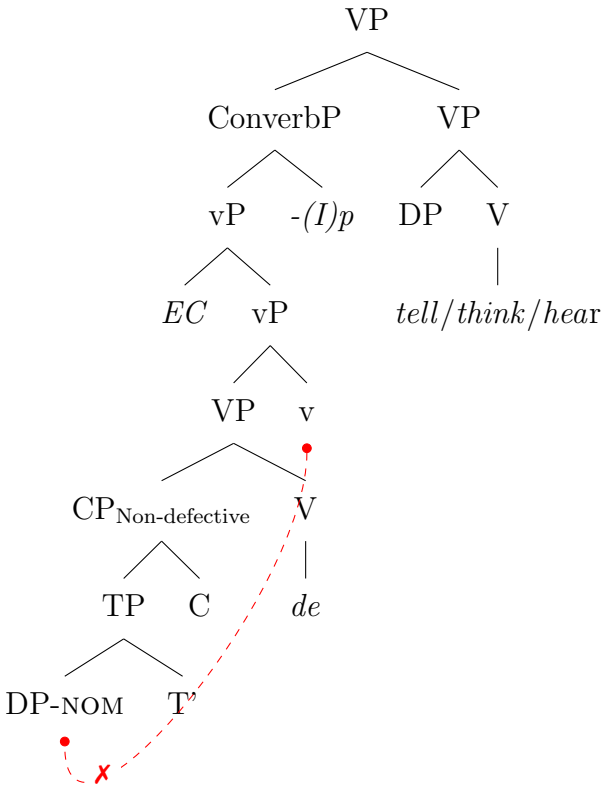
While almost all approaches to this type of Turkic embedded clause take *dep* or equivalent form to be a complementizer (and so will I), Major (2021, 2022, 2023) has recently put forth an interesting proposal in relation to the closely related Turkic language Uyghur challenging this view. The gist of his proposal is that *dep* should be analyzed as a morphologically complex word, consisting of the semantically bleached verb *de-* and the adverbial marker /(I)p/. That is, under this analysis there is an intermediate verb phrase with the verb *de-* between the matrix and the embedded clause.

(118) offers the representation of Major's analysis. Matrix verbs such as 'tell,' 'think' or 'hear' compose with a DP (e.g., 'news'), which (presumably) can be optionally dropped. The adverbial clause headed by /(I)p/ modifies the matrix vP and spells out the propositional content of the argument DP (i.e., 'hear the news saying that...'). The bleached verb *de-*, which is the lexical core of this phrase, takes a CP complement, which can come in two types: non-defective and defective. Under this analysis, the accusative marking arises as the result of the defective embedded C: the embedded domain is accessible to outside probes, the v projection of *de-* probes and establishes Agree with the DP across the defective C-domain. The DP moves to Spec,vP of the intermediate verb phrase and gets its case assigned by

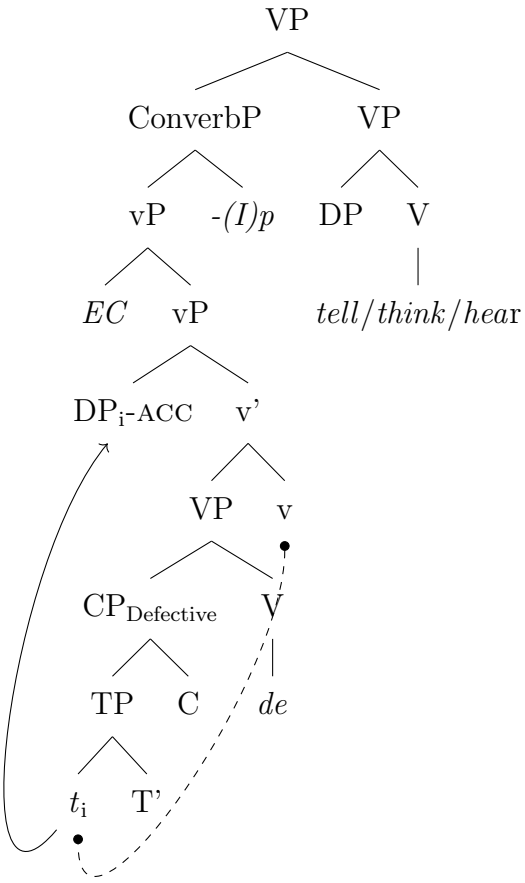
the v projection of the verb *de-*. The empty category (EC) introduced in the intermediate Spec,vP is coreferent with the matrix clause's subject.

(118) Major's analysis of *dep*-clauses

a. *Dep*-clause with NOM subject



b. *Dep*-clause with ACC subject



That is, Major proposes that *de-p* projects a full-blown verb phrase (this work would call it a VoiceP) that can introduce both an internal and an external argument. This approach makes the following prediction: if there is a little-v head (in the morphological sense, it would be a big-V in the syntactic sense) in this intermediate projection, we expect to find a predicate of events expressing some sort of vaguely defined event.

In Kazakh, at least, these predicitions are not borne out. Regardless of what the actual content of this event is, event modifiers such as *again* (Stechow 1996, Fabricius-Hansen 2001, Beck 2005, inter alia) should be able to target this event. That is, if there are three verb phrases in the sentences in (119), three distinct readings are predicted to be available when these sentences are modified with 'again.' This is not borne out; no matter where we place the adverb, there are only two interpretations: (i) one where 'again' modifies the matrix verb 'say,' and (ii) one where 'again' targets the embedded predicate 'go to Almaty.'

(119) a. Ajʃa (kajtadan) [(kajtadan) men-Ø (kajtadan) Almatɯ-ga bar-dɯ-m
Aisha (again) [(again) I-**NOM** (again) Almaty-DAT go-PST-**1SG**
dep] ajt-tɯ.
C] say-PST.3

Yes: 'Aisha said (again) [that $I_{SPEAKER/Aisha}$ went to Almaty (again)].'
Not: 'Aisha told (the news) *saying again* that $I_{SPEAKER/Aisha}$ went to Almaty.'

b. Ajʃa (kajtadan) [(kajtadan) men-i (kajtadan) Almatɯ-ga bar-dɯ-Ø
Aisha (again) [(again) I-**ACC** (again) Almaty-DAT go-PST-**DEFAULT**
dep] ajt-tɯ.
C] say-PST.3

Yes: 'Aisha said (again) [that $I_{SPEAKER}$ went to Almaty (again)].'
Not: 'Aisha told (the news) *saying again* that $I_{SPEAKER}$ went to Almaty.'

This is also true with the *dep*-clauses in (120): 'again' can only target the matrix and the embedded predicate but not *de-*.

(120) a. Ajʃa [(kajtadan) men-Ø (kajtadan) Almatɯ-ga bar-dɯ-m dep]
Aisha [(again) I-**NOM** (again) Almaty-DAT go-PST-1SG C]
(kajtadan) kork-tɯ.
(again) be.afraid-PST.3

Yes: 'Aisha was afraid (again) because/thinking that I went to Almaty (again).'
Not: 'Aisha was afraid *saying again* that I went to Almaty.'

b. Ajʃa [(kajtadan) men-i (kajtadan) Almatɯ-ga bar-dɯ dep]
Aisha [(again) I-**ACC** (again) Almaty-DAT go-PST.DEFAULT C]
(kajtadan) kork-tɯ.
(again) be.afraid-PST.3

'Aisha was afraid (again) because/thinking that I went to Almaty (again).'
Not: 'Aisha was afraid *saying again* that I went to Almaty.'

I shall also note that no element, including 'again,' can come between the embedded predicate and *dep*. An illustrative example is offered in (121).

(121) a. *Ajʃa [men-Ø Almatɯ-ga bar-dɯ-m **kajtadan** dep] ajt-tɯ.
Aisha [I-**NOM** Almaty-DAT go-PST-**1SG** **again** C] say-PST.3
Intended: 'Aisha told (the news) *saying again* that $I_{SPEAKER/Aisha}$ went to Almaty.'

b. *Ajʃa [men-i Almatɯ-ga bar-dɯ-Ø **kajtadan** dep] ajt-tɯ.
Aisha [I-**ACC** Almaty-DAT go-PST-**DEFAULT** **again** C] say-PST.3
Intended: 'Aisha told (the news) *saying again* that $I_{SPEAKER}$ went to Almaty.'

Additionally, Major also posits a little-v (in the syntactic sense, Voice in the morphologi-

cal sense) projection that introduces an external argument. If this is the case, Voice-selecting adjuncts, such as instrumental ('with the megaphone') and comitative phrases ('with the neighbor'), agent-oriented and mental-attitude adverbs ('patiently') (Bruening 2013, Matsuoka 2013, Legate et al. 2020), should be able to target the intermediate VoiceP (vP in Major's representation). Once again, this is not borne out. These adverbs can only pick out the matrix or the embedded predicate. The interpretation where they target some *saying* (or some semantically underdetermined) event is tellingly absent.

(122) a. Ajʃa [(**megafon-men**/ **kœrʃi-men**/ **sabɯr-men**) men-Ø
Aisha [(**megaphone-INSTR**/ **neighbor-INSTR**/ **patience-INSTR**) I-**NOM**
(**megafon-men**/ **kœrʃi-men**/ **sabɯr-men**) Almatɯ-ga
(megaphone-INSTR/ neighbor-INSTR/ patience-INSTR) Almaty-DAT
bar-dɯ-m dep] ajt-tɯ.
go-PST-**1SG** C] say-PST.3

Yes: Aisha said that $I_{SPEAKER/Aisha}$ went to Almaty with the megaphone / together with the neighbor/ patiently.'
Not: 'Aisha told (the news) *saying with a megaphone/ saying together with the neighbor/ saying patiently* that $I_{SPEAKER/Aisha}$ went to Almaty.'

b. Ajʃa [(**megafon-men**/ **kœrʃi-men**/ **sabɯr-men**) men-[i]
Aisha [(**megaphone-INSTR**/ **neighbor-INSTR**/ **patience-INSTR**) I-**ACC**
(**megafon-men**/ **kœrʃi-men**/ **sabɯr-men**) Almatɯ-ga
(**megaphone-INSTR**/ **neighbor-INSTR**/ **patience-INSTR**) Almaty-DAT
bar-dɯ-[Ø] dep] ajt-tɯ.
go-PST-**DEFAULT** C] say-PST.3

Yes: Aisha said that $I_{SPEAKER}$ went to Almaty with the megaphone / together with the neighbor/ patiently.'
Not: 'Aisha told (the news) *saying with a megaphone/ saying together with the neighbor/ saying patiently* that $I_{SPEAKER}$ went to Almaty.'

These data point towards the conclusion that *dep* does not spell out a full-blown verbal projection. I also note that if *dep* is a verbal predicate, it is expected to be able to take an indirect object, be causativized, undergo passivization, used with the applicative, be negated (depending on our assumption on what structural height negation operates on), etc. None of these are possible with *dep* in examples such as (101) and (104).

I am not denying the fact that *de-p can* be verb phrase, e.g., in examples such as (117). I merely take issue with the claim that *dep must* be a verb phrase in every instance. For this reason, this work treats *dep* in examples such as (101) and (104) as a complementizer.

3.3.3 Complementation and adjunction

Another aspect of Major's (2021, 2022, 2023) analysis is that it considers all types of *dep*-clauses to be adjuncts on par with adverbial clause headed by /(I)p/, such as (123).

(123) Aisha takes care of her aging mother. She is visiting her mother and wants to make sure that she eats before she heads home.

Aiʃa [mama-sɯ tamak-tɯ ʒe-p] yj-in-e ket-ti.
Aisha [mother-POSS.3 food-ACC eat-ADV] house-POSS3-DAT leave-PST.3
'Her mom having eaten the food, Aisha went home.'

Turning to the Kazakh data, the introduction offered examples of *dep*-clauses that were translated differently: one type of *dep*-clause appears to be in a complement position, the other seems to be an adverbial clause of reason, best translated into English with 'because.' The relevant examples are repeated below. Given Major's account, one must ask: are these *dep*-clauses adjuncts?

(124) a. Ajʃa [men-Ø Almatɯ-ga bar-dɯ-m dep] ajt-tɯ/ ojla-ɯ/
Aisha [I-**NOM** Almaty-DAT go-PST-**1SG** C] say-PST.3/ think-PST.3/
esti-di.
hear-PST.3

'Aisha said/thought/heard [that $I_{SPEAKER/Aisha}$ went to Almaty].' (complement *dep*)

b. Ajʃa [men-i Almatɯ-ga bar-dɯ-Ø dep] ajt-tɯ/ ojla-ɯ/
Aisha [I-**ACC** Almaty-DAT go-PST-**DEFAULT** C] say-PST.3/ think-PST.3/
esti-di.
hear-PST.3

'Aisha said/thought/heard [that $I_{SPEAKER}$ went to Almaty].' (complement *dep*)

(125) a. Ajʃa [men-Ø Almatɯ-ga bar-dɯ-m dep] kork-tɯ.
Aisha [I-**NOM** Almaty-DAT go-PST-**1SG** C] be.afraid-PST.3
'Aisha was afraid because/thinking that I went to Almaty.' (adjunct-like *dep*)

b. Ajʃa [men-i Almatɯ-ga bar-dɯ-Ø dep] kork-tɯ.
Aisha [I-**ACC** Almaty-DAT go-PST-**DEFAULT** C] be.afraid-PST.3
'Aisha was afraid because/thinking that I went to Almaty.' (adjunct-like *dep*)

Starting with the *dep*-clauses in (124), their pattern under causativization favors their complement status. Before we turn to the *dep*-clauses, it is worth taking a closer look at the case patterns under causativization. When the base verb takes no accusative-marked DP (i.e., it is an intransitive verb), the causee must be in the accusative, as in (126a). In contrast, when the base verb phrase already contains an accusative DP (i.e., when it is transitive), the causee cannot be accusative, it must be in the dative. This is shown in (126b).

(126) a. Men sen-i / *sagan ʒumɯs iste-**t**-ti-m.
I **you-ACC / *you.DAT** work-**CAUS**-PST-1SG
'I made you work.' (causative with intransitive base verb)

b. Men *sen-i / sagan surak-tɯ sura-**t**-tɯ-m.
I ***you-ACC / you.DAT** question-ACC ask-**CAUS**-PST-1SG
'I had you ask the question.' (causative with transitive base verb)

If the *dep*-clause is the complement of the matrix predicate, we predict that it would pattern with (126b), i.e., it would only allow a dative causee but not an accusative one. On the flip side, if the *dep*-clause is an adjunct, the causee is predicted to be in the accusative.

(127a) and (127b) show that when the matrix predicate is causativized, the causee, 'you,' is dative, accusative marking is ill-formed.[16] This supports the view that (at least some) *dep*-clauses are complements of the matrix predicate.

(127) a. *Men sen-i [ʒaŋbɯr ʒaw-dɯ ma dep] sura-**t**-tɯ-m.
I **you-ACC** [rain rain-PST.3 Q C] ask-**CAUS**-PST-1SG
Intended: 'I made you ask whether it rained.'

b. Men sagan [ʒaŋbɯr ʒaw-dɯ ma dep] sura-**t**-tɯ-m.
I **you.DAT** [rain rain-PST.3 Q C] ask-**CAUS**-PST-1SG
'I made you ask whether it rained.'

Additionally, *dep*-clause internal material can enter into Agree relation with matrix probes, e.g., the embedded NCI (accusative) subject can be licensed by a matrix negative operator (§3.4.2), the matrix T head can establish ϕ-Agree with an embedded clause-internal DP (when the matrix verb is passivized) and the DP subsequently moves to the matrix subject position (§3.5.1). This is only expected if the *dep*-clause is in argument position.

This said, the *dep*-clauses in (125) do not seem to be in a complement position. For one, it is really hard to see what argument role they would be filling in the matrix clauses

[16] I note that a Kyrgyz consultant tells me that Kyrgyz patterns the same way as Kazakh (I thank Azim Kubanychbekov for his insights on these sentences). However, this is not the case in every Turkic language. For instance, in Turkish the causee is prefered to be in the accusative, although some speakers accept dative causees as well (Özyıldız 2020) An illustrative example follows.

(i) Gaja %Dave-e / Dave-i [Anna tırman-ıyor diye] düşün-**dür**-dü.
Gaja %Dave-DAT / Dave-ACC [Anna climb-PST.3SG DIYE] think-**CAUS**-PST.3SG
'Gaja made Dave think that Anna climbs.'

TURKISH, Özyıldız 2020, ex. (21b)

I attribute this difference to the degree of nominal properties of the *dep*-clause: in some Turkic languages *dep* is noun-y enough to serve as an object, in others it is not. This is not surprising, see Halpert 2019a for a discussion on how embedded clauses with complementizers derived from verbs of saying may have different nominal properties.

with the predicate 'fear.' As I show below, they are also differ in other properties from the complement *dep*-clauses. Most strikingly, the NCI subject (with either nominative or accusative-marking) in these *dep*-clauses, cannot be licenced by matrix negation. This suggests that *dep*-clause internal material cannot enter into Agree relation with matrix probes. A plausible explanation for this is that these *dep*-clauses are adjuncts (or adjunct-like).

One word of caution: while *dep*-clauses such as (125) do seem to have adjunct-like properties, they also exhibit some non-adjunct-like behavior. Remarkably, they allow extraction out of them, which, if they are truly adjuncts, seems to be an island violation. An illustrative example in (128) shows that the embedded clause argument can move to the matrix clause.

(128) a. Almatɯ-ga$_i$ Ajʃa [men-Ø t_i bar-dɯ-m dep] kork-tɯ.
Almaty-DAT Aisha [I-NOM go-PST-1SG C] be.afraid-PST.3
'Aisha was afraid because I went to Almaty.'

b. Almatɯ-ga$_i$ Ajʃa [men-i t_i bar-dɯ dep] kork-tɯ.
Almaty-DAT Aisha [I-ACC go-PST-DEFAULT C] be.afraid-PST.3
'Aisha was afraid because I went to Almaty.'

Note that "regular" adjunct clauses do not allow extraction out of them, as shown in (129b).[17]

(129) a. Aiʃa [mama-sɯ tamak-tɯ ʒe-gen soŋ] yj-in-e ket-ti.
Aisha [mother-POSS.3 food-ACC eat-PRF after] house-POSS.3-DAT leave-PST.3
'After her mom ate the food, Aisha went home.'

[17]Note that only nominative subject case is available in these types of embedded clauses.

b. ***Tamak-tɯ**$_{\text{i}}$ Aiʃa [mama-sɯ t_{i} ʒe-gen soŋ] yj-in-e
food-ACC Aisha [mother-POSS.3 eat-PRF after] house-POSS.3-DAT ket-ti.
leave-PST.3

Intended: 'After her mom ate the food, Aisha went home.'

Major (2023) makes the comment that /(I)p/-clauses might be different from other adverbial clauses in that they allow extraction. This does not seem to hold true in Kazakh. Regular /(I)p/-clauses disallow extraction, similarly to other adjunct clauses.[18] That is,

[18]Major (2023) suggests that the ban against extraction may only impact /(I)p/-clauses that have different subjects from the matrix clause. He offers the following example where the DP 'water-ACC' is supposedly extracted from the /(I)p/-clause that shares the same subject with the matrix clause.

(i) **Su-ni**$_{\text{k}}$ Mahinur$_{\text{i}}$ [EC$_{\text{i}}$ t_{k} ich-ip] tamaq-ni yé-di.
water-ACC Mahinur [drink-CNV] food-ACC eat-PST.3
'Mahinur ate food while drinking water.'

UYGHUR, Major 2023a, ex. (34b)

However, this is not the only interpretation of the structure in (i). The DP 'water' could have remained in the embedded clause but scrambled to the position preceding the (embedded clause-internal) subject, as shown in (ii).

(ii) **[Su-ni**$_{\text{k}}$ Mahinur$_{\text{i}}$ t_{k} ich-ip] *pro*$_{\text{i}}$ tamaq-ni yé-di.
[water-ACC Mahinur drink-CNV] food-ACC eat-PST.3
'Mahinur ate food while drinking water.'

UYGHUR, modified from Major 2023a, ex. (34b)

In order to tell these two structures apart, I use the adverb *bælkim* 'perhaps' in the Kazakh sentence in (iii). The most natural interpretation of (iiia) is that 'perhaps' ranges over both the *eating food in the hotel* and the *going home* predicates. If the embedded object is extracted into the main clause, we expect the same interpretation with respect to 'perhaps' to be available in (iiib). But this is not what we get; in (iiib) 'perhaps' is interpreted as the modifier of the /(I)p/-marked embedded predicate. Crucially, 'perhaps' no longer modifies the matrix predicate, suggesting that the embedded object cannot raise into the matrix clause, it can only undergo scrambling in the embedded clause. This indicates that extraction is not possible from regular /(I)p/-clauses.

(iii) a. Bælkim Ajʃa$_{\text{i}}$ [*pro*$_{\text{i}}$ konakyj-de tamag-ɯn ʒe-p] yj-in-e ket-ti.
perhaps Aisha [hotel-LOC food-POSS.3.ACC eat-ADV] house-POSS.3-DAT leave-PST.3
'Perhaps [eating her food in the hotel, Aisha went to her house].' (We're not sure about the *eating* and the *going to home* events.)

b. [Tamag-ɯn$_{\text{j}}$ bælkim Ajʃa$_{\text{i}}$ konakyj-de t_{j} ʒe-p] *pro*$_{\text{i}}$ yj-in-e ket-ti.
[food-POSS.3.ACC perhaps Aisha hotel-LOC eat-ADV] house-POSS.3-DAT leave-PST.3
Only available: '[Perhaps Aisha ate her food in the hotel], and then she went home.' (We don't say anything about how sure we are about the part that 'she went home.')

there seems to be an interesting distinction between "regular" adjuncts and 'because' *dep*-clauses. While 'because' *dep*-clauses display some adjunct-esque behavior, they also have non-adjunct-like properties. As this chapter mainly focuses on the complement *dep*-clauses, I leave it to future work to determine exactly how the 'because' *dep*-clause composes with the matrix clause.

(130) ***Tamak-tɯ**$_{\text{i}}$ Aiʃa [mama-sɯ t_{i} ʒe-p] yj-in-e ket-ti.
food-ACC Aisha [mother-POSS.3 eat-ADV] house-POSS3-DAT leave-PST.3
Intended: 'Her mom having eaten the food, Aisha went home.'

3.4 The position of the nominative and accusative subject

Previous work on Turkic (hyper)raising constructions has long established that the case "alternation" on embedded subjects corresponds to different syntactic positions: loosely speaking, the nominative subject is located in the lower, canonical embedded clause-internal subject position, whereas the accusative subject is higher in the structure (Kornfilt 1977, 1996, 2007, Zidani-Eroğlu 1997a, Moore 1998, Şener 2008, 2011, Predolac 2017, Major 2021, 2022, 2023). This claim is based on a number of diagnostics showing that the accusative, but not the nominative subject participates in matrix clause operations. I discuss these in detail using Kazakh data below. The common conclusion drawn from this set of facts is that the embedded subject can undergo raising to the matrix object position, where the DP is assigned the accusative case.[19] The bottom line is that these approaches are in agreement in that the subject raises out of the embedded clause. This section shows while the embedded

[19]But recall that there are some divergent views on which position the subject gets raised to. Major 2021, 2022, 2023 puts forth the view that the subject is raised to the object position of the verb *de-* 'to say' (i.e., under this approach the corresponding form of *dep* is not a complementizer but a verb phrase.

clause subject can indeed participate in matrix operations (§3.4.1-§3.4.2), yet word order facts indicate it to be located in the embedded clause (§3.4.3). I argue that this contradiction can be resolved if one assumes that the accusative subject is at the edge of the embedded clause (i.e., Spec,CP), which allows it to participate in either matrix or embedded clause-internal operations.

3.4.1 Matrix constituents and the embedded subject

One of the most compelling arguments in favor raising into the matrix clause comes from word order facts. It has been long noticed that the accusative but not the nominative embedded subject can intermingle with matrix clause material (for Turkish: Zidani-Eroğlu 1997a, Predolac 2017, for Japanese: Tanaka 2002).

This is also true in Kazakh. (131a) shows that the nominative subject cannot be followed by matrix clause material, e.g., the superordinate subject under scrambling. In contrast, the accusative embedded subject can precede the matrix subject, as in (131b).[20]

(131) a. *Men$_{\text{i}}$-Ø Ajʃa [t_{i} Astana-ga bar-dɯ-m dep] ajt-tɯ.
I-**NOM** Aisha [Astana-DAT go-PST-1SG C] say-PST.3
Intended: 'When it comes to me, Aisha said that I$_{\text{Aisha/SPEAKER}}$ went to Astana.'

[20]Note that the consultant who accepts accusative subjects with full ϕ-agree in the embedded clause finds (i) grammatical, where the accusative-marked DP is in the matrix clause and the embedded predicate bears full agreement markers.
(i) Men$_{\text{i}}$-i Ajʃa [t_{i} Astana-ga bar-dɯ-m dep] ajt-tɯ.
I-**ACC** Aisha [Astana-DAT go-PST-**1SG** C] say-PST.3
'When it comes to me, Aisha said that I$_{\text{SPEAKER}}$ went to Astana.'

b. Men$_{\text{i}}$-i Ajʃa [t_{i} Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
I-**ACC** Aisha [Astana-DAT go-PST-DEFAULT C] say-PST.3
'When it comes to me, Aisha said that $\text{I}_{\text{SPEAKER}}$ went to Astana.'

Additionally, the accusative embedded subject can raise to a position below the matrix subject, shown in (132b). This clearly indicates that the accusative subject *can* raise into the matrix clause, in contrast to the nominative embedded subject. Note, however, that the fact that the accusative subject *can* raise into the matrix clause does not mean that it *must* do so.

(132) a. Ajʃa Ajnur-ga [men$_{\text{i}}$-i Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha Ainur-DAT [I-**ACC** Astana-DAT go-PST-DEFAULT C] say-PST.3
'Aisha told Ainur that I went to Astana.'

b. Ajʃa men$_{\text{i}}$-i Ajnur-ga [t_{i} Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha I-**ACC** Ainur-DAT [Astana-DAT go-PST-DEFAULT C] say-PST.3
'Aisha told Ainur that I went to Astana.'

c. Men$_{\text{i}}$-i Ajʃa Ajnur-ga [t_{i} Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
I-**ACC** Aisha Ainur-DAT [Astana-DAT go-PST-DEFAULT C] say-PST.3
'Aisha told Ainur that I went to Astana.'

3.4.2 NCI licensing and the embedded subject

§1.2 argued that the following assumptions hold true for Kazakh NCI licensing: (i) NC is an Agree operation between interpretable and uninterpretable [NEG] features; (ii) NC obeys the weak PIC; (iii) the locus of interpretable negation in Kazakh is a phonologically silent ¬Op located above the TP.

Against this backdrop, consider the following examples with embedded clause-internal negation. (133a) demonstrates that the nominative NCI subject can be licensed under clause-mate negation. In contrast, (133b)[21] shows that the accusative subject case marking is not grammatical under embedded clause-internal negation.

(133) a. Ajʃa [eʃkim-Ø kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**NOM** lake-DAT go-**MA**-PST.3 C] say-PST.3
'Aisha said [that nobody went to the lake].

b.??* Ajʃa [eʃkim-di kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**ACC** lake-DAT go-**MA**-PST.3 C] say-PST.3
Intended: 'Aisha said [that nobody went to the lake].

The nominative subject behaves as expected: it remains under the scope of the negative operator, i.e, it must be in the canonical subject position, in Spec,TP. The accusative subject, on the other hand, must be in a higher syntactic position than the negative operator. Importantly, the accusative subject does not reconstruct back to its base position for scope.[22]

[21] While consultants reject examples such as (133b), they also note that this judgement is not as clear-cut as for the other NCI constructions.

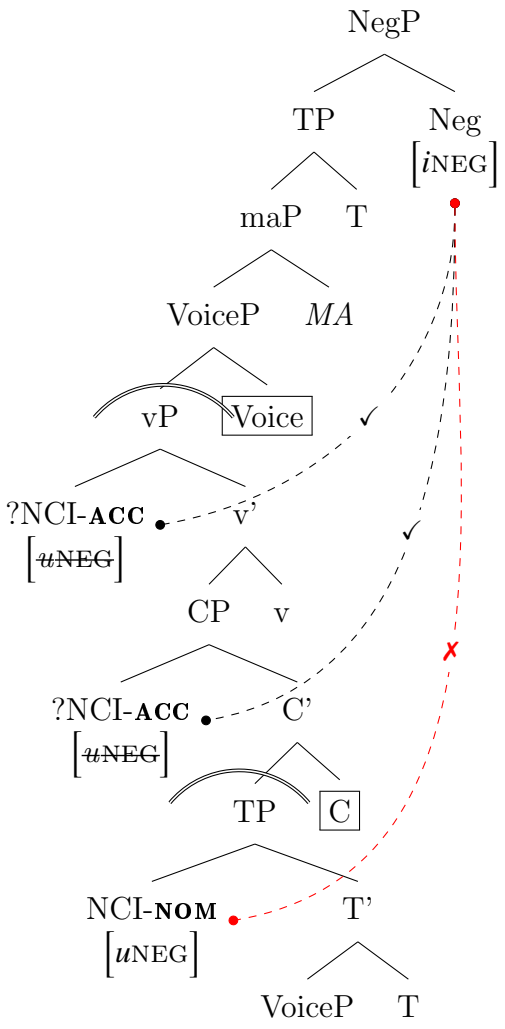
[22] Recall that the genitive NCI subject in nominalized clauses can be licensed by either clause-internal or clause-external negation. This indicates that the genitive subject undergoes (non-A) movement to a higher position but it can reconstructs for NCI negation. For detailed discussion see Chapter 2.

There can be two potential reasons why the accusative NCI cannot be licensed under embedded clause-internal negation: (i) prolepsis, i.e., the NCI is located in the matrix clause and there is a co-indexed pronominal element in the embedded clause (for counterarguments against this view see §3.4.6); or (ii) the embedded subject is A-moved in the embedded CP. In what follows, I argue in favor of the latter account.

Turning to NCI licensing under superordinate clause-internal negation, we have a clear prediction concerning nominative NCI embedded subjects: if they are in the embedded Spec,TP position, matrix negation cannot license them. (134) demonstrates why the nominative NCI subject is not expected to be licensed in this configuration. The subject is in the domain of the embedded C, a phase head, therefore only probes located between the embedded CP and the next phase head (the matrix Voice head) can establish Agree with it as per the weak PIC. Once the matrix Voice head is merged, goals in the domain of the embedded C become inaccessible for subsequent probes. Therefore, if the embedded nominative NCI subject is indeed in the Spec,TP position, it is not predicted to be licensed by matrix negation.

The accusative NCI subject is predicted to be licensed under matrix clause negation if it is located at the edge of the embedded clause or in a higher syntactic position (e.g., in the matrix direct object position). The reason behind this is the following: the domain between matrix Voice and the embedded C is accessible for probes located above Voice (but below the next phase head). Therefore, if the accusative subject is located in Spec,CP or higher, the NCI is expected to be licensed. The relevant configuration is represented in (134).

(134) Predicted legal and illegal NCI licensing configurations under matrix negation



Turning to the corresponding Kazakh sentences, (135a) shows that the prediction sketched out above is borne out. The nominative NCI subject cannot be licensed by superordinate negation.[23] This indicates that the nominative subject is in Spec,TP in the

[23]It is noteworthy that there have been variable judgements reported regarding Turkish nominative NCI subjects under matrix negation. The relevant example is given in (i). Note that the complementizer *diye* is omitted in this sentence. Zidani-Eroğlu (1997a) and Şener (2008) accept sentences such as (i), while others including Kornfilt (1984), Kural (1993), Kennelly (1996), Kelepir (2001), Predolac (2017) reject it.

(i) (Siz) [kimse-Ø bu kitab-ı oku-du] san-mı-yor-sunuz.
you.PL [n.who-NOM this book-ACC read-PST.SG3] think-MA-PROG-2PL
'You don't think that anybody read this book.'

TURKISH, Zidani-Eroğlu 1997a: 226, ex. (28b)

One potentially important implication that, to the best of my knowledge, nobody has explored is the fol-

embedded clause. In contrast, the accusative NCI subject can get licensed in this configuration,[24] as shown in (135b). That is, the accusative subject must be located in Spec,CP or in a higher position.

(135) a. *Ajʃa [eʃkim-[Ø] kœl-ge bar-dɯ dep] ajt-[pa]-dɯ.
Aisha [n.who-**NOM** lake-DAT go-PST.3 C] say-**MA**-PST.3
Intended: 'Aisha didn't say [that anyone went to the lake].

lowing: if the judgements reported in Zidani-Eroğlu 1997a and Şener 2008 are valid, they suggest that the embedded clause lacks a phasal head C, as there is no phasal head that could block Agree between matrix negation and the nominative embedded subject. The absence of the phasal C is commonly associated with defective T (as the result of C-to-T inheritance). This raises a tough question for the "defectiveness" analyses that try to derive the accusative marking from the embedded defective T head: if T is defective in (i), how can these accounts explain that the subject is not in the accusative? In contrast, the proposal I put forth can account for these facts: subject raising is driven by features on the clausal head (regardless whether it is a phasal head or not).

[24]It is noteworthy that the accusative NCI subject in 'because' *dep*-clauses cannot be licensed by matrix negation. This is shown in (ia). As expected, the nominative NCI subject is also ill-formed in this configuration, as in (ib).

(i) a. *Ajʃa [eʃkim-[di] Astana-ga bar-ɯ dep] kork-kan **ʒok**.
Aisha [n.who-**ACC** Astana-DAT go-PST.DEFAULT C] be.afraid-PRF **NEG**
Intended: Aisha wasn't afraid because anybody went to Astana.

b. *Ajʃa [eʃkim-[Ø] Astana-ga bar-ɯ dep] kork-kan **ʒok**.
Aisha [n.who-**NOM** Astana-DAT go-PST.3 C] be.afraid-PRF **NEG**
Intended: Aisha wasn't afraid because anybody went to Astana.

I assume that (ia) is not ungrammatical because the accusative subject is in a different position than in *dep* complement clauses. If this was the case (i.e., if the accusative subject was in a lower position), we would expect that accusative NCI subjects should be licensable by *dep*-clause-internal negation. (iia) demonstrates that this is not borne out, accusative NCI subjects are ill-formed under embedded-clause negation as well. Consequently, the ungrammaticality in (ia) arises because Agree cannot be established between an adjunct clause-internal element and the matrix negative operator.

(ii) a. *Ajʃa [eʃkim-[di] Astana-ga bar-**ma**-ɯ dep] kwan-dɯ.
Aisha [n.who-**ACC** Astana-DAT go-**MA**-PST.DEFAULT C] rejoice-PST.3
Intended: Aisha was happy because nobody went to Astana.

b. Ajʃa [eʃkim-[Ø] Astana-ga bar-**ma**-ɯ dep] kwan-dɯ.
Aisha [n.who-**NOM** Astana-DAT go-**MA**-PST.3 C] rejoice-PST.3
Aisha was happy because nobody went to Astana.

b. Ajʃa [eʃkim-di kœl-ge bar-dɯ dep] ajt-pa-dɯ.
Aisha [n.who-**ACC** lake-DAT go-PST.3 C] say-**MA**-PST.3
'Aisha didn't say about anyone$_i$ [that they$_i$ went to the lake].

In conclusion, the nominative subject is in the canonical subject position in the embedded clause. While some authors (e.g., Zidani-Eroğlu 1997a) take the NCI licensing facts with accusative subjects to indicate that the subject raised to the matrix clause, I showed that this is not necessarily true, the accusative subject may be located at the edge of the embedded clause (for the same argument see Şener 2008).

3.4.3 Embedded clause constituents and the accusative subject

The previous sections showed that the accusative subject can interact with matrix probes and (optionally) raise into the matrix clause. This section presents word order facts that demonstrate that the accusative subject may also remain in the embedded clause.

Firstly, adverbs modifying the embedded predicate can precede both the nominative and accusative subject. This is illustrated in (136) where the adverb 'last week' can only construe with the embedded predicate 'went' because the superordinate predicate 'think' is in the present tense. The adverb 'last week' can precede both the nominative and the accusative subject. The same adverb placement facts have been observed for Turkish (see Şener 2008, ex. (23)).

(136) a. (Men) **[œtken apta-da** Ajʃa-[Ø] Almatɯ-ga bar-dɯ dep]
(I) **[past week-LOC** Aisha-**NOM** Almaty-DAT go-PST.3 C]
ojla-j-mɯn.
think-PRS-1SG

'I think that last week Aisha went to Almaty.'

b. (Men) **[œtken apta-da** Ajʃa-[nɯ] Almatɯ-ga bar-dɯ dep] ojla-j-mɯn.
(I) **[past week-LOC** Aisha-**ACC** Almaty-DAT go-PST.3 C] think-PRS-1SG

'I think that last week Aisha went to Almaty.'

As the adverb cannot move into the matrix clause, shown by the ill-formed (137), (136b) clearly indicates that the accusative subject can be embedded clause-internal.

(137) *œtken apta-da$_i$ men [t_i Ajʃa-[Ø/nɯ] Almatɯ-ga bar-dɯ dep]
past week-LOC I [Aisha-**NOM/ACC** Almaty-DAT go-PST.3 C]
ojla-j-mɯn.
think-PRS-1SG

Intended: 'I think that last week Aisha went to Almaty.'

Secondly, both the nominative and the accusative subjects can be focused in the embedded clause, in which case the focused phrase is in the immediately pre-verbal position. (138a) and (138b) show that both the nominative and accusative subjects can undergo focus movement in the embedded clause.[25] This is only possible if these subjects are located in

[25]Notice that the accusative and nominative subjects are used in different contexts. The contexts are not immediately relevant at this point; I come back to this question in §3.6.2.3.

the subordinate clause.

(138) a. A and B are talking.

A: – Aisha mentioned that someone got sick with Covid but I forgot who. Do you remember?

B: – Yes, ...

Ajʃa [koronavirus-pen Ajnur-$\boxed{\emptyset}$ awɯr-ɯp kal-dɯ dep] ajt-tɯ.

Aisha [Covid-INSTR Ainur-**NOM** be.sick-IP AUX-PST.3 C] say-PST.3

'Aisha said that AINUR got sick with Covid.'

b. A and B are talking about Ainur and Saule (what they are up to these days, etc.) At some point in the conversation about Ainur and Saule, A says:

A: – Aisha said that Saule got sick with Covid.

B: – No, ...

Ajʃa [koronavirus-pen Ajnur-$\boxed{\text{dɯ}}$ awɯr-ɯp kal-dɯ dep] ajt-tɯ.

Aisha [Covid-INSTR Ainur-**ACC** be.sick-IP AUX-PST.3 C] say-PST.3

'Aisha said that (out of a contextually salient group) it was Ainur who got sick with Covid.'

3.4.4 Scrambling the embedded clause

Additional evidence provided by clausal movement also supports the view that the accusative subject can be in the embedded clause. The following sentence in (139) shows that the entire *dep*-clause can move to the left of the matrix subject when it is the focus of the superordinate clause. Importantly, *dep*-clauses with either nominative or accusative subjects can undergo movement. This suggests that the accusative DP is contained in the embedded clause and this is the reason it can move together with the *dep*-clause.

(139) Keʃe [Sæule-Ø/-ni Almatɯ-ga bar-dɯ dep] Ajʃa ajt-ɯ.
yesterday [Saule-**NOM/-ACC** Almaty-DAT go-PST.3 C] Aisha say-PST.3
'It was Aisha who said yesterday that Saule went to Almaty.'

3.4.5 Interim summary

Negative Concord Item licensing facts in §3.4.2 show that the nominative embedded subject is in the canonical subject position in the subordinate clause (embedded negation can license them, matrix negation cannot). In contrast, the accusative subjects are higher in the structure, as evidenced by the fact that they can only be licensed by matrix negation but not by embedded clause-internal negation. The table in (140) offers a summary of the NCI licensing facts.

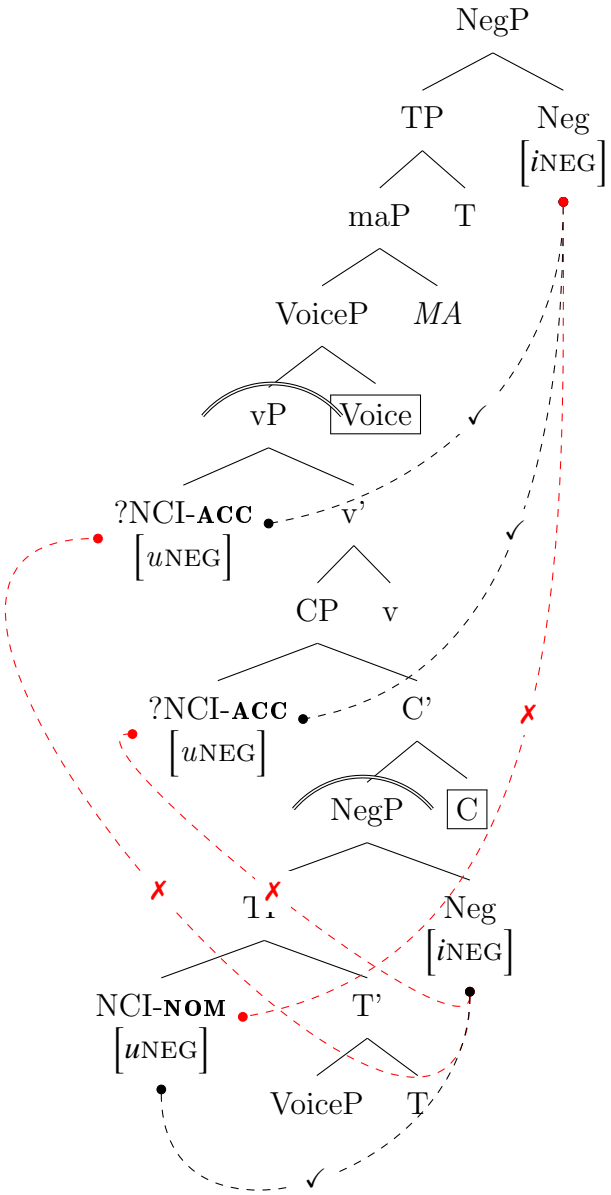
(140) Summary of the NCI licensing facts (in complement *dep*-clauses)

embedded clause-internal negation	NOM NCI subject	✓
	ACC NCI subject	✗
embedded clause-external negation	NOM NCI subject	✗
	ACC NCI subject	✓

Given the Upward Agree-based theory of Negative Concord (Zeijlstra 2004, 2008, 2012) combined with the weak PIC (Chomsky 2001), the accusative NCI subject licensing pattern suggests that the accusative embedded subject is either situated in the matrix clause or at the very edge of the embedded clause, as represented on the tree in (141). Both of these positions are compatible with the matrix and embedded clause-internal negation facts: (i) both the matrix object and the embedded Spec,CP positions are within the accessible domain

for the matrix Op¬, and (ii) neither of these positions are within the scope of the embedded Op¬.

(141) Possible accusative NCI subject configurations

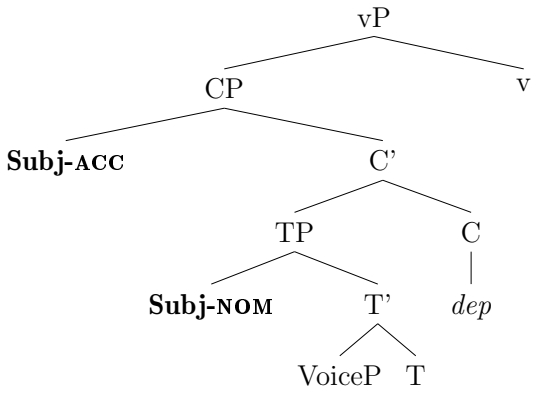


How can we decide between these two possible accusative subject positions? Word order facts presented in §3.4.1 showing that the accusative embedded subject can intermingle with

matrix clause material, could potentially indicate that the accusative embedded subjects is in the matrix object position, and, indeed, such and similar empirical observations have been used to argue for this position (see e.g., Zidani-Eroğlu 1997a). However, these word order facts do not have to lead us to this conclusion, it is possible that the accusative-marked embedded subject *optionally* raises to the superordinate clause.

§3.4.3 argued that this latter view is the correct one. This section presented data demonstrating that the accusative subject is in the embedded clause (it can participate in embedded clause-internal focus movement, embedded clause-internal adverbs can precede it). These word order facts are only possible if the accusative embedded subject is still in the embedded clause, that is, the accusative subject must in Spec,CP of the embedded clause[26] (but it can optionally move to the matrix clause). The position of the accusative and nominative embedded subject is represented in (142).

(142) The position of the accusative and nominative embedded subjects



[26]The landing site of embedded clause external material preceding the accusative subject is in a further specifier position of the embedded CP, assuming multiple specifiers.

3.4.6 Interlude: Against anaphoric dependency and prolepsis

The data presented so far indicates that the accusative-marked embedded subject is either in the matrix clause or in a position accessible to matrix operations. One question that arises: could it be possible that the accusative-DP is base-generated in the matrix clause and it is co-indexed with a phonologically zero element in the embedded clause? There are two analytical options along these lines that are plausible: (i) the accusative-marked DP is base-generated in the matrix clause and it has a purely anaphoric relation to an element (e.g., *pro*) in the embedded clause; or (ii) the accusative DP is in a proleptic relation with a resumptive element in the subordinate clause. The purpose of this interluded section is to show that neither one of these analyses can explain the Kazakh accusative-marking patterns.

3.4.6.1 Anaphoric dependency

Let us start with the first analytical option: anaphoric dependency between the matrix DP and a coreferring element in the subordinate clause, as illustrated in (143). This analysis comes with a number of predictions: (i) if the accusative-marked DP is base-generated in the matrix clause, lexical restrictions are predicted to emerge with some verbs (i.e., it is predicted that the set of *dep*-clause selecting verbs would not entirely overlap with the accusative DP selecting verbs); (ii) the co-indexed element is not limited to a single embedded position (i.e., it can be the indirect object, etc.) and (iii) the co-indexing is not restricted by syntactic island domains (i.e., the coreferential element can be in a syntactic island). As I show below, none of these predictions are borne out.

(143) $[_{\text{CP}}$ ... **DP**$_{\text{i}}$-**ACC** $[_{\text{CP}}$ **pro**$_{\text{i}}$ ... *dep*] V]

In relation to prediction (i), as far as I can tell, the *dep*-clause selecting verbs are the

very same verbs that can co-occur with an accusative DP with a coreferential element in the embedded clause. If constructions with accusative-DPs have an entirely independent analysis from that of *dep*-clauses, the complete overlap between the verbs selecting for accusative DPs and *dep*-clauses is conspicuous.

Prediction (ii) is not borne out either, as only the embedded subject can be co-referent with the accusative-marked DP, other constituents cannot be co-indexed with the matrix object. This is illustrated by the ill-formed examples in (144). In (144a), the matrix direct object 'me' is intended to be co-referent with a pronominal element in the embedded indirect object position, and in (144b) the accusative DP is co-indexed with the possessor in the subordinate clause.[27] The ungrammaticality of these sentences is unexpected if there is merely an anaphoric relation between the accusative DP and an embedded *pro*.

(144) a. *Ajʃa men$_i$-i [Sæule *pro*$_i$ sɯjlɯk ber-di dep] ajt-tɯ.
Aisha I-ACC [Saule gift give-PST.3 C] say-PST.3
Intended: 'Regarding me, Aisha said that Saule gave me a gift.'

b. *Ajʃa men$_i$-i [*pro*$_i$ mama-m Almatɯ-ga bar-dɯ dep] ajt-tɯ.
Aisha I-ACC [mother-POSS.1SG Almaty-DAT go-PST.3 C] say-PST.3
Intended: 'Regarding me, Aisha said that my mom went to Almaty.'

Additionally, the putative anaphoric dependency between the accusative DP and pronominal element is not expected to be island-sensitive. It has been noted in the literature that in languages where there is anaphoric or proleptic relation between a matrix DP and an embedded co-referring element, the relevant dependency is not island sensitive. An illustrative example comes from Nez Perce, which has a dependency that Deal (2017) characterizes

[27]These sentences remain ungrammatical when the accusative-marked phrase, *meni* is placed to the left of the matrix subject.

as prolepsis[28] (as opposed to the the above-discussed covert hyperraising configuration). In proleptic constructions, such as (145a), the accusative-marked DP is unambiguously located in the matrix clause and it cannot appear in the embedded clause (cf. ex. (8) in Deal 2017). In this construction, the accusative DP can be co-indexed with a pronominal element in an island, e.g., in an adjunct clause. (145b) offers an example where the matrix object is co-indexed with the subject of an adverb clause. The relation between these two elements cannot be a movement dependency as it would involve movement out of an adjunct island. However, anaphoric (or proleptic) relations can be established out of an island.

(145) a. 'Aayat-onm **mamay'as$_i$-na** hi-nees-nek-se [$_{CP}$ watiisx **pro$_i$**
woman-ERG **children-ACC** 3SUBJ-O.PL-think-IMPERF [one.day.away **3SG**
hi-pa-paay-no'].
3SUBJ-S.PL-arrive-FUT]

'The woman thinks that the children will arrive tomorrow.'

b. ?'Aayat-onm **mamay'as$_i$-na** hi-nees-nek-se [$_{CP}$ <ke kaa **pro$_i$**
woman-ERG **children-ACC** 3SUBJ-O.PL-think-IMPERF [<when **3SG**
hi-pa-paay-no'>, hi-lloy-no' qiiwn].
3SUBJ-S.PL-arrive-FUT> 3SUBJ-be.happy-FUT old.man.NOM]

'The woman thinks the kids that when they arrive, the old man will be happy.'

NEZ PERCE, Deal 2017: 4, ex. (6) and (8)

It is telling that accusative marking is island-sensitive in Kazakh. (146b) demonstrates that the accusative DP cannot be co-referent with the subject of the adverb clause (cf. the

[28]Note that proleptic constructions and purely anaphoric relations both display island sensitivity. As discussed below, proleptic and anaphoric constructions are distinguished by the former exhibiting certain Ā-dependencies (weak island and reconstruction effects).

grammatical (146a), where the adverb clause's subject is nominative). Consultants characterize sentences such as (146b) "nonsensical." This is in sharp contrast with the Nez Perce construction presented in (145b). The contrast between Kazakh and Nez Perce indicates that the Kazakh accusative DP is not a base-generated element in the matrix clause co-indexed with a pronoun in the subordinate clause.

(146) a. Ajʃa [$_{CP}$ <$_{Adv}$bala-lar-$\boxed{\emptyset}$ yj-ge kel-gen-de> Ajnur kwan-adɯ
Aisha [$_{CP}$ [$_{Adv}$child-PL-**NOM** house-DAT come-PRF-LOC] Ainur rejoice-PRSP.3
dep] ojla-p ʒatɯr.
C] think-IP AUX.PRES.3

'Aisha thinks [that Ainur will be happy [when the kids arrive home]].'

b. *Ajʃa bala-lar$_i$-$\boxed{\text{dɯ}}$ [$_{CP}$ <$_{Adv}$*pro*$_i$ yj-ge kel-gen-de> Ajnur
Aisha child-PL-**ACC** [$_{CP}$ <$_{Adv}$ house-DAT come-PRF-LOC> Ainur
kwan-adɯ dep] ojla-p ʒatɯr.
rejoice-PRSP.3 C] think-IP AUX.PRES.3

Intended: 'Regarding the kids, Aisha thinks [that Ainur will be happy [when they arrive home]].'

3.4.6.2 Prolepsis

The term prolepsis refers to a construction where a matrix clause constituent is semantically related to an embedded clause position without any movement having taken place (Salzmann 2017a, Salzmann 2017b). Salzmann characterizes resumptive prolepsis as an alternative strategy to the otherwise banned (or restricted) long Ā-movement in Standard German (see

Salzmann 2017a for ample discussion on the dialectal variation attested in relation to long Ā-movement). This strategy has been observed in a number of other languages, for instance in Dutch (Schippers 2012), French (Tellier 1991) and in Serbo-Croatian (Bošković 2009). (147) offers an illustrative German example: a matrix constituent (*ihm* 'he.DAT'), called the "proleptic object" or "prothetic object," is semantically connected to the embedded clause subject, *er* 'he.'

(147) Ich glaube von **ihm**$_i$, dass **er**$_i$ ein ganz guter Trainer is.
I believe.1SG of he.DAT that he a quite good coach be.3SG
I believe of him that he is a pretty good coach.
GERMAN, Salzmann 2017a: 262, ex. (5)

Proleptic constructions share some key properties with purely anaphoric structures. Firstly, co-reference is possible between the matrix DP and embedded pronominal elements located in several embedded positions, such as subject (in (147)), object (in (148a)), possessor (in (148b)), object of preposition (in (148c)), etc. (Salzmann 2017a: 267).

(148) a. der Mann, **von dem** ich glaube, dass Maria **ihn** heiratet
the man **of who.DAT** I believe.1SG that Maria **him** marry.3SG
'the man of whom I believe Mary will marry him'

b. der Mann, **von dem** ich glaube, dass **seine** Mutter alt ist
the man **of who.DAT** I believe.1SG that **his** mother old be.3SG
'the man of whom I believe that his mother is old'

c. der Mann, **von dem** ich glaube, dass jeder stolz auf **ihn** ist
the man **of who.DAT** I believe.1SG that everyone proud on **him** be.3SG

'the man of whom I believe that everyone is proud of him'

GERMAN, Salzmann 2017a: 267–8, ex. (15)

Secondly, just like anaphoric constructions, prolepsis is also insensitive to islands. (149a) and (149b) demonstrate that the co-referential pronoun can be in a complex noun phrase island or in an adjunct island.

(149) a. der Mann, **von dem** ich denke, dass Maria <jedes Buch liest, das **er** schreibt>
the man **of who.DAT** I believe.1SG that Maria <every book read.3SG which **he** write.3SG>

'the man of whom I think that Mary reads every book that he writes'

b. das [Bild], **von dem** ich fürchte, dass alle lachen, <weil ich **es** gezeigt habe>
the picture **of which.DAT** I fear.1SG that everyone laugh.1SG <because I **it** show.PTCP have.3SG>

'the picture of which I fear that everyone laughs because I showed it'

GERMAN, Salzmann 2017a: 268, ex. (16)

The crucial difference between purely anaphoric and proleptic constructions is that pro-

lepsis exhibits A and Ā-movement dependencies. Specifically, Salzmann (2017a) shows that German prolepis displays (i) weak island effects with extraction, and (ii) reconstruction effects. Regarding weak island effects,[29] regular *dass*-clauses are permeable to (argument) *wh*-extraction, as in (150a), whereas *wh*-extraction is marginal from proleptic constructions, shown in (150b).[30]

(150) a. **Wen**$_i$ glaubst du, dass Hans $_{-i}$ liebt?
whom believe.2SG you that John love.3SG

'Who do you believe that John loves?'

b. ?? **Wen**$_i$ glaubst du von Hans, dass er $_{-i}$ liebt?
whom believe.2SG you of John that he love.3SG

Intended: 'Who do you believe of John that he loves?'

GERMAN, Salzmann 2017a: 279, ex. (30)

Additionally, Salzmann (2017a) demonstrates that proleptic constructions exhibit reconstruction for idiom interpretation, variable binding and Principle A. The A and Ā-effects

[29] Weak islands are domains that are transparent for certain types of extractions but not others. The following domains are the most commonly discussed inducers of weak island effects: tenseless *wh*-islands, negative and other affective operators, factive and response stance predicates (for a complete list and general discussion see Szabolcsi 2006 and Abrusán 2014). In terms of the category of acceptable extractee, question words that refer to individuals or indicidialized properties are acceptable extractees, whereas other question words are not. An illustrative example is offered in (i).

(i) a. **Which man** are you wondering <whether to invite _ >?
(extracting a *wh*-phrase referring to an individual from a tenseless *wh*-island is OK)

b. ***How** are you wondering <whether to behave _ >?
(extracting a non-individual referring *wh*-phrase from a tenseless *wh*-island is bad)

Szabolcsi 2006: 505, ex. (141)

Note that the category of the admissible extractee has been a contentious question. Huang 1982, Lasnik and Saito 1990, 1994 claim that arguments are permissible extractees but adjuncts are not. Rizzi 1990 and Cinque 1990 among many others argue that only referential items can be extracted from weak islands. A similar claim is made by É. Kiss 1993, who submits that only specific noun phrases can undergo extraction.

[30] Additionally, adjunct *wh*-extraction is banned out of proleptic constructions but allowed from regular *dass*-clauses. For the relevant examples see Salzmann 2017a: 279.

such as reconstructions and weak island effects prompt Salzmann to propose an analysis for prolepsis where the matrix predicate composes with a CP that has an empty operator (serving as a lambda operator) in its Spec,CP position turning the embedded clause into a derived predicate. Thus, the CP is a propositional argument that consists of a property and an individual. The so-called proleptic object is merged as the individual that satisfies the open slot of this derived predicate. For discussion of how the operator in the emebdded Spec,CP accounts for the A and Ā-effects, see Salzmann (2017a): 292–318.

Kazakh accusative DPs pattern differently in significant ways from proleptic constructions. As discussed in §3.4.6.1, only the subject of the embedded clause can be co-referent with the matrix accusative DP (see (144)) and the relationship between the matrix object and the embedded pronoun is island-sensitive (see (146b)). The absence of these properties strongly suggest that the investigated Kazakh construction is not proleptic.[31] I note that other Turkic languages might have prolepic *dep*-constructions. A particularly strong contestant comes from Uyghur. I direct the reader to the work of Rabinovitch (2022, 2023), who discusses Uyghur accusative-DPs that can be co-referent not only with *dep*-clause subjects but with other embedded clause constituents.

3.5 The accusative DP and A-movement to the matrix clause

The previous section established that the accusative DP is at the edge of the embedded clause but it can optionally move to the matrix clause. This section investigates what type of matrix positions the accusative subject can occur in. We look at passivization, binding and Weak Crossover data in more detail and establish that when the accusative subject moves to the superordinate domain, it participates in A-dependencies.

[31]I note that a potential control analysis, whereby the accusative DP is in the matrix clause controlling a PRO subject in the embedded domain, can be also ruled out. If the accusative DP is in the matrix clause, it is unclear how it can intermingle with embedded clause material (see §3.4.3 for discussion).

3.5.1 Passivization

As observed in other Turkic languages (e.g., in Turkish (Moore 1998)), the embedded subject can become the subject of the matrix clause when the superordinate predicate is passivized.[32] The matrix verb, *ajt-ɯl-* 'be said,' in (151a) is in the passive form, indicated by the passive suffix /(I)l/ on the verb stem. The subject of the matrix sentence is the embedded subject, which is evident from the agreement marking on the matrix predicate indicating ϕ-agree with the first person singular subject.[33] Note that the subject of the passive predicate must be in the nominative; accusative marking is disallowed as demonstrated by (151b).

(151) a. Men$_i$-[Ø] [t_i œl-ip kal-dɯ dep] ajt-**ɯl**-dɯ-[m].
I-**NOM** [die-IP AUX-PST.DEFAULT C] say-**PASS**-PST-**1SG**
'It was said about me that I died.'

b. *Men$_i$-[i] [t_i œl-ip kal-dɯ dep] ajt-**ɯl**-dɯ-m.
I-**ACC** [die-IP AUX-PST.DEFAULT C] say-**PASS**-PST-1SG
Intended: 'It was said about me that I died.'

(152) offers a representation of the configuration that gives rise to the described passivization facts. The matrix T bears uninterpretable ϕ-features and EPP probes; as the matrix predicate is passive, there is no available goal in the matrix domain. Given that the edge

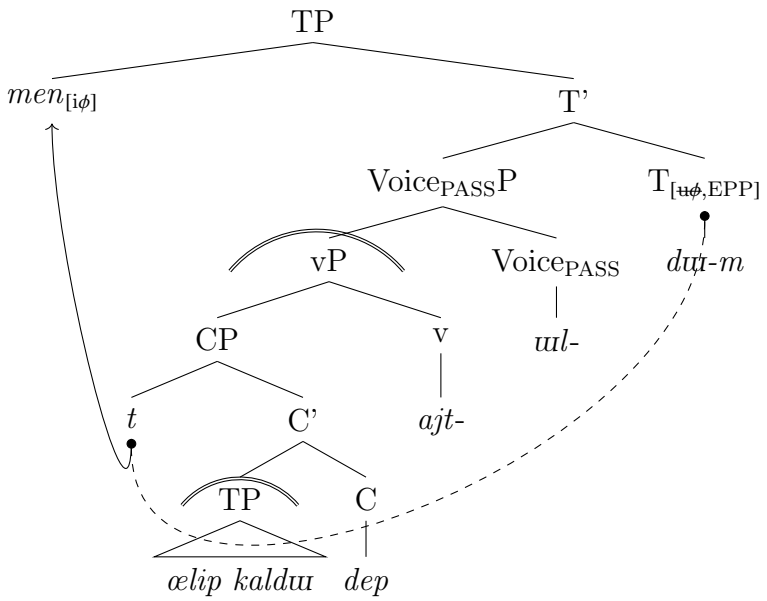
[32]This is not possible in 'because' *dep*-clauses. This also corroborates the claim that 'because' *dep*-clauses are adjunct(-like).

[33]Note that for the consultant who accepts agreement with the accusative subject on the embedded predicate, full agreement in the subordinate clause is available even under passivization. This is shown in (i). §3.6.2.4 offers an exhaustive discussion of the subject case marking patterns under passivization.

(i) Men$_i$-[Ø] [t_i œl-ip kal-dɯ-[m] dep] ajt-**ɯl**-dɯ-[m].
I-**NOM** [die-IP AUX-PST-**1SG** C] say-**PASS**-PST-**1SG**
'It was said about me that I died.'

of the embedded clause is permeable to matrix probes, a goal in this position can establish Agree with the matrix T. As argued in detail in the previous section, the accusative subject is located in the embedded Spec,CP position, therefore it is accessible to enter into Agree relation with the matrix T and to subsequently undergo movement to the matrix Spec,TP position.

(152) Moving to subject under passivization



The passivization facts provide particularly strong evidence in favor of the accusative embedded subject being in an A-position, as Ā-positions are not permissible targets for ϕ-probes.

3.5.2 Binding and WCO amelioration effects

Additional evidence for A-movement into the matrix clause[34] comes from anaphor binding and Weak Crossover amelioration effects.

When the accusative subject moves to the superordinate clause, it can create new binding relations. There is an anaphor, *œzi* 'self,' in the possessor position of the matrix subject in (153a), which cannot be co-referent with the embedded subject as there is no c-command relation between the DP and anaphor. In this case, *œzi* serves as a logophor and its referent is contextually determined. When the accusative embedded subject raises to the matrix clause to a position higher than the matrix subject, the anaphor can be co-indexed with it, as shown in (153b). This clearly indicates that the accusative subject raises to an A-position in the matrix clauses, as Ā-movement cannot create new binding relations.

(153) a. œzi$_{*i/j}$-niŋ mama-sɯ [Ajʃa$_i$-$\boxed{\text{Ø/nɯ}}$ Almatɯ-ga bar-dɯ dep]
self-GEN mother-POSS.3 [Aisha-**NOM/ACC** Almaty-DAT go-PST.3 C]
ajt-tɯ.
say-PST.3

'(Her)self's$_{*i/j}$ mother said that Aisha$_i$ went to Almaty.'

b. **Ajʃa**$_i$-$\boxed{\textbf{nɯ}}$ œzi$_i$-niŋ mama-sɯ [t_i Almatɯ-ga bar-dɯ dep] ajt-tɯ.
Aisha-ACC self-GEN mother-POSS.3 [Almaty-DAT go-PST.3 C] say-PST.3
'About Aisha$_i$, (her)self's$_i$ mother said that she$_i$ went to Almaty.'

Weak Crossover amelioration effects also support the assumption that the raised subject

[34]While not explicitly discussed in this work, I assume that movement of the accusative subject above the matrix subject is an instance of "intermediate scrambling" (similar to movement of the accusative object over the nominative subject), which exhibits both A and Ā-properties.

is in an A-position. The phonologically covert pronoun in the possessor position in (154a) cannot co-vary with the universally quantified embedded subject 'every child.' But when the embedded subject is raised over the pronoun, co-variation can be established between the accusative-marked 'every child' and the pronoun. That is, raising the embedded accusative subject remedies Weak Crossover effects. As WCO amelioration is not possible from an Ā-position, we can conclude that the accusative DP undergoes A-movement to a matrix A-position.

(154) a. *pro*$_{*i/j}$ Mama-sɯ [ær bala$_i$-Ø/nɯ mugalim-ge sɯjlɯk ber-di
mother-POSS.3 [every child-**NOM/ACC** teacher-DAT gift give-PST.3
dep] ojla-jdɯ.
C] think-PRS.3

'His/Her/Their$_{*i/j}$ mother thinks that every child$_i$ gave a gift to the teacher.'

b. **ær** **bala$_i$-nɯ** *pro*$_i$ mama-sɯ [t_i mugalim-ge sɯjlɯk ber-di dep]
every **child-ACC** mother-POSS.3 [teacher-DAT gift give-PST.3 C]
ojla-jdɯ.
think-PRS.3

'About every child$_i$, their$_i$ mother thinks that [her child] gave a gift to the teacher.'

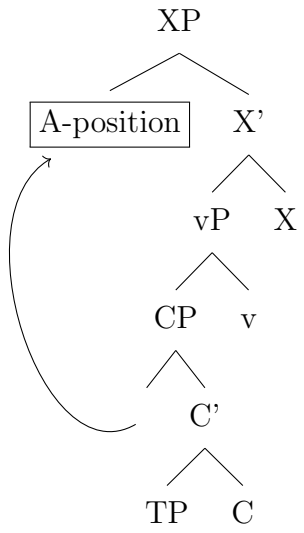
To summarize, the raised accusative subject participates in superordinate A-dependencies such as passivization, creating new binders for anaphors and WCO amelioration effects.[35]

[35]I shall add that as the nominative embedded subject cannot scramble int into the matrix clause, it can also not create new binders or ameliorate WCO violations.

3.6 Analysis

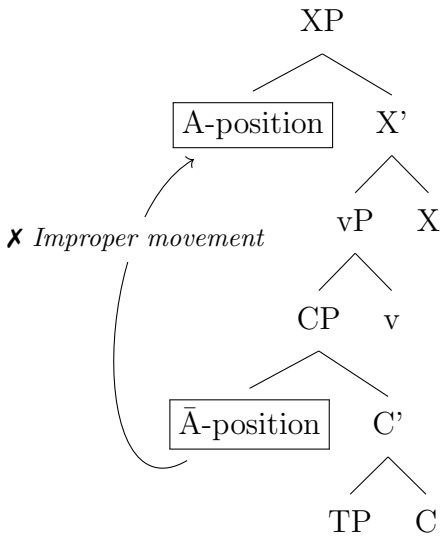
The previous sections have established that the accusative subject originates in the embedded Spec,CP position and it can optionally undergo A-movement to the matrix clause. This is represented in (155).

(155)



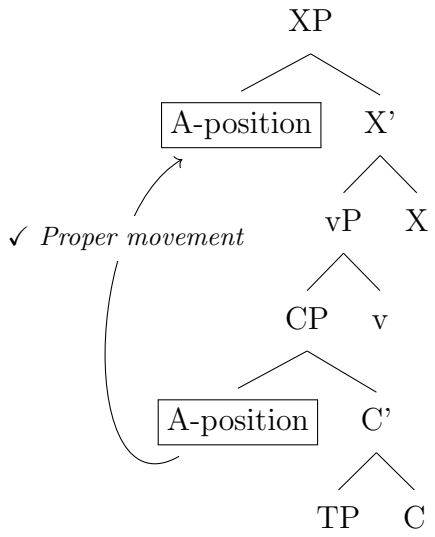
An obvious hurdle the analysis needs to overcome is that, under the positional view to the A/Ā distinction, the embedded Spec,CP would be a designated Ā-position. The positional view would maintain that syntactic positions are inherently A or Ā, which gives rise to distinct properties following movement to these positions (Chomsky 1981, Mahajan 1990, Déprez 1989). However, if this is the case, the movement to a matrix A-position would take place from an Ā-position, as shown in (156). This constitutes a violation of the "ban against improper movement," which prohibits movement from an Ā to an A-position (Chomsky 1973, May 1979, Fukui 1993, Williams 2002, Abels 2009, 2012, Müller 2014, Keine 2018, 2019).

(156)



Thus, the question is how to derive the subject raising in (155) without violating the ban against improper movement. As discussed in the following section, this has been a point of contention for many accounts on hyperraising (Tanaka 2002, Yoon 2007, Takeuchi 2010, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022). To give a short preview of the proposal, I argue that Spec,CP is an A-position, shown in (157), following the referenced previous accounts. This view is based on an emerging body of literature that argues that, in some configurations, Spec,CP can be an A-position. This line of inquiry abandons the *positional approach* to the A/Ā-distinction (Chomsky 1981, Mahajan 1990, Déprez 1989). Instead, they develop a *featural approach* to phrasal movement, where the A/Ā-distinction is derived from the different types of features involved in the Agree relation: A-movement is driven by ϕ-features, while Ā-movement is triggered by other types of features, e.g., *wh*-features (Obata and Epstein 2011, Van Urk 2015, Keine 2019, Safir 2019).

(157)



Before moving onto the analysis of Kazakh hyperraising, I take a closer look at the similar (or even: the same) hyperraising pattern found in Janitzio P'urhepecha and Khalkha Mongolian in §3.6.1 and the analyses proposed to account for them. I formulate my proposal having these previous analyses in view.

3.6.1 Janitzio P'urhepecha and Khalkha Mongolian

Janitzio P'urhepecha (isolate, spoken in the state of Michoacán, Mexico) displays accusative-nominative subject case variation when a subjunctive embedded clause is selected by matrix verbs such as 'want,' 'need' and (for some speakers) 'know' (Zyman 2017, 2018, 2023). The nominative embedded subject follows the complementizer *eska* 'that,' illustrated in (158a); (158b) shows that the accusative subject precedes the complementizer. Using diagnostics such as escape hatch blocking, intervention and island effects, Zyman (2017) demonstrates that the accusative marking in (158b) is not due to prolepsis (see §3.4.6 for more details on prolepsis) but the result of hyperraising.

(158) a. Ueka-sïn-Ø-di=sï **eska** Xumo u-a-Ø-ka ma
want-HAB-PRS-IND3=pS **that** Xumo make-FUT-PRES-SBJV a
k'umanchikua.
house

'They want Xumo to build a house.'

b. Ueka-sïn-Ø-di=sï Xumo-ni **eska** u-a-Ø-ka ma
want-HAB-PRS-IND3=pS Xumo-ACC **that** make-FUT-PRES-SBJV a
k'umanchikua.
house

'They want Xumo to build a house.'

JANITZIO P'URHEPECHA, Zyman 2017, ex. (1)

Just as in Kazakh, the accusative embedded subject can raise into the matrix clause, as evidenced by the sentence in (159), which demonstrates that the accusative DP can precede matrix clause material such as a matrix adverb.

(159)(?) Emilia ueka-sïn-Ø-di Xumo$_i$-ni **mintsita-ni** **jingoni** [t_i eska
Emily want-HAB-PRS-IND3 Xumo-ACC **heart-ACC** **with** [that
jaruata-a-Ø-ka pauani].
help-FUT-PRS-SUBJV tomorrow]

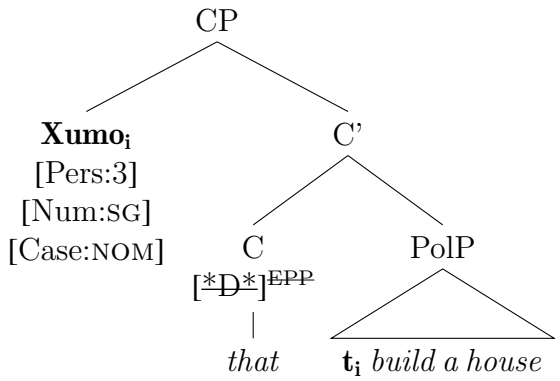
'Emily wants Xumo with all her heart to help her tomorrow.'

JANITZIO P'URHEPECHA, Zyman 2017, ex. (4)

Zyman (2017) argues that the complementizer in Janitzio P'urhepecha comes in two

forms, one that bears the [*D*]$^{\text{EPP}}$ feature[36] and one that does not. Only the former triggers hyperraising. This feature probes for a goal bearing a D categorial feature and the EPP subfeature triggers movement when the Agree relation is established with the goal, shown in (160). This derive the Subj-ACC COMP word order facts.

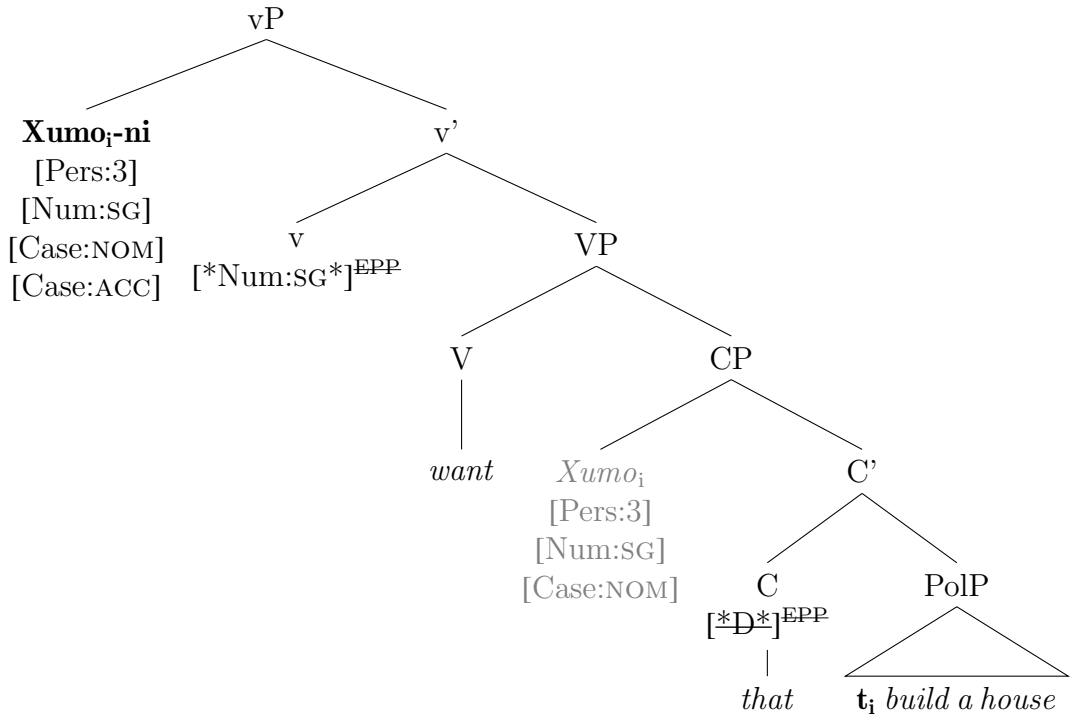
(160) Hyperraising in P'urhepecha, Step-1 (Zyman 2017)



The matrix v head bears unvalued Number features (with an EPP subfeature), which probes for accessible goals. The embedded subject in (160), being in the Spec,CP position, can enter into Agree with the probe. The number features of the probe are valued and the goal moves to Spec,vP. Zyman (2017) leaves the exact mechanism of the accusative assignment open, but one assumes that the object case can be assigned to the DP in Spec,CP in a dependent case fashion (assuming case stacking or case overwriting is possible). The second step of the derivation is represented in (161).

[36]The notation comes from Heck and Müller (2007), who put forth the idea that there are two types of features: (i) structure-building features, triggering Merge (notation: [•F•]); and (ii) probe features triggering Agree (notation: [*F*]). That is, Zyman (2017) considers this an Agree-triggering feature. Note that because of conceptual considerations Zyman (2023) suggests that the relevant feature might be better characterized as a structure-building, i.e., [•D•]$^{\text{EPP}}$ feature.

(161) Hyperraising in P'urhepecha, Step-2 (Zyman 2017)



Turning to Khalkha Mongolia, the subject of the embedded clause headed by the complementizer *gej* can be either in the nominative or in the accusative. This is shown in (162), where the subject of the *gej*-clause, *Dulmaa*, can either be nominative or accusative. Just as in Kazakh, the accusative subject can remain in the embedded clause as evidenced by word order facts: an the embedded clause-internal adverb can precede both the nominative and the accusative subject, shown in (162).

(162) Bat [**margaash** Dulmaa / Dulmaa-g nom unsh-n gej] khel-sen.
Bar [**tomorrow** Dulmaa.NOM/Dulmaa-ACC book read-N.PST C] say-PST
'Bat said that Dulmaa will read a book tomorrow.'

KHALKHA MONGOLIAN, Fong 2019, ex. 3

Fong (2019) demonstrates that the accusative subject can optionally move into the matrix

clause. Just as in Kazakh, when the accusative subject undergoes raising into the matrix clause, it can participate in A-dependencies in the matrix clause, for instance, it can undergo passivization and it can ameliorate WCO effects. She furthermore extensively argues that the embedded subject moves to the matrix clause via the edge of the embedded CP, where it is assigned accusative case by the matrix v.[37] She proposes that the only way for the embedded subject to move to a matrix A-position without violating the ban on improper movement is if the Spec,CP is an A-position.

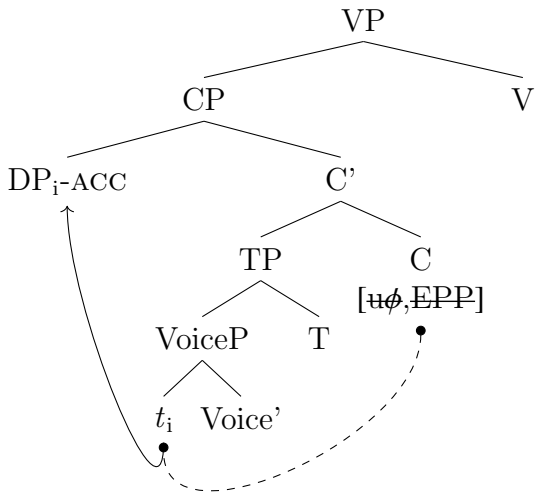
The derivation of the hyperraising structure proposed by Fong (2019) works the following way: the complementizer[38] bears unvalued ϕ-features,[39] which are not passed down to T, and these ϕ-features trigger A-movement to Spec,CP (based on the featural view of A/Ā-distinction as in Obata and Epstein 2011, Van Urk 2015, Keine 2019, Safir 2019). In this position, the embedded subject is accessible for matrix operations, including case assignment by the matrix v and (optional) movement to the superordinate clause.

[37]Note that Gong (2022) proposes the same derivation but suggests that the accusative is a dependent case, as the matrix subject is in the same locality domain as the c-commanded embedded subject DP.

[38]Fong tentatively suggests that the *optional* hyperraising can be explained the following way: there are two types of complementizers: (i) one that bears unvalued ϕ-features, and (ii) the one that does not. Only the former type would trigger hyperraising. A similar proposal is proposed by Gong 2022.

[39]It is noteworthy that Khalkha does not have phonologically overt agreement markers. That is, there is no morphological reflex that could indicate the presence or absence of ϕ-features on T.

(163) Hyperraising in Khalkha Mongolian (based on Fong 2019)



Gong (2022) concurs with Fong's analysis and she also observes that A-movement to Spec,CP interacts with Ā-bar operations in the embedded clause. Specifically, when a phrase is A-moved to the clause edge, it cannot participate in lower Ā-dependencies, such as *wh*-licensing and thematic topicalization, as it is not under the scope of these Ā-operators. Consider the interaction between *wh*-licensing and subject case marking in (164a) and (164b). When the *wh*-phrase is not the subject, as in (164a) it is the object *ali nom-ig* 'which book-ACC', both accusative and nominative subjects are available. Contrast this with (164b), where the *wh*-phrase is the subject. In this configurations only nominative is allowed, accusative subjects cannot be *wh*-elements (with embedded scope).[40]

(164) a. Bold [Bat-ig / Bat **ali nom-ig** unš-san be gej] asuul-san.
Bold.NOM [Bat-ACC/Bat.NOM **which book-ACC** read-PST *wh*-Q C] ask-PST
'Bold asked [which book Bat was reading].'

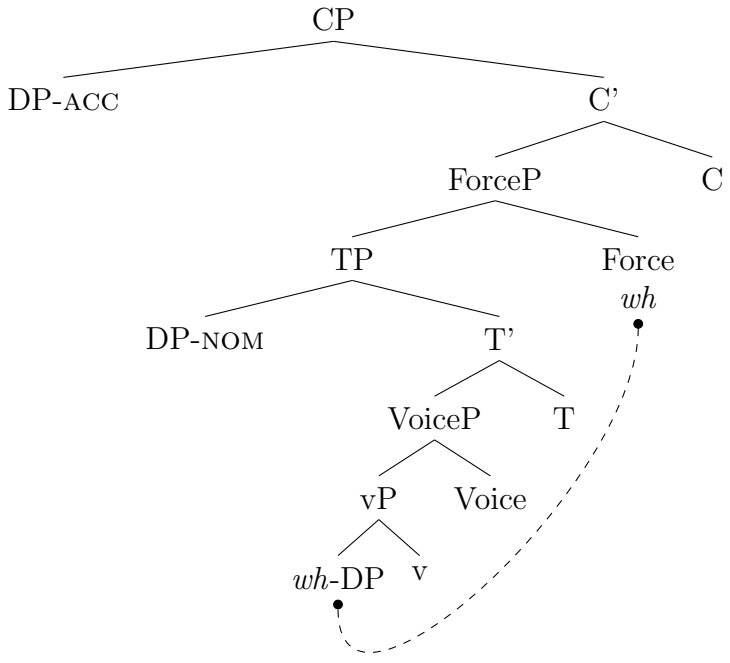
[40]The same interaction can be observed between subject case marking and thematic topicalization. For the relevant data see Gong 2022.

b. Bold [??***khen-ig / khen*** ter nom-ig unš-san gej] asuul-san.
Bold.NOM [??***who-ACC/who.NOM*** that book-ACC read-PST C] ask-PST
'Bold asked [(that) who read that book].' (embedded scope only)

KHALKHA MONGOLIAN, Gong 2022: 195

Gong's explanation for this curious phenomenon is the following: the Force Phrase, where the *wh*-features are located, is lower than C.[41] A *wh*-phrase must be in the c-command domain of ForceP to be licensed. In (165), the *wh*-phrase is in the object position, that is, it is in the c-command domain of Force. In this configuration, no interaction is expected between the subject case and *wh*-licensing, consequently both nominative and accusative subject cases are available.

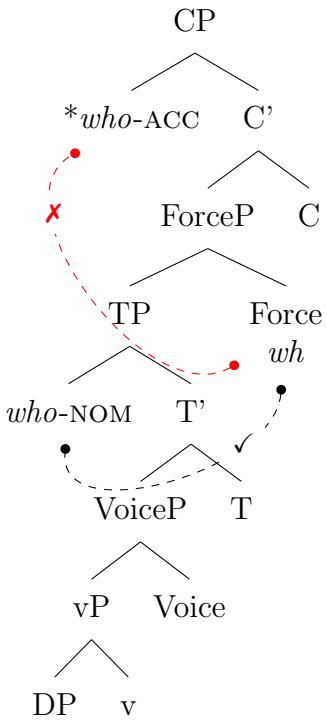
(165) Representation of (164a) (based on Gong 2022)



[41]There is independent evidence that this is in fact the ordering in Khalkha. Note that Gong argues that Force inherits the *wh*-features from C.

In contrast, when the subject is the *wh*-phrase, accusative case assignment bleeds *wh*-licensing (cf. (164b)). According to Gong's analysis, the accusative subject is A-moved to Spec,CP; because it is not in the c-command domain of Force, *wh*-licensing fails. No such problem arises with nominative subjects, as they are in Spec,TP, a position c-commanded by Force. In summary, Gong's argument is that A-movement to the clause edge (i.e., Spec,CP) bleeds lower Ā-bar operations.

(166) Representation of (164b) (based on Gong 2022)

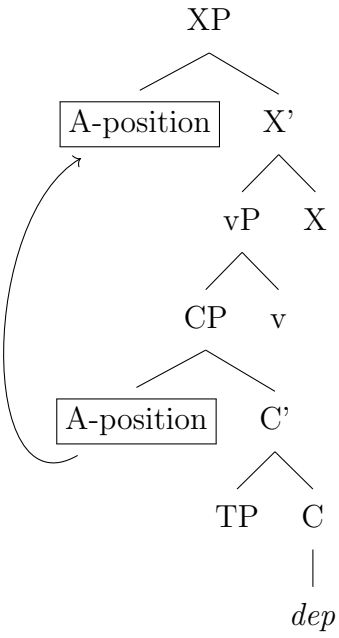


The common thread in the reviewed analyses is that they take the embedded Spec,CP endowed with a feature (either [*D*]$^{\text{EPP}}$ or a ϕ-feature), which triggers A-movement to this position. Accusative is assigned in this position (although the accounts differ in the mechanism they propose for case assignment). The accusative-marked DP can optionally raise into the matrix clause.

3.6.2 Proposal

In keeping with previous analyses (Tanaka 2002, Yoon 2007, Takeuchi 2010, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022), I propose that Spec,CP is an A-position in Kazakh *dep*-clauses. That is, the improper movement violation upon raising to a matrix A-position can be circumvented by analyzing the Spec,CP as an A-position. This is summarized in (167).

(167) Proposal (first version)



The remainder of this section spells out this proposal in greater detail and provides supporting evidence in its favor. In §3.6.2.1, I show that similarly to Khalkha, we can find independent evidence that the subject undergoes A-movement in the embedded clause. §3.6.2.2 turns to the feature that triggers the A-movement. §3.6.2.3 looks at the interpretation of the accusative subject and finds that it must have an anaphoric definte interpretation, linking it to the tree splitting analysis proposed in chapter 2. §3.6.2.4 argues that accusative is a dependent case valued on the DP located in Spec,CP.

3.6.2.1 Motivating A-movement to Spec,CP: No reconstruction for NCI and wh-licensing

Recall that in Khalkha Mongolian the A-position status of the Spec,CP position was independently supported by its interaction with Ā-operations. Gong (2022) extensively demonstrated that A-movement to the clause edge position bleeds Ā-operations such as *wh*-licensing and thematic topicalization.

The Kazakh *wh*-licensing facts mirror the Khalkha Mongolian *wh*-licensing patterns described in the previous section. In Kazakh, just as in Khalkha, non-subject *wh*-elements are compatible with both nominative and accusative embedded clause subjects, shown in (168a) and (168b) respectively.

(168) a. Ajʃa [sen-Ø **kajda** bar-dɯ-ŋ dep] sura-dɯ.
Aisha [you-NOM **where** go-PST-2SG C] ask-PST.3
'Aisha asked where you went.' (embedded scope only)

b. Ajʃa [sen-i **kajda** bar-dɯ dep] sura-dɯ.
Aisha [you-ACC **where** go-PST.DEFAULT C] ask-PST.3
'Aisha asked where you went.' (embedded scope only)

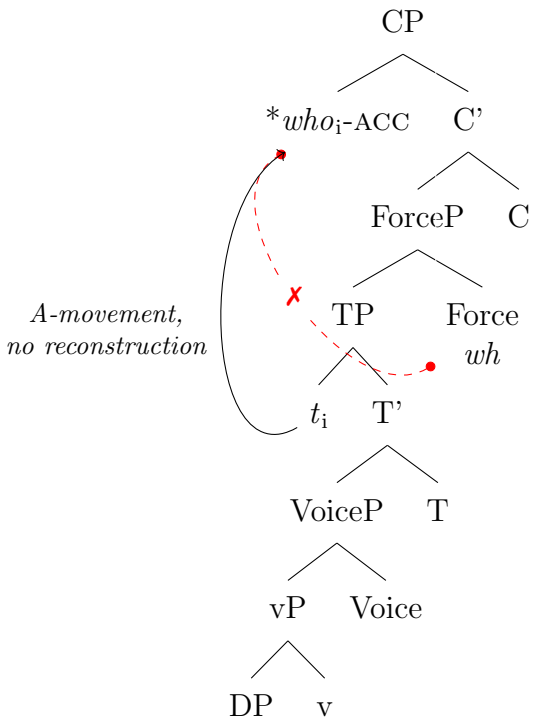
In contrast, under embedded *wh*-scope, the subject *wh*-element can only bear nominative subject case, accusative is disallowed. There is a sharp contrast between (169a) and (169b): the nominative-marked *who* in the subject position is compatible with the embedded scope reading, but not the accusative-marked *wh*-word.

(169) a. Ajʃa [**kim-Ø** Almatɯ-ga bar-dɯ dep] sura-dɯ.
Aisha [**who-NOM** Almaty-DAT go-PST.3 C] ask-PST.3
Yes: 'Who did Aisha ask such that (that person) went to Almaty?' (matrix scope)
Yes: 'Aisha asked who went to Almaty.' (embedded scope)

b. Ajʃa [**kim-di** Almatɯ-ga bar-dɯ dep] sura-dɯ.
Aisha [**who-ACC** Almaty-DAT go-PST.DEFAULT C] ask-PST.3
Yes: 'Who did Aisha ask such that (that person) went to Almaty?' (matrix scope)
Not: 'Aisha asked who went to Almaty.' (*embedded scope)

These facts can be straightforwardly explained under Gong's (2022) analysis: the accusative subject is A-moved to Spec,CP, therefore it cannot reconstruct back for *wh*-licensing. As a consequence, lower Ā-operations pertaining to the subject are incompatible with the accusative.

(170) No *wh*-licensing of accusative subjects



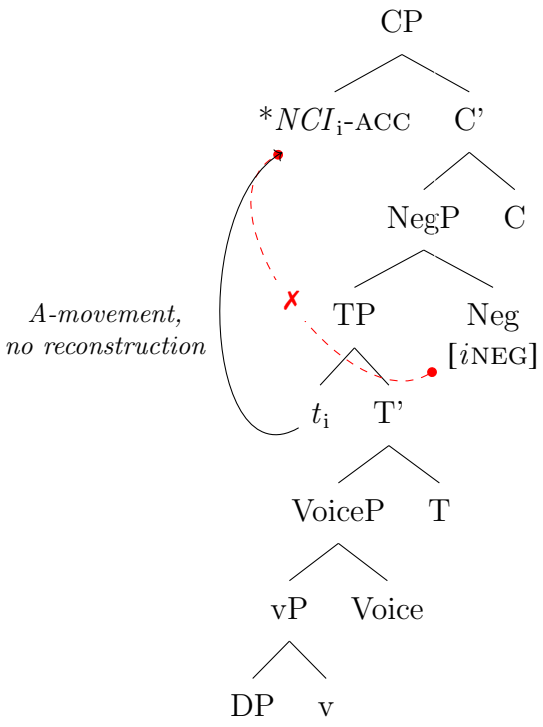
Additionally, the embedded clause-internal NCI-licensing facts can also be explained this way. Recall that embedded clause-internal negation can license nominative NCI subjects but not accusative ones. The relevant data are repeated in (171).

(171) a. Ajʃa [eʃkim-Ø kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**NOM** lake-DAT go-**MA**-PST.3 C] say-PST.3
'Aisha said [that nobody went to the lake].

b??* Ajʃa [eʃkim-di kœl-ge bar-ma-dɯ dep] ajt-tɯ.
Aisha [n.who-**ACC** lake-DAT go-**MA**-PST.3 C] say-PST.3
Intended: 'Aisha said [that nobody went to the lake].

This NCI licensing pattern can be explained under the assumption that the A-moved DP does not reconstruct for NCI licensing. When the DP A-moves to Spec,CP, it cannot reconstruct back to Spec,TP to be under the scope of the negative operator. As the nominative NCI subject is in Spec,TP, no such problem arises.

(172) No accusative NCI subject licensing



The *wh*-word and NCI licensing facts thus independently support the proposed A-position status of the Spec,CP position. The following section turns to the discussion of what type of feature triggers A-movement to this position.

3.6.2.2 Triggering movement to Spec,CP, part 1: ϕ-features

Fong (2019) and Gong (2022) propose that C optionally does not pass down its ϕ-features and therefore it can trigger A-movement to its specifier.[42] Since Khalkha does not mark the agreement overtly on the embedded clause's predicate, there is no independent support that could bolster this claim. However, there is overt subject agreement marking in these types of Kazakh embedded clauses, which offers us an opportunity to assess the validity of previous proposals.

Recall that the main subject case/agreement pattern is that we get (i) full ϕ-agreement with nominative subjects, and (ii) default (phonologically zero) agreement with accusative subjects. The relevant data are repeated in (173). These sentences are accepted by all speakers. I will come back to the case/agreement patterns that only some speakers find grammatical later in this section.

(173) a. Ajʃa [men-$\boxed{\text{Ø}}$ Astana-ga bar-dɯ-$\boxed{\text{m}}$ dep] ajt-tɯ.
Aisha [I-**NOM** Astana-DAT go-PST-**1SG** C] say-PST.3
'Aisha said [that $\text{I}_{\text{SPEAKER/Aisha}}$ went to Astana].'

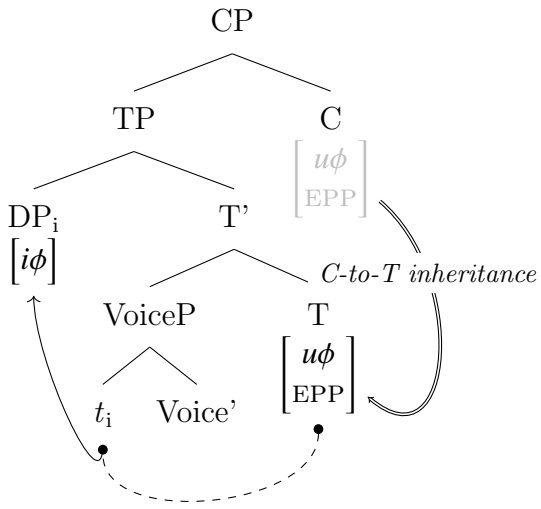
b. Ajʃa [men-$\boxed{\text{i}}$ Astana-ga bar-dɯ-$\boxed{\text{Ø}}$ dep] ajt-tɯ.
Aisha [I-**ACC** Astana-DAT go-PST-**DEFAULT** C] say-PST.3
'Aisha said [that $\text{I}_{\text{SPEAKER}}$ went to Astana].'

These data can be straightforwardly explained by assuming that C optionally passes down its ϕ-features to T. First, when the subject is nominative and there is full ϕ-agreement

[42] Zyman's (2017) proposal is only different in that he posits that the $[*\text{D}*]^{\text{EPP}}$ drives the A-movement to the clause edge. Zyman's proposal is not in full compliance with the featural accounts to the A/$\bar{\text{A}}$ distinction. According to these theories, the ϕ-feature triggers A-movement; one would need to extend the type of features that can trigger A-movement to accommodate to suggested [*D*] feature.

(i.e., when there is no hyperraising), C passes down its features to T, therefore morphological agreement is indicated on the embedded predicate. As T is the locus of the ϕ-features, the subject moves to Spec,TP not Spec,CP. This is shown in (174).

(174) Derivation of nominative subjects with full ϕ-agreement



The hyperraising pattern can be explained by assuming that C does not pass down its ϕ-features to T, thus agreement cannot be spelt out on T.[43] C, as the locus of ϕ-features, probes

[43] A question that one might raise is how this analysis can account for the subject case/agreement marking patterns that are not acceptable for every speaker (§3.3.1). The relevant data is repeated in (i).

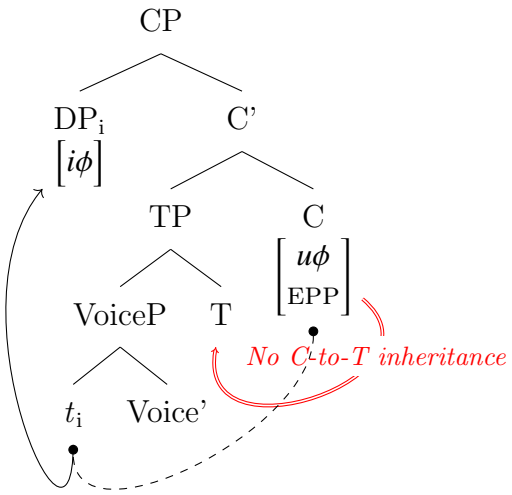
(i) a. %Ajʃa [men-Ø Astana-ga bar-dɯ-Ø dep] ajt-tɯ.
Aisha [I-**NOM** Astana-DAT go-PST-**DEFAULT** C] say-PST.3
'Aisha said [that $I_{SPEAKER}$ went to Astana].'

b. %Ajʃa [men-i Astana-ga bar-dɯ-m dep] ajt-tɯ.
Aisha [I-**ACC** Astana-DAT go-PST-**1SG** C] say-PST.3
'Aisha said [that $I_{SPEAKER}$ went to Astana].'

In (ib), the accusative subject co-occurs with full ϕ-agreement on the embedded predicate. This is not predicted under the analysis put forth in this section. My proposal is that in some speakers' grammar the ϕ-features can be optionally lowered (i.e., morphological merger) from the C head onto T in the postsyntactic component (see Embick and Noyer 2001 and references therein for postsyntactic lowering). The fact that not every type of embedded predicate is implicated (recall that nominal predicates cannot be marked with agreement markers when the subject is accusative) could be considered as supporting evidence for this proposal. When the predicate is nominal, the T head might be absent (or potentially different than the one with verbal predicates), therefore lowering cannot take place. If agreement marking (with accusative subjects) had syntactic underpinnings, we would not expect verbal and nominal predicates to pattern differently.

and establishes Agree with the highest accessible DP, which then moves to Spec,CP where it gets accusative (see §3.6.2.4 for more details on the exact nature of the case assignment mechanism). This is shown in (175).

(175) Derivation of accusative subjects with default-agreement



That is, morphological agreement marking in Kazakh supports the view that ϕ-features on C trigger A-movement to Spec,CP. I do not any insightful to offer in terms of why the ϕ-feature transfer takes place in (174) but not in (175). The only feasible explanation seems to be that C optionally passes down its ϕ-features to C.

As for (ia), the proposal is that the accusative morpheme can be optionally deleted in the context of pronouns in the postsyntactic component. That is, these sentences are syntactically identical to clauses with accusative subjects with default agreement. Notice that the interpretation of these sentences is identical to accusative subject *dep*-clauses with respect to the indexical *men*. Accusative-marked indexicals in the subject position do not shift, while the nominative indexical subject (with full ϕ-agreement) can undergo indexical shift (see Shklovsky and Sudo 2014, Major 2022). The nominative subject with default agreement patterns with accusative subject.

3.6.2.3 The nominative and accusative subjects' interpretation

Şener 2008, 2011 and Predolac 2017 point out that nominative and accusative subject *diye*-clauses in Turkish are not interchangeable. Accusative subjects can only have contrastive topic interpretation, whereas nominative subjects are compatible with any informational structural roles such as presentational or contrastive focus, but also contrastive topic. The relevant Turkish data are offered in (176)-(178). (176) and (177) show that the accusative embedded subject is not compatible with either presentational or contrastive focus interpretation. (178) illustrates that the accusative subject can be a (contrastive) topic.[44] These examples also demonstrate that the nominative and accusative subjects are not in complementary distribution: the nominative subject case strategy is always acceptable, whereas accusativer subjects are limited to contexts where the denoted individual serves as the topic.

(176) A: Do you know who showed up at Mert's party?

B: I haven't asked Mert about it but...

a. Pelin [Sinan-$\boxed{\emptyset}$ git-ti diye] duy-muş.

Pelin [Sinan-**NOM** go-PST.SG3 C] hear-EVID.3SG

'Pelin heard that Sinan went (to the party).' (presentational focus)

[44]Şener 2008, 2011 characterizes the discourse condition for the accusative subject as contrastive topic, but accusative subjects can be non-contrastive topics as well. An illustrative example demonstrating this comes from Predolac 2017.

(i) Kaan did not hear or see the swallow living on his balcony for quite some time. He started to think that the cat ate the swallow. One day his wife Meltem says: Did you notice that the swallow made a mess on the windows?

Kaan:

Olamaz. Ben [kırlangıc-$\boxed{1}$ öl-dü] bil-iyor-um.

impossible. I [swallow-**ACC** die-PST.DEFAULT] know-PROG-1SG

'Impossible. I believe the swallow has died.'

TURKISH, Predolac 2017: 77, ex. (96)

b. #Pelin [Sinan-1 git-ti diye] duy-muş.

Pelin [Sinan-**ACC** go-PST.DEFAULT C] hear-EVID.3SG

Intended: 'Pelin heard that Sinan went (to the party).' (presentational focus)

TURKISH, Şener 2011, ex. (7)

(177) A: Do you know if everyone (he invited) went to Mert's party?

B: I haven't talked to Mert but...

a. Pelin [yalnızca Sinan-Ø git-ti diye] duy-muş.

Pelin [only Sinan-**NOM** go-PST.SG3 C] hear-EVID.3SG

'Pelin heard that only Sinan went (to the party).' (contrastive focus)

b. #Pelin [yalnızca Sinan-1 git-ti diye] duy-muş.

Pelin [only Sinan-**ACC** go-PST.DEFAULT C] hear-EVID.3SG

Intended: 'Pelin heard that only Sinan went (to the party).' (contrastive focus)

TURKISH, Şener 2011, ex. (8)

(178) A: What about Can? Did Pelin tell you what he ate at the party?

B: Well, she doesn't know about Can but...

a. Pelin [Mete-Ø istakoz-dan ye-di diye] duy-muş.

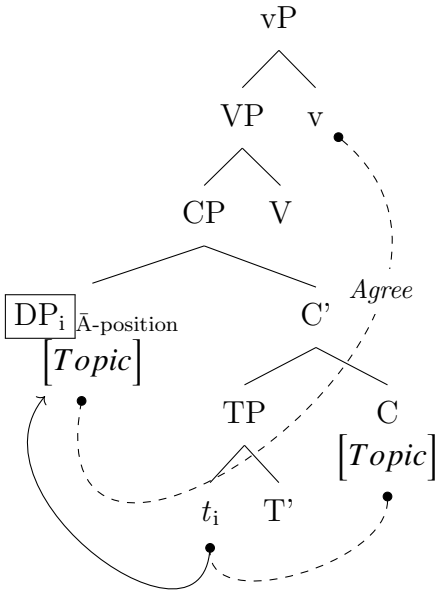
Pelin [Mete-**NOM** lobster-ABL eat-PST.3SG C] hear-EVID.3SG

'Pelin heard that Mete ate some of the lobster (at the party).' (contrastive topic)

b. Pelin [Mete-yi istakoz-dan ye-di diye] duy-muş.
Pelin [Mete-**ACC** lobster-ABL eat-PST.DEFAULT C] hear-EVID.3SG
'Pelin heard that Mete ate some of the lobster (at the party).' (contrastive topic)
TURKISH, Şener 2011, ex. (9)

This pattern leads Şener 2008, 2011 to propose that one type of C head bears a Topic feature, which triggers Ā-movement to Spec,CP. This is shown in (179). The Ā-moved DP at the clause edge is accessible to matrix probes: the matrix little-v establishes Agree with this DP and assigns accusative to it (following Polinsky and Potsdam 2001, who argue that a matrix head can exhibit morphological agreement with an Ā-moved DP at the subordinate clause edge). This would amount to say that Ā-movement can feed case assignment in Turkish. While this approach is very valuable in pointing out that there is an interpretational difference between nominative and accusative subjects, it falls short when accounting for some crucial facts: (i) the accusative DP can A-move to the matrix clause, which would constitute a violation of the ban against improper movement, and (ii) Şener himself points out that the accusative subject does not reconstruct for variable binding and WCO, which is unexpected if the subject undergoes Ā-movement. This said, Şener (2008, 2011) and Predolac (2017) make a very important contribution by observing that accusative and nominative subject embedded clauses have distinct discourse requirements.

(179) Derivation of Turkish accusative subject *diye*-clauses based on Şener 2008, 2011



Similarly to Turkish, Kazakh accusative subject *dep*-clauses have a more restricted distribution that nominative subject *dep*-clauses. (180) demonstrates that nominative, but not accusative, subjects are appropriate in out-of-the-blue (presentational focus) contexts.

(180) A and B live in the UK. They work a lot so they don't have a lot of time to watch the news. Their only source of news is Aisha. [beginning of the conversation]
A: Did you talk to Aisha? Is there any news? (Ajʃamen sœjlestiŋ be? ʒaŋalɯk bar ba?)
B: Yes, I did (Ie, sœjlestim)...

a. Ajʃa [korol'-$\boxed{\emptyset}$ koronavirus-pen awɯr-ɯp kal-dɯ dep] ajt-tɯ.
Aisha [king-**NOM** Covid-INSTR be.sick-IP AUX-PST.3 C] say-PST.3
'Aisha said that the king got sick with Covid.'

b. #Ajʃa [korol'-$\boxed{\text{dɯ}}$ koronavirus-pen awɯr-ɯp kal-dɯ dep] ajt-tɯ.
Aisha [king-**ACC** Covid-INSTR be.sick-IP AUX-PST.3 C] say-PST.3
Intended: 'Aisha said that the king got sick with Covid.'

In contrast, when the referent of the embedded subject is discourse-old, both nominative and accusative subject case marking seems to be available,[45] shown in (181).

(181) A and B live in the UK. They're chatting about random topics, somehow the royals come up and they start chatting about the king, Charles.
A: The king is a bit old, do you think he's doing well? (Korol' biraz karɯ, aman-esen eken be?)
B: I don't know, but (Bilmejmin, birak)...

[45]I note that it is not entirely clear to me whether the nominative subject is in fact possible in anaphoric contexts (such as (181)). One of my consultants' comment on the nominative subject sentence in this context was: "it is okay, it just depends on what you emphasize." This suggests to me that maybe the nominative subject cannot index anaphoric definites, it merely presents a unique definite DP. I have to leave this question open in this work.

a. BBC [korol'-Ø œtken apta koronavirus-pen awɯr-ɯp kal-dɯ dep]
BBC [king-**NOM** last week Covid-INSTR be.sick-IP AUX-PST.3 C]
ajt-tɯ.]
say-PST.3

'The BBC said that the king got sick with Covid last week.'

b. BBC [korol'-dɯ œtken apta koronavirus-pen awɯr-ɯp kal-dɯ dep]
BBC [king-**ACC** last week Covid-INSTR be.sick-IP AUX-PST.3 C]
ajt-tɯ.]
say-PST.3

'The BBC said that the king got sick with Covid last week.'

However, the feature that determines the accusative-nominative distinction in Kazakh cannot be the Topic feature, as Şener claimed for Turkish, as accusative subjects are compatible with contrastive focus interpretation if the common ground establishes the existence of the subject's referent (i.e., if the denoted individual is discourse-old). An illustrative example is offered in (182) (for a similar example see (138b)). It is noteworthy that in (182) the embedded subject undergoes focus movement and it is located in the immediately verb-initial position. The accusative subject case is acceptable because its referent is discourse-old.

(182) A and B live in the UK. They are talking about the king and the queen consort. At some point of the conversation B mentions that Aisha said that the king got sick with Covid. They keep talking about the king and the queen consort. A bit later A confuses the kind and queen consort and says:
A: The queen consort got sick with Covid. (Koroleva koronaviruspen awɯrɯp

kaldɯ.)

B: No...

a. Ajʃa [koronavirus-pen korol'-$\boxed{\emptyset}$ awɯr-ɯp kal-dɯ dep] ajt-tɯ.]
Aisha [Covid-INSTR king-**NOM** be.sick-IP AUX-PST.3 C] say-PST.3
'Aisha said that THE KING got sick with Covid.'

b. Ajʃa [koronavirus-pen korol'-$\boxed{\text{dɯ}}$ awɯr-ɯp kal-dɯ dep] ajt-tɯ.]
Aisha [Covid-INSTR king-**ACC** be.sick-IP AUX-PST.3 C] say-PST.3
'Aisha said that THE KING got sick with Covid.'

The interpretation of the accusative subject seems to be parallel to the genitive subject's interpretation in nominalized complement clauses (§2.4.1.3). That is, accusative subjects have anaphoric definite interpretation.[46] That is, accusative marking appears to be only compatible with anaphoric definite descriptions (in the sense of Schwarz 2009, for a detailed discussion see §2.4.1.1).[47] While this hypothesis should be explored in more detail in future work, the interpretation of accusative *dep*-clause subjects and genitive nominalized clause subjects display some crucial similarities. For instance, when the subject is an NCI, the accusative subject is interpreted as a member of a pre-established group, as shown in (183a). Crucially, the genitive NCI subject in nominalized clauses, as in (183b), has the very same interpretation. That is, both the accusative and the genitive subject must be interpreted as referring to members of a pre-established set.

[46]This is also similar to Predolac's (2017) proposal, who argues that presupposionality drives the accusative marking in Turkish *diye*-clauses.

[47]I leave it open whether the nominative subject *can* be anaphoric.

(183) a. Ajʃa [eʃkim-di Almatɯ-ga bar-dɯ dep] ojla-**ma**-jdɯ.
Aisha [n.who-**ACC** Almaty-DAT go-PST.DEFAULT C] think-**MA**-PRS.3
'Aisha doesn't think about anybody (out of a group of people that we've been talking about) that they went to Almaty.' (Aisha might think about other people that they went to Almaty.)

b. Ajʃa [eʃkim-niŋ Almatɯ-ga bar-gan-ɯn] ajt-**pa**-dɯ.
Aisha [n.who-**GEN** Almaty-DAT go-PRF-3]ACC say-**MA**-PST.3
'Aisha didn't say that anybody (out of a group of people that we've been talking about) went to Almaty.' (other people might have gone to Almaty)

In contrast, nominative NCI subjects do not have the "out of a pre-established group" interpretation in either *dep* or nominalized clauses, as shown in (184).

(184) a. Ajʃa [eʃkim-Ø Almatɯ-ga bar-**ma**-dɯ dep] ojla-jdɯ.
Aisha [n.who-**NOM** Almaty-DAT go-**MA**-PST.DEFAULT C] think-PRS.3
'Aisha thinks that nobody went to Almaty.' (According to Aisha, nobody (no exception) went to Almaty.)

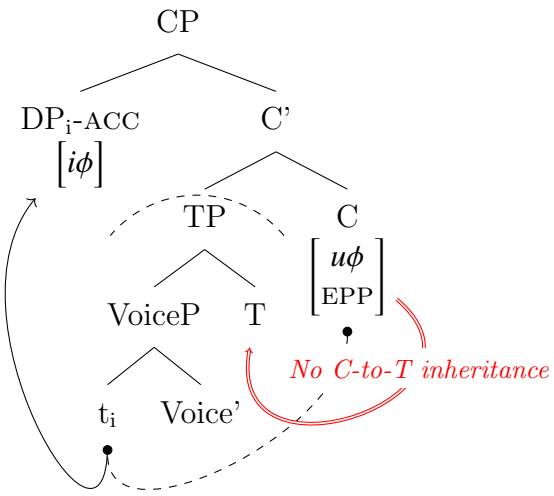
b. Ajʃa [eʃkim-Ø Almatɯ-ga bar-**ma**-gan-ɯn] ajt-tɯ.
Aisha [n.who-**NOM** Almaty-DAT go-**MA**-PRF-3]ACC say-PST.3
'Aisha said that nobody went to Almaty.'

The extended Mapping Hypothesis proposed in the previous chapter (see §2.4.2.2) offers an explanation to these empirical observation. This analysis submits that tree splitting can be initiated not only by the Voice but also by the C head. The material below the closure is interpreted non-presuppositionally, whereas the higher domain gets presuppositional in-

terpretation. I noted that the closure induced by C (at least in Kazakh) corresponds to a subclass of presuppositional interpretations, namely anaphoricity. That is, the material in the domain above the closure generated by C is interpreted as presuppositional (anaphoric), whereas material in the lower domain is non-presuppositional/anaphoric. This is shown in (185).

The C head in (185) does not pass down its ϕ-features to T, driving the highest accessible DP to A-move to Spec,CP. This position is outside of the scope of the closure generated by C, for this reason the DP is interpreted presuppositionally.[48] This analysis correctly derives that accusative DPs must have anaphoric interpretation.

(185) Derivation of accusative subjects with default-agreement (final version)



To summarize, I argued for two types of embedding C heads: (i) a C head that passes down its ϕ-feature to T (result: no raising, nominative subject, full ϕ-agreement on the embedded predicate), and (ii) a C head that retains its ϕ-features. Kazakh hyperraising is

[48] I leave it open whether the nominative subject can be compatible with anaphoric definite (i.e., presuppositional) interpretation. While, on the face of it, the nominative subject can be compatible with contexts where its referent is discourse-old, it does not necessarily mean that they are interpreted anaphorically. It could be the case that they are interpreted as, e.g., unique definite in these contexts. The fact that nominative NCI subjects cannot be interpreted as discourse-linked also supports this suspicion.

driven by this second type of C head; the output of this configuration is accusative marking on the subject (for the exact mechanism see the next subsection) and default agreement on the embedded predicate. The ϕ-feature on C is responsible for the A-movement properties, the closure generated by the C head accounts for the anaphoric interpretation of the moved DP.

3.6.2.4 Accusative case assignment

Previous accounts submit that the accusative case on the embedded subject either originates from the matrix v/Voice head (Şener 2008, 2011, Predolac 2017, Bondarenko 2017, Fong 2019) or assigned as a dependent case, given that the matrix subject c-commands the embedded subjects and they are located in the same locality domain (Baker and Vinokurova 2010, Baker 2015, Gong 2022). The Kazakh data supports the latter view.

Before moving to the relevant Kazakh data, it is worth reviewing the potential analytical options and the predictions they make. First, the hypothesis that the accusative originates from the matrix v/Voice head predicts that there is a strict correspondence between the matrix predicate's transitivity and embedded accusative subject marking. The dependent case analysis makes the opposite prediction: accusative marking can emerge with non-transitive matrix verbs as well. I think there is a third analytical option that has not been explored in the literature: the embedded C head assigns accusative case under Agree. This hypothetical account would predict (i) no correlation between matrix transitivity and accusative assignment, but (ii) it would allow accusative assignment in the absence of a c-commanding DP in the same locality domain. That is, this view would predict that accusative is available in any configuration.

Let us start the discussion with *dep*-headed complement clauses: as far as I can tell, these clauses can only co-occur with transitive matrix predicates (which makes sense, since

I analyze them as complements of these transitive predicates) or the passive form of these predicates. The configuration under active matrix verbs is not very telling because all three analytical option can account for the emerging accusative marking. Passivized matrix predicates are more informative. When the matrix predicate is in the passive form, the embedded subject cannot be in the accusative, as shown in (186).

(186) *[Men-i œl-ip kal-dɯ-Ø/m dep] ajt-**ɯl**-dɯ-Ø/m.
[I-**ACC** die-IP AUX-PST-3/1SG C] say-**PASS**-PST-3/1SG
Intended: 'It was said (about me) that I died.'

In the configuration, the embedded subject must be in the nominative and move to the matrix subject position, as evidenced by the subject agreement marker on the matrix predicate in (187a) (for a similar example see (151a)). Note that when he matrix verb is passivized, the nominative-marked embedded subject must raise to the matrix subject position. When it remains in a lower position (Spec,CP), the matrix T's EPP features are not satisfied (presumably the *dep*-clause is not noun-y enough to serve as a subject), which reults in ungrammaticality, as in (187b).

(187) a. Men$_i$-Ø [t_i œl-ip kal-dɯ dep] ajt-**ɯl**-dɯ-m.
I-**NOM** [die-IP AUX-PST.DEFAULT C] say-**PASS**-PST-**1SG**
'It was said about me that I died.'

b. *[Men-Ø œl-ip kal-dɯ-m dep] ajt-**ɯl**-dɯ-Ø.
[I-**NOM** die-IP AUX-PST-1SG C] say-**PASS**-PST-**3**
Intended: 'It was said that I died.'

The passive pattern clearly rules out hypothesis-3, i.e., that the embedded C head assigns accusative because (186) shows that accusative is not always available. However, the passive sentences still do not help us distinguish between case-by-v/Voice and the dependent case analyses as both of these are compatible with the passive patterns. The case-by-v/Voice would say that the passive v/Voice head cannot assign accusative. The dependent case story would be that as there is no c-commanding DP in the structure (matrix Voice head does not introduce an overt DP argument), the accusative dependent case cannot be valued on the embedded subject. (188) offers a summary.

(188)

Matrix predicate type	*dep* type	Embedded subject case	Possible analyses
Active matrix V	$dep_{\text{complement}}$	ACC possible	✓ case-by-v/Voice ✓ dependent case ✓ case-by-C
Passive matrix V	$dep_{\text{complement}}$	ACC not possible	✓ case-by-v/Voice ✓ dependent case ✗ case-by-C

Now I turn to the *dep*-clauses that are best translated as because-clauses in English. While they certainly exhibit some differences from the complement *dep*-clauses, subject case and agreement marking seems to follow identical patterns to those found in complement *dep*-clauses. For this reason, my hypothesis is that the subject case assignment in these two types of *dep*-clauses can be offered a unified account.

Recall that these clauses can compose with matrix predicates that do not take a direct object, such as *kork-* 'be afraid' (see (104)) or *kwan-* 'rejoice,' shown in (189). The accusative case in (189b) cannot originate from the matrix predicate *kwan-*, which can only assign dative case.

(189) a. Ajʃa [men-Ø Almatɯ-ga bar-dɯ-m dep] kwan-dɯ.
Aisha [I-**NOM** Almaty-DAT do-PST-1SG C] rejoice-PST.3
'Aisha was/got happy because/thinking that I went to Almaty.'

b. Ajʃa [men-i Almatɯ-ga bar-dɯ dep] kwan-dɯ.
Aisha [I-**ACC** Almaty-DAT do-PST.DEFAULT C] rejoice-PST.3
'Aisha was/got happy because/thinking that I went to Almaty.'

Similar problem arises in the case of clauses such as (190), where the matrix verb is transitive but the matrix clause contains an accusative-marked direct object. The accusative marking on the embedded subject cannot be assigned by the matrix verb, as it already discharged its accusative case.

(190) a. Sæule [Ajʃa-Ø œl-ip kal-dɯ dep] Ajnur-dɯ ʃakɯr-dɯ.
Saule [Aisha-**NOM** die-IP AUX-PST.3 C] Ainur-**ACC** call-PST.3
'Saule called Ainur because/thinking that Aisha died.'

b. Sæule [Ajʃa-nɯ œl-ip kal-dɯ dep] Ajnur-dɯ ʃakɯr-dɯ.
Saule [Aisha-**ACC** die-IP AUX-PST.DEFAULT C] Ainur-**ACC** call-PST.3
'Saule called Ainur because/thinking that Aisha died.'

These examples offer a straightforward argument against case assignment by the matrix v/Voice head: the superordinate predicates in (189b) and (190b) cannot reasonably assign accusative to the embedded subject either because they cannot assign accusative or because they already assigned accusative to a direct object.

While intransitive verbs cannot be passivized (i.e., there is no Turkish-style impersonal

passive in Kazakh, for Turkish see Legate et al. 2020 and Akkuş 2021b), transitive matrix verbs such as 'to call' in (190) can undergo passivization. It is not surprising that nominative embedded subjects are perfectly acceptable in this configuration, as in (191a). The judgements quickly become complicated when it comes to the embedded accusative subject. Sentences such as (191b) appear to be marginally acceptable.[49] Importantly, they are not clearly ungrammatical as the accusative embedded subject in complement *dep*-clauses under passive matrix predicate (in (186)), however they are not perfectly acceptable either.

(191) a. [Ajʃa-Ø œl-ip kal-dɯ dep] Ajnur-Ø ʃakɯr-**ɯl**-dɯ.
[Aisha-**NOM** die-IP AUX-PST.DEFAULT C] Ainur-**NOM** call-**PASS**-PST.3
'Ainur was called because/thinking that Aisha died.'

b. ??[Ajʃa-nɯ œl-ip kal-dɯ dep] Ajnur-Ø ʃakɯr-**ɯl**-dɯ.
[Aisha-**ACC** die-IP AUX-PST.DEFAULT C] Ainur-**NOM** call-**PASS**-PST.3
'Ainur was called because/thinking that Aisha died.'

These facts are mostly compatible with the case-by-C hypothesis, although the marginal judgements with passive matrix predicates are unexpected. However, since accusative assignment in complement *dep*-clauses is incompatible with case-by-C analysis, we can eliminate this as an option that can offer a unified analysis for all the attested accusative subject case marking patterns.

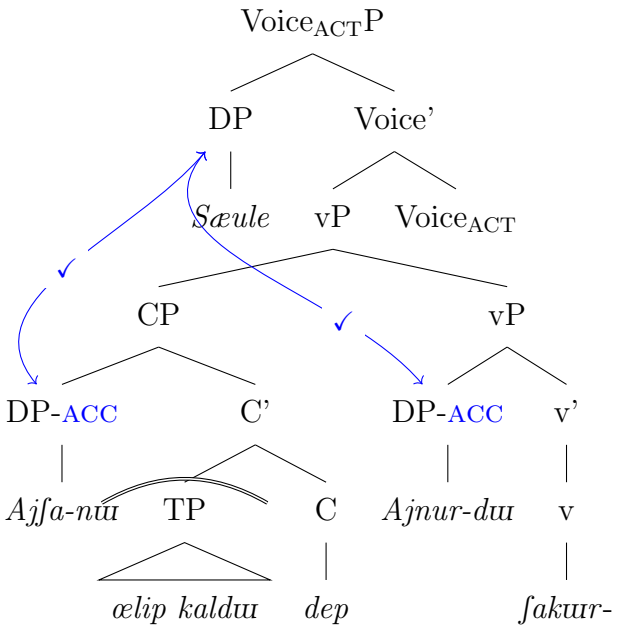
This leaves us with just one possible option: the dependent case analysis. Assuming that the 'because' *dep*-clause adjoins the structure at the level of the matrix vP, the external argument c-commands the DP at the edge of the embedded clause.[50] As the matrix external

[49]My consultant made comments such as "I think it's good but I'm not sure about it. There is something weird about it."

[50]I am assuming that these clauses are adjoined, but recall the discussion about how these clauses do not pattern with adverbial clauses in every respect (e.g., they allow extraction). I am leaving it open exactly

argument and the c-commanded embedded subject are in the same locality domain (see Baker 2015 for discussion on adverbs participating in dependent case assignment), the lower DP is assigned dependent case, i.e., the accusative.

(192)



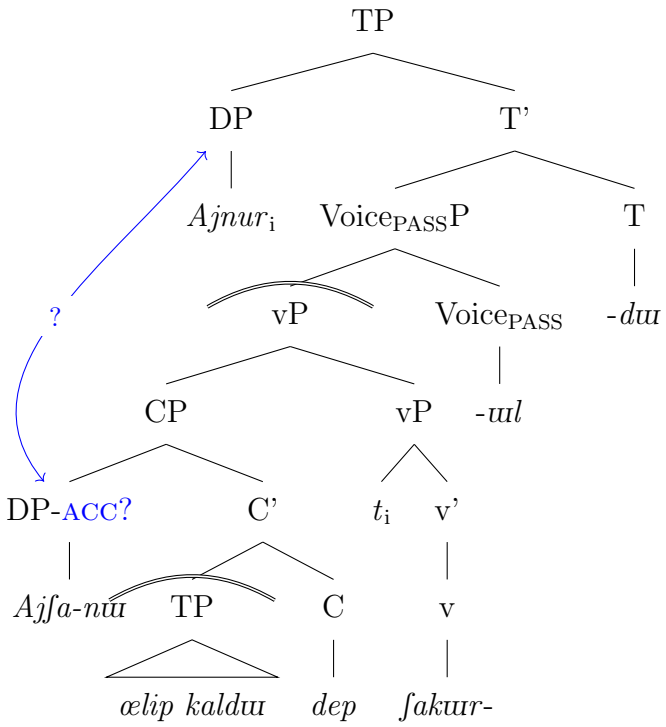
The marginally acceptable accusative marking under passivization arises as the result of locality. The embedded clause subject gets only c-commanded after the internal argument moves to the subject position (for A-movement feeding case assignment see the discussion in Legate 2008 and Baker 2015:§6). The matrix subject is now not in the same locality domain as the subject of the *dep*-clause according to the strong version of the Phase Impenetrability Condition.[51] It is conceivable that the marginal judgments reflect the mismatch between linear proximity of the c-commanding DP without satisfying the relevant locality requirement

how they compose with the matrix clause.

[51]The underlying assumption is that the Strong PIC is the relevant locality generalization for dependent case evaluation. Recall that earlier in this work, I argued at length that only the Weak PIC could account for the NCI licensing facts. An interesting conclusion is that (at least: some) Agree-based operations and dependent case valuation have different locality constraints.

for dependent case valuation.

(193)



To conclude, the dependent case analysis is the only account that can explain all the attested subject case marking patterns. A short summary is offered in (194).

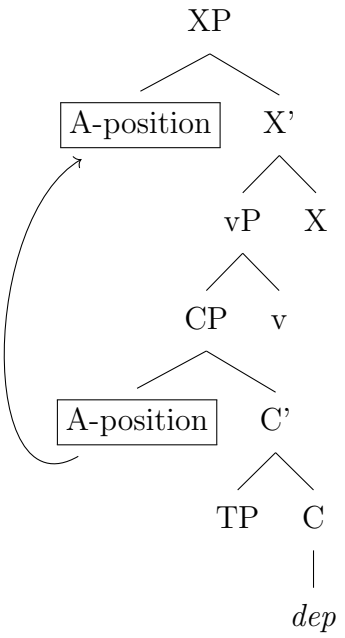
(194) Summary of the subject case data

Matrix predicate type	*dep* type	Embedded subject case	Possible analyses
Active matrix V	$dep_{\text{complement}}$	ACC possible	✓ case-by-v/Voice ✓ dependent case ✓ case-by-C
Passive matrix V	$dep_{\text{complement}}$	ACC not possible	✓ case-by-v/Voice ✓ dependent case ✗ case-by-C
Active intransitive matrix V	dep_{because}	ACC possible	✗ case-by-v/Voice ✓ dependent case ✓ case-by-C
Active transitive matrix V (ACC in matrix)	dep_{because}	ACC possible	✗ case-by-v/Voice ✓ dependent case ✓ case-by-C
Passive matrix V	dep_{because}	ACC marginal	✗ case-by-v/Voice ✓ dependent case ? case-by-C

3.6.3 Summary of the proposal

The starting point of this section was that the accusative embedded subject is located in the Spec,CP position, but it can optionally A-move to the matrix clause. Following previous work (Tanaka 2002, Yoon 2007, Takeuchi 2010, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022), I argued that the Spec,CP in *dep*-clauses is an A-position. This is shown in (195).

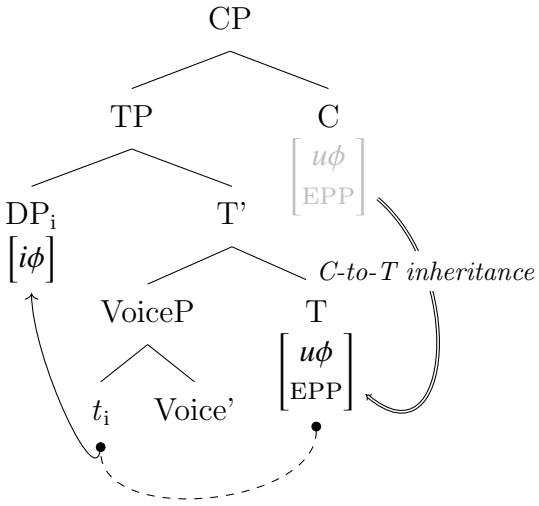
(195)



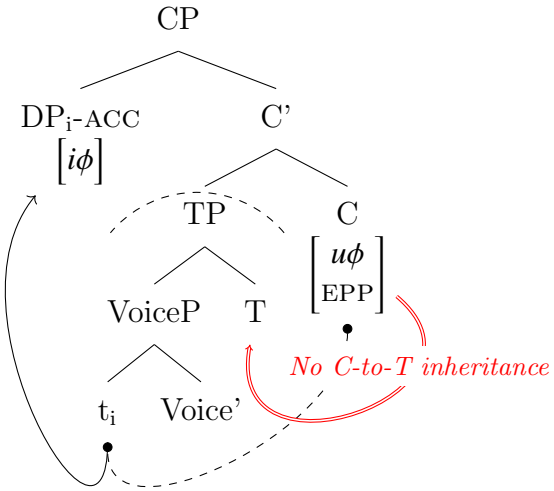
The remainder of the chapter investigated the motivation of the movement to Spec,CP, and concluded that the ϕ-features on the C head are implicated in triggering the movement to the embedded clause edge. I proposed that one type of C head bears a probe consisting of ϕ and EPP-features, as shown in (196b). The probe establishes Agree with the highest accessible DP, which subsequently moves to Spec,CP. The DP gets accusative in this position as a dependent case. The other type of C head passes down its ϕ-features to T, therefore the subject does not raise to the clause edge, nor does it get accusative case. This is represented in (196a). Accusative subject with default agreement arises in the structure in (196b), the nominative subject with full ϕ-agreement is associated with the syntactic representation in (196a).

(196) Types of *dep*-complementizers

a. Nominative subject *dep*-clauses



b. Accusative subject *dep*-clauses



3.7 Conclusions

This chapter set out to analyze the nominative–genitive case "alternation" pattern on the subject of Kazakh *dep*-clauses. At first sight, clausal defectiveness (together with the need-for-Case principle) appears to be the driving force behind nominative–accusative case alternation. This approach would say that a non-defective domain can assign nominative to its subject, whereas a defective clause cannot therefore the subject moves to a higher position where it gets accusative. However, this initially promising-looking analysis faces both conceptual and empirical challenges. Growing evidence indicates that defectiveness-based analyses cannot account for the cross-linguistically attested (hyper-)raising patterns underlying subject case alternations similar to the one found in Kazakh. Halpert in a number of publications (2012, 2015, 2019a, 2019b, Halpert and Zeller 2015) outlines an analysis that

could better accommodate cross-linguistic variation found in (hyper-)raising patterns. She argues that (i) matrix EPP features, and (ii) intervention effects induced by the embedded clause head can account for the attested cross-linguistic patterns. This chapter, following previous work on (mainly) Japanese, Turkish, Janitzio P'urhepecha and Khalkha Mongolian (Tanaka 2002, Şener 2008, 2011, Deal 2017, Zyman 2017, 2018, 2023, Fong 2019, Gong 2022), argued that a third parameter should be added to the Halpert's list: (iii) features of the embedded clause head. The overarching conclusion is that *not defectiveness* but *features* drive raising cross-linguistically.

CHAPTER 4

CONTROL AND INTERMEDIATE SCRAMBLING
AN INVESTIGATION OF KAZAKH RELATIVE CLAUSES

4.1 Introduction

Locality conditions on the Agree operation have been one of the most extensively studied and robust cross-linguistic observations (Chomsky 2000, 2001, Boeckx 2008, Gallego 2010, Abels 2012, Citko 2014). Among the many applications of the operation Agree (movement, Case licensing, Negative Concord, etc.), this chapter focuses on ϕ-agreement. Linguistic research has aimed at attaining a theoretical generalization that rules out empirically unattested Agree relations while it allows for the attested ones. For example, in the following Kazakh (Turkic) sentence the matrix subject *men* 'I' can establish Agree with the matrix predicate but the embedded clause's subject *Aisha* cannot. We want a theory that can account for these facts.

(197) Men [Ajʃa-nɯŋ erteŋ Almatɯ-ga bar-atɯn-ɯn] ajt-tɯ-m /-*Ø.
I [**Aisha-GEN** tomorrow Almaty-DAT go-PRSP-3SG.ACC] say-PST-**1SG** /*-**3SG**
'I said [that Aisha was going to Almaty tomorrow].'

In the Minimalist Program framework agreement is formalized as a checking operation between matching interpretable–uninterpretable features. Additionally, the existence of "locality domains," so-called phases, is proposed, which have special spell-out rules (Chomsky 2000, 2001, Boeckx 2008, Gallego 2010, Abels 2012, Citko 2014). Thus, the locality constraints on the Agree operation are attributed to spell-out rules that govern what point in the derivation a chunk of syntactic structure is sent to the other components of grammar

and leaves that structure inaccessible to subsequent operations (Epstein et al. 1998, Chomsky 2000, 2001, Uriagereka 1999, 2012, Fox and Pesetsky 2005). As a result, the material contained in a subordinate phase is not accessible to establish Agree with probes located in a superordinate phase, with the exception of the subordinate phase edge, where a phrase can establish Agree with superordinate probes, this phenomenon is known as the (strong) Phase Impenetrability Condition (Chomsky 2000, Svenonius 2004, M. D. Richards 2003, 2011, Müller 2004, 2010).

Since the original formulation of Agree and its locality generalizations, a number of novel empirical observations have emerged posing a challenge to the cross-linguistic validity of the original proposal, and in the wake of these new data a number of adjustments and parametrizations have been suggested to either the formulation of the Agree operation or the locality domain in which Agree can be established (e.g., weak Phase Impenetrability Condition (Chomsky 2001); the "weak" vs. "strong" status of the vP (Legate 2003); articulation of probes (Béjar 2003); Multiple Agree (Ura 1995, Hiraiwa 2001, Béjar and Rezac 2009); directionality of Agree (Upward Agree: Zeijlstra 2004, 2008, 2012, Bjorkman and Zeijlstra 2019, Arregi and Hanink 2022 or Downward Agree: Preminger 2013, Rudnev 2021, Bárány and Wal 2022, Deal 2022); long-distance Agree (Polinsky and Potsdam 2001, Bhatt 2005, Bhatt and Keine 2017); failure of feature valuation and default agreement (Preminger 2014), etc.) For this reason, empirical data that appear to be in violation of the well-know locality generalizations are of heightened interest for linguistic theory. The empirical puzzle that provides the starting point for this chapter is agreement data that poses an apparent challenge to the above discussed locality constraint.

There are two strategies to form relative clauses (henceforth, RC) in Kazakh: (i) (198a) illustrates the first strategy, where the RC subject is nominative and there is no phonologically overt subject agreement suffix present either on the RC predicate (*bar-atɯn* 'go-PRSP') or on the modified noun phrase (*ʒer* 'place'). I refer to this as the "nominative RC strategy."

(ii) The second strategy in (198b), which I call "genitive RC strategy," will be the main focus of this chapter. In this type of relative clauses, the RC subject is in the genitive and the subject agreement is obligatorily indicated with the subject. However, the agreement suffix shows up in an unexpected location: subject agreement with the genitive RC subject is marked in a non-local fashion on the modified noun phrase (*ʒer* 'place'), agreement cannot be indicated locally on the RC predicate.

(198) a. [Ajʃa-∅ ertɐŋ bar-atɯn-(*ɯ)] ʒer-(*i) alɯs-ta.
[Aisha-**NOM** tomorrow go-PRSP-(***3SG**)] place-(***3SG**) far-LOC
'The place [where Aisha will go tomorrow] is far.'

b. [Ajʃa-nɯŋ ertɐŋ bar-atɯn-(*ɯ)] ʒer-*(i) alɯs-ta.
[Aisha-**GEN** tomorrow go-PRSP-(***3SG**)] place-**3SG** far-LOC
'The place [where Aisha will go tomorrow] is far.'

The puzzle that serves as the starting point for the discussion to follow is this: typically, Agree cannot be established between an embedded clause subject and a matrix ϕ-probe, as illustrated by (197), but the genitive subject of a RC can agree with a matrix probe, as in (198b). Thus, genitive subject RCs pose a challenge to the well-established locality generalizations. Relative clauses with seemingly non-local agreement are not only observed in Kazakh but in many other Turkic and Mongolic languages:[1] in the Turkic language family in Sakha (Kornfilt 2008a, 2008, 2015, Baker and Vinokurova 2010), Kyrgyz (Kornfilt 2008b, 2015, Laszakovits 2019), Karachay-Balkar (Gürer 2020), Uyghur (Kornfilt 2008b,

[1]In addition to these Western Armenian (Indo-European) (Ackerman and Nikolaeva 1997) and a number of Finno-Ugric languages (for an overview see Dékány and Georgieva 2021, e.g., in Udmurt (Dékány and Georgieva 2021), Khanty (Nikolaeva 1999, for the Kazym (i.e., northwestern) dialect of Khanty see Bikina et al. 2022), Mari (Volkova 2017, Pleshak 2022)) etc. also have RCs exhibiting the same general pattern. At this point, it is unclear if these RCs share only superficial similarity with the Kazakh (or in general, Turkic) genitive subject RCs or whether there are also structural similarities between them.

2015, Asarina 2011), Uzbek (É. Csató and Uchturpani 2010, Gribanova 2018), Türkmen, Altai (Schönig 1992) and in the Mongolic language Dagur (Hale 2002).

Prior research has proposed analyses that derive this ostensively non-local agree relation by appealing to configurations that abide by the standard locality constraints. There are three main ideas relating to this puzzle. The first one submits that the RC subject undergoes raising from the adjunct RC clause to the possessor position of the modified noun phrase. The raising is motivated by the Case Filter as the RC lacking Agr cannot license a subject (Hale 2002). The second family of analyses maintains that the genitive RC subject is RC-internal and it is assigned morphological case by the D head of the modified noun. Under this account, the D head can probe into the RC because it does not constitute a phasal domain (Kornfilt 2008a, 2008, 2015). This latter analysis is motivated by Kornfilt's seminal observation relating to "adverb placement" in the genitive strategy. She observes that a modifier of the RC's predicate can appear to the left of the genitive-marked RC subject, as illustrated in (199). As RC modifiers are otherwise banned to appear in the matrix clause, examples such as (199) lead Kornfilt to propose that the genitive subject is RC-internal.

(199) **[Erteŋ** Ajʃa-nɯŋ bar-atɯn] ʒer-i alɯs-ta.
[tomorrow Aisha-**GEN** go-PRSP] place-**3SG** far-LOC
'The place [where tomorrow Aisha will go] is far.'
Adapted from Kornfilt 2015, ex. (27)

More recently, some approaches suggest that the genitive-marked noun phrase is in the possessor position (see for Kazakh: Ótott-Kovács 2021, for Kyrgyz: Laszakovits 2019, for Finno-Ugric languages such as Udmurt and Mari: Dékány and Georgieva 2021, Pleshak 2022). Based on novel Kazakh data, this chapter concurs with the third analysis: the genitive-marked noun phrase is base-generated in the possessor position. Thus, the appar-

ently non-local agreement is not established between the RC subject and the probes on the modified noun phrase but between the possessor and the uninterpretable ϕ-feature on the possessee's D head, which are in a local configuration. Additionally, this work also puts forth the novel claim that the genitive-marked possessor is co-indexed with a PRO subject in the RC, that is, there is a control relation between the possessor and the RC subject. Furthermore, the chapter presents the novel observation that the movement to the left of the genitive-marked noun phrase, as in (199), has mixed A and $\bar{\text{A}}$-properties (it can create new binding relations, it remedies WCO, but it also reconstructs for Condition A) and I argue that it is an instance of local intermediate scrambling. This way, the chapter also contributes to the literature on scrambling and control by showing that clause-internal, so-called intermediate, scrambling is possible out of control clauses, as observed in several other languages (Mahajan 1989, Nemoto 1993, Takano 2010, Imaoka 2011).

The chapter is structured as follows: following some introductory descriptive remarks, §4.2.1 offers an overview of previous approaches to genitive subject RC with special attention to Kornfilt's (2008, 2008, 2015) approach. Then §4.2.2 presents arguments against the RC-internal-genitive-subject analysis relying on data such as Negative Concord Item licensing (§4.2.2.1), adjectival intervention (§4.2.2.2 and interpretation of the genitive noun phrase (§4.2.2.3). §4.3 presents the proposed analysis: §4.3.1 argues that the genitive phrase is in the possessor position, then §4.3.2 considers potential proposals for the phonologically covert pronoun in the RC subject position: *pro* (§4.3.2.1), trace (§4.3.2.2), or PRO (§4.3.2.3). The conclusion this chapter draws is that the genitive-marked noun phrase in the possessor position is co-indexed with a PRO subject in the RC. §4.3.3 presents novel evidence showing that the movement targeting the position to the left of the possessor is an instance of intermediate scrambling.

4.2 Is the genitive subject inside the RC?

Before turning to the discussion of previous accounts, a few introductory remarks are due on the nominative and genitive subject RC strategies. I consider calling these "strategies" because they are not in complementary distribution, i.e., the genitive subject RC cannot be derived from the nominative subject RC. This claim is based on extensive work with consultants where I attempted to discover a difference in meaning or usage between the nominative and genitive subject RCs. Ultimately, the only difference I was able to find between them is that the genitive is also interpreted as the possessor of the modified noun, in addition to being understood as the subject of the RC. Consider the following contrast between the genitive subject strategy in (200a) and the nominative subject RC in (200b).[2] Consultants point out that in (200a) *Aisha* sends the letter but she is also interpreted as the author of the letter (authorship being the most salient interpretation of the "possessive" relation in this context, but note that other interpretations are possible too). No possessive relation can be attested between the nominative RC subject and the modified noun in (200b).

(200) a. Ajʃa-nɯŋ ʒiber-gen χat-ɯ mɯnaw.
Aisha-GEN send-PRF letter-POSS.3 this
This is the letter that Aisha sent. (Consultants' comment: Aisha also wrote the letter.)

b. [Ajʃa-Ø ʒiber-gen] χat mɯnaw.
[Aisha-NOM send-PRF] letter this
This is the letter that Aisha sent. (Consultants' comment: the "Aisha also wrote the letter" interpretation is not available)

[2]Note that I am not going to mark the genitive subject RC with brackets until I present my analysis.

Before moving on, it is worth ruling out two potential contrasts that the nominative–genitive "alternation" could potentially correlate with. The first one is the restrictive–non-restrictive RC contrast, the other is anaphoric–non-anaphoric reference. As for the first one, the choice between nominative and genitive subjects has nothing to do with restrictive or non-restrictive RCs. (201a) presents a context where the embedded clause is a restrictive RC, and both the nominative and genitive subject cases are available. Additionally, both nominative and genitive marking are compatible with non-restrictive RCs, as illustrated in (201b).

(201) a. We are talking about Saule's cars (Saule has more than one cars).
Keʃe sen-Ø /-iŋ kœr-gen maʃina-(ŋ) œte kɯmbat.
yesterday you-**NOM** /-**GEN** see-PRF car-POSS.SG2 very expensive
'The car that you saw yesterday is very expensive.'

b. We are talking about Saule's car (Saule has only one car).
Keʃe sen-Ø /-iŋ kœr-gen maʃina-(ŋ) œte kɯmbat.
yesterday you-**NOM** /-**GEN** see-PRF car-POSS.SG2 very expensive
'The car, which you saw yesterday, is very expensive.'

Adapted from Ótott-Kovács 2021: 115-6, ex. (15)-(16)

Second, recall that in chapter 2 I observed that the nominative and genitive subjects in nominalized clauses are in complementary distribution, the genitive subjects have anaphoric definite reference whereas the nominatives have either unique definite or indefinite interpretation. An illustrative example is repeated in (202): the genitive subject can only be used in a context where the referent is discourse-old, as in (202b), but not in scenarios where the individual has unique reference, as in (202a). The nominative subject case has the opposite distribution.

(202) a. Two friends who live in England are chatting. They are both very busy people and don't have time to watch the news. They get the news from their friend, Aisha. A: What's on the news? Did Aisha say something? B:...

Ajʃa [patʃajɯm -Ø / -#nɯŋ koronavirus-tan awɯr-ɯp ʒat-kan-ɯn]

Aisha [queen -**NOM** / #**GEN** COVID-ABL be.sick-IP AUX-PRF-3]ACC

ajt-tɯ.

say-PST.3

'Aisha said that the Queen is sick with COVID.' (*the Queen* is unique definite)

b. Two friends who live in England are chatting. A: What's up with the Queen, any news about her? B: Yes,....

Ajʃa [patʃajɯm -#Ø / -nɯŋ koronavirus-tan awɯr-ɯp ʒat-kan-ɯn]

Aisha [queen -#**NOM** / **GEN** COVID-ABL be.sick-IP AUX-PRF-3]ACC

ajt-tɯ.

say-PST.3

'Aisha said that the Queen is sick with COVID.' (*the Queen* is anaphoric definite)

Importantly, this nominative-genitive pattern can only be observed for the nominalized complement clauses. In relative clauses, nominative and genitive subjects both can have anaphoric and unique definite reference, illustrated in (203a) and (203b). In (203b), the RC subject *the Queen* is anaphoric definite, and both the nominative and the genitive marking are acceptable. Similarly, both subject cases are available in (203a) where the subject is interpreted as a unique definite.

(203) a. Two friends are walking in London. One points at a building and says:

Patʃajɯm -Ø / -nɯŋ tu-gan yj-(i) mɯnaw.
queen -**NOM** / **GEN** be.born-PRF house-(POSS.3) this

'This is the house where the Queen was born.' (*the Queen* is unique definite)

b. Two friends are walking in London while they are chatting about the Queen. One points at a building and says:

Patʃajɯm -Ø / -nɯŋ tu-gan yj-(i) mɯnaw.
queen -**NOM** / **GEN** be.born-PRF house-(POSS.3) this

'This is the house where the Queen was born.' (*the Queen* is anaphoric definite)

4.2.1 Previous accounts

Kornfilt (2008, 2008, 2015) makes the influential observation that an adverb[3] that modifies the relative clauses predicate can precede the genitive subject. The adverb *ertеŋ* 'tomorrow' in (204a) comes before the genitive RC subject. This adverb placement pattern has since been described in a number of Turkic languages that display the pseudo-non-local agreement marking pattern, see in Uyghur (Asarina 2011), Kyrgyz (Laszakovits 2019), Uzbek, Sakha (Kornfilt 2008b, 2015), Karachay-Balkar (Gürer 2020) among others. The adverb placement

[3]Although Kornfilt (2008, 2008, 2015) makes this observation about adverbs, it also extends to other types of RC constituents, e.g., arguments. In (i) the dative marked phrase *Sæule-ge* 'to Saule' is the recipient argument of the ditransitive verb 'send.' As shown in (ib), this argument can undergo movement to a position preceding the genitive noun phrase interpreted as the RC subject. For more data see §4.3.3.

(i) a. Ajʃa-nɯŋ **Sæule-ge** ʒiber-gen χat-ɯ mɯnaw.
Aisha-GEN **Saule-DAT** send-PRF letter-POSS.3 this
'This is the letter that Aisha sent to Saule.'

b. **Sæule-ge** Ajʃa-nɯŋ ʒiber-gen χat-ɯ mɯnaw.
Saule-DAT Aisha-GEN send-PRF letter-POSS.3 this
'This is the letter that Aisha sent to Saule.' (Can be followed up by: "And that is the letter that Aisha sent to Almas.")

in (204a) is especially surprising in the light of data in (204b), which shows that the adverb construing with the RC predicate cannot raise above the matrix subject. This suggests that constituents cannot be extracted out of the relative clause, and the adverb 'tomorrow' is located in the relative and not in the matrix clause. Kornfilt 2008b, 2015[4] interprets the adverb placement illustrated in (204a) as indicative of the genitive subject's syntactic position: if the adverb 'yesterday' is situated within the RC, so must the genitive subject, which the adverb precedes.

(204) a. **Ertең** meniŋ bar-atɯn ʒer-im alɯs-ta.
[tomorrow I.GEN go-PRSP] place-POSS.SG1 far-LOC
'The place [where I will go tomorrow] is far.'
KAZAKH, Kornfilt 2015, ex. (27), slightly simplified

b. ***Ertең** Ajʃa meniŋ bar-atɯn ʒer-im-di bil-me-j-di.
tomorrow Aisha **I.GEN** go-PRSP place-POSS.SG1-ACC know-NEG-PRS-3
Intended: 'Aisha does not know the place [where I will go tomorrow].'

That is, Kornfilt (2008, 2015) proposes that the subject gets genitive inside the relative clause. The assigner of the genitive case is the D head of the modified noun phrase, that is, the genitive originates from a RC-external licenser. To explain how the RC subject is accessible to the probe on the domain-external D, Kornfilt contends that the RC in these languages does not constitute a phase, therefore it is transparent to outside probes. (205)

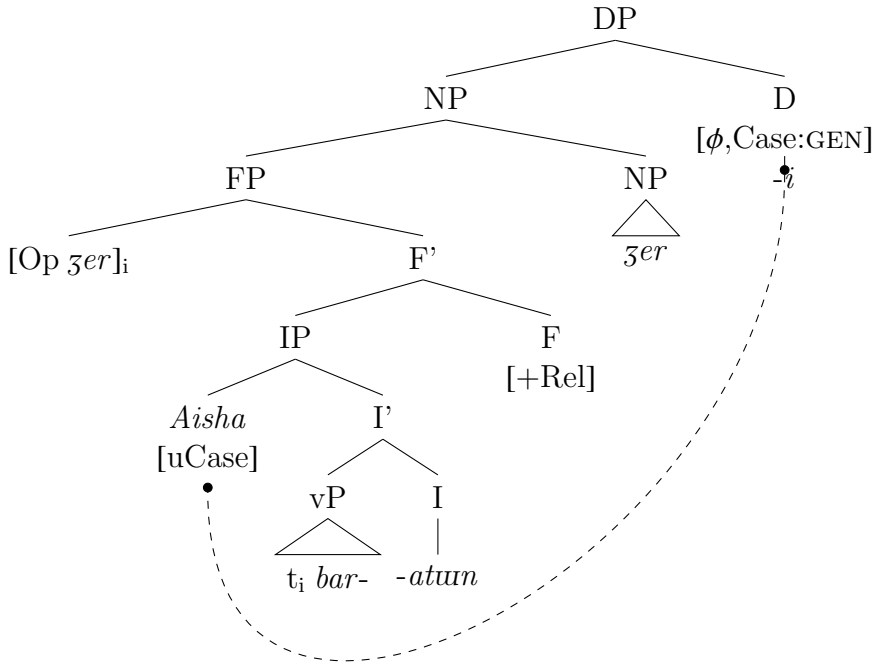
[4]Kornfilt (2008a) presents a different analysis: in this paper she takes a Kaynean approach (Kayne 1994) to relative clauses and argues that the nominative subject RC moves to Spec,DP of the modified noun phrase to derive the word order (the RC precedes the modified noun). She submits that when the genitive subject RC moves to Spec,DP it leaves the agreement marker stranded, which then cliticizes onto the modified noun phrase. The overview of these two analyses is presented in (i).

(i) a. [$_{DP}$ [$_{RC}$ **Aisha-NOM** e_j **go-PRSP**]$_i$ [$_{D'}$ D [$_{CP}$ [$_{NP}$ place]$_j$ [$_{C'}$ C [$_{IP=RC}$ e_i]]]]]

b. [$_{DP}$ [$_{RC}$ **Aisha-GEN** e_j **go-PRSP**]$_i$ [$_{D'}$ D [$_{CP}$ [$_{NP}$ place]$_j$ [$_{C'}$ C [$_{IP=RC}$ e_i+**AGR**]]]]]

provides the tree representation[5] of this analysis: the relative clause, represented as FP on the tree, is not a phase, therefore it is accessible for the ϕ-probe located on D. D probes down, and finds the highest accessible DP, the RC subject, establishes Agree (in the sense of Chomsky 2000, 2001) with it and values the DP's uninterpretable Case features. The agreement suffix [i] on the modified noun phrase *ʒer* 'place' is the exponent of the valued ϕ-features on D.

(205) Kornfilt-style analysis of the RC with genitive subject (cf. (198b))



Kornfilt's analysis crucially relies on the RC not being a phase. Her first argument in favor of this view is that subject and non-subject relative clauses are not distinguished morphologically in Kazakh and in other Turkic language that display the alleged non-local agreement on the modified noun phrase: (204a) is an example of non-subject RC, as the

[5]Note that the relative clause structure is rendered as per the matching analysis of relative clauses (Lees 1960, 1961, Chomsky 1965, Sauerland 1998, 2003, Salzmann 2006, 2017), but nothing hinges on this choice. Other analyses, such as the raising analysis (Schachter 1973, Kayne 1994, Bianchi 1999, Bhatt 2002), would also be suitable for our purposes.

modified DP does not match the subject of the modifying RC; notice that the RC predicate head is spelt out by the suffix [atɯn]. (206) offers a subject relative, where the modified noun phrase *kɯz* 'girl' is co-referential with the RC's subject; the subject RC's predicate is marked by the same suffix that was used in the case of non-subject RCs, namely [atɯn].

(206) **[Erteŋ** mektep-ke bar-atɯn] kɯz kim?
[tomorrow school-DAT go-PRSP] girl who
'Who is the girl [who will go to school tomorrow]?'

The invariable subject versus non-subject RC marking is in sharp contrast with the pattern attested in Turkish, where the head of subject RCs is spelt out by /(y)An/, whereas the non-subject RC head exponent is /DIK/ or /(y)AcAK/ (the choice between these is determined by the aspectual properties of the clause). The Turkish non-subject RC in (207a) is headed by [tiğ] (an allomorph of /DIK/), in contrast /DIK/ cannot be used as the exponent of the subject relative's head in (207b), instead it is spelt out by /(y)An/.[6]

(207) a. [Ben-im git-**tiğ**-im] yer buradan uzak.
[I-GEN go-**PRF**-POSS.1SG] place from.here far
'The place where I go/went is far from here.'

b. [Okul-a gid-**en**/ *git-**tiğ**-(i)] kız kim?
[tomorrow go-**AN**/ *go-**PRF**-POSS.3SG] girl who
'Who is the girl who goes/went to school?'

TURKISH

[6]The distribution of /(y)An/ and /DIK/ is more complex than this work allows us to do justice; the interested reader can consult Underhill 1972, Hankamer and Knecht 1976, É. Csató 1996, Kornfilt 2000, Çağrı 2005, 2009, Gračanin-Yüksek 2022 for more details.

Kornfilt argues that the choice between /(y)An/ and /DIK/ in Turkish is driven by complementizer agreement (for a recent account on how this can be implemented see Gračanin-Yüksek 2022), and the lack of the morphological distinction between subject and non-subject relative clauses in Kazakh is due to the lack of the C projection, which is the locus of the complementizer agreement.

Secondly, recall that the agreement with the subject cannot be indicated on the RC predicate in Kazakh, as in (198b), similarly to other Turkic languages with apparent non-local agreement. This, again, contrasts with Turkish, where subject agreement is marked on the non-subject RC predicate, see the agreement marker [im] following the /DIK/ head in (207a). Kornfilt maintains that the lack of agreement on the RC predicate is a further indicator of the missing C-layer in this type of RCs. Correlation between agreement and phasehood has been shown to be relevant in other languages as well, for instance in Japanese (Miyagawa 2011).

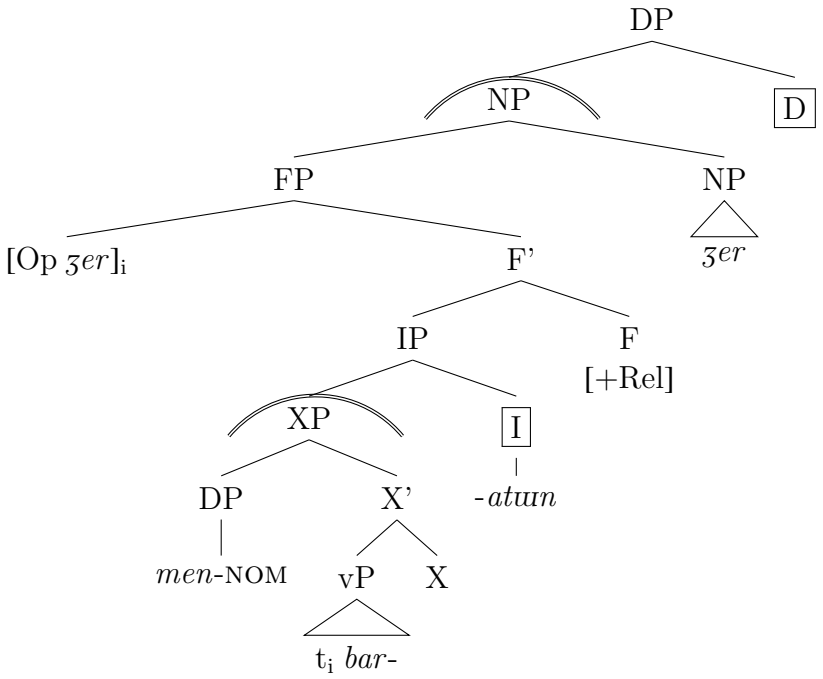
The final point to make with regards to the Kornfilt-style analysis is how it would treat nominative subject RCs. The challenge here is how to make sure that the RC-external D head does not establish Agree with the subject, and as a result the subject does not get assigned genitive and the ϕ-features on D remain unvalued (i.e., no overt agreement morphology appears on the modified noun). While Kornfilt never explicitly addresses this question, one assumes that the nominative subject would need to be in a lower position than the Inflection head, which is a phase head, indicated by the framebox in the tree. A potential such structure is given in (208). Under this analysis, the nominative RC subject is hosted by some projection rendered as XP in (208),[7] which is in the domain of the strong phase head, I(nflection). Assuming the weak version of the Phase Impenetrability Condition,[8] the RC subject is inaccessible for the probe on D, as a results Agree cannot be established between

[7]Alternatively, the subject could remain in its base position, Spec,VoiceP.

[8]Chomsky (2001) defines the Weak PIC the following way: In phase α with head H, the domain of H is accessible to operations outside of α only until the next (strong) phase head is merged.

the D head and the RC subject. The subject presumably gets default nominative case in this configuration.

(208) Kornfilt-style analysis of the RC with nominative subject (cf. (198a))



While this hypothetical account offers an explanation for how the subject can surface without genitive marking, it is based on two independently unmotivated steps: (i) it stipulates that the Inflection and not the relative clause head is the phasal head, and (ii) it requires an additional projection to host the nominative subject or, alternatively, the subject to remain in its base position, both of which options are unmotivated under this derivation.

Thus, the account that considers the genitive subject as being located inside the relative clause ultimately would require us to make some unmotivated assumptions when it comes to analyzing the nominative subject. The following sections show that this is not the biggest problem with the genitive-subject-inside-the-RC analysis. Additional empirical data, such as NCI licensing (§4.2.2.1), adjectival modification intervening between the genitive subject and

the RC (§4.2.2.2), and semantic restrictions on the genitive subject (§4.2.2.3), cast serious doubt on this account and instead indicate that the genitive noun phrase is in the Spec,DP position.

4.2.2 The genitive subject is not RC-internal

4.2.2.1 NCI licensing

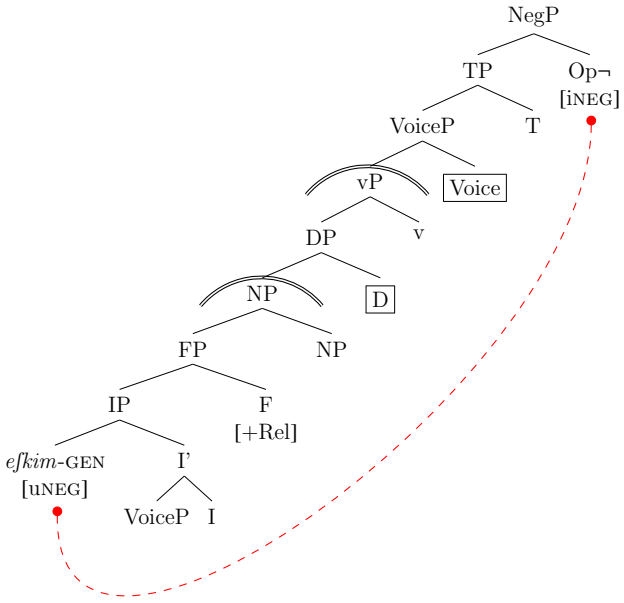
This section looks at Negative Concord Items (for an overview see §1.2) in the RC subject position under RC-internal and RC-external negation. The data introduced in this section are at odds with the view that the genitive subject is RC-internal, instead they indicate that the genitive phrase is at the edge of the DP, i.e., in the possessor's position.

4.2.2.1.1 Predictions by the genitive-subject-inside-the-RC analysis

Given our assumptions on Negative Concord (§1.2), the genitive-subject-inside-the-RC analysis predicts that RC-external negation, e.g., in the sentence "Aisha did *not* see the toy [that *n-one* played with]," cannot license either a genitive or a nominative-marked NCI in the RC subject position. As both the nominative and genitive RC subjects are claimed to be located inside the relative clause, NCI licensing in these positions can be ruled out on the basis of island violation. The relative clause constitutes an island for matrix operations, therefore the interpretable negation in the matrix clause cannot establish Agree with a RC-internal head bearing uninterpretable negative feature. This said, it has been noted in the literature that in some languages (e.g., in Shupamem, Grassfields Bantu) RCs do not count as island domains and therefore they are transparent to matrix operations, including NCI licensing by RC-external negation (see Kandybowicz and Nchare 2022 and references therein). Even if this were the case in Kazakh, the Agree relation between interpretable and uninterpretable

negative features could not be established because it would constitute the violation of the Weak Phase Impenetrability Condition, as the probe would need to cross two phasal domains even in the case of the, higher, genitive RC subject. (209) offers a representation of this structural configuration: the matrix v and the D projection of the modified noun phrase are strong phase heads; the negation is above the matrix temporal phrase. When the matrix little-v head merges, the domain of the immediately preceding strong phase head, i.e., D, is sent to Spell-Out, therefore no Agree operation can be established between any material contained in the domain of D, i.e., NP in (209), and material above the matrix little-v. As the nominative RC subject is assumed to be lower that the genitive subject, it is also not expected to be able to host an NCI under matrix negation.

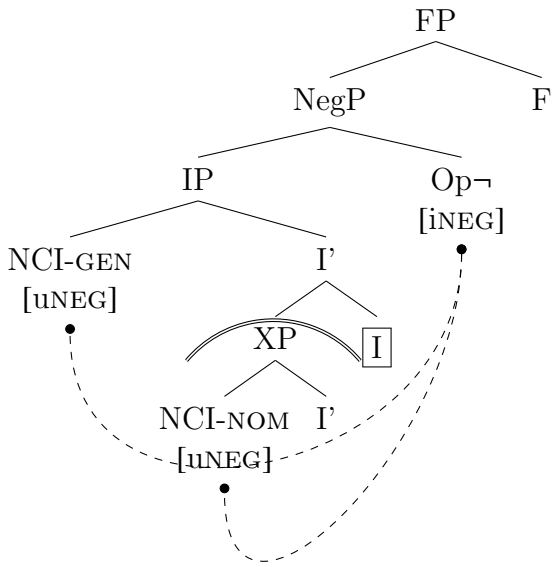
(209) Prediction-1: NCI licensing by matrix negation fails in the GEN RC subject position



Turning to NCI licensing by RC-internal negation, the RC-internal genitive subject analysis predicts that RC-internal negation can license NCIs in both nominative and genitive subject positions. As shown in (210), the negation head is above the temporal phrase, IP, and both the nominative and the genitive subjects are accessible for it, as per the Weak PIC.

(210) combines the nominative and genitive subject RCs in a single tree representation.

(210) Prediction-2: NCI licensing in the GEN and NOM RC subject positions are possible under RC-internal negation



To summarize, the RC-internal genitive subject analysis predicts that RC-external negation can never license NCIs in the RC subject position, whereas RC-internal negation could license NCIs in both the nominative and the genitive subject positions. A summary of these predictions is given in (211).

(211) Summary of predictions by the genitive-subject-inside-the-RC analysis

RC-external negation	GEN NCI subject	✗
	NOM NCI subject	✗
RC-internal negation	GEN NCI subject	✓
	NOM NCI subject	✓

4.2.2.1.2 NCI licensing data and their implications

The RC-internal genitive subject analysis predicts that nominative and genitive NCI subjects pattern uniformly with respect to clause-external and internal NCI licensing. While this account makes accurate predictions regarding nominative subjects, it falls short when it comes to genitive NCI subjects.

The prediction was that RC-external negation cannot license either nominative or genitive subjects. The following example demonstrates that this is not borne out. The RC subject in both sentences is the Negative Concord Item *eʃkim* 'n-who,' which is in the nominative in (212a) and in the genitive in (212b); the interpretable negative operator is in the matrix clause. As anticipated, the nominative NCI subject cannot be licensed by matrix negation. However, all consultants accept the genitive NCI RC subject under matrix clause negation. This is unexpected under any formulation of the RC-internal genitive subject approach as the only position where the superordinate negation can license an NCI is in the RC-external Spec,DP position, as discussed in connection of the configuration in (209).

(212) a. *[Eʃkim-**Ø** balabakʃa-da ojna-gan] ojɯnʃɯk-tɯ kœr-gen **ʒok**-pɯn.
[n.who-**NOM** kindergarten-LOC play-PRF] toy-ACC see-PRF **NEG**-1SG
Intended: 'I didn't see the toy with which anybody plays in the kindergarten.'

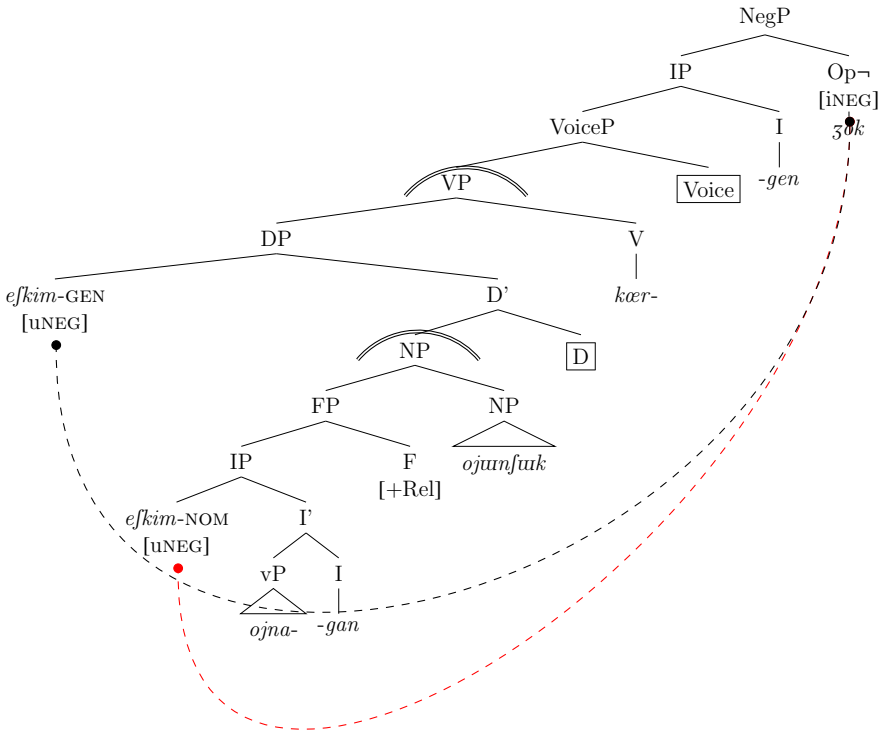
b. Eʃkim-**nɯŋ** balabakʃa-da ojna-gan ojɯnʃɯg-ɯn kœr-gen **ʒok**-pɯn.
n.who-**GEN** kindergarten-LOC play-PRF toy-POSS.3.ACC see-PRF **NEG**-1SG
'I didn't see anybody$_i$'s the toy with which they$_i$ play in the kindergarten.'

The availability of genitive NCI subjects in this configuration clearly locates the genitive RC subject in Spec,DP of the modified noun phrase as this is the only position withing the

DP where Agree can be established with the negative operator. This is shown in (213). That is, the only possible analysis for the well-formed (212b) is that the genitive subject is RC-external.

The nominative subject is situated within the RC, shown in Spec,IP in (213), consequently it is not accessible domain to establish Agree with the matrix negative operator. As the uninterpretable negative features of the nominative NCI cannot get valued in this configuration, the derivation fails and the result is the ungrammatical sentence in (212a). Note that (213) presents both the nominative and the genitive NCI subjects within one tree representation.

(213) Licensing NOM and GEN NCI subjects under matrix negation



Furthermore, the RC-internal genitive subject analysis also predicts that RC-internal negation can license both nominative and genitive subjects. This prediction is not borne out either. The RC-internal negation can license the nominative RC subject, as shown in (214a), but not the genitive subject, as in (214b).[9]

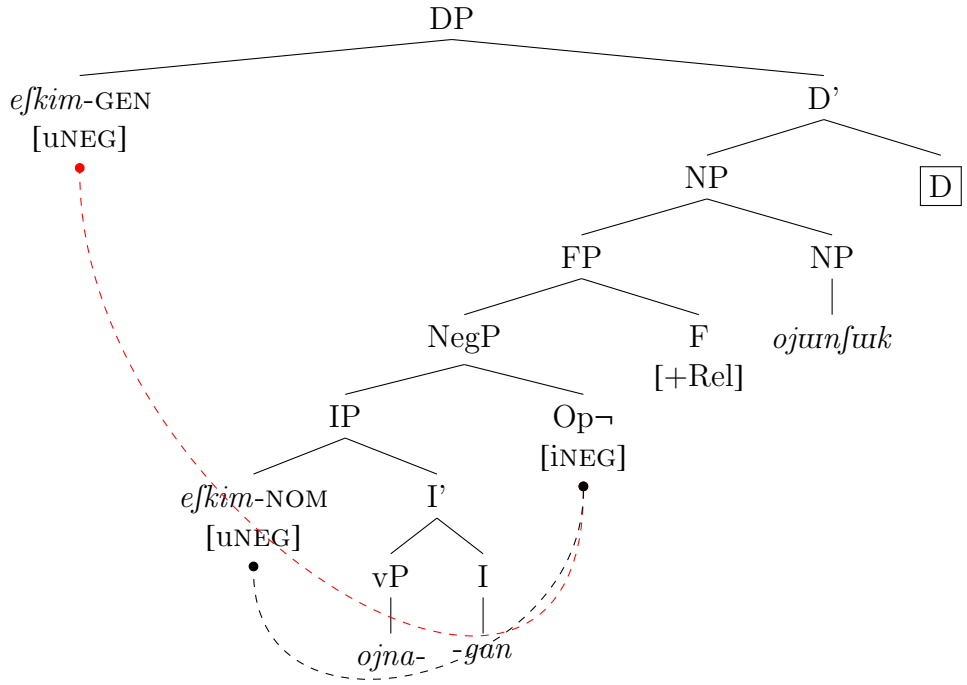
(214) a. [Eʃkim-**Ø** balabakʃa-da ojna-**ma**-gan] ojɯnʃɯk mɯnaw.
[n.who-**NOM** kindergarten-LOC play-**MA**-PRF] toy this
'This is the toy with which nobody plays in the kindergarten.'

b. *Eʃkim-**nɯŋ** balabakʃa-da ojna-**ma**-gan ojɯnʃɯg-ɯ mɯnaw.
n.who-**GEN** kindergarten-LOC play-**MA**-PRF toy-POSS.3 this
Intended: 'This is the toy with which nobody plays in the kindergarten.'

Again, this is consistent with the idea that the genitive subject is not RC-internal, therefore it cannot be within the scope of the negative operator. The nominative NCI subject can be licensed because it is within the scope of the RC-internal negative operator. The configuration that is consistent with the NCI facts upon RC-internal negation is given in (215).

[9]Some of my native speaker consultants found the judgements on examples similar to (214b) tricky. In such sentences the genitive NCI immediately preceded the RC predicate; some consultants expressed that these sentences are "difficult" or maybe even accepted them (for data and the distribution of judgements see Ótott-Kovács 2021). However, it is noteworthy that even these speakers reject sentences where there is one or more phrase separating the genitive NCI and the RC predicate, as the one in (214b). I am assuming that the proximity between a potential licenser and the NCI is responsible for these murky judgements.

(215) Licensing NOM and GEN NCI subjects under RC-internal negation



The following table gives a summary of the predictions made by the RC-internal genitive subject analysis and the actual NCI licensing data. The table shows that the RC-internal genitive subject analysis makes wrong predictions about genitive NCI subjects under both clause-external and internal negation. Thus, the genitive NCI facts are puzzling if we assume that the genitive subject is located inside the RC. However, they can be accounted for if we posit that the genitive phrase is in the canonical possessor position. The following subsections present additional pieces of evidence in support of this conclusion.

(216) Summary of predictions by the genitive-subject-inside-the-RC analysis

		Prediction	Data
RC-external negation	GEN NCI subject	✗	✓
	NOM NCI subject	✗	✗
RC-internal negation	GEN NCI subject	✓	✗
	NOM NCI subject	✓	✓

4.2.2.2 Intervening adjectives

Another piece of empirical data that is at odds with the RC-internal genitive subject analysis comes from adjective placement. Adjectives composing with the noun phrase modified by the RC can intervene between the genitive noun phrase and the relative clause. This is unexpected if the genitive subject is situated inside the RC.

The suffix /GI/ marks attributive adjectival phrases, which cannot display ambiguity between adjectives and adverbs (for a description of the corresponding Turkish construction /gI/ see Göksel and Kerslake 2004: 174–175). The /GI/ suffix attaches to a locative-marked noun phrase in (217), and forms an adjective with the meaning 'belonging to/ situated in/ of [that place].'

(217) Vengija-da-**gɯ** ʒer
Hungary-LOC-**ADJ** place
'the place (situated) in Hungary'

/GI/-marked phrases cannot modify verb phrases, that is, they can never serve as adverbial modifiers. The ungrammaticality of (218a), where the /GI/ phrase is intended to be used as a modifier of the verbal predicates 'live' and 'go,' demonstrates that /GI/ phrases cannot function as adverbs. (218a) is only grammatical if the adjectival marker /GI/ is omitted, shown in (218b).

(218) a. *Vengija-da-**gɯ** tur-a-mɯn / bar-a-mɯn.
Hungary-LOC-**ADJ** live-PRS-1SG / go-PRS-1SG
Intended: 'I live in / go to Hungary.'

b. Vengija-da tur-a-mɯn. / Vengija-ga bar-a-mɯn.
Hungary-LOC live-PRS-1SG / Hungary-DAT go-PRS-1SG
'I live in Hungary. / I go to Hungary.'

That is, /GI/ unambiguously marks adjectival modifiers. If the RC-internal genitive subject analysis is on the right track, /GI/-phrases are predicted to be available only before the RC (and the genitive subject contained in the RC) or between the RC predicate and the modified noun phrase, shown in (219). The /GI/-phrase is not expected to surface in any other position.

(219) Prediction: (**/GI/ phrase**) [$_{RC}$ GEN-subject ...] (**/GI/ phrase**) modified-DP

The prediction in (219) is not borne out. I found that all native speakers I consulted accept sentences where an adjectival /GI/ phrase intervenes between the genitive DP and the RC. In (220), the /GI/-marked adjectival modifier[10] of the target noun phrase 'place' comes after the genitive-marked RC subject *men-iŋ* 'I-GEN.' The adjectival /GI/ phrase *Vengrija-da-gɯ* 'situated in Hungary' is not a modifier of the RC predicate *bar-atɯn*, as a /GI/ phrase cannot modify verbal predicates, shown above in (218a). The adjectival placement in (220) is unexpected under the RC-internal-genitive-subject approach because it would not predict that an adjectival phrase modifying the target noun 'place' can intervene between the genitive RC subject and RC predicate. It is noteworthy that the high temporal adverb *ertеŋ* 'tomorrow', which modifies the RC predicate,[11] can precede the genitive DP even if a

[10]Note that there is no special "parenthetical" intonation before and after the /GI/ phrase.

[11]*Ertеŋ* 'tomorrow' can only modify a noun phrase if we add the adjectival suffix /GI/ to it, illustrated by the ill-formed (ia) without /GI/ and the grammatical (ib) with /GI/. It follows that *ertеŋ* in (220) is not the modifier of the noun phrase *ʒer* 'place' but the RC predicate *bar-atɯn*.

/GI/ adjectival phrase intervenes between the genitive DP and the RC.[12]

(220) (Ertɐŋ) **men-iŋ** Vengija-da-**gɯ** (ertɐŋ) bar-atɯn ʒer-im
(tomorrow) **I-GEN** Hungary-LOC-**ADJ** (tomorrow) go-PRSP place-POSS.1SG
alɯs-ta.
far-LOC

'The place, situated in Hungary, where I am going tomorrow is far.'

Thus, the adjective placement patterns are inconsistent with the RC-internal genitive subject account, whereas they support the view that considers the genitive-marked noun phrase RC-external. Under this latter analysis, the genitive DP is in the RC-external possessor position, shown in (221a), which is the labelled version of (220), and it predicts that an adjectival modifier could intervene between the DP in the possessor position (*men-iŋ*) and the possessee (*ʒer-im*). Note that the possessor–/GI/ phrase–possessee sequence is also well-formed when the noun phrase is not modified by an RC, shown in (221b).

(i) a. *ertɐŋ sabak
tomorrow class
Intended: 'the class (happening) tomorrow'

b. ertɐŋ-**gi** sabak
tomorrow-**ADJ** class
'the class (happening) tomorrow'

[12]As expected, the /GI/-phrase cannot precede the nominative RC subject, as shown in (i).

(i) a. ***Men-Ø** Vengija-da-**gɯ** bar-atɯn ʒer alɯs-ta.
I-NOM Hungary-LOC-**ADJ** go-PRSP place far-LOC
Intended: 'The place, situated in Hungary, where I am going is far.'

b. Vengija-da-**gɯ** **men-Ø** bar-atɯn ʒer alɯs-ta.
Hungary-LOC-**ADJ** **I-NOM** go-PRSP place far-LOC
'The place, situated in Hungary, where I am going is far.'

(221) a. (Ertɐŋ) **men-iŋ** Vengija-da-**gɯ** [$_{RC}$ (ertɐŋ) bar-atɯn]
(tomorrow) **I-GEN** Hungary-LOC-**ADJ** [$_{RC}$ (tomorrow) go-PRSP]
ʒer-im alɯs-ta.
place-POSS.1SG far-LOC

'The place, situated in Hungary, where I am going tomorrow is far.'

b. **Men-iŋ** Vengija-da-**gɯ** ʒer-im alɯs-ta.
I-GEN Hungary-LOC-**ADJ** place-POSS.1SG far-LOC
'My place, situated in Hungary, is far.'

In conclusion, /GI/-marked adjectives construing with the DP modified by the RC can follow the genitive-marked noun phrase suggesting that the genitive-DP is not in a RC-internal position.

4.2.2.3 Restrictions on genitive subjects

If the RC subject gets its genitive case inside the relative clause from a RC-external licenser, it is predicted that the type of the modified DP would not have any effect on the availability of the genitive subject marking. This section shows that this prediction is not borne out. Similar but not identical data have been presented in Ótott-Kovács 2021 and Laszakovits 2019 (the latter for the closely related Turkic language, Kyrgyz).

The main empirical observation put forth in this section is that the genitive-marked noun phrase is always interpreted as the possessor of the modified DP. Consequently, the genitive strategy can only be felicitously used when some sort of "possessive" relationship (Barker 1991, Partee and Borschev 1998, 2003, Vikner and Jensen 2002) can be construed between the modified noun phrase and the genitive DP. Contexts that do not support the

possessive relation between the genitive phrase and the modified noun, the genitive strategy is disallowed. Additionally, when the modified DP is a relational noun such as 'father' or 'eye,' the genitive DP must be interpreted as the relational noun's argument. This section introduces the relevant empirical data and shows that they are not compatible with the RC-internal genitive subject analysis.

4.2.2.3.1 No contextually construable possessive relation between the genitive DP and the modified DP

It is possible to find examples where the nominative RC subject strategy is perfectly acceptable, whereas the genitive strategy is either infelicitous or only felicitous in a narrower set of contexts than the nominative subject strategy. (222a) and (222b) offer an illustrative pair of examples, where the modified noun phrase is *the Sun*. (222a) demonstrates that the nominative-subject RC is acceptable with the modified DP *Sun*. On the other hand, the genitive subject strategy in (222b) is not compatible with this type of modified noun phrase in the given context. The first point to make regarding this example pair is that the RC-internal-genitive-subject analysis would predict that (222b) should be available in any context where (222a) is felicitous. This prediction is shown to be false by the infelicity of (222b).

(222) A physics teacher asks a student (out-of-the-blue): – Which celestial body would you like to know more about? The student responds:

a. [Galɯm-dar-Ø zertte-p ʒat-kan] kyn twralɯ.
[scientist-NOM study-IP AUX-PRF] sun about
'About the Sun, which scientists are investigating.'

b. #[Galum-dar-duŋ zertte-p ʒat-kan] kyn-i twralɯ.
[scientist-GEN study-IP AUX-PRF] sun-POSS.3 about
Intended: 'About the Sun, which scientists are investigating.'
Adapted from Ótott-Kovács 2021: 115, ex. (13)-(14)

Why is the genitive subject not suitable in this example? Recall that the genitive and nominative RC strategies can both construct non-restrictive relative clauses (see (201a)-(201b)), so the unavailability of the genitive subject cannot be due to the RC being non-restrictive in (222b). The degraded judgements in (222b) are parallel to those attested in (223a), where there is no relative clause and the genitive-marked *scientists* is the intended possessor of *the Sun*. Before we turn to the relevant example, it is worth making clear our underlying assumptions about possessive constructions.

Following Barker 1991, Partee and Borschev 1998, Partee and Borschev 2003, Vikner and Jensen 2002, I consider the relation between the so-called possessor and the possessee to be a not explicitly defined relation R, which can express various associations between possessor and possessee depending on various factors such as the possessee's lexical meaning (formalized in terms of qualia roles by Vikner and Jensen 2002, cf. Pustejovsky 1998) and pragmatic information. That is, a wide array of relations can potentially be established between a possessor and a possessee depending on contextual and lexical semantic factors. For instance, in the possessive construction *the girl's poem* the possessor *the girl* might have written the *poem*, or she could have read the *poem* out loud, or, given contextual support, it could be a *poem* that she keeps talking about, or discovered, etc. (Vikner and Jensen 2002).

Given this backdrop, it is expected that the *scientists* and *the Sun* could, in theory, be felicitously used in a possessive construction. This is in fact what we see in (223b). Crucially, the context in (223a) does not provide sufficient support to establish a salient relation between the *scientist* and *the Sun*, which results in the infelicitous judgements.

(223) a. A physics teacher asks a student (out-of-the-blue): – Which celestial body would you like to know more about? The student responds:

#Galɯm-dar-dɯŋ kyn-i twralɯ.

scientist-PL-GEN sun-POSS.3 about

Intended: 'About the scientists' Sun.'

b. Teams of scientists, astronauts and engineers are asked to provide an artistic rendition of the Sun. I ask you: – Which one do you like the most? You respond:

Galɯm-dar-dɯŋ kyn-in.

scientist-PL-GEN sun-POSS.3.ACC

'(I like) The scientists' Sun.'

Turning back to the genitive subject RC in (222b), I propose that (222b) is infelicitous in the given context for the exact same reason why the possessive construction in (223a) is infelicitous. The parallelisms[13] between the the contexts where possessors and genitive subject RCs are felicitous strongly suggests that the genitive noun phrase in such RCs serves as the

[13]I have conducted a detailed study with several native speakers in this respect, and I found that the contexts where possessors and genitive RC subjects are available are completely overlapping. Ótott-Kovács (2021) offers additional examples to illustrate these parallelisms. Note that the "restrictions" on genitives are not limited to proper name denoting terms, they can arise between any two terms where there is insufficient contextual support for establishing the relevant relation. An illustrative example follows. No salient relationship is established in the context between the 'tree' and the 'window,' consequently the possessive construction in (ia) is infelicitous. As predicted, the genitive subject RC in (ib) is also judged infelicitous in this context, patterning with the possessive construction. In contrast, the nominative subject RC in (ic) is acceptable.

(i) Aisha and Bolat are looking at Aisha's house. Bolat asks: "Which is your window?" Aisha points to a window that has a tree branch poking through it and responds:

a. **#Agaʃ-tɯŋ** tereze-si.
tree-GEN window-POSS.3
Intended: 'The tree's window.'

b. **#Agaʃ-tɯŋ** sɯndɯr-gan tereze-si.
tree-GEN break-PRF window-POSS.3
Intended: 'The window that the tree broke.'

c. [Agaʃ-Ø sɯndɯr-gan] tereze.
[tree-NOM break-PRF] window
'The window that the tree broke.'

possessor, consequently it is situated in an RC-external position. This pattern constitutes a powerful counterargument against the RC-internal genitive subject hypothesis.

4.2.2.3.2 Relational nouns as modified DPs

Relational nouns, such as *father*, *eye*, *neighbor*, *center*, *mayor*, are considered argument taking nouns, their argument is realized as the possessor, i.e., *Aisha's* father/eye/neighbor, *Almaty's* center/mayor. Note that it is controversial if *all* possessors should be considered arguments (as opposed to adjuncts) of the possessee, and it may very well be that the argumenthood of possessors is subject to cross-linguistic variation (see Partee and Borschev 2003 for a detailed discussion). We limit the discussion to canonical relational nouns, which are widely regarded as argument taking nouns.

When the modified DP is a relational noun such as *father*, the RC-internal genitive subject analysis predicts that the genitive subject can be interpreted not as an argument (i.e., not the possessor) of the relational noun. Consider first the felicitous nominative subject RC in (224a): as expected, the RC subject *Saule* is not interpreted as the relational noun's argument (i.e., the meaning is not 'Saule's father'). Contrast (224a) with the infelicitous genitive subject RC (224b). The RC-internal genitive subject analysis would predict that (224b) should be felicitous in this context, as the genitive DP is assumed to be RC-internal. Yet again, this prediction is not borne out. The only available interpretation for the genitive-marked DP in (224b) is as the argument of the relational noun, *father*. This suggests that the genitive DP is in the RC-external possessor position.

(224) Saule is a teacher. She participated in a teacher-parent event yesterday, where she talked to several parents. We are talking about the parents:

a. [Sæule-Ø keʃe uzak sœjles-ken] **æke** Ajnur-duŋ æke-si.
[Saule-NOM yesterday long chat-PRF] **father** Ainur-GEN father-POSS.3
'The father with whom Saule chatted for a long time yesterday is Ainur's father.'

b. **#Sæule-niŋ** keʃe uzak sœjles-ken **æke-si** Ajnur-duŋ æke-si.
Saule-GEN yesterday long chat-PRF **father-POSS.3** Ainur-GEN father-POSS.3
Intended: 'The father with whom Saule chatted for a long time yesterday is Ainur's father.'

Slightly modified from Ótott-Kovács 2021: 117, ex. (25)-(26)

4.2.3 Interim summary

This section presented the outlines and motivations of the RC-internal genitive subject analysis. This approach contends that the genitive-marked subject is inside the relative clause and it gets case from the RC-external D head as a result of the RC not constituting a phasal domain. A particularly strong argument in favor of this analysis comes from the adverb placement with respect to the genitive subject (first observed by Kornfilt): adverbial modifiers (or arguments) of the RC predicate can precede the genitive subject.

This section showed that despite the convincing adverb placement (or more accurately, scrambling) data, the RC-internal genitive subject analysis makes some incorrect predictions with respect to (i) NCI licensing, (ii) adjectival modifier placement, and (iii) restrictions on the availability of genitive RC subjects. These novel data calls for a novel analysis that can accommodate the scrambling facts, along with these novel empirical observations. This is what the next section sets out to accomplish.

4.3 Analysis

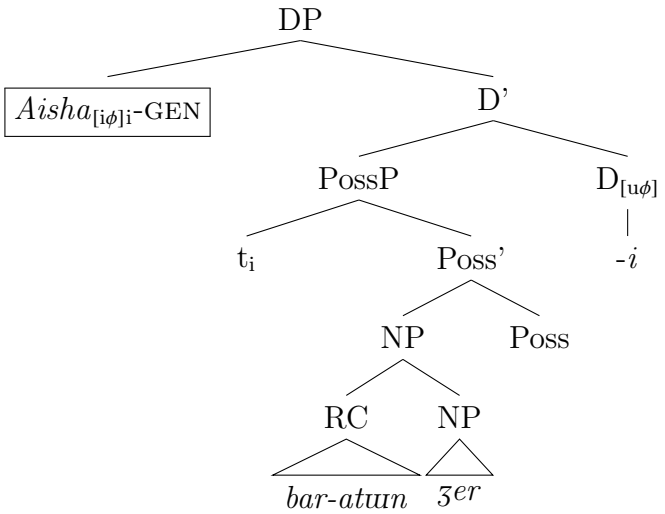
4.3.1 The genitive RC subject is in Spec,DP

Setting aside the scrambling facts for the time being, the empirical observations presented in §4.2.2.1-§4.2.2.3 strongly support the view that the genitive subject is RC-external and it is situated in the Spec,DP, i.e., in the canonical possessor, position. The first piece of evidence came from NCI licensing: RC-external negation can license genitive NCI RC subjects, whereas RC-internal negation cannot. §4.2.2.1 argued in detail that this pattern can only arise if the genitive subject is in Spec,DP. Secondly, adjectives composing with the noun phrase modified by the RC can intervene between the genitive subject and the RC. §4.2.2.2 takes this to indicate that the genitive DP is not RC-internal but in a RC-external position. Third, §4.2.2.3 presented evidence that the genitive RC subject is interpreted as the possessor of the modified noun phrase. These data call for an analysis that places the genitive-marked DP in the possessor position of the modified noun phrase (and an independent explanation is required for the scrambling facts, cf. §4.3.3).

The preliminary version of the proposal is presented in (225). The possessive construction is assumed to consist of a PossP and a DP projection, and the possessor moves from Spec,PossP to Spec,DP following the influential account of Szabolcsi 1983, 1994 and Kayne 1993. Kazakh possessive constructions appear to be very similar (if not identical) to the better-studied Turkish possessives (for the latter see Kornfilt 1984, Kharytonava 2011, Tat 2013, Öztürk and Taylan 2016, inter alia). Following Öztürk and Taylan 2016, I adopt a layered approach to possessive constructions with the possessor raising from Spec,PossP to Spec,DP (note that Öztürk and Taylan (2016) label what I call PossP as nP). This chapter does not take a stance on what the correct structure of the possessive construction should

be, the one presented in (225) follows mainstream ideas about possessives, but other potential structures would be compatible with our proposal.[14] Under the proposed approach, the seemingly non-local agreement pattern no longer poses a problem since in the suggested configuration the Agree relation is established in a local fashion between the head noun and the genitive-marked noun phrase.

(225) The position of the genitive RC subject (for the sentence in (198b)) (first version)



The proposed structure can readily account for the empirical facts in §4.2.2.1-§4.2.2.3. (i) The genitive noun phrase in Spec,DP is contained within an accessible domain to the matrix negative operator, therefore NCI licensing under matrix negation can take place. Conversely, the genitive NCI is not within the scope of the RC-internal negation at LF, which renders such sentences ungrammatical. (ii) The adjective placement facts receive a straightforward explanation under this approach: since genitive-marked DPs are not part of the RC, it is not surprising that adjectives can intervene between them and the RC. (iii) The fact that the

[14]One potential modification to (225) could be to assume that the PossP does not project a specifier and the Possessor thematic role is satisfied via Delayed Gratification when the DP is merged (Myler 2016). This approach would not require that we posit possessor raising, a phenomenon that lacks straightforward empirical support in Turkic languages as these languages do not display nominative and genitive possessors with (roughly) identical meanings (as it is the case in Hungarian (Szabolcsi 1983, 1994)). I leave it for future work to further explore this idea.

genitive-marked DP patterns as a possessor is no longer surprising either: it is interpreted as a possessor because it is one.

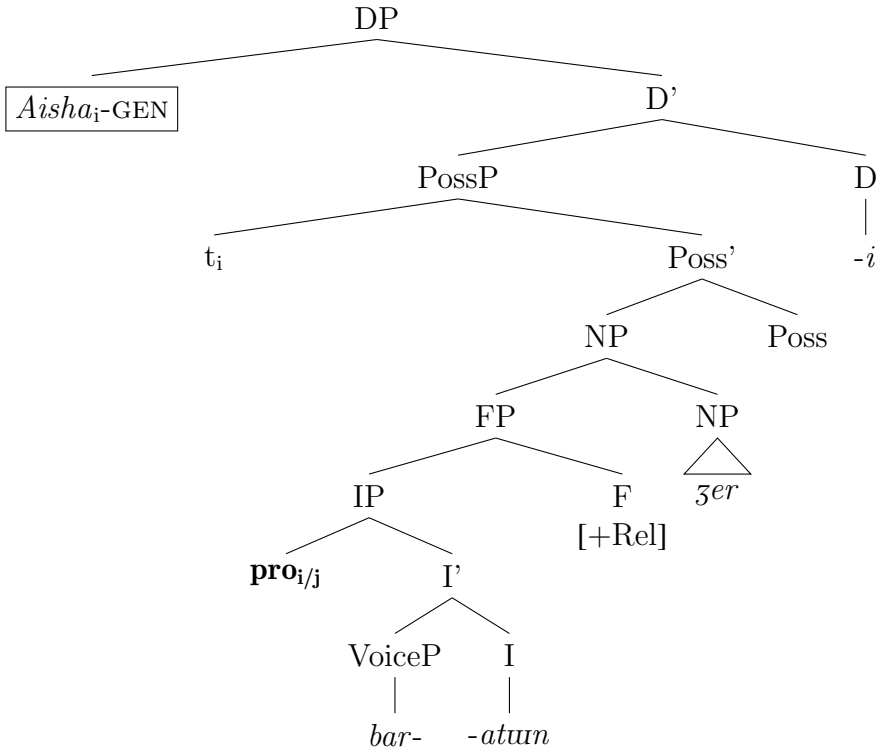
4.3.2 Developing the proposal

After establishing that the genitive-marked noun phrase is in Spec,DP, the next question is how it gets interpreted as the subject of the relative clause. There are three potential analyses, which make different predictions with respect to the interpretation of the RC subject. The first analytical option is that the genitive noun phrase is base-generated in Spec,Poss and it is co-referent with the *pro* subject in the RC subject position. The second alternative is that the RC-subject raises to Spec,DP (i.e., Hale-style analysis). The third option is that the genitive noun phrase is base-generated in Spec,Poss and it controls the PRO subject in the RC. The following sections take a closer look at these potential accounts and their implications. The empirical data presented below supports the control analysis.

4.3.2.1 First attempt: Base-generation in Spec,PossP, pro RC subject

The first option is to analyze the genitive noun phrase as being base-generated in PossP, with subsequent movement to Spec,DP; the RC contains a *pro* subject, which is co-indexed with the possessor. This is shown in (226). This account would essentially say that the genitive subject RC strategy is the result of the combination of a possessive construction with a nominative subject RC containing a covert pronominal subject.

(226) The base-generation analysis, with *pro* RC subject (to be dismissed)



This analysis makes two predictions: (i) the RC subject may have a different referent than the possessor, and (ii) moving the adverb modifying the RC predicate over the possessor is possible with overt nominative RC subject. In what follows, these two predictions are evaluated against novel data and both of them are shown to be contradicted by these empirical findings.

The first prediction concerns the coreference between the possessor and the RC subject. If the RC subject is *pro*, it does not need to display obligatory coreference with the possessor. To test out this prediction, we need to exercise some caution because even if the genitive RC strategy does not employ the structure presented in (226), this structure should be independently available. That is, asking consultants to determine whether the RC subject can have a different referent from the possessor in a sentence such as (198b), could potentially misguide us because, irrespective of how we analyze the genitive subject RC strategy, the absence of

coreference should be available on independent grounds (i.e., because the nominative subject RC with a covert subject can compose with a possessive construction).

In order to develop more reliable diagnostics, I refer to canonical tests to distinguish between *pro* and PRO. The lexical pronoun *pro* allows for both sloppy and strict readings under ellipsis, it can be interpreted either *de se* or *de re*, and it does not obviate Weak Cross-Over effects (Chierchia 1989, Higginbotham 1992, Hornstein 1999, Landau 2000, 2004). Out of these tests only the ellipsis test can be applied for the genitive RC subject construction.

The overarching idea is that PRO only allows sloppy reading under ellipsis, whereas lexical pronouns support both sloppy and strict readings. In the following Hebrew examples the complement clause in the second conjunct is elided under identity, i.e., *but not her mother ~~[complement clause]~~*. The PRO subject of the elided complement clause in (227a) can only be interpreted as being coreferent with 'her mother' (sloppy reading) but not with 'Rina' (strict reading). In contrast, the lexical pronoun subject in (227b) can be coreferent with either 'her mother' (sloppy reading) or 'Rina' (strict reading).

(227) a. Gil bikeš me-Rina$_i$ [PRO$_i$ la'azor lo] aval lo me-ima šela.
Gil asked from-Rina [PRO to.help to.him] but not from-mother her
'Gil asked Rina$_i$ [PRO$_i$ to help him] but not her mother$_j$ ~~[PRO$_{j/*i}$ to help him]~~.'
(only sloppy reading)

b. Gil bikeš me-Rina$_i$ [še-hi$_i$ ta'azor lo] aval lo me-ima
Gil asked from-Rina [that-she will.help.3SG.F to.him] but not from-mother
šela.
her

'Gil asked Rina$_i$ [that she$_i$ to help him] but not her mother$_j$ ~~[that she$_{j/i}$ to help him]~~.' (strict and sloppy readings)

HEBREW, adapted from Landau 2004: 824, ex. (14ab)

Against this backdrop, we have a clear prediction: if the RC subject is a lexical pronoun such as the phonologically covert *pro*, both strict and sloppy readings should be available. But if the RC subject is not a lexical pronoun (i.e., if it is a PRO or a trace), only the sloppy reading is possible. Now consider the Kazakh example in (228): in the second conjunct the RC and the head noun is elided, i.e, that is *Saule's* ~~*one that* [*e promised to clean*]~~.[15] If the RC subject is *pro*, the reading where the RC subject is coreferent with *Aisha* should be available (strict reading). This is not what we see, the elided RC subject must be coreferent with *Saule*. The fact that the elided RCs only support the sloppy reading stringly suggests that the RC subject is not the lexical pronoun *pro*.

[15]Note that whenever the noun head is elided in a possessive construction the possessor must be marked with the suffix /GI/ following the genitive case marker.

(228) Ajʃa$_{i}$-nɯŋ [e_{i} tazala-w-ga sœz ber-gen] kilem-i mɯnaw, al
Aisha-GEN [clean-NMLZ-DAT word give-PRF] carpet-POSS.3 this and

Sæule-ni-ki anaw.
Saule-GEN-GI that

Yes: 'This is Aisha$_{i}$'s carpet that [e_{i} promised to clean] and that is Saule$_{j}$'s ~~one that [$e_{j/*i}$ promised to clean]~~.' (only sloppy reading)
Not: 'This is Aisha$_{i}$'s carpet that [e_{i} promised to clean] and that is Saule$_{j}$'s ~~one that [e_{j} promised to clean]~~.' (the strict reading is not available)

The second prediction the analysis in (226) makes is that scrambling out of a RC-internal phrase to a pre-possessor position is possible over an overt nominative RC subject. The consideration behind this prediction is the following: for the sake of argument let us assume that the genitive subject RC strategy is simply the combination of a possessor and a nominative subject RC with a *pro* subject, as in (229a). I have already established that an RC-internal phrase, e.g., the adverb 'yesterday,' can move to a position where it precedes the genitive phrase (recall that this was Kornfilt's seminal observation about the genitive RC strategy). If the RC subject is *pro* in this construction, then we would expect the same scrambling pattern to be possible over an overt lexical noun phrase in the RC subject position, as shown in (229b). However, (229b) is unanimously judged as ungrammatical by native speaker consultants. (229c) illustrates that the ill-formed (229b) can be corrected if the adverb 'yesterday' is placed in a RC-internal position. The contrast between (229a) and (229b) suggests that these sentences contain different types of RC, and that the genitive RC strategy is not reducible to the nominative subject RC with a *pro* subject.

(229) a. **Keʃe** ata-m-nɯŋ [*pro?* ʒœnde-gen] sagat-ɯ
yesterday grandfather-POSS.1SG-GEN [fix-PRF] clock-POSS.3
mɯnaw.
this

'This is my grandfather's clock that my grandfather fixed yesterday.'

b. ***Keʃe** ata-m-nɯŋ [Ajʃa-Ø ʒœnde-gen] sagat-ɯ
yesterday grandfather-POSS.1SG-GEN [Aisha-NOM fix-PRF] clock-POSS.3
mɯnaw.
this

Intended: 'This is my grandfather's clock that Aisha fixed yesterday.'

c. Ata-m-nɯŋ **[keʃe** Ajʃa-Ø ʒœnde-gen] sagat-ɯ
grandfather-POSS.1SG-GEN **[yesterday** Aisha-NOM fix-PRF] clock-POSS.3
mɯnaw.
this

'This is my grandfather's clock that Aisha fixed yesterday.'

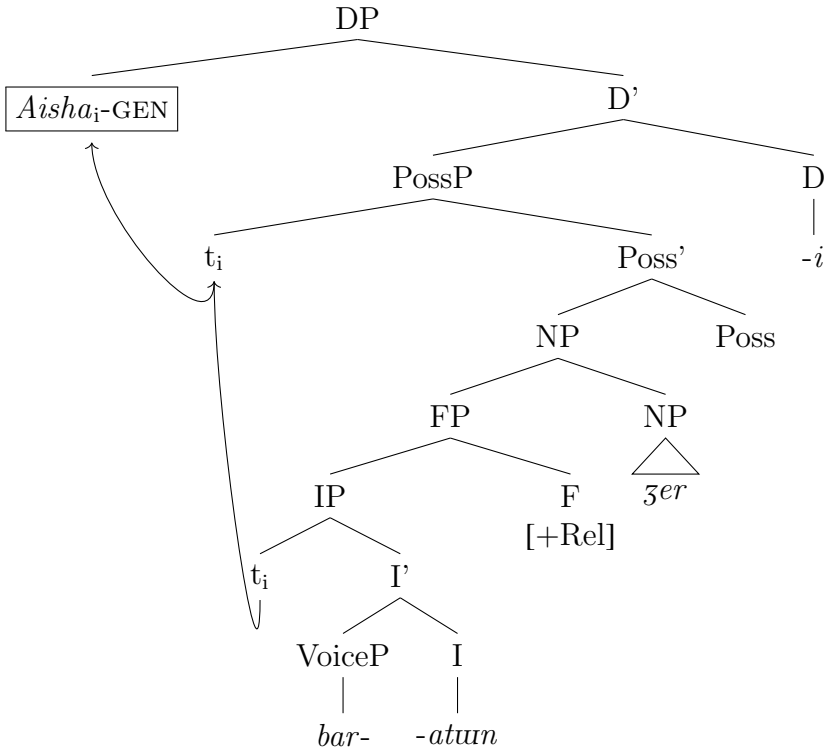
This section explored two predictions made by the analysis in (226), and concluded that empirical data are not consistent with this account. For this reason, the analysis according to which that the genitive phrase is base-generated in an RC-external position and it combines with a nominative subject RC containing a *pro* subject should be rejected.

4.3.2.2 Second attempt: Raising

The second analytical option, laid out in (230), is a raising account in the spirit of Hale 2002. Note that the underlying assumption of this and the following section is that raising and control are distinct phenomena. There has been a debate in the literature whether it is possible to unify raising and control (Bowers 1973, 2008, Hornstein 1999, 1999, 2000, Boeckx and Hornstein 2003, 2004, 2006, Boeckx, Hornstein, and Nunes 2010) or whether they ought to be distinguished from one another (Landau 2003, 2004, 2007, 2015, Bobaljik and Landau 2009, Culicover and Jackendoff 2001, 2005, 2006, Jackendoff and Culicover 2003, Polinsky and Potsdam 2006, Runner 2006). The former family of approaches argues that PRO in the so-called control clauses is better treated as an A-movement trace, whereas the latter holds that the independent status of PRO in such constructions should be maintained. This work has no direct bearing on this debate, it simply adopts the view that raising and control are different.

The raising analysis in (230) would go like this: the RC's Inflection head cannot assign Case to (i.e., cannot license) its subject, for this reason the subject DP moves through Spec,PossP to Spec,DP, where it gets genitive.

(230) Raising analysis (to be dismissed)



The first issue with this approach is conceptual: the already θ-marked RC subject is raised into Spec,PossP, which assigns an additional θ-role to the noun phrase (recall that §4.2.2.3 presented ample evidence that the genitive-marked RC subject is interpreted as the possessor of the modified noun). This would constitute a violation of the θ-Criterion (Chomsky 1981, 1995, Carlson 1984, 1998).[16] Note that we do not have sufficient data to determine whether the RC subject in Dagur, for which the raising analysis was first proposed by Hale (2002), also bears the Possessive thematic role. It is conceivable that the RC subject is not interpreted as the possessor in Dagur, which makes the raising analysis more appealing for that language. In addition to this theoretical objection, there are also empirical problems with the raising analysis, which makes wrong predictions when it comes to idioms, Condition

[16]Several approaches, primarily in the context of control-as-movement-type analyses, abandon the θ-Criterion and adopt the position that A-chains may receive more than one θ-role. As this work does not follow this approach, abandoning the otherwise well-established θ-Criterion is unnecessary.

A reconstruction effects and Weak Crossover effects. We turn to these issues now.

A well-established property of raising is that when an idiom chunk undergoes raising the idiomatic meaning is preserved. This famously contrasts with control constructions,[17] where the idiomatic reading gets lost (first observed by Rosenbaum 1965). Rosenbaum's classic example illustrating this contrast is offered in (231). (231a) shows that the raising of *the shit* does not bleed the availability of the idiomatic meaning. In contrast, the idiomatic meaning is not preserved in the control construction in (231b).

(231) a. The shit_{i} seems [t_{i} to have hit the fan]. (raising)

b. #The shit_{i} expects [PRO_{i} to have hit the fan]. (control)

If the genitive RC strategy involves raising, idiomatic meanings are anticipated to be preserved upon marking an idiom chunk with the genitive. To test this hypothesis, I use of the (subject) idiom *kanatɯ kataj-* 'grow, develop (skills); lit. for someone's wing to harden,' where *kanatɯ* 'wing-POSS.3' serves as the subject of the predicate *kataj-* 'to harden.' (232a) demonstrates that this idiom can be used in a nominative subject RC (the example was adapted from Mukan 2012). If the RC subject is raised to Spec,DP, we predict that the idiomatic meaning is preserved when the subject idiom-part is genitive-marked. (232b) shows that this is not borne out: the idiomatic meaning disappears when 'their wing' is genitive. This suggests that the RC subject does not undergo raising.

[17] Another well-known difference between raising and control in English is the use of the expletive *there*: *there* is allowed with raising verbs ("*There* seems to be problem.") but not with control verbs (*"*There* expects to be a problem."). As Kazakh does not have an expletive, this test is not applicable in the language.

(232) a. [Ataktɯ basketbol ojɯnʃɯsɯ-nɯŋ kanat-ɯ-**Ø** kataj-gan] alaŋ
[famous basketball player-GEN wing-POSS.3-**NOM** harden-PRF] arena
mɯnaw.
this

'This is the arena where the famous basketball player's skills developed.' (lit. where their wings hardened)

b. #Ataktɯ basketbol ojɯnʃɯsɯ-nɯŋ kanat-ɯ$_i$-**nɯŋ** [e_i kataj-gan]
famous basketball player-GEN wing-POSS.3-**GEN** [harden-PRF]
alaŋ-ɯ mɯnaw.
arena-POSS.3 this

Intended: 'This is the arena where the famous basketball player's skills developed.'

The second empirical problem concerns Condition A reconstruction effects. Raising and control constructions pattern differently with respect to anaphor binding. The A-moved anaphor in a raising construction can reconstruct to its base position for Condition A, as shown in (233a). In contrast, the anaphor contained in the controller cannot be bound in a control construction, as illustrated in (233b) (the contrast was first observed by Langendoen and Battistella 1982; for an in-depth discussion see Belletti and Rizzi 1988). The assumption underlying this argumentation is that Condition A can be satisfied at any point in the derivation (i.e., in the D-structure following GB terminology) (Barss 1986, Belletti and Rizzi 1988, Lebeaux 2000, 1991). In the raising construction in (233a), the phrase containing the anaphor (*replicantes of themselves*) originates in the embedded clause where it gets bound by a c-commanding antecedent (*the boys*). As the controller (*replicantes of themselves*) does not originate from the embedded clause in (233b), the anaphor *themselves* does not get

bound at any point in the derivation.

(233) a. Replicants of themselves$_i$ seemed to the boys$_i$ [t to be ugly]. (raising)

b. *Replicants of themselves$_i$ promised the boys$_i$ [PRO to become ugly]. (control)

Belletti and Rizzi 1988: 316, ex. (66), credited to Kyle Johnson

In order to apply this diagnostic to the genitive subject RC, I make use of passivized causative predicates, where the subject can contain a bound anaphor. In the causative construction in (234a) the dative causee *Bolat* binds the anaphor in the object position (for the same observation in Turkish see Key 2013, Akkuş 2021a). When the causative predicate undergoes passivization, the original object is promoted to the subject position.[18] That is, the subject 'himself's picture' contains an anaphor in the passivized causative (234b).[19]

(234) a. Men Bolat$_i$-ka œzi$_i$-niŋ suret-in sal-**dɯr**-dɯ-m.
I Bolat-DAT self-GEN picture-POSS.3.ACC draw-**CAUS**-PST-1SG
'I had Bolat$_i$ draw himself$_i$'s picture.'

b. Bolat$_i$-ka œzi$_i$-niŋ suret-i sal-**dɯr-ɯl**-dɯ.
Bolat-DAT self-GEN picture-POSS.3 draw-**CAUS-PASS**-PST-1SG
'Himself$_i$'s picture was such that Bolat$_i$ was made to draw it.'

[18]The dative causee cannot become the subject in the passivized sentence; the same is true in standard Turkish varieties (Legate et al. 2020, Akkuş 2021a).

[19]It is noteworthy that scrambling of the subject to the left of its antecedent disrupts the binding relation, as shown in (i). Similar observation was made in the case of Turkish, where leftward scrambling can only reconstruct in the presence of contrastive focus (Kural 1992, Öztürk 2005, Akkuş 2021a: 256-264). Under the assumption that local scrambling has A-movement properties, it is not clear why A-movement reconstruction for anaphor binding is not possible in (i). I leave this question for future work.

(i) œzi$_{*i/j}$-niŋ suret-i Bolat$_i$-ka sal-**dɯr-ɯl**-dɯ.
self-GEN picture-POSS.3 Bolat-DAT draw-**CAUS-PASS**-PST-1SG
'Himself$_{*i/j}$'s picture was such that Bolat$_i$ was made to draw it.'

Against this backdrop, we have the following prediction: a genitive-marked RC subject containing an anaphor is expected to be grammatical under the raising analysis, but if it is ill-formed, it supports the control analysis. (235) demonstrates that when this type of subject is genitive-marked, the anaphor cannot be coindexed with the causee, it can only be bound logophorically.[20] This indicates that the genitive noun phrase is not raised to the possessor position because if it was, it would be expected to be able to reconstruct for Condition A similarly to the English example in (233a). In contrast, the control analysis predicts the lack of anaphoric binding.

(235) œzi$_{*i/j}$-niŋ suret-i-**niŋ** [Bolat$_i$-ka *e* sal-**dɯr-ɯl**-gan] ʒer-i
self-GEN picture-POSS.3-**GEN** [Bolat-DAT draw-**CAUS-PASS**-PRF] place-poss.3
mɯnaw.
this

'This is the place where himself$_{*i/j}$'s picture was such that Bolat$_i$ was made to draw it.'

The third issue with the raising analysis is related to Weak Crossover effects (for an overview see Safir 2017 and references therein). Consider the contrast between the raising and control constructions in (236). When the phrase undergoing raising contains a pronoun, the bound variable interpretation can be established if the phrase was in the scope of the quantifier before movement. In contrast, the pronoun in the controller cannot be interpreted as a bound variable in the control construction in (236b) because the controller does not

[20]Note that scrambling the intended binder to the left of the genitive phrase is possible, in which case the binding relation between the antecedent *Bolat* and the anaphor can be established, as shown in (i). The availability of the binding relation in (i) is due to the A-properties of the local (intermedaite) scrambling, for more see §4.3.3.

(i) ?Bolat$_i$-ka œzi$_i$-niŋ suret-i-**niŋ** [*e* sal-**dɯr-ɯl**-gan] ʒer-i mɯnaw.
Bolat-DAT self-GEN picture-POSS.3-**GEN** [draw-**CAUS-PASS**-PRF] place-poss.3 this
'This is the place where himself$_i$'s picture was such that Bolat$_i$ was made to draw it.'

reconstruct into a position where it could be within the scope of the quantifier (Landau 2013).

(236) a. His$_i$ employees appeared to every boss$_i$ [t to be surprisingly efficient]. (raising)

b. ??His$_i$ employees promised to every boss$_i$ [PRO to be more efficient]. (control)

Landau 2013: 15, ex. (36)

In the passive form of causative predicates the pronoun contained in subject, 'his bicycle,'[21] can be bound by the quantifier in the causee, 'every student,' as shown in (237a). Given this background, the prediction is that in relative clauses the genitive-marked phrase containing a pronoun can have a bound variable reading if it is raised from the RC to the clause-external possessor position. (237b) shows that this prediction is not borne out as the genitive-marked 'his bicycle' cannot be interpreted within the scope of the universal quantifier in the embedded clause.[22] The lack of reconstruction effects once again indicates that the genitive RC subject is not moved to the possessor position.

(237) a. ær student$_i$-ke **pro$_i$** **suret-i** sal-duɪr-ɯl-duɪ.
every student-DAT **picture-POSS.3** draw-CAUS-PASS-PST.3
'Every student$_i$ was made to draw his$_i$ picture.'

[21]Note that pronoun here is the phonologically covert *pro* in the possessor position.

[22]Note that the bound variable reading becomes available when the quantifier phrase is scrambled to the left of the genitive phrase, as in (i). For a detailed discussion see §4.3.3.

(i) ær student$_i$-ke **pro$_i$** **suret-i-niŋ** [*e* sal-duɪr-ɯl-gan] ʒer-i mɯnaw.
every student-DAT **picture-POSS.3-GEN** [draw-CAUS-PASS-PRF] place-POSS.3 this
'This is the place where every student$_i$ was made to draw his$_i$ picture.'

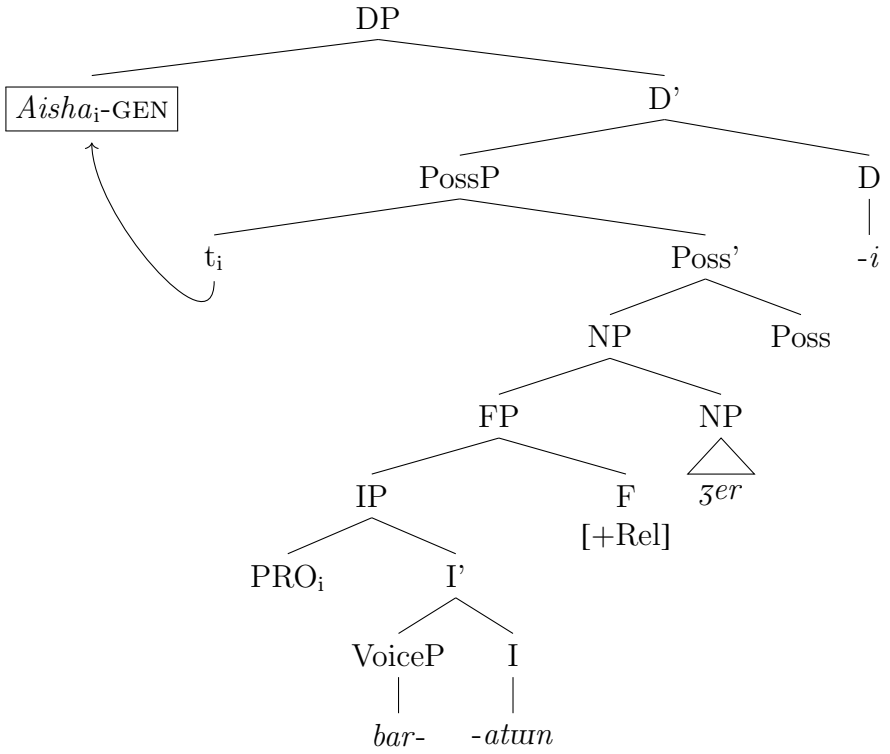
b. **pro$_{*i/j}$** **Suret-i-niŋ** [ær student$_i$-ke *e* sal-dɯr-ɯl-gan]
picture-POSS.3-GEN [every student-DAT draw-CAUS-PASS-PRF]
ʒer-i mɯnaw.
place-POSS.3 this

'This is the place where every student$_i$ was made to draw his$_{*i/j}$ picture.'

4.3.2.3 Proposal: Base-generation in Spec,PossP, PRO RC subject

The previous sections established that the RC subject is not *pro* or an A-movement trace. This section draws the conclusion that the RC subject is an obligatorily controlled PRO controlled by the genitive-marked possessor of the modified noun phrase. This analysis is presented in (238).

(238) Control analysis



This analysis can capture the empirical data presented so far in §4.3: (i) the obligatory sloppy reading under ellipsis (Rosenbaum 1965, Landau 2000, 2004), (ii) the loss of the idiomatic reading when the subject idiom chunk is genitive-marked (Landau 2003, 2007), and (iii) the lack of reconstruction effects for Condition A and variable binding (Landau 2013), all of which are properties of control constructions.

4.3.3 Scrambling to the left of the genitive phrase

The last remaining puzzle concerns the scrambling of a RC-internal phrase to the left of the genitive-marked possessor, i.e., Kornfilt's seminal observation about "adverb placement." Recall that these scrambling facts constituted the main empirical motivation for analyzing the genitive-marked phrase as RC-internal, consequently such data are usually assumed to

be problematic for analyses that consider the genitive-marked phrase RC-external. As this chapter analyzes the genitive DP as base-generated in the RC-external possessor position, it also needs to say something about the scrambling facts. The argument put forth in this section submits that RC-internal phrases can undergo local intermediate scrambling to the left of the possessor in the superordinate DP domain. This claim receives support from cross-linguistic data regarding the availability of local scrambling out of control clauses (e.g., in Hindi (Mahajan 1989) and in Japanese (Nemoto 1993, Takano 2010, Imaoka 2011)).

An extensive body of literature investigates the relationship between the A/$\bar{\text{A}}$-movement and scrambling (Saito 1985, 1992, Webelhuth 1990, 1992, Mahajan 1989, 1990, 1994, Nemoto 1993, Tada 1993, Yoshimura 1993, Cho 1994, Miyagawa 1997, 2003, 2006, 2010, Grewendorf and Sabel 1999, Karimi 2005, Takano 2010, Ko 2018, inter alia). This line of research distinguishes local (or clause-internal) scrambling and long-distance scrambling. In many (but not all, cf. Ko 2018) languages, long-distance scrambling exhibits $\bar{\text{A}}$-properties (Mahajan 1990, Tada 1993, Saito 1992), whereas local scrambling may exhibit both A and $\bar{\text{A}}$-characteristics (Mahajan 1990, 1994, Saito 1992). I show below that movement to the left of the possessor exhibits both A and $\bar{\text{A}}$-properties (it ameliorates WCO effects, creates new anaphor binding relations, but also reconstruct for binding).

Local intermediate scrambling[23] was shown in other languages such as in Hindi and Japanese to exhibit both A and $\bar{\text{A}}$-properties based on (i) WCO effects, (ii) anaphor binding, and (iii) anaphor reconstruction. WCO effects can be ameliorated by scrambling (Mahajan 1990, Saito 1992), Yoshimura 1993): (239a) is degraded because of the WCO effect, (239b) shows that scrambling to the left of the subject remedies the WCO violation. As $\bar{\text{A}}$-movement is not expected to improve on the WCO effect, the clause-internal scrambling patterns with A-movement in this respect.

[23]This type of scrambling usually involves the movement of the object to the left of the subject. There are other types of local scrambling, such as short scrambling, which usually refers to the movement of the direct object over the indirect object (for a discussion see Gong 2022; Gong (2022) shows that short scrambling in Khalkha exhibits A-properties).

(239) a. ?*[[Soitu$_i$-no hahaoya]-ga **[dare$_i$-o** aisiteru]] no.
the.guy-GEN mother-NOM **who-ACC** love Q
Intended: 'His$_i$ mother loves who$_i$.'

b. **?Dare$_i$-o** [[soitu$_i$-no hahaoya]-ga [t_i aisiteru]] no.
the.guy-GEN mother-NOM **who-ACC** love Q
'Who$_i$, his$_i$ mother loves t_i.'

JAPANESE, Saito 1992: 73, ex. (10)

A further A-property exhibited by clause-internal scrambling is that it can establish a new binder for anaphors (Mahajan 1989, Saito 1992). (240a) is ill-formed because the anaphor 'each other' is not bound, but scrambling to the left of the anaphor in (240b) amends the binding requirement. As Ā-movement cannot create new binders, clause-internal scrambling displays A-properties in (240b).

(240) a. ?*[[Otagai$_i$-no sensei]-ga **[karera$_i$-o** hihansita]] (koto).
each.other-GEN teacher-NOM **they-ACC** criticized fact
Intended: 'Each other's$_i$ teachers criticized them$_i$.'

b. ?**Karera$_i$-o** [[otagai$_i$-no sensei]-ga [t_i hihansita]] (koto).
they-ACC each.other-GEN teacher-NOM criticized fact
'Them$_i$, each other's$_i$ teachers criticized t_i.'

JAPANESE, Saito 1992: 74-75, ex. (13b), (14b)

In addition to these A-properties, clause-internal scrambling also exhibits Ā-properties: if an anaphor undergoes scrambling to the left of its binder, it can reconstruct to its base position (Mahajan 1994, Saito 1992). Saito argues that if the anaphor *zibunzisin* 'self' is in

an A-position, (241) should be rendered ill-formed on the basis of Condition C violation (in addition to the anaphor not being bound). However, (241) is well-formed, which indicates that the anaphor undergoes reconstruction to its base position where it does not induce Condition C violation and can get bound by its antecedent. Saito characterizes this as an Ā-property of clause-internal scrambling.

(241) Zibunzisin$_{i}$-o [Hanako$_{i}$-ga t_{i} hihansita] (koto).
self-ACC Hanako-NOM criticized fact
'Herself$_{i}$, Hanako$_{i}$ criticized t_{i}.'

JAPANESE, Saito 1992: ex. 76, (17)

Scrambling to the left of the possessor exhibits the same WCO amelioration effect that was observed for Japanese intermediate scrambling in (239b). The phonologically covert pronoun in the possessor position cannot display covariation with the QP 'every child' in the RC in (242a) because the pronoun is not in the scope of the universal quantifier. Scrambling the QP to the left of the possessor in (242b) remedies the WCO effect.

(242) a. *pro*$*_{i/j}$ Mama-sɯ-nɯŋ [PRO **ær** **bala$_{i}$-ga** dop ber-gen] ʒer-i
mother-POSS.3-GEN [**every child-DAT** ball give-PRF] place-POSS.3
mɯnaw.
this

'This is the place where his/her$*_{i/j}$ mother gave a ball to every child$_{i}$.'

b. **ær** **bala$_{i}$-ga** *pro*$_{i}$ mama-sɯ-nɯŋ [PRO t_{i} dop ber-gen] ʒer-i
every child-DAT mother-POSS.3-GEN [ball give-PRF] place-POSS.3
mɯnaw.
this

'This is the place where to every child$_{i}$ his/her$_{i}$ mother gave a ball.'

Moreover, the scrambled phrase can establish a new binder for c-commanded anaphors. The anaphor contained in the possessor phrase in (243a) cannot be bound by *Bolat* because *Bolat* does not c-command the anaphor (at any level of the representation). In contrast, scrambling *Bolat* to the left of the possessor in (243b) creates a new binder for the anaphor, and binding can be established between *Bolat* and the 'self.' Examples (242b) and (243b) demonstrate that movement to the left of the possessor displays A-movement properties.

(243) a. œzi$_{*i/j}$-niŋ suret-i-niŋ [PRO **Bolat$_{i}$-ka** sal-dɯr-ɯl-gan]
self-GEN picture-POSS.3-GEN [**Bolat-DAT** draw-CAUS-PASS-PRF]
ʒer-i mɯnaw.
place-poss.3 this

'This is the place where Bolat$_{i}$ was made to draw himself$_{*i/j}$'s picture.'

b. **Bolat$_{i}$-ka** œzi$_{i}$-niŋ suret-i-niŋ [PRO t_{i} sal-dɯr-ɯl-gan]
Bolat-DAT self-GEN picture-POSS.3-GEN [draw-CAUS-PASS-PRF]
ʒer-i mɯnaw.
place-poss.3 this

'This is the place where Bolat$_{i}$ was made to draw himself$_{i}$'s picture.'

Additionally, scrambling to the left of the possessor also displays Ā-characteristics with respect to anaphor reconstruction. (244a) illustrates that the genitive-marked DP can bind an anaphor in the RC. Scrambling the RC-internal anaphor to the left of the possessor does not disrupt the binding relation between the antecedent and anaphor, as shown in (244b).[24] That is, the anaphor in (244b) can undergo reconstruction to its base-position, a typical Ā-property. Thus, scrambling to the left of the possessor patterns like Hindi/Japanese clause-internal scrambling.

(244) a. Ajʃa$_i$-nɯŋ [PRO **œzin$_i$-e** satɯp al-gan] kitab-ɯ mɯnaw.
Aisha-GEN [**self-DAT** purchase-PRF] book-POSS.3 this
'This is the book that Aisha$_i$ bought for herself$_i$.'

b. **œzin-e$_i$** Ajʃa$_i$-nɯŋ [PRO t_i satɯp al-gan] kitab-ɯ mɯnaw.
self.ACC Aisha-GEN [purchase-PRF] book-POSS.3 this
'This is the book that for herself$_i$, Aisha$_i$ bought.'

The table in (245) offers a summary of the above discussion.

[24] I note that the data on anaphor reconstruction were very subtle. For instance, the consultant who accepted (244b) rejected (ib), where the anaphor is the direct object. It is unclear to me what influences these variable judgements, but I suspect some discourse factors might be at play.

(i) a. Ajʃa$_i$-nɯŋ [PRO **œzin$_i$** kœr-gen] ʒer-i mɯnaw.
Aisha-GEN [**self.ACC** see-PRF] place-POSS.3 this
'This is the place where Aisha$_i$ saw herself$_i$.'

b. **œzin$_{*i/j}$** Ajʃa$_i$-nɯŋ [PRO t kœr-gen] ʒer-i mɯnaw.
self.ACC Aisha-GEN [see-PRF] place-POSS.3 this
'This is the place where Aisha$_i$ saw herself$_{*i/j}$.'

(245)

		Intermediate Scrambling	Scrambling above the possessor
A-properties	remedies WCO	✓	✓
	remedies Condition A violation	✓	✓
Ā-properties	undergoes reconstruction	✓	✓

Having established that the movement targeting the position above the possessor has mixed A and Ā-properties, the next question is why the RC in the so-called "genitive strategy" allows scrambling to take place to the left of the possessor, as in (246a), but not the nominative subject RC, as illustrated in (246b).

(246) a. **Keʃe** ata-m-nɯŋ [PRO ʒœnde-gen] sagat-ɯ
yesterday grandfather-POSS.1SG-GEN [fix-PRF] clock-POSS.3
mɯnaw.
this

'This is my grandfather's clock that (my grandfather) fixed yesterday.'

b. ***Keʃe** ata-m-nɯŋ [Ajʃa-Ø ʒœnde-gen] sagat-ɯ
yesterday grandfather-POSS.1SG-GEN [Aisha-NOM fix-PRF] clock-POSS.3
mɯnaw.
this

Intended: 'This is my grandfather's clock that Aisha fixed yesterday.'

I suggest that the answer to this question is related to the type of the embedded clause: control clauses allow scrambling out of them while non-controlled clauses do not. This proposal is supported by cross-linguistic evidence showing that control clauses permit (interme-

diate) scrambling[25] into the matrix clause. Particularly well-studied languages in this respect are Hindi (Mahajan 1989) and Japanese (Nemoto 1993, Tanaka 2002, Imaoka 2011), the examples to follow come from Japanese. Nemoto 1993 observes that scrambling out of a control clause does not pattern like long-distance scrambling, which exhibits only Ā-properties. She shows that scrambling out of the control clause displays A-properties (presumably in addition to Ā-properties) such as establishing new binding relations and ameliorating WCO effects.

First, Nemoto demonstrates that scrambling out of the (infinitival) control clause into the matrix clause remedies WCO violation. Consider (247a), where the pronoun *soituno* 'his' and *dare* 'who' cannot be co-referent. In contrast, when *dare* is scrambled from the infinitival clause to a position left of the pronoun, coreference becomes available. As mentioned above, amending WCO effects is a property of A-movement.

(247) a. **?***Michael-ga soitu$_i$-no hahaoya-ni [PRO **dare$_i$-o** naguru yoo(ni)] tanonda
Michael-NOM he-GEN mother-DAT [**who-ACC** hit] asked
no.
Q

Intended: 'Michael asked his$_i$ mother to hit whom$_i$.'

[25]Note that Takano 2010 argues that this is not a simple clause-internal scrambling, but a combination of clause internal and long-distance scrambling. For critical remarks on certain parts of Takano's analysis see Imaoka 2011 and Landau 2013.

b. **Dare$_i$-o** Michael-ga soitu$_i$-no hahaoya-ni [PRO t_i naguru yoo(ni)]
who-ACC Michael-NOM he-GEN mother-DAT [hit]
tanonda no.
asked Q

'Whom$_i$, Michael asked his$_i$ mother to hit t_i.'

JAPANESE, Nemoto 1993: 46, ex. (36)

Moreover, scrambling out of the control clause can create new binders for anaphors, which is an A-movement property. (248a) is ill-formed because the anaphor 'each other' is not bound. This Condition A violation can be remedied by scrambling the phrase 'Michael and Janet' from the infinitival clause to the left of the anaphor, shown in (248b). Notice that the scrambled phrase can now bind the anaphor 'each other.' Thus, scrambling out of the control clause can create new binding relations.[26]

(248) a. *Joe-ga otagai$_i$-no yuujin-ni [PRO **[Michael to Janet]$_i$-o** hihansuru
Joe-NOM each.other-GEN friend-DAT [**Michael and Janet**-ACC criticize
yoo(ni)] tanonda (koto).
] asked fact

Intended: 'Joe asked each other's$_i$ friends to criticize [Michael and Janet]$_i$.'

[26]I did not find any explicit mention regarding the reconstruction for Condition A, but presumably this type of scrambling exhibits this property because it is discussed as patterning on par with clause-internal intermediate scrambling, which exhibits reconstruction for Condition A.

b. **[Michael to Janet]**$_i$-o Joe-ga otagai$_i$-no yuujin-ni [PRO t_i
Michael and Janet-ACC Joe-NOM each.other-GEN friend-DAT [
hihansuru yoo(ni)] tanonda (koto).
criticize] asked fact

'[Michael and Janet]$_i$, Joe asked each other's$_i$ friends to criticize t_i.'

JAPANESE, Nemoto 1993: 44, ex. (34)

That is, scrambling out of control clauses is possible, and in languages such as Hindi and Japanese it patterns with clause-internal (intermediate) scrambling, which exhibits both A and Ā-properties.[27] The contrast in scrambling between the genitive and nominative RC strategy in (246a) and (246b) can thus be explained by saying that control clauses, as (246a),

[27]Note that local scrambling out of control clauses is probably allowed in many languages cross-lingiustically. The following illustrative examples come from Hungarian. Notice that scrambling out of the infinitival clause remedies WCO effects (as in (ib)), creates new binding relations (in (iib)) and reconstructs for Condition A (in (iiic)).

(i) a. ?**pro*$_i$ Egy dolgozó-ja meg-próbál-t [PRO **minden cég$_i$-et** ki-vizsgál-ni].
one employee-POSS.SG3 PRTL-try-PST.3 [**every company-ACC** PRTL-investigate-INF]
Intended: 'One of its employees$_i$ tried to investigate every company$_i$.'

b. **Minden cég$_i$-et** *pro*$_i$ egy dolgozó-ja próbál-t meg [PRO t_i
every company-ACC one employee-POSS.SG3 try-PST.3 PRTL [
ki-vizsgál-ni].
PRTL-investigate-INF]
'One of its employees$_i$ tried to investigate every company$_i$.'

(ii) a. *Maga$_i$ meg-próbál-ta [PRO **Anná$_i$-t** kritizál-ni].
self PRTL-try-PST.SG3 [**Anna-ACC** criticize-INF]
Intended: 'Herself$_i$ tried to criticize Anna$_i$.'

b. **Anná$_i$-t** maga$_i$ próbál-ta meg [PRO t_i kritizál-ni].
Anna-ACC self try-PST.SG3 PRTL [criticize-INF]
'Herself$_i$ tried to criticize Anna$_i$.'

(iii) a. Anna$_i$ meg-próbál-ta [PRO **magá$_i$-t** kritizál-ni].
Anna PRTL-try-PST.SG3 [**self-ACC** criticize-INF]
'Anna$_i$ tried to criticize herself$_i$.'

b. **Magá$_i$-t** Anna$_i$ próbál-ta meg [PRO t_i kritizál-ni].
self-ACC Anna try-PST.SG3 PRTL [criticize-INF]
'Herself$_i$, Anna$_i$ tried to criticize t_i.'

allow scrambling out of them, whereas non-control RC clauses do not.

4.4 Conclusions

This chapter looked at Kazakh genitive subject relative clauses where that subject agreement marker is indicated non-locally with the phrase bearing the interpretable ϕ-features. I argued that the genitive-marked noun phrase is not located inside the RC (against the account presented in Kornfilt 2008a, 2015), nor is it raised out of the RC (as argued in Hale 2002). Concurring with some previous proposals (such as Laszakovits (2019), Ótott-Kovács (2021), Dékány and Georgieva (2021)), I showed that the genitive-marked noun phrase is in the possessor position, but I submitted the novel claim that the genitive possessor controls a PRO subject in the RC. While the movement that targets the position above the possessor (i.e., Kornfilt's (2008, 2015) seminal observation) is seemingly at odds with this analysis, I presented a novel approach to these movement data: I showed that it is intermediate scrambling and argued that control clauses allow local scrambling out of them to the higher domain.

CHAPTER 5

CONCLUSIONS

The starting point of this investigation was the observation that the subjects of certain embedded clauses display differential case marking. Chapter 2 explored the nominative–genitive subject cases in nominalized complement clauses; chapter 3 investigated the underderpinnings of the nominative–accusative subject case alternation in *dep*-clauses; and chapter 4 looked into the nominative–genitive subject cases in relative clauses.

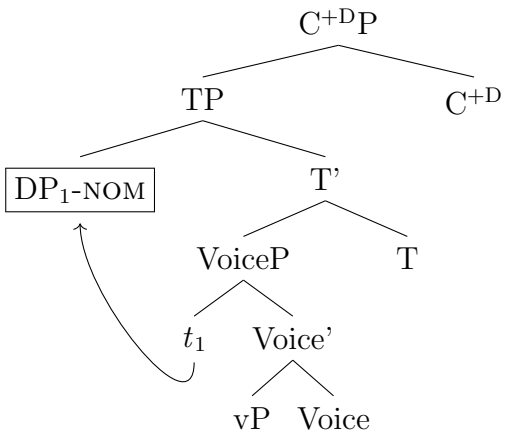
The first main question that the dissertation examined concerns the syntactic underpinning determining varying case marking on these clauses' subjects. Chapters 2–4 establish that the common denominator in these constructions is that the non-nominative subject is located higher than the canonical subject position in the embedded clause. However. there is no single syntactic account that can offer a unified analysis to these clause types. That is, there is a different explanation in each of the investigated clause types for why the non-nominative subject is located higher than the embedded Spec,TP position.

Chapter 2 presented data showing that nominalized complement clauses with nominative and genitive subjects are in complementary distribution: genitive subjects have anaphoric definite reference, whereas nominative subjects are non-anaphoric (unique definite descriptions, indefinite or pseudo-incorporated expressions). Crucially, this interpretational distinction is underpinned by a difference in syntactic position: the nominative subject is in the embedded Spec,TP, while the genitive subject is at the embedded clause edge. This is shown in (249). Based on novel empirical evidence (the genitive subject reconstructs for embedded clause-internal NCI and *wh*-licensing), I argue that the movement to the clause edge position is not driven by ϕ-features, that is, it is not an instance of A-movement. I suggested that presuppositional interpretation of this sort could be constructed via Subject Shift: certain types of presuppositional expressions, namely DPs with referential index, undergo Subject

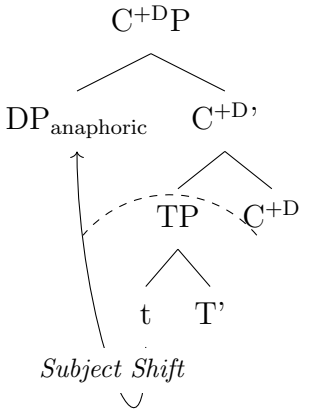
Shift whereby they move outside of the "closure" generated by C. The chapter speculates that phase heads (Voice/v and C) can launch a tree splitting mechanism that maps the higher domain to a presuppositional interpretation and the lower domain to a non-presuppositional interpretation. That is, Subject Shift is parallel to Object Shift in that it construes presuppositionality via positional distinction in the narrow syntax. It remains to be seen if this analysis is extendable to other languages.

(249) Nominalized complement clause

a. With NOM subject



b. With GEN subject

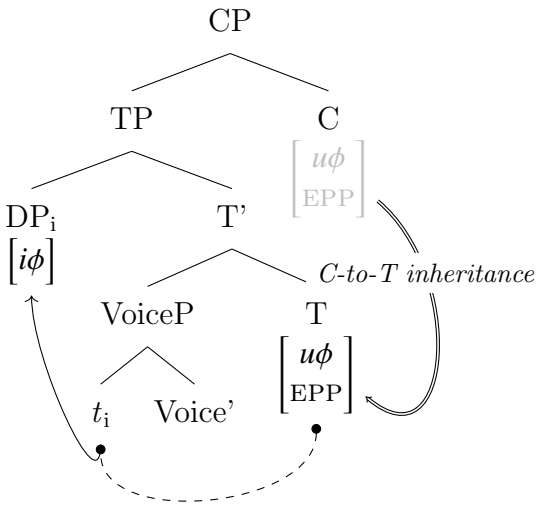


Chapter 3 examined the so-called hyper-raising constructions, where the subject can be either nominative or accusative. This contrast is, yet again, underpinned by the syntactic structure: the nominative subject is in the embedded Spec,TP, the accusative is at the edge of the embedded clause. This is shown in (250). Hyper-raising constructions have gained a lot of attention in linguistics as they have the potential to weigh in on several foundational topics in linguistic theory such as featural properties of embedded clause heads, the role of the Activity Condition and (abstract) Case in motivating syntactic movement, and the source of different types of syntactic dependencies (i.e., the A/Ā-distinction). The results of our investigation

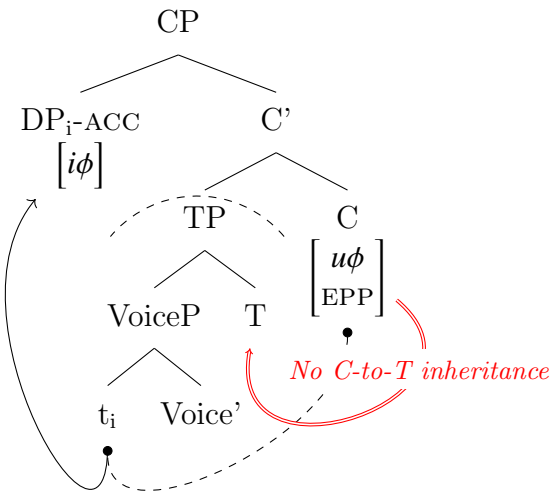
support theories that maintain that the A/Ā-distinction is defined by the featural content of the probing head. Drawing on this featural approach to the A/Ā-distinction, I concur with approaches to hyper-raising that abandon the English-centric defectiveness approach and suggest that movement is driven by features on the embedded C head. Kazakh offers a compelling case that these features are ϕ-features, which trigger A-movement to the clause edge. As the landing site of this A-movement is outside of the non-presuppositional domain, the accusative subject is interpreted as a presuppositional (anaphoric) expression.

(250) *Dep*-clause

a. With NOM subject



b. With ACC subject

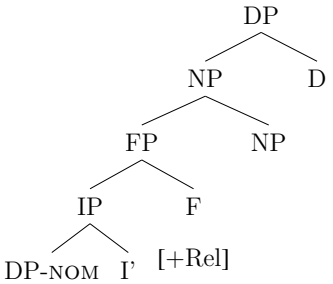


Chapter 4 investigated Kazakh relative clauses, which seemingly pose a challenge to standard ideas on syntactic locality domains. Just as in other Turkic languages (but not Turkish), the RC predicate does not bear subject agreement marking, however when the (apparent) RC subject is in the genitive, the subject agreement is marked not on the embedded predicate but, non-locally, on the modified noun phrase. This seemingly violates standard

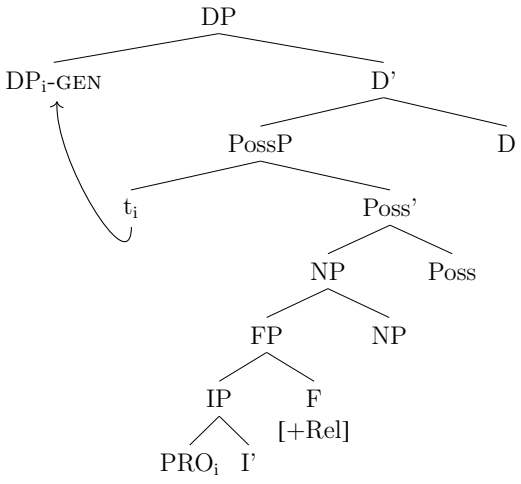
domain restrictions on ϕ-Agree. Given this interesting locality profile, this type of RC has gained significant attention in the Turkological literature (but also in relation to Mongolic and Finno-Ugric languages). The chapter presented a novel analysis that submits that the genitive-marked DP is in the possessor position (based on interpretational and distributional data) but it is not raised to this position. Rather, it is co-indexed with an obligatory controlled PRO subject in the RC subject position. This is represented in (251). I showed that, similarly to other languages such as Hindi and Japanese, local intermediate scrambling is allowed out of controlled RC clause. This explains why RC-internal material may appear preceding the genitive-marked DP (i.e., the possessor).

(251) Relative clause

a. With NOM subject



b. With GEN subject



The subject case alternations investigated in this work are all underpinned by syntactic configurations that motivate, in different ways, differential subject marking. This leads us to the second main question that the dissertation set out to answer: how can Kazakh DSM patterns contribute to our understanding of cross-linguistic principles underlying differential argument marking? Kazakh presents a clear example where no extra-syntactic mechanism

(e.g., an independent case assignment mechanism operated by OT-style constraints) is needed to account for the differential case marking phenomena. Every examined instance of DSM falls out of the inner workings of the syntactic module (Subject Shift, movement motivated by features, and morphological case valuation in the sense of the Dependent Case Theory). Given that DSM is sytnactically determined, it is not surprising that the Kazakh data do not support the predictions made by Optimality Theory models. Recall that OT-style analyses predict that DSM is the mirror image of DOM. That is, on a prominence scale where 1/2 person pronouns are at the high end of the scale and inanimate non-specific nouns are at the low end, objects are expected to be marked with non-nominative case when the object is closer to the higher end of the scale. In contrast, these approaches predict that subjects are likelier to get marked with non-nominative case if they are closer to the low end of the scale. This prediction is clearly not borne out in Kazakh. This is not to say that OT models are mistaken, rather this work demonstrates that DSM *can* be constructed by only using the toolbox provided by the syntactic component of grammar.

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