

ECM IN BURYAT AND THE OPTIONALITY OF MOVEMENT*

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1 Introduction

In this paper I will discuss accusative subjects in embedded contexts in Barguzin Buryat (Mongolic), a dialect of Buryat spoken in Russian Federation. Accusative subjects in Buryat are found in two types of embedded clauses: in finite embedded clauses (which I assume to be CPs with a complementizer *gʒʒə*), where they alternate with nominative subjects ((1)-(2)), and in clausal nominalizations, where they alternate with genitive subjects ((3)-(4)).

(1) bi sajənə du: du:lə-žə bɛ:-ga gʒʒə du:l-a-b
1 Sajana-NOM song sing-CONV be-PST COMP hear-PST-1SG
I heard that Sajana sang a song

(2) bi sajən-ijə du: du:lə-žə bɛ:-ga gʒʒə du:l-a-b
1 Sajana-ACC song sing-CONV be-PST COMP hear-PST-1SG
I heard that Sajana sang a song

(3) bi tumən-e xoni bari-žə bɛ:-h-ijə xar-a-b
1SG Tumen-GEN sheep slaughter-CONV be-NMN-ACC see-PST-1SG
I saw that/ how Tumen slaughtered a sheep

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- (4) bi tumən- ijə xoni bari-žə bε:-h-ijə xar-a-b
 1SG Tumen-ACC sheep slaughter-CONV be-NMN-ACC see-PST-1SG
I saw that/ how Tumen slaughtered a sheep

The phenomenon of accusative subjects has been found in many languages and received a lot of attention in the literature. Among various analyses that have been proposed are the ECM / CP-Pruning analysis ((Chomsky 1981), (Kitagawa 1985) among others), the obligatory raising analysis ((Postal 1974), (Kuno 1976), (Tanaka 1992), (Yoon 2007), (Kawai 2006) among others), the base-generation (prolepsis/ extra-NP) analysis ((Saito 1983), (Hoji 1991), (Takano 2003) among others), the dependent case analysis ((Baker & Vinokurova 2010) among others), the differential subject marking analysis ((von Heusinger, Klein & Guntsetseg 2011) among others) and the optional raising analysis ((Bruening 2001), (Hiraiwa 2001), (Tanaka 2002), (Hong & Lasnik 2010), (Takeuchi 2010) among others). The aim of this paper is to show that only a version of the optional raising analysis can successfully account for all the properties of constructions with accusative subjects in Buryat.

In this paper I will address three main questions with respect to accusative subjects in Buryat. First, I will investigate the source of the accusative marking found on subjects and argue that accusative case is determined by the transitivity of the matrix verb (section 2). Second, I will discuss the first merge position of accusative subjects and argue that they start out inside embedded clauses (section 3). Third, I will discuss whether accusative subjects raise into matrix clauses and show that they can undergo raising, but do not have to (section 4). Finally, I will propose the optional raising analysis for accusative subjects in Buryat (section 5) and summarize why only this analysis covers the whole range of the observed empirical data (section 6).

2 The source of the accusative case

In this section I will discuss the source of the accusative case on embedded subjects. I consider two possible options: accusative case assigned by some functional projection of the embedded clause and accusative case assigned by some functional (probably, verbal) projection of the matrix clause. I argue that the latter option is at work in Buryat embedded clauses.

First, matrix verbs that assign lexical cases such as dative or instrumental cannot take sentential arguments with accusative subjects. For example, the verb *atarxəxə* ('envy') assigns dative if it takes a noun phrase (5) as its complement. When it takes a CP or a nominalization, their subjects cannot participate in the accusative alternation: the subject of the CP has to be marked nominative (6), and the subject of the nominalization has to be marked genitive (7).

- (5) xübün badma-**da** atarxə-nə
 boy Badma-**DAT** envy-PRS
The boy envies Badma

- (6) xübün badmə /^{???}*badm-**ijə** na:dənxε abə-xə gəžə atarxə-nə
 boy Badma.**NOM** / Badma-**ACC** toy buy-NMN COMP envy-PRS
The boy envies that Badma will buy a toy

- (7) xübün badm-in / *badm-ijə nom unšə-xə-də atarxə-nə
 boy Badma-GEN Badma-ACC book read-NMN-DAT envy-PRS
The boy envies Badma's reading the book.

The same effect can be observed with the verb *hε:rxəxə* ('boast'), which assigns instrumental case to its complement (8). This verb can take only a nominalization as its sentential argument; and when it does, the subject of the nominalization can be only genitive, and not accusative (9).

- (8) xübün šənə na:dənxε-gar-a hε:rxə-nə
 boy new toy-INSTR-REFL boast-PRS
The boy boasts about a new toy
- (9) xübün badm-in / *badm-ijə šənə na:dənxε abə-x-ar hε:rxə-nə
 boy Badma-GEN / Badma-ACC new toy buy-NMN-INSTR boast-PRS
The boy boasts of Badma's buying (him) a new toy

This shows that the accusative case cannot come from inside the embedded clause: if it did, the embedded subjects in (7)-(6) and (9) would be able to get accusative just like the embedded subjects of (2) and (4). What is more, the sentences in (7)-(6) and (9) posit a problem for both dependent case and differential subject marking approaches. The dependent case approach ((Marantz 1991), (Baker & Vinokurova 2010)) assumes that a noun phrase receives dependent case if there is a distinct noun phrase that is not "marked". Under the differential subject marking approach (von Heusinger, Klein & Guntsetseg 2011), different subject case markings correspond to different referential properties of subjects. As we can see, sentences in (7)-(6) and (9) do not differ from (3) and (4), where accusative marking is grammatical, neither with respect to an existing unmarked noun phrase (subject of the matrix clause) nor with respect to the referential properties of the embedded subject.²

Second, when a sentential argument occupies the subject position in the matrix clause, it cannot have accusative subjects. This can be shown for intransitive (10) and passivized (11)-(12) matrix predicates, as well as for transitive predicates taking sentential subjects (13)³:

- (10) mini / *namεjə tamxi tatə-xə mu: (bε:-nə)
 1SG.GEN / 1SG.ACC tobacco drag-NMN bad be-PRS
My smoking is bad (It is bad that I smoke)

² While proper names are used in most of examples in this handout, accusative marking can occur on subjects with different properties; for example, it can occur on inanimate noun phrases (unlike, for example, in Tuvianian (Serdobolskaya 2006)):

- i. bi ənə mod-ijə urge-hən-ijə xar-a-b
 1SG this apple.tree-ACC grow-NMN-ACC see-PST-1SG
I saw how this apple-tree grew
- ii. sajənə ənə xan-ijə badm-ar šərdə-gdə-hən gəžə mədə-nə
 Sajana this wall-ACC Badma-INSTR paint-PASS-PFCT COMP know-PRS
Sajana knows that this wall has been painted by Badma

³ This generalization holds only for nominalizations, because CPs cannot occupy the subject position in Buryat:

- i. badmə tərgə əbd-ə gəžə sajən-ijə suxəld-ul-a
 Badma cart break-PST COMP Sajana-ACC be.angry-CAUS-PST
**That Badma broke the cart made Sajana angry*
?Somebody made Sajana angry (with the fact) that Badma broke the cart

- (11) mini /***namεjə** nom unšə-žə bε:-xə sajən-ar xarə-gd-a
 1SG.GEN /**1SG.ACC** book read-CONV be-NMN.(NOM) Sajana-INSTR see-PASS-PST
My reading the book was seen by Sajana
- (12) sajən-ε /***sajən-ijə** du: du:lə-hən-in' nam-də hε:ša-gd-a
 Sajana-GEN / **Sajana-ACC** song sing-NMN-3(NOM) 1SG-DAT like-PASS-PST
Sajana's singing was liked by me
- (13) badm-in /***badm-ijə** tərgə əbdə-hən-in' sajən-ijə suxəld-ul-a
 Badma-GEN / **Badma-ACC** cart break-NMN-3.NOM Sajana-ACC be.angry-CAUS-PST
That Badma broke the cart made Sajana angry

These facts suggest that sentential arguments can have accusative subjects only when the matrix verb is able to assign accusative case and they themselves are in such a position where they can receive it.

Thirdly, accusative subjects in Buryat are not found in sentential adjuncts (unlike, for example, in Mongolian (von Heusinger, Klein & Guntsetseg 2011)):

- (14) xabər /***xabər-ijə** jərə-žə, sahən xε:la-ba
 spring.NOM / **spring-ACC** come-CONV snow.NOM melt-PST2
As the spring came, the snow melted
- (15) badm-in /***badm-ijə** šang-ar xašxər-xə-də, arjunə ε:-žə-rxi-ba
 Badma-GEN / **Badm-ACC** strong-INSTR cry-NMN-DAT Arjuna get.frightened-CONV-PFV-PST2
When Badma cried hard, Arjuna got frightened
- (16) xübün-e /***xübü-jə** jərə-tər, basəgən üdəšin xo:l šanə-xə bəldə-nə
 boy-GEN / **boy-ACC** come-LIM girl evening food cook-NMN prepare-PRS
The girl will not make a dinner until the boy comes

This fact supports the correlation between the transitivity of the matrix verb and the existence of accusative subjects in embedded clauses. If accusative subjects were found in sentential adjuncts, the accusative marking could not be linked to the ability of matrix verbs to assign accusative.

To sum up, analyses that attribute accusative case marking on the embedded subjects to a property of the matrix verb – its ability to assign accusative – better suit the Buryat data.

3 First merge position of accusative subjects

In this section I will argue that accusative subjects in Buryat are generated inside embedded clauses. Evidence in favor of this claim comes from four sources: the idiom test, anaphor binding, the Proper Binding Condition and overt pronoun insertion.

First, accusative subjects in Buryat pass the idiom diagnostic: they can constitute idiomatic expressions with the embedded predicate just like nominative subjects of CPs and genitive subjects of nominalizations. In (17) the basic sentence with the idiom ‘one’s heart goes

out of his mouth' ('be greatly frightened') is presented. Sentences in (18) and (19) show that accusative subjects allow the idiomatic interpretation of CPs and nominalizations respectively.

- (17) badm-in zürxән am-ar-a garə-nə
 Badma-GEN heart.NOM mouth-INSTR-REFL go.out-PRS
Badma gets greatly frightened (lit.: 'Badma's heart goes out of his mouth')
- (18) sajənə badm-in zürxән /zürx-ijə am-ar-a
 Sajana Badma-GEN heart-NOM /heart-ACC mouth-INSTR-REFL
 gar-a gžə xar-a
 go.out-PST COMP see-PST
 1) *Literal: Sajana saw, that Badma's heart went out of the mouth – OK*
 2) *Idiomatic: Sajana saw that Badma got greatly frightened – OK*
- (19) sajənə badm-in zürxән-e /zürx-ijə am-ar-a
 Sajana Badma-GEN heart-GEN /heart-ACC mouth-INSTR-REFL
 garə-x-ijə-n' xar-a
 go.out-NMN-ACC-3 see-PST
 1) *Literal: Sajana saw, that Badma's heart went out of the mouth – OK*
 2) *Idiomatic: Sajana saw that Badma got greatly frightened – OK*

This can be explained if these subjects start out as arguments of the embedded predicates, just like nominative and genitive subjects do.

The second piece of evidence comes from anaphor binding. Buryat has a possessive anaphor *ö:ringö* that has to be bound in the same clause that contains it. When this anaphor modifies a direct object of the embedded clause, it cannot be bound by the matrix subject of the CP (20) or nominalization (21), but can be bound by genitive and nominative subjects respectively.

- (20) badma_k sajənə_i ö:rin-gö_{k/i} nom unš-a gžə mэд-3
 Badma Sajana.NOM POSS.self-REFL book read-PST COMP know-PST
 1) *Badma found out that Sajana_i read her_i book – OK*
 2) *Badma_k found out that Sajana read his_k book – **
- (21) badma_k sajən-in_i ö:rin-gö_{k/i} nom unšə-h-ijə-n' mэд-3
 Badma Sajana-GEN POSS.self-REFL book read-NMN-ACC-3 know-PST
 1) *Badma found out that Sajana_i read her_i book – OK*
 2) *Badma_k found out that Sajana read his_k book – **

The examples in (22) and (23) illustrate that accusative subjects of CPs and nominalizations can also serve as binders for the possessive anaphor:

- (22) badma_k sajən-ijə_i ö:rin-gö_{k/i} nom unš-a gžə mэд-3
 Badma Sajana-ACC POSS.self-REFL book read-PST COMP know-PST
 1) *Badma found out that Sajana_i read her_i book – OK*
 2) *Badma_k found out that Sajana read his_k book – **

- (23) badma_k sajən-ijə_i ö:rin-gö_{k/i} nom unšə-h-ijə-n' mɔd-3
 Badma Sajana-ACC POSS.self-REFL book read-NMN-ACC-3 know-PST
 1) *Badma found out that Sajana_i read her_i book* – OK
 2) *Badma_k found out that Sajana read his_k book* – *

This means that at least at some point in the derivation the accusative subjects are in the same clause as the reflexive possessor – in the embedded clause. The ability of accusative subjects to bind reflexive possessives inside the embedded clause does not necessarily imply that accusative subjects stay inside the embedded clause throughout derivation: for example, they might enter the binding relation before they move/copy into the matrix clause.

The third argument for the generation inside the embedded clause comes from the violation of the Proper Binding Condition (PBC) which states that traces must be bound. To see this condition at work in Buryat, consider the following example:

- (24) sajənə badmə mor-ijə ab-a gʒʒə xɜl-3
 Sajana Badma.NOM horse-ACC take-PST COMP say-PST
Sajana said that Badma bought a horse

In sentences like (24) embedded direct objects can undergo scrambling to the left periphery of the matrix clause (25). Also, the whole embedded clause can be scrambled to the left periphery (26).

- (25) **mor-ijə_i** sajənə [badmə t_i ab-a gʒʒə] xɜl-3
horse-ACC Sajana Badma.NOM take-PST COMP say-PST
Sajana said that Badma bought a horse

- (26) [badmə mor-ijə ab-a gʒʒə]_k sajənə t_k xɜl-3
 Badma.NOM horse-ACC take-PST COMP Sajana say-PST
Sajana said that Badma bought a horse

Since both kinds of movement ((25)-(26)) are possible, we would expect them to be able to co-occur within the same sentence. However, this expectation is not justified: scrambling of the direct object followed by the scrambling of the whole embedded clause yields an ungrammatical sentence:

- (27) *[badmə t_i ab-a gʒʒə]_k **mor-ijə_i** sajənə t_k xɜl-3
 Badma.NOM take-PST COMP **horse-ACC** Sajana say-PST
Sajana said that Badma bought a horse

The example in (27) shows that the Proper Binding Condition holds in Buryat just like in other languages ((Saito 1992), (Tanaka 2002)): the unboundedness of the trace in the scrambled CP violates PBC, hence the ungrammaticality of the sentence.

Now consider a sentence with an accusative subject that involves scrambling of the embedded clause:

- (28) *[t_i mor-ijə ab-a gʒʒə]_k sajənə **badm-ijə_i** t_k xɜl-3
 horse-ACC take-PST COMP Sajana **Badma-ACC** say-PST
Sajana said that Badma bought a horse

In (28) the embedded clause without the accusative subject is moved to the left periphery of the matrix clause. If the accusative subject has been base-generated inside the matrix clause, we would expect to find (28) grammatical, since then the embedded clause would not have a trace inside it and would not violate PBC. Note that sentential complements that have a null element in their structure controlled by a matrix noun phrase can be scrambled to the left periphery, as (29)-(30) illustrate:

(29) sajənə_i [PRO_i mor-ijə ab-a-b gʒʒə] xʒl-ʒ
 Sajana.NOM horse-ACC take-PST-1SG COMP say-PST
Sajana_i said that she_i bought a horse

(30) [PRO_i mor-ijə ab-a-b gʒʒə]_k sajənə_i t_k xʒl-ʒ
 horse-ACC take-PST-1SG COMP Sajana.NOM say-PST
Sajana_i said that she_i bought a horse

If however the accusative subject of (28) has been generated inside the embedded clause, the ungrammaticality can be easily explained by the PBC violation that we have already seen at work in Buryat: the scrambled clause contains an unbound trace of the scrambled accusative subject.⁴ Despite the fact that both scrambling of an accusative subject and scrambling of an embedded clause are possible instances of movement, they cannot co-occur, because their combination results in a proper binding violation. Thus, the fact that it is impossible to scramble the embedded clause to the left periphery while leaving the accusative subject behind suggests that accusative subjects are generated inside embedded clauses.

Finally, the last piece of evidence in favor of the generation inside the embedded clause comes from the unavailability of overt pronoun insertion. Overt pronoun insertion has been considered an argument in favor of base-generation of accusative subjects in matrix clauses in Japanese (Kitagawa 1985), (Hoji 1991), where an accusative subject can co-occur with an overt pronominal nominative subject inside the embedded clause:

(31) keisatu-wa **Sigeko_i-o** [CP **kanozyo_i-ga** Yamada-no kyooohansya
 police-TOP **Shigeko-ACC she-NOM** Yamada-GEN accomplice
 datta to] danteisita
 was that concluded ((Kitagawa 1985), cited from (Hoji 1991), p.5)
The police concluded about Shigeko_i that she_i was Yamada's accomplice

Buryat differs from Japanese in this respect: overt pronouns cannot be inserted into the subject position of an embedded clause if the accusative subject is present:

(32) ojunə badm-ijə (*t_{3rə}) usəgəldər xaršə šʒrd-ʒ gʒʒə mʒd-ʒ
 Ojuna Badma-ACC (he.NOM) yesterday fence paint-PST COMP know-PST
Ojuna found out that yesterday Badma had painted the fence

⁴ The fact that accusative subjects can undergo scrambling into the matrix clause is illustrated in section 4, examples (47), (50).

- (33) ojunə badm-ijə (*tʰɜrən-e) usəgəldər xarʃə
 Ojuna Badma-ACC (he-GEN) yesterday fence
 ʃɜrdə-h-ijə-nʰ mɜd-ɜ
 paint-NMN-ACC-3 know-PST
Ojuna found out that yesterday Badma had painted the fence

The impossibility of overt pronoun insertion receives an explanation if accusative subjects are generated inside embedded clauses: there cannot be two subjects in a single clause, hence the ungrammaticality of (32)-(33).

To sum up, we have seen that accusative subjects in Buryat can form idioms with embedded predicates, bind possessive anaphors in the embedded clause and cannot co-occur with overt nominative or genitive subjects. We have also seen that scrambling an embedded clause without the accusative subject leads to PBC violation. All these facts suggest that accusative subjects in Buryat start out as arguments of embedded predicates and that the prolepsis analysis ((Saito 1983), (Hoji 1991), (Takano 2003)) for this language cannot be maintained.

4 The arguments for and against the raising analysis

In the previous sections I have claimed that accusative subjects are generated inside embedded clauses and receive accusative case from the matrix verb. This leads to the following questions: do accusative subjects raise into the matrix clause, and if they do, is this movement required for their licensing? All the three possible answers have been proposed in the literature. The first answer, represented by the ECM / CP-Pruning approach ((Chomsky 1981), (Kitagawa 1985) et al.), is that no movement takes place. The accusative case is exceptionally assigned to the specifier of TP by the matrix verb, possibly after the embedded structure has undergone some shrinking in size, so that there is no longer a barrier like CP for case assignment. The second answer is that there is obligatory movement of accusative subjects into the matrix clause ((Postal 1974), (Kuno 1976), (Tanaka 1992), (Yoon 2007), (Kawai 2006) et al.) which is essential for their licensing: without this movement subjects would not receive case, and, consequently, the derivation would crash. The third answer is that accusative subjects can move into the matrix clause, but this movement is not a necessary condition for their licensing ((Bruening 2001), (Hiraiwa 2001), (Tanaka 2002), (Hong & Lasnik 2010), (Takeuchi 2010) et al.). Under this approach, accusative case can be received without movement into the matrix clause, which is thus thought of as mere scrambling.

In this section I will argue that the third answer is the correct one for Buryat. Although many arguments could be found in favor of the raising analysis (section 4.1), there is some evidence that accusative subjects do not need to raise (4.2) and can interact with the elements of the matrix clause without leaving the embedded clause (4.3).

4.1 Arguments for the raising analysis

Many diagnostics seem to support the raising analysis for accusative subjects in Buryat. First, adverbs which are placed between an accusative subject and the rest of the embedded clause can modify the matrix verb ((34), (36)), while adverbs which are placed between a genitive /nominative subject and the rest of the embedded clause can only modify the embedded predicate:

- (34) bi badm-ijə üsəgəldər tərgə ʒmdəl-3 gʒʒə mʒd-3-b
 1SG Badma-ACC yesterday cart break-PST COMP know-PST-1SG
 1) *I found out yesterday that Badma broke a cart* (modification of the matrix verb)
 2) *I found out that yesterday Badma broke a cart* (modification of the embedded verb)
- (35) bi badmə üsəgəldər tərgə ʒmdəl-3 gʒʒə mʒd-3-b
 1SG Badma.NOM yesterday cart break-PST COMP know-PST-1SG
 1) **I found out yesterday that Badma broke a cart* (modification of the matrix verb)
 2) *I found out that yesterday Badma broke a cart* (modification of the embedded verb)
- (36) bi badm-ijə üsəgəldər xotə oʃə-x-ijə-n' ši:d-3-b
 1SG Badma-ACC yesterday city go-NMN-ACC-3 decide-PST-1SG
 1) *I decided yesterday that Badma would go to the city* (modification of the matrix verb)
 2) *I decided that yesterday Badma would go to the city* (modification of the embedded verb)
- (37) bi badm-in üsəgəldər xotə oʃə-x-ijə-n' ši:d-3-b
 1SG Badma-GEN yesterday city go-NMN-ACC-3 decide-PST-1SG
 1) **I decided yesterday that Badma would go to the city* (modification of the matrix verb)
 2) *I decided that yesterday Badma would go to the city* (modification of the embedded verb)

This indicates that accusative subjects of both nominalizations (36) and CPs (34) can become part of the matrix clause, unlike genitive (37) and nominative (35) subjects.

Second, accusative subjects can become subjects of passivized matrix predicates, which suggests that not only can they raise into the matrix clause, but they can raise to such position from which further raising to the matrix subject position is possible. Consider the examples in (38)-(39). In (38) we see a basic example with an accusative subject. In (39) we see that the accusative subjects has been promoted to the matrix subject position, and the former subject is expressed as a by-phrase. The matrix verb takes a passive morpheme and shows agreement with the new subject.

- (38) badmə nam:əjə sajən-ijə zurə-xə gʒʒə xʒl-3
 Badma 1SG.ACC Sajana-ACC draw-FUT COMP say-PST
Badma said that I will draw Sajana
- (39) bi badm-ar sajən-ijə zurə-xə gʒʒə xʒlə-gd-3-b
 1SG.NOM Badma-INSTR Sajana-ACC draw-FUT COMP say-PASS-PST-1SG
Lit.: 'I was said by Badma that (I) will draw Sajana'

A similar pattern can be observed with nominalizations. The sentence in (40) is a basic example of a clause with a nominalization that has an accusative subject. Note that there are two elements in this sentence that bear accusative marking: the subject of the nominalization and the nominalization itself. When the matrix predicate is passivized, there are two options: either the whole nominalization becomes the subject of the passivized predicate (in this case the subject of the nominalization can no longer have accusative marking, as we have seen in (11)-(12)), or the accusative subject undergoes further raising and occupies the subject position (41).

- (40) badmə **namɛjə** tɜrgə ʒbdəl-h-ijə-mni mɜd-ʒ
 Badma **1SG.ACC** cart break-NMN-ACC-1SG know-PST
Badma found out that I broke the cart
- (41) **bi** badm-ar tɜrgə ʒbdəl-hən-ʒ mɜdə-**gd-ʒ-b**
1SG.NOM Badma-INSTR cart break-NMN-REFL know-**PASS-PST-1SG**
Lit.: 'I was found out by Badma to have broken a cart'

When the former accusative subject becomes the subject of a passivized matrix predicate, the matrix verb agrees with it, and the former matrix subject occurs as a by-phrase. Due to the emerged coreference between the embedded subject (copy of the former accusative subject) and the matrix subject, the nominalization receives reflexive marking.⁵

This type of passivization is possible with many verbs; here are two more examples with the verb *šidaxə* ('decide') – with a CP⁶ (42) and with a nominalization (43).

⁵ Noun declension in Buryat has three paradigms (Skribnik & Darzhaeva 2016): there is a basic declension paradigm, a possessive declension paradigm and a „reflexive“ declension paradigm. The basic declension paradigm gives no information with respect to whether a noun has a possessor or not. The possessive declension paradigm gives information that there is a possessor distinct from the matrix subject and specifies what its number and person are. The „reflexive“ declension must be used if a noun has a possessor that is coreferent with the matrix subject. The possessor of a nominalization is its subject: in (41) it becomes coreferent with the matrix subject, hence the nominalization has to be marked reflexive.

⁶ There is an interesting peculiarity with respect to agreement on the embedded predicate of CP in the passivized constructions such as (39) and (42): the verb displays optional 1st person agreement:

- (i) **bi** badm-ar sajən-ijə zurə-xə-**(b)** gɜʒə xɜlə-**gd-ʒ-b**
1SG.NOM Badma-INSTR Sajana-ACC draw-FUT-**(1SG)** COMP say-**PASS-PST-1SG**
Lit.: 'I was said by Badma that (I) will draw Sajana'

First person agreement on predicates of embedded CPs appears due to the process of indexical shifting and signals that the subject of a CP is coreferent with the matrix subject:

- (ii) sajənə tɜrgə ʒbdəl-ʒ-**b** gɜʒə mɜd-ʒ
 Sajana.NOM cart break-PST-**1SG** COMP know-PST
Sajana_i found out that she_i broke the cart

The question is then what does the optionality of the agreement marker in (i) tell us: do constructions with and without agreement have the same syntactic structure? How does the agreement emerge on the embedded verb, considering that accusative subjects do not show agreement with the embedded predicates (iii)?

- (iii) sajənə **namɛjə** tɜrgə ʒbdəl-ʒ-**(*b)** gɜʒə mɜd-ʒ
 Sajana.NOM **1SG.ACC** cart break-PST-**(1SG)** COMP know-PST
Sajana_i found out that she_i broke the cart

I argue that sentences with and without agreement (i) have different structures: only the latter is derived from the sentence with an accusative subject, while the former involves control. An argument in favor of this conclusion comes from the sentences where an accusative subject forms an idiomatic expression with the embedded predicate:

- (iv) sajənə badm-in **zürx-ijə** am-ar-a gar-a gɜʒə mɜd-ʒ
 Sajana Badma-GEN **heart-ACC** mouth-INSTR-REFL go.out-PST COMP know-PST
Idiomatic: Sajana found out that Badma got greatly frightened

- (42) **bi** badm-ar sajən-ijə zurə-xə g3žə šidə-gd-3-b
1SG Badma-INSTR Sajana-ACC draw-FUT COMP decide-PASS-PST-1SG
Lit: 'I was decided by Badma that (I) will draw Sajana'
- (43) **bi** badm-ar b3šəg b3šə-x-3 šidə-gd-3-b
1SG Badma-INSTR letter write-NMN-REFL decide-PASS-PST-1SG
Lit: 'I was decided by Badma to write a letter'

Note that long-distance passivization is not possible in Buryat: direct objects of embedded clauses cannot become subjects of passivized matrix predicates ((44)-(45)).⁷

Accusative subjects in sentences like (iv) are able to raise to the matrix subject position when the matrix verb is passivized (v), retaining the idiomatic interpretation. Crucially, the embedded verb cannot bear an agreement marker in this case.

- (v) badm-in **zürxən** sajən-ar am-ar-a gar-a-(*b)
Badma-GEN **heart.NOM** Sajana-INSTR mouth-INSTR-REFL go.out-PST-(1SG)
g3žə m3də-gd-3
COMP know-PASS-PST

Idiomatic: Sajana saw that Badma got greatly frightened (lit. 'Badma's heart was known by Sajana that (it) went out of his mouth')

This indicates that when the matrix subject of a passivized verb is generated inside the embedded clause and goes through a stage in the derivation when it is an accusative subject, there is no agreement on the embedded verb. When, however, the agreement is present, the matrix subject is base-generated, and the embedded CP involves some controlled null subject, as in (ii).

⁷ Buryat exhibits constructions which may seem to involve long-distance passivization, but are actually cases of voice restructuring. These are constructions with verbs such as *3xilxə* ('begin') that take a converb as their complement:

- (i) badmə **naməjə** zurə-žə 3xil-3
Badma.NOM **1SG.ACC** draw-CONV begin-PST
Badma began to draw me
- (ii) **bi** badm-ar zurə-žə 3xilə-gd-3-b
1SG.NOM Badma-INSTR draw-CONV begin-PASS-PST-1SG
Badma began to draw me (lit. 'I was begun to draw by Badma')

In such constructions, there is no subject in the embedded clause (I cannot show the argumentation for this here due to space considerations) and the two verbs constitute a single clause. If we construct a configuration that looks like (i)-(ii) with a CP or a nominalization, with an understood subject of an embedded clause coreferent with the matrix subject, the promotion of a direct object into the matrix subject position will result in ungrammaticality ((iv), (vi)). Since sentences with CPs and nominalizations have biclausal structures, embedded direct objects are not in the same clause as the matrix verb that undergoes passivization, and hence cannot be promoted to the matrix subject position. Thus, long-distance passivization is never possible in Buryat.

- (iii) badma **naməjə** zurə-xə-b g3žə x3lə-3
Badma **1SG.ACC** draw-FUT-1SG COMP say-PST
Badma_i said that he_i will draw me

- (iv) ***bi** badm-ar zurə-xə-b g3žə x3lə-gd-3-b
1SG.NOM Badma-INSTR draw-FUT-1SG COMP say-PASS-PST-1SG
Expected reading: 'Badma_i said that he_i will draw me' (lit. 'I was said by Badma_i that (he_i) will draw (me)')

- (44) ***bi** sajən-ar badmə xar-a gʒʒə mɜdə-gd-3-b
1SG Sajana-INSTR Badma see-PST COMP know-PASS-PST-1SG
The expected reading: 'Sajana found out that Badma saw me' (lit.: 'I was known by Sajana that Badma saw (me)')
- (45) ***bi** sajən-ar badm-in xarə-hən-a mɜdə-gd-3-b
1SG Sajana-INSTR Badma-GEN see-NMN-REFL know-PASS-PST-1SG
The expected reading: 'Sajana found out that Badma saw me' (lit.: 'I was known by Sajana that Badma saw (me)')

Thus, the ability of accusative subjects to become subjects of passivized matrix verbs is an additional argument in favor of the raising-to-object analysis.

Third argument in favor of the raising analysis comes from scrambling. While accusative subjects can be scrambled to the left periphery of the matrix clause, nominative subjects of CPs and genitive subjects of nominalizations cannot undergo such scrambling. Sentences in (46)-(49) show that accusative subjects of CPs can scramble into the matrix clause, while nominative subjects cannot.

- (46) sajənə **badm-ijə** tɜrgə ɜmdəl-3 gʒʒə mɜdə-nə
 Sajana **Badma-ACC** cart break-PST COMP know-PRS
Sajana knows that Badma broke a cart
- (47) **badm-ijə_i** sajənə **t_i** tɜrgə ɜmdəl-3 gʒʒə mɜdə-nə
Badma-ACC Sajana cart break-PST COMP know-PRS
Sajana knows that Badma broke a cart
- (48) sajənə **badmə** tɜrgə ɜmdəl-3 gʒʒə mɜdə-nə
 Sajana **Badma.NOM** cart break-PST COMP know-PRS
Sajana knows that Badma broke a cart
- (49) ***badmə_i** sajənə **t_i** tɜrgə ɜmdəl-3 gʒʒə mɜdə-nə
Badma.NOM Sajana cart break-PST COMP know-PRS
The expected reading: 'Sajana knows that Badma broke a cart'

The following examples ((50)-(51)) illustrate the same point for nominalizations: only accusative subjects of nominalizations can precede matrix subjects.

-
- (v) badmə **naməjə** zurə-x-a xɜlə-3
 Badma **1SG.ACC** draw-NMN-REFL say-PST
Badma_i said that he_i will draw me
- (vi) ***bi** badm-ar zurə-x-a xɜlə-gd-3-b
1SG.NOM Badma-INSTR draw-NMN-REFL say-PASS-PST-1SG
Expected reading: 'Badma_i said that he_i will draw me' (lit. 'I was said by Badma_i that (he_i) will draw (me)')

- (50) **badm-ijə** sajənə türgör t_i nom unšə-žə bε:-x-ijə-n' xar-a
Badma-ACC Sajana quickly book read-CONV be-NMN-ACC-3 see-PST
Sajana suddenly saw that/how Badma was reading a book

- (51) ***badm-in** sajənə türgör t_i nom unšə-žə bε:-x-ijə-n' xar-a
Badma-GEN Sajana quickly book read-CONV be-NMN-ACC-3 see-PST
The expected reading: 'Sajana suddenly saw that/how Badma was reading a book'

The ability of accusative subjects to scramble to the left periphery of the matrix clause receives an explanation if we assume that accusative subjects undergo raising.

The next argument concerns binding phenomena. The possessive anaphor *ö:ringö*, which has to be bound in the same clause that contains it ((20)-(21)), cannot appear as a modifier of nominative subjects of CPs ((52)-(53)) due to the absence of a potential c-commanding binder inside the embedded clause:

- (52) ***badmə örin-gö** hamgən zurəg zur-a g3žə m3d-3
Badma **POSS.self-REFL** wife.**NOM** picture paint-PST COMP know-PST
The expected reading: 'Badma_i found out that his_i wife painted the picture'

- (53) ***badma örin-gö** hamgən nom unš-a g3žə xar-a
Badma **POSS.self-REFL** wife.**NOM** book read-PST COMP see-PST
The expected reading: 'Badma_i saw that his_i wife was reading a book'

When the possessive anaphor modifies accusative subjects, the result is grammatical: the anaphor is able to get bound by the matrix subject ((54)-(55)).

- (54) **badmə örin-gö** hamg-**ijə** zurəg zur-a g3žə m3d-3
Badma **POSS.self-REFL** wife-**ACC** picture paint-PST COMP know-PST
Badma_i found out that his_i wife painted the picture

- (55) **badma örin-gö** hamg-**ijə** nom unš-a g3žə xar-a
Badma **POSS.self-REFL** wife-**ACC** book read-PST COMP see-PST
Badma_i saw that his_i wife was reading a book

The same pattern emerges with nominalizations. The possessive anaphor cannot modify genitive subjects of nominalizations. In this position the anaphor cannot be bound: there is no other DP in the nominalized clause that would c-command it, hence the ungrammaticality of (56) and (57).

- (56) ???**badmə örin-gö** hamgən-ε zurəg zurə-h-ijə-n' m3d-3
Badma **POSS.self-REFL** wife-**GEN** picture paint-NMN-ACC-3 know-PST
The expected reading: 'Badma_i found out that his_i wife had painted a picture'

- (57) ***bi örin-gö** hamgən-ε xotə ošə-x-ijə-n' ši:d-3-b
1SG **POSS.self-REFL** wife-**GEN** city go-NMN-ACC-3 decide-PST-1SG
The expected reading: 'I_k decided that my_k wife will go to the city'

However, the possessive anaphor can modify accusative subjects, and in this case it gets bound by the matrix subject:

- (58) badmә **örin-gö** hamg-ijә zurәg zurә-h-ijә-n' mәd-3
 Badma **POSS.self-REFL** wife-ACC picture paint-NMN-ACC-3 know-PST
Badma_i found out that his_i wife had painted a picture
- (59) bi **örin-gö** hamg-ijә xotә ošә-x-ijә-n' š:i:d-3-b
 1SG **POSS.self-REFL** wife-ACC city go-NMN-ACC-3 decide-PST-1SG
I_k decided that my_k wife will go to the city

These binding facts can be explained if accusative subjects raise into the matrix clause. After the raising of an accusative subject the local domain where the possessive anaphor must be bound becomes a matrix TP, and there it can be bound by the matrix subject.

The last argument for the raising analysis comes from the NPI licensing. Negative Polarity Items in Buryat have to be licensed by negation in the same clause that contains them. The sentence in (60) shows that the sentence is grammatical if a direct object NPI is licensed by the embedded negation. Sentences in (61) and (62) show that a direct object NPI cannot be licensed in an embedded clause if the negation is on the matrix verb or not present at all.

- (60) bi tumән **xәn-i-šjә** xar-a-**güj** gзžә mәd-3-b
 1SG Tumen **who-ACC-PTCL** see-PST-NEG COMP know-PST-1SG
I found out that Tumen did not see anyone
- (61) *bi tumән **xәn-i-šjә** xar-a gзžә mәd-3-**güj**-b
 1SG Tumen **who-ACC-PTCL** see-PST COMP know-PST-NEG-1SG
- (62) *bi tumән **xәn-i-šjә** xar-a gзžә mәd-3-b
 1SG Tumen **who-ACC-PTCL** see-PST COMP know-PST-1SG

Accusative subject NPIs, however, need to be licensed by negation on the matrix verb (63) and cannot be licensed by negation on the embedded predicate (64).

- (63) badma **xәn-i-šjә** tәrgә әmdәl-3 gзžә xar-a-**güj**
 Badma **who-ACC-PTCL** cart break-PST COMP see-PST-NEG
Badma did not see anyone break the cart
- (64) *badma **xәn-i-šjә** tәrgә әmdәl-3-**güj** gзžә xar-a
 Badma **who-ACC-PTCL** cart break-PST-NEG COMP see-PST

Nominative subject NPIs in embedded contexts show exactly the opposite behavior: they must be licensed by negation on the embedded predicate and cannot be licensed by negation on the matrix verb:

- (65) badma **xәn-šjә** tәrgә әmdәl-3-**güj** gзžә xar-a
 Badma **who.NOM-PTCL** cart break-PST-NEG COMP see-PST
Badma saw that nobody broke the cart

(66)	*badma	хэн-šjə	tərgə	ɜmdəl-ɜ	gɜʒə	xar-a- güj
	Badma	who.NOM-PTCL	cart	break-PST	COMP	see-PST-NEG

Accusative NPI subjects of nominalizations show similar behavior: they have to be licensed by the matrix negation and cannot be licensed by the negation on the nominalized verb:^{8,9}

(67)	badma	хэн-и-šjə	tərgə	ɜmdəl-h-ijə	xar-a- güj	
	Badma	who-ACC-PTCL	cart	break-NMN-ACC	see-PST-NEG	
		<i>Badma did not see anyone break the cart</i>				

(68)	*badma	хэн-и-šjə	tərgə	ɜmdəl-hən- güj-e	xar-a
	Badma	who-ACC-PTCL	cart	break-NMN-NEG-ACC	see-PST

These facts support the raising analysis: if accusative subject NPIs remained inside embedded clauses, we would expect them to be licensed by the embedded negation. On the other hand, if accusative subjects raise into the matrix clause, their licensing by the matrix negation is not surprising.

To sum up, a number of facts indicates that accusative subjects become part of the matrix clause: they can be scrambled to its left periphery, they can be separated by a matrix adverb from the embedded clause, they can become subjects of passivized matrix verbs and can engage in processes with other elements of the matrix clause such as binding and NPI-licensing.

⁸ Note that (68) cannot be ungrammatical because of the presence of a negation marker on the nominalization, since nominalizations can take negation markers:

(i)	sajən-in	šülə	šanə-hən- güj-e	badmə	mɜdə-nə
	Sajana-GEN	soup	cook-NMN-NEG-ACC	Badma.NOM	know-PST
	<i>Badma knows that Sajana has not cooked soup.</i>				

This indicates that the ungrammaticality of (68) is due to improper NPI licensing.

⁹ In the declension paradigm of the negative polarity pronouns the genitive form coincides with a variant of accusative, so no clear contrast between accusative NPIs and genitive NPIs can be observed. In (i) and (ii) we see that this form, which can be used as both genitive and accusative, exhibits an accusative behavior with respect to licensing: it must be licensed by matrix negation.

(i)	badma	хэн-əj-šjə	tərgə	ɜmdəl-h-ijə	xar-a- güj
	Badma	who-GEN/ACC-PTCL	cart	break-NMN-ACC	see-PST-NEG
	<i>Badma did not see anyone break the cart</i>				
(ii)	*badma	хэн-əj-šjə	tərgə	ɜmdəl-hən- güj-e	xar-a
	Badma	who-GEN/ACC-PTCL	cart	break-NMN-NEG-ACC	see-PST

4.2 Arguments against the raising analysis

Despite the evidence discussed in the previous section, there are some facts that are difficult to account for under the raising analysis. In this section I will show that accusative subjects can form a constituent with the rest of the embedded clause, remaining inside it.

First, embedded clauses with accusative subjects can be substituted by proforms. For example, CPs with accusative subjects can be substituted by a pronoun:

- (69) – [badm-ijə tɜrgə ɜmdəl-ɜ gɜʒə] ojunə mɜdə-nə gü?
 Badma-ACC cart break-PST COMP Ojuna know-PRS Q
 Does Ojuna know that Badma broke the cart?
- ojunə mɜdə-nə. badmə üsəgəldər tɜrɜn-də sɜxin' xɜl-ɜ.
 Ojuna know-PRS. Badma yesterday this-DAT straight say-PST
 Ojuna knows (that). Badma told her honestly about that yesterday.

Buryat has a verb *ti:gəxə* ('do.so'), which, when nominalized, can refer to the whole nominalization in the preceding context:

- (70) bi badm-in tɜrgə ɜmdəl-h-ijə-n' mɜd-ɜ-b,
 1SG Badma-GEN cart break-NMN-ACC-3 know-PST-1SG
 dugər bahə ti:gə-h-ijə-n' mɜd-ɜ
 Dugar too do.so-NMN-ACC-3 know-PST
 I know that Badma has broken the cart, and Dugar knows this (lit.: 'doing so') too = knows that Badma has broken the cart.

The nominalization of the verb *ti:gəxə* ('do.so') can also refer to a nominalization that has an accusative subject:

- (71) bi badm-ijə tɜrgə ɜmdəl-h-ijə-n' mɜd-ɜ-b,
 1SG Badma-ACC cart break-NMN-ACC-3 know-PST-1SG
 dugər bahə ti:gə-h-ijə-n' mɜd-ɜ
 Dugar too do.so-NMN-ACC-3 know-PST
 I know that Badma has broken the cart, and Dugar knows this (lit.: 'doing so') too = knows that Badma has broken the cart.

The fact that accusative subjects can be part of the nominalization substituted by the proform suggests that they form a constituent with the rest of the nominalization. If accusative subjects undergo obligatory raising into the matrix clause, we would expect sentences in (69) and (71) to be ungrammatical.¹⁰

Second, two embedded clauses with accusative subjects can be conjoined. This is illustrated for CPs in (72) and for nominalizations in (73).

¹⁰ The question remains as to whether accusative subjects undergo obligatory covert raising. I think that the coordination phenomena (to be introduced in what follows) suggest otherwise.

- (72) basəgən bükən [badm-ijə xotə jab-a g3žə] ba
 girl.NOM every Badma-ACC city go-PST.3SG COMP CONJ
- [tumen-ijə xotə-ho j3r-3 g3žə] han-a
 Tumen-ACC city-ABL come-PST.3SG COMP think-PST

Every girl thought that Badma went to the city and that Tumen came from the city

- (73) basəgən bükən [badm-ijə xotə jabə-h-ijə-n'] ba
 girl.NOM every Badma-ACC city go-NMN-ACC-3SG CONJ
- [tumen-ijə xotə-ho j3rə-h-ijə-n'] m3d-3
 Tumen-ACC city-ABL come-NMN-ACC-3SG know-PST.3SG

Every girl knew that Badma went to the city and that Tumen came from the city

This provides further evidence that accusative subjects form constituents with their embedded clauses and casts doubt on the obligatory raising analysis: raising of accusative subjects in (72) and (73) would violate the coordinate structure constraint. If accusative subjects underwent obligatory covert raising, we would expect to find sentences like (72) and (73) ungrammatical, contrary to the fact. Hence, accusative subjects do not seem to require raising into the matrix clause.

One more piece of evidence against the raising analysis comes from the adverb placement. Temporal adverbs that precede nominative subjects of CPs (74) and genitive subjects of nominalizations (75) can be interpreted both as modifying the matrix predicate or the embedded predicate:

- (74) ojunə üsəgəldər badmə na:dənxə ab-a
 Ojuna yesterday Badma.NOM toy take-PST
 g3žə m3d-3
 COMP know-PST

- 1) *Yesterday Ojuna found out that Badma bought a toy (modification of the matrix verb)*
- 2) *Ojuna found out that yesterday Badma bought a toy (modification of the embedded verb)*

- (75) ojunə üsəgəldər badm-in na:dənxə abə-h-ijə-n' m3d-3
 Ojuna yesterday Badma-GEN toy take-NMN-ACC-3 know-PST
- 1) *Yesterday Ojuna found out that Badma bought a toy (modification of the matrix verb)*
 - 2) *Ojuna found out that yesterday Badma bought a toy (modification of the embedded verb)*

Temporal adverbs that precede accusative subjects also allow two interpretations:

- (76) ojunə üsəgəldər badm-ijə na:dənxə ab-a
 Ojuna yesterday Badma-ACC toy take-PST
 g3žə m3d-3
 COMP know-PST

- 1) *Yesterday Ojuna found out that Badma bought a toy (modification of the matrix verb)*
- 2) *Ojuna found out that yesterday Badma bought a toy (modification of the embedded verb)*

- (77) ojunə **üsəgəldər** badm-ijə na:dənxe abə-h-ijə-n' mɜd-ɜ
 Ojuna **yesterday** Badma-ACC toy take-NMN-ACC-3 know-PST
 1) *Yesterday Ojuna found out that Badma bought a toy (modification of the matrix verb)*
 2) *Ojuna found out that yesterday Badma bought a toy (modification of the embedded verb)*

The fact that temporal adverbs that precede accusative subjects can modify embedded predicates is at odds with the obligatory raising analysis. If accusative subjects obligatorily rose into the matrix clause, no material of the embedded clause could intervene between them and the elements of the matrix clause. If however accusative subjects can remain inside the embedded clause, then the word orders in (76)-(77) receive a simple explanation.¹¹

In this section I have shown that accusative subjects need not undergo raising and can stay inside the embedded clause. This brings about the question of how do they manage to interact with elements of the matrix clause, which I will discuss in the following section.

4.3 Interaction without raising

In the previous sections we have seen conflicting evidence with respect to the position of accusative subjects: some diagnostics suggest that they are part of the matrix clause, while others show that they are part of the embedded clause. How can we account for both types of properties? The crucial observation that sheds light on this question is that accusative subjects can at the same time be part of the embedded clause and exhibit interaction with matrix clause elements. This is illustrated in (78)-(80):

- (78) badmə **üsəgəldər** xɜn-i-šjə tɜrgə ɜmdəl-ɜ gɜʒə xar-a-güj
 Badma **yesterday** **who-ACC-PTCL** cart break-PST COMP see-PST-NEG
Badma did not see anyone break the cart yesterday
(modification of the embedded predicate – OK)
- (79) badmə **üsəgəldər** xɜn-i-šjə tɜrgə ɜmdəl-h-ijə xar-a-güj
 Badma **yesterday** **who-ACC-PTCL** cart break-NMN-ACC see-PST-NEG
Badma did not see anyone break the cart yesterday
(modification of the embedded predicate – OK)
- (80) badmə **üsəgəldər** örin-gö hamg-ijə zurəg
 Badma **yesterday** **POSS.self-REFL** wife-ACC picture
 zur-a gɜʒə mɜdə-nə
 paint-PST COMP know-PRS
Badma_i knows that his_i wife painted a picture yesterday
(modification of the embedded predicate – OK)
- (81) badmə **üsəgəldər** örin-gö hamg-ijə zurəg
 Badma **yesterday** **POSS.self-REFL** wife-ACC picture

¹¹ Examples like (76) and (77) are also incompatible with the base-generation analysis: if accusative subjects originated in the matrix clause, we would expect temporal adverbs to only be able to modify the matrix predicate.

zurə-h-ijə-n' mɔdə-nə
 paint-NMN-ACC-3 know-PRS
Badma_i knows that his_i wife painted a picture yesterday
(modification of the embedded predicate – OK)

In (78)-(79) we see that accusative subject NPIs that are licensed by negation on the matrix verb¹² can form constituents with embedded clauses. Sentences in (81)-(80) show us that accusative subjects that are inside embedded clauses can be modified by possessive anaphors that are bound by matrix subjects. These examples demonstrate that accusative subjects can participate in clause-mate relations with elements of the matrix clause while being situated in the embedded clause.

This suggests that accusative subjects are situated at the left periphery of embedded clauses: this way they can both be visible to the matrix clause and be inside the embedded clause at the same time. I propose that all the instances of movement into the matrix clause that we have seen so far (indicated by adverb placement, scrambling possibilities and passivization) can be explained under the hypothesis that such movement is an optional operation of scrambling. In other words, accusative subjects do not need to move into the matrix clause in order to receive case and get licensed. But they can, and when they do, they may be separated from the embedded clause by matrix adverbs and matrix arguments and undergo further promotion into the matrix subject position.¹³

5 Optionality of movement: what is optional, what is not, and why

In the previous section I have argued that movement of accusative subjects into the matrix clause is an optional operation. In this section I will argue that accusative subjects are in fact subject to a shorter instance of obligatory movement: they raise to the left periphery of embedded clauses. Apart from the ability of accusative subjects to enter clause-mate relations with elements of the higher clause (which nominative and genitive subjects do not have), there is another piece of evidence that supports the obligatory nature of this short movement: accusative subject pronouns of 1st and 2nd person in CPs (in contrast to the nominative ones (83)) can never have a shifted interpretation (82):

- | | | | | | | |
|------|------------|---|-------|-------------------|------|----------|
| (82) | sajənə | namejə | tərgə | ɔmdəl-ɜ | gɜʒə | mɔd-ɜ |
| | Sajana | 1SG.ACC | cart | break-PST | COMP | know-PST |
| | | <i>Sajana knows that I (= the speaker) broke the cart</i> | | | | – OK |
| | | <i>Sajana_i found out that she_i broke the cart</i> | | | | – * |
| | | | | | | |
| (83) | sajənə | (bi) | tərgə | ɔmdəl-ɜ- b | gɜʒə | mɔd-ɜ |
| | Sajana.NOM | (1SG.NOM) | cart | break-PST-1SG | COMP | know-PST |
| | | <i>Sajana knows that I (= the speaker) broke the cart</i> | | | | – * |
| | | <i>Sajana_i found out that she_i broke the cart</i> | | | | – OK |

¹² Recall that other elements of embedded clauses, for example, direct object NPIs, cannot be licensed by the matrix negation.

¹³ This analysis has a problem with respect to the passivization phenomena that we have observed in section 4.1. It is not obvious how accusative subjects can become subjects of passivized matrix verbs if their movement into the matrix clause is an instance of scrambling, which is A'-movement in Buryat. The passivization (A-movement) cannot follow scrambling (A'-movement) because of the ban on improper movement (Fukui 1993). However, this problem seems to disappear if we assume that a single position can simultaneously have both A- and A'-properties (Wurmbrand 2016). This was in fact claimed for Dinka: in (van Urk 2015) it is argued that A- and A'-properties are derived not from syntactic positions, but from the properties of the head's features.

If we assume that there is a monster operator in CPs (as has been proposed in the previous work on indexical shifting, (Anand & Nevins 2004), (Sudo 2012), (Podobryaev 2014), (Shklovsky & Sudo 2014) et al.) that shifts the interpretation of indexicals in its c-commanding domain, then accusative subjects have to obligatorily move to a position above this operator, while the nominative subjects remain below it, (84)-(85). Note that if this movement was optional, accusative subjects would be able to have both shifted and non-shifted interpretations, contrary to the fact.

- (84) Sub_m [_{CP} Sub_{ACC} [...[☹]... [_{Sub_{ACC}} DO_e V_e]]] V_m
 (85) Sub_m [_{CP} [...[☹]... [(_{Sub_{NOM}}) DO_e V_e -AGR]]] V_m

The fact that accusative subjects undergo obligatory movement to the left periphery of embedded clauses, however, does not on its own provide an answer to the question of why we find ACC/NOM and ACC/GEN alternations in the first place. We cannot argue that this movement takes place in order to escape the monster operator, because accusative subjects are found in clausal nominalizations which do not have the monster operator and do not exhibit indexical shifting at all. What is it then that makes some subjects raise to the clause boundary? If they move there for case reasons, what prevents them from getting nominative or genitive case in the positions below?

I propose that the answers to these questions lie in the nature of the feature transmission mechanism: I argue that the optional feature transmission mechanism that was proposed in (Takeuchi 2010) for Japanese and Turkish can account for Buryat accusative subjects as well. I adopt the Chomsky (2008)'s proposal that only phase heads (C° , v° , probably, D° (Ott 2009), (Dikken 2007)) come equipped with phi-features into the derivation. On this view, T° , for example, can become a probe for nominative case checking only by inheriting phi-features from C° . The main claim is that the transmission of features from the phase head to the head of its complement can sometimes be optional: when the features get transmitted, subjects of embedded clauses are able to get nominative or genitive case in a lower position; when the feature transmission does not occur, subjects have to undergo movement to the left periphery of their clause and get accusative case.

At first I will show how this mechanism works with CP clauses. I assume CPs to be phases, so C° comes into the derivation equipped with the uninterpretable phi-features. When the phi-features are transmitted from C° to T° , the subject of the embedded clause undergoes movement to Spec, TP and receives nominative marking. No further movement is necessary since the needs of all the elements in the embedded clause have been satisfied: the uninterpretable features on T° have been successfully marked for deletion, and the subject has received case. When, however, the phi-features are not transmitted, they remain on C° . Since these features still have to be deleted, C° becomes a probe for Agree itself: it attracts the subject to its specifier and agrees with it. However, unlike T° , C° cannot value case on noun phrases, so the subject does not get case through its interaction with C° . The noun phrase that has not received case is still visible for probes, and, being at the edge of a phase (CP), it is visible to the matrix V° which (having itself inherited phi-features from the matrix v°) values it accusative.

A natural question for this account is whether there is some independent evidence for the absence of feature transmission between C° and T° . I suggest that there is: there is no person agreement between the embedded verb and the accusative subject:

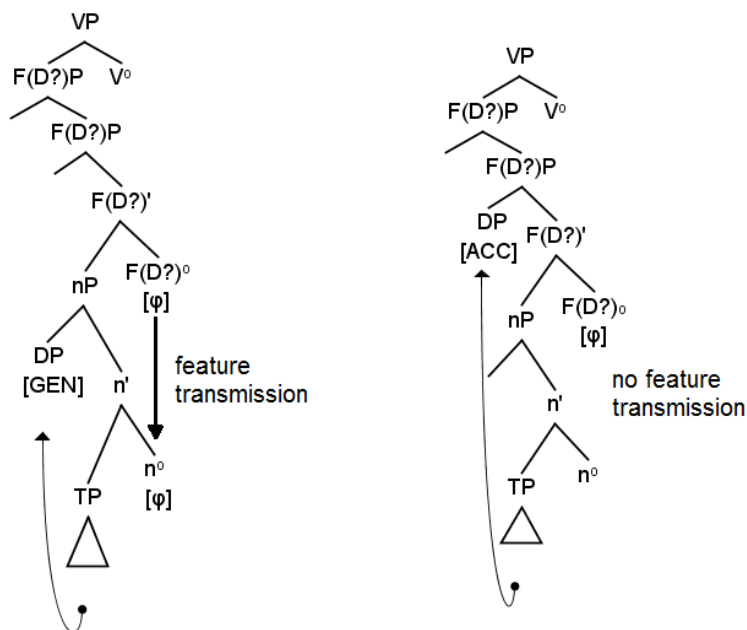
- (86) *sajəṇə **namejə** tɜrgə ɜmdəl-3-b gɜʒə mɜd-3
 Sajana **1SG.ACC** cart break-PST-1SG COMP know-PST

Expected reading: 'Sajana knows that I broke the cart'

I would like to propose a similar analysis for accusative subjects of nominalizations (88):

(88) **Nominalizations: the optional feature transmission analysis**

bi tumən-e / tumən-ijə xoni bari-žə bε:-h-ijə xar-a-b
 1SG Tumen-GEN / Tumen-ACC sheep slaughter-CONV be-NMN-ACC see-PST-1SG
I saw that/ how Tumen slaughtered a sheep



I do not know of any evidence for or against the presence of DP in Buryat nominal phrases, so I take F(D?) to be the highest functional projection in the make-up of Buryat nominals.¹⁵ The main idea of the analysis remains the same: the highest functional projection (F(D?)P) of the nominalization, just like CP in a finite clause, comes equipped with phi-features into the derivation, and these features can be optionally transmitted to a lower nominalizing head. This idea is not novel: for example, Tomizawa (2015) proposes that phi-features are transmitted from D° to n°. When the features are transmitted, the subject undergoes movement to Spec, nP and receives genitive case. This is consistent with the fact that genitive possessors are not the highest

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- | | | | | |
|-----|--|----------------|-----------|---------|
| i. | *ö:rin-gö | bagšə | təɾən-ijə | xar-a |
| | POSS.self-REFL | teacher | he-ACC | see-PST |
| | <i>The expected reading: 'His_i teacher saw him_i'</i> | | | |
| ii. | *təɾən-ijə | ö:rin-gö | bagšə | xar-a |
| | he-ACC | POSS.self-REFL | teacher | see-PST |
| | <i>The expected reading: 'Him_i his_i teacher saw_i'</i> | | | |

Thus, some other diagnostics for the A – vs – A' status of the landing site should be found for Buryat.

However, if we take A- and A'- properties to originate from the features of heads and not from positions (as proposed in (van Urk 2015)), this additional assumption is not required.

¹⁵ Note that the highest functional projection in the make-up of nominalizations has to be some sort of boundary. We cannot maintain the analysis that nominalizations are just transparent for matrix clauses (for example, NPs), because they, for example, constitute a binding domain. If they were indeed transparent, we would expect reflexives inside nominalizations to be able to be bound by matrix arguments, which is not the case.

elements in Buryat nominal phrases, and hence, do not occupy the specifier of F(D?)P: for example, demonstratives precede them (89).

- (89) 3nə šini nūxər
 this 2SG.GEN friend
 lit.: 'this your friend'

When the features are not transmitted, the subject undergoes movement to the Spec, F(D?)P where it is able to receive accusative case from the matrix verb.

Unfortunately, no evidence of the absence of feature transmission in nominalizations can be found. The nature of agreement between possessors and nominal heads in Buryat is very different from the agreement in finite clauses. Possessive markers are always optional on nominals, and this optionality also holds when they occur on nominalizations (90): both nominalizations with genitive and with accusative subjects may appear with or without possessive markers.

- (90) badmə **mini** /**naməjə** hü abə-h-ijə-(**mni**) mɜd-ɜ
 Badma **1SG.GEN** /**1SG.ACC** milk take-NMN-ACC-(**1SG**) know-PST
 Badma saw that/how I bought milk.

Further research on the functional structure of nominalizations and nominals in Buryat is required in order to make the analysis of accusative subjects in nominalizations more precise. New information on the existence of DPs, location of genitive and accusative subjects with respect to other elements of the noun phrase and the distribution of possessive markers will be crucial for testing the viability of the optional feature transmission analysis for nominalizations. Note, however, that any analysis has to capture the fact that accusative subjects in nominalizations and CPs behave identically with respect to the range of phenomena discussed in the previous sections. If different mechanisms were to account for accusative case assignment to subjects of CPs and nominalizations, then all the similarities between ECM in CPs and nominalizations would have to be purely accidental.

The proposed analysis might also evoke the following question: if accusative subjects are indeed located in Spec, CP/ Spec, F(D?)P positions, why can temporal adverbs of embedded clauses precede them ((78)-(80))? I suggest that these adverbs themselves undergo movement to the left periphery of embedded clauses due to topicalization. This hypothesis is based on the observation that temporal adverbs cannot be marked by a focus particle when they precede accusative subjects. This is illustrated in (91)-(92) for CPs and in (93)-(94) for nominalizations.

- (91) ???bi **üsəgəldər-lə** badm-ijə bɜʃəg bɜʃ-ɜ gɜʒə mɜdə-nə-b
 1SG **yesterday-FOC** Badma-ACC letter write-PST COMP know-PRS-1SG
 The expected reading: 'I know that YESTERDAY Badma wrote a letter'
- (92) bi badm-ijə **üsəgəldər-lə** bɜʃəg bɜʃ-ɜ gɜʒə mɜdə-nə-b
 1SG Badma-ACC **yesterday-FOC** letter write-PST COMP know-PRS-1SG
 I know that YESTERDAY Badma wrote a letter
- (93) ???bi **üsəgəldər-lə** badm-ijə bɜʃəg bɜʃə-h-ijə-n' mɜdə-nə-b
 1SG **yesterday-FOC** Badma-ACC letter write-NMN-ACC-3 know-PRS-1SG
 The expected reading: 'I know that YESTERDAY Badma wrote a letter'

- (94) bi badm-ijə **üsəgəldər-lə** bʰšəg bʰšə-h-ijə-n' mɛdə-nə-b
 1SG Badma-ACC **yesterday-FOC** letter write-NMN-ACC-3 know-PRS-1SG
I know that YESTERDAY Badma wrote a letter

There exists a similar contrast with a modifier *üsəgəldəre* ‘yesterday’s’ in the nominal phrase:

- (95) badmə sajən-in **üsəgəldəre-lə** du:-jə-n' du:l-a
 Badma Sajana-GEN **yesterday’s-FOC** song-ACC-3 hear-PST
Badma heard Sajana’s YESTERDAY’S song
- (96) badmə **üsəgəldəre-(*lə)** sajən-in du:-jə-n' du:l-a
 Badma **yesterday’s-(FOC)** Sajana-GEN song-ACC-3 hear-PST
Badma heard Sajana’s YESTERDAY’S song – acceptable only without the focus particle and focus reading

If this modifier precedes the genitive possessor, it cannot be marked by the focus particle (96). This supports the idea that nominals in Buryat have some position at their left periphery that is designated for topicalized phrases.

Thus, temporal adverbs in Buryat can undergo topicalization and move to the left periphery of CPs and nominalizations. I propose that their landing site and the landing site of accusative subjects are equidistant from the phase border, therefore accusative subjects are still considered being at the edge of the embedded clause even when temporal adverbs precede them.

6 Conclusion

In this paper I have investigated the phenomenon of ECM in Buryat CPs and nominalized clauses. I have shown the following properties of Buryat accusative subjects in embedded contexts. First, there is a correlation between accusative marking on subjects of embedded clauses and the ability of the matrix verb to assign accusative case. Second, accusative subjects are generated inside embedded clauses. Third, accusative subjects may undergo movement into the matrix clause, but they do not *have* to move there. Accusative subjects can be inside the embedded clause and be accessible from the matrix clause at the same time. These properties led me to proposing the optional raising analysis for ECM in Buryat along the lines of (Takeuchi 2010).

Other analyses of ECM cannot capture all the properties of accusative subjects in Buryat. Dependent case (Baker & Vinokurova 2010) and differential case marking (von Heusinger, Klein & Guntsetseg 2011) approaches overlook the correlation between the possibility of accusative subjects and the transitivity of the matrix verb. ECM/CP pruning analyses ((Chomsky 1981), (Kitagawa 1985) et al.) run into the problem that there is no evidence for CP reduction and for transparency of embedded clauses. The obligatory raising analyses ((Postal 1974), (Kuno 1976), (Tanaka 1992), (Yoon 2007), (Kawai 2006) et al.) do not account for the fact that accusative subjects can remain inside embedded clauses (as the evidence from proform substitution, coordination and adverb placement suggests). Base-generation /prolepsis /extra-NP analyses ((Saito 1983), (Hoji 1991), (Takano 2003) et al.) are incompatible with the fact that adverbs that precede accusative subjects can modify the embedded clause, as well as with the

impossibility of overt pronoun insertion and evidence from idioms, PBC and binding phenomena.


To sum up, only the optional raising analysis can account for all the properties of Buryat accusative subjects. Under this analysis, accusative subjects are generated inside the embedded clause and then obligatorily raise to its left periphery, where they are visible to the matrix clause and receive accusative case from the matrix verb. From this position they may undergo further scrambling into the matrix clause, but this scrambling movement is optional. The ACC/NOM and ACC/GEN alternations are taken to reflect the optional feature transmission mechanism: when the uninterpretable phi-features are transmitted from the phase head to the head of its complement, the subject of the embedded clause receives nominative or genitive case in the specifier of a designated head (T/n). When the features fail to be transmitted and remain on the phase head, the subject is attracted to the specifier of this phase head (C/F(D?)) in order to agree with it, becomes visible to the matrix verb and gets accusative case from it.

There remain many important questions that I have not touched upon in this paper. One of such questions is whether accusative subjects in Buryat are always topics, as it has been claimed, for example, for Turkish (Şener 2008).¹⁶ Investigation of this issue might lead to the better understanding of the functional make-up of the left peripheries of embedded clauses and provide some insights with respect to existence and relevance of A- vs A' - properties of the Spec, CP and its counterpart in the nominal domain.

Notation conventions

1, 2, 3	– 1 st , 2 nd , 3 rd person
SG	– singular
PL	– plural
NOM	– nominative
ACC	– accusative
GEN	– genitive
DAT	– dative
INSTR	– instrumental
ABL	– ablative
REFL	– reflexive
POSS.self	– possessive anaphor
PST	– past tense
PST2	– past tense 2
PRS	– present tense
FUT	– future tense
PFCT	– perfect
PFV	– perfective
LIM	– limitative converb
CONV	– converb
COMP	– complementizer
NMN	– nominalization
PASS	– passive
CAUS	– causative
TOP	– topic

¹⁶ For other accounts of ECM in Turkish see (Kornfilt 1977) and (Zidani-Eroğlu 1997).

FOC	– focus
CONJ	– conjunction
PTCL	– particle
NEG	– negation
Q	– question
	– monster operator

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