Backward Control in Tsez

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1. Introduction

In a well-known paper, Perlmutter (1970) documents two uses of the English verb *begin*. In the first, *begin* is a raising verb with a non-thematic subject, participating in derivations exemplified by (1a, b). In the second use, *begin* is a transitive verb with an external argument, (2).

(1) a. There began [t₁ to be a riot]
b. The shit began [t₁ to hit the fan]
(2) Sam began the job.

In this paper, we will examine the corresponding verb in Tsez, a minority language of the Caucasus. The Tsez aspectual verb *-oqa‘begin’ also evidences two uses. The first is as a raising verb:

(3) kidᵢ [tᵢ ziya bišra] yoqsi
girl.ABS cow.ABS feed.INF began
‘The girl began to feed the cow.’

This use of *-oqa‘begin’ shows all the expected properties of a raising verb with a non-thematic subject and English-like derivation and we will not be concerned with it here (see Polinsky to appear). (4a) illustrates a second use of *-oqa‘begin’.

1. Here and below, the following abbreviations are used: ABS—absolutive, BC—Backward Control, DAT—dative, ERG—ergative, EVID—evidential, INF—infinitive, INTERR—interrogative, OC—Obligatory Control, REFL—reflexive, VAL—validator.

A closer examination of (4a) reveals that it has a number of intriguing properties. We will argue that it represents a control construction and not a raising construction. More surprisingly, we argue that (4a) exhibits an unusual pattern of BACKWARD CONTROL (BC): a biclausal configuration in which the subject of the embedded clause is pronounced and the matrix subject is a thematic coindexed empty category (EC), as schematized in (4b). This phenomenon has important consequences for current theories of Obligatory Control (OC).

The paper is structured as follows. Section 2 introduces our analysis of (4) and Sections 3 through 5 present syntactic evidence for the structure. Section 6 summarizes our finding that -oqa is a Backward Subject Control verb. Sections 7 and 8 then consider analyses of BC within the Principles and Parameters (P&P) and Minimalist frameworks. We argue that BC is ruled out in a PRO-based P&P approach but can be accommodated under Minimalist assumptions with Hornstein’s (1999) movement analysis of Control. Section 9 summarizes the main issues.

2. Morphosyntactic preliminaries

Tsez is an unwritten language of the Nakh-Daghestanian family, spoken in the northeast Caucasus. The language is head-final and the preferred word order is SOV. Tsez is morphologically ergative: the subjects of transitive verbs are in the ergative case and subjects of intransitive verbs and direct objects are in the absolutive case. A verb obligatorily agrees in noun class with its absolutive argument. The noun class of the absolutive NP (glossed by a Roman numeral) is marked by one of the agreement prefixes in (5).

(5) class singular plural
   I ø- b- male human
   II y r- female human and some inanimates
   III b- r- animals and some inanimates
   IV r- r- inanimates including clauses

With this morphosyntactic background, let us now return to the example in (4), glossed more fully in (6).

(6) kid- bà ziya b-iš- a y- oq- si
    girl. II-ERG cow. III.ABS III-feed-INF II-begin-PAST.EVID
    ‘The girl began to feed the cow.’

Given that Tsez verbs agree only with absolutive NPs, the bold-faced agreement in (6) between the verb yoqsi ‘began’ and the ergative argument kidbā ‘girl’ is surprising. This unusual agreement pattern can have two analyses: i) the Tsez verb -oqa is exceptional in that it shows agreement with an ergative NP or ii) the ergative NP is not the actual agreement trigger, rather, -oqa is agreeing with a silent absolutive argument in its own clause. Under the first account, the structure is (7a) and we require the apparently unmotivated stipulation that -oqa agrees with its ergative subject. Under the second account, -oqa shows the canonical absolutive agreement.

The verb –iča ‘continue’ has the same syntax as -oqa.

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2. The verb –iča ‘continue’ has the same syntax as -oqa.
agreement pattern but takes an empty category subject which is coindexed with the ergative NP in the embedded clause. This is schematized in (7b).

(7) a. \[ \text{kidbō}_{i} \] \[ \text{EC}_{i} \] \[ \text{ziya} \] \[ \text{bišra} \] \[ y-oqsī \] girl.ERG cow.ABS feed.INF Īl-began
   b. \[ \text{EC}_{i} \] \[ \text{[kidbō}_{i} \] \[ \text{ziya} \] \[ \text{bišra} \] \[ y-oqsī \] girl.ERG cow.ABS feed.INF Īl-began

   ‘The girl began to feed the cow.’

The central claims of the second analysis, (7b), are in (8). Sections 3 through 5 show that each has independent empirical support. We thus conclude that the empty category proposal is preferable independent of the agreement pattern that motivates it.

(8) a. -oqa has a thematic subject
   b. the logical subject of complement verb remains in lower clause
   c. the subject of -oqa is a coindexed empty category

3. Thematic subject

Two general observations support the claim in (8a) that the subject of -oqa is thematic. First, the overt NP cannot be an idiom chunk. Example (9a) illustrates an idiomatic expression with an ergative subject. As (9b) shows, the ergative idiom chunk is ungrammatical with -oqa.

(9) a. t’ont’ohā buq bac’xo
    darkness.ERG sun.ABS eat.PRESENT
    ‘The sun has eclipsed.’ (lit. “Darkness eats the sun.”)
   b. * t’ont’ohā buq bac’a baq
    darkness.ERG sun.ABS eat.INF begin.FUTURE
    (‘The sun will begin to eclipse.’)

Second, -oqa is incompatible with inanimate subjects, as shown by (10b). This incompatibility follows on the assumption that -oqa has a thematic subject and imposes selectional restrictions.

(10) a. hacā nesis xot’o žek’si
    door.ERG his foot.ABS hit.PAST.EVID
    ‘The door hit his foot.’
   b. *hacā nesis xot’o žek’a yāq
    door.ERG his foot hit.INF begin.FUTURE
    (‘The door will begin to hit his foot.’)

Polinsky (to appear) discusses additional straightforward restrictions of this sort and we thus conclude that -oqa ‘begin’ assigns a semantic role to its subject.

4. Position of the overt subject

The second and most interesting claim of our analysis, (8b), is that the overt subject in (6) is actually in the embedded clause. In this way, (6) differs markedly from the more familiar control construction. Four arguments support this claim.
First, the case of the overt subject is determined by the embedded predicate. If the embedded verb is intransitive, only absolutive case appears. With two-place verbs, the case of the subject is lexically governed and can be ergative, (11a), or, for some verbs, dative, (11b):

(11) a. [kidbā ziya bišra] yoqsi
    girl.ERG cow.ABS feed.INF began
    ‘The girl began to feed the cow.’

    b. [kidber hisab bičzi boqa] yoqsi
    girl.DAT math.ABS understand.INF began
    ‘The girl began to understand math.’

The second argument comes from scrambling. We have proposed elsewhere that Tsez scrambling is clause-bound (Polinsky and Potsdam to appear). In particular, NPs cannot scramble out of infinitival clauses. This correctly predicts that the ergative NP in (12a) cannot scramble into the matrix clause. (12b) is ungrammatical.

(12) a. hu. [kidbā ziya bišra] yoqsi
    yesterday girl.ERG cow.ABS feed.INF began
    ‘Yesterday the girl began to feed the cow.’

    b. * kidbā hu. [ziya bišra] yoqsi
    girl.ERG yesterday cow.ABS feed.INF began
    ‘Yesterday the girl began to feed the cow.’

Furthermore, as (13b, c) show, the entire infinitival clause can scramble as a unit, indicating that it is a single constituent containing the overt subject.

(13) a. hu. [kidbā ziya bišra] yoqsi
    yesterday girl.ERG cow.ABS feed.INF began
    ‘Yesterday the girl began to feed the cow.’

    b. hu. yoqsi [kidbā ziya bišra]
    yesterday began girl.ERG cow.ABS feed.INF
    ‘Yesterday the girl began to feed the cow.’

    c. [kidbā ziya bišra] hu. yoqsi
    girl.ERG cow.ABS feed.INF yesterday began
    ‘Yesterday the girl began to feed the cow.’

The third argument showing that the logical subject of the complement clause is in that clause comes from the interpretation of temporal adverbials such as uyrax ‘four times’. When following the overt subject, such an adverbial has an unambiguous interpretation modifying the embedded verb. Thus, (14a) can only mean that the girl started four feedings of the cow—in other words, uyrax ‘four times’ must be interpreted with the feeding event. In contrast, (14b) is structurally ambiguous and could either mean that there were four feedings (the adverbial is interpreted with the embedded verb) or four beginnings (the adverbial is interpreted with -oqa ‘begin’).

(14) a. [kidbā uyrax ziya bišra] yoqsi
    girl four times cow feed began
    ‘The girl began to feed the cow four times.’ (four feedings)

    * ‘The girl began four times to feed the cow.’ (four beginnings)

    b. uyrax kidbā ziya bišra yoqsi
    four times girl cow feed began
    ‘The girl began four times to feed the cow.’ (four feedings)

    ‘The girl began four times to feed the cow.’ (four beginnings)
The final argument comes from clitic placement. Tsez has a second-position validator clitic -uy which agrees with the absolutive NP:

\[(15) \quad (*\text{buy}) \text{kidbā} \text{ b-uy ziya} \quad (*\text{buy}) \text{bišersi} \]
\[
\text{VAL girl.ERG III-VAL cow.III.ABS VAL III.fed}
\]
\[\text{‘The girl did indeed feed the cow.’}\]

Crucially, -uy is limited to root clauses, accounting for the ungrammaticality of (16a) in which (15) is embedded. Example (16b) shows that, even when -uy is superficially in second position, the placement of the clitic in an embedded clause still renders the sentence ungrammatical.

\[(16) \quad \text{a. enir } [\text{kidbā (*buy) ziya bišra}] \text{ retix} \]
\[
\text{mother girl VAL cow feed wants}
\]
\[\text{‘The mother wants the girl to (*indeed) feed the cow.’}\]
\[
\text{b. paprus (*ryu) λipiža} \quad [\text{žuka yolo}] \text{ cigarette VAL smoke.INF bad is}
\]
\[\text{‘To (*indeed) smoke is harmful.’}\]

If the overt subject in our structure is in the embedded clause, it should not be able to precede the validator clitic. This prediction is confirmed by (17a). In addition, the entire infinitival clause can be followed by -uy as long as the second-position constraint is met, (17b). The data confirm that the overt subject is in the infinitival clause, which is a single constituent. Based on this evidence, we conclude that the logical subject of the embedded clause remains in that clause.

\[(17) \quad \text{a. } [\text{kidbā (*buy/yuy) ziya bišra}] \text{ yoqsi} \]
\[
\text{girl VAL cow feed began}
\]
\[\text{‘The girl began to (*indeed) feed the cow.’}\]
\[
\text{b. } [\text{kidbā ziya bišra}] \text{ yuy yoqsi} \]
\[
\text{girl cow feed VAL began}
\]
\[\text{‘The girl indeed began to feed the cow.’}\]

5. Empty category subject of -oqa

Let us now turn to the third component of our proposal, (8c), that -oqa ‘begin’ has an empty category subject:

\[(18) \quad \text{EC}_1 [\text{kidbā ziya bišra}] \text{ yoqsi} \]
\[
\text{EC.II.ABS girl.II.ERG cow feed II.began}
\]
\[\text{‘The girl began to feed the cow.’}\]

There are also several compelling arguments in support of this conclusion. The first comes from agreement, which motivated the proposal in (8). As we said earlier, agreement in Tsez is invariably with the absolutive NP. If there is an absolutive empty category in the matrix clause, the agreement is straightforwardly accounted for.

The second argument in favor of an empty category subject comes from reflexive binding. (19a, b) illustrate that Tsez reflexives are strictly local and cannot be bound from a lower clause (see also Comrie 2000).
(19) a. enir etin [užä, nesă nesir, yutku roda] mother wanted boy.I.ERG REFL.I.DAT house build.INF
    ‘The mother wanted the boy to build a house for himself.’
b. *enir nesă nesir, etin [užä, yutku roda] mother REFL.I.DAT wanted boy.I.ERG house build.INF

If there were no empty category subject, the reflexive in the grammatical example in (20) should also be illicit, parallel to (19b). The well-formedness of (20) thus supports the existence of the empty category.

(20) ECi nesă nesir, ø-oqsi [yesi žek’ä, yutku roda] REFL.I.DAT I-began this man.I.ERG house make
    ‘The man began for himself to build a house.’

The third argument for the presence of an empty category comes from question formation. As shown by (21a, b), objects and adjuncts in the infinitival complement of -oqa can be questioned:

(21) a. kidbä šebi bišra yoq-ø girl what.ABS feed begin-PAST.INTERR
    ‘What did the girl begin to feed?’
b. kidbä ziya neti bišra yoq-ø girl cow when feed begin-PAST.INTERR
    ‘When did the girl begin to feed the cow?’

The embedded subject cannot be questioned however, (22a). This contrast can be accounted for by the presence of an empty category as follows. The Logical Form of the subject question in (22a) is (22b) after covert movement of the ergative wh-subject to a clause-peripheral scope position. (22b) is a strong crossover configuration (Condition C violation) in which the variable left behind by wh-movement is illicitly bound by the empty category. Consequently, (22a) is correctly predicted to be ungrammatical.

(22) a. *λu ziya bišra yoq-ø who.ERG cow feed begin-PAST.INTERR
    (*‘Who began to feed the cow?’*)
b. [CP λu [IP ECi [t_i ziya bišra] yoqä]] who.ERG cow feed began

A final argument comes from the interpretation of depictives. Depictives such as sìxolì ‘alone’ restrict an NP which must be to the left of the depictive. (23a) is ambiguous because there are two NPs to the left of the depictive that it could modify. (23b) in contrast is unambiguous. Crucially, (23c) is ungrammatical because there is no NP to the left of the depictive for it to restrict.
Unlike (23c), (24) with -oqa and a clause-initial depictive is well-formed. The contrast between (23c) and (24) follows if we recognize an empty category to the left of the depictive, as shown. This empty category supports the depictive. As a result, the sentence is grammatical and the depictive is interpreted as modifying only the coindexed embedded subject kidbä ‘girl’.

(24) ECı sixsolı [kidbä ziya biʃra] yoqsi alone girl.ERG cow.ABS feed.INF began
    ‘The girl alone began to feed the cow.’

To conclude, agreement, reflexive binding, depictive orientation, and question formation facts argue for the presence of an empty category subject of -oqa ‘begin’ (see Polinsky to appear for additional argumentation).

6. Backward Subject Control

The structure that we have argued for is repeated in (25):

(25) ECı [kidbä ziya biʃra] yoqsi
    EC.II.ABS girl.II.ERG cow feed II.began
    ‘The girl began to feed the cow.’

(25) resembles the English Obligatory Control (OC) structure in (26) in that it is a biclausal structure in which the two subject arguments are coindexed and one is non-overt.

(26) Johnı tried [ECı to leave]

Indeed, the parallel is remarkably complete in that the -oqa ‘begin’ structure evidences two further characteristics of OC: i) the coindexed interpretation is obligatory, and ii) the empty category does not alternate with an overt NP. The options in (27) are ungrammatical, supporting characteristic i):

(27) *pro/uʒi/uʃa[kidbä ziya biʃra] oqsi
    pro/boy.ABS/boy.ERG girl cow feed began
    (‘He/the boy began to have the girl feed the cow.’)

In addition, the empty category of (25) does not alternate with an overt NP:

3. The limits of the paper do not allow us to discuss whether or not the empty category might be an expletive. The depictive facts suggest that this proposal is untenable since expletives do not support a depictive.
The non-canonical property of -oqa is that the hierarchical relationship between the overt NP and the empty category is reversed in comparison to the OC structure in (26). The higher NP controller is obligatorily non-overt. For this reason, we refer to this structure as Backward Control, in contrast to Forward Control. Thus, -oqa is a Backward Subject Control verb.4

In the next two sections we explore possible analyses of BC within Principles and Parameters theory (section 6) and the Minimalist Program (section 7).

7. A Principles and Parameters analysis

The fundamental theory-internal question in the analysis of BC concerns the identity of the empty category. Within P&P, the empty category subject in Control structures is PRO, as illustrated in (29). Accordingly, the Tsez BC structure in (25) receives the analysis in (30).

(29) Johni tried [PROi to leave]

(30) PROi [kidbāi ziya bišra] yoqsi
girl.ERG cow.ABS feed began

The PRO analysis of OC is driven and regulated by the following theoretical assumptions (following Chomsky and Lasnik 1993):

(31) a. each contentful NP receives exactly one θ-role and each θ-role is assigned to exactly one contentful NP (Theta Criterion)

b. PRO must be bound for a referential interpretation

c. PRO is assigned Null Case

The presence of PRO is required by the Theta Criterion, (31a). Since the number of contentful NPs must equal the number of θ-roles, a distinct NP is required in the embedded clause to receive the external θ-role of the embedded verb. Control Theory governs the interpretation of PRO. PRO must have a c-commanding antecedent to receive a referential interpretation. Thus (31b) accounts for the interpretation of (29) in which John is the agent of both try and leave. We assume that when PRO has no c-commanding antecedent the arbitrary interpretation of PRO occurs (PROarb). Finally, Case Theory restricts the distribution of PRO. According to (31c), PRO bears Null Case. PRO does not alternate with an overt NP and occurs in limited positions because only it is capable of bearing Null Case.

The structure in (30) is incompatible with these assumptions. First, the agreement facts discussed above indicate that the empty category in (30) is assigned absolutive Case, not Null Case. Maintaining assumption (31c)

would deprive the analysis of the ability to account for the basic agreement pattern. The second problem concerns (31b). PRO is not bound in (30) but it nevertheless requires the coindexed interpretation. The arbitrary interpretation (*Someone began to have the girl feed the cow) is impossible for (30). (32) illustrates that the arbitrary interpretation of PRO is otherwise available in Tsez:

(32)  
\[
\begin{align*}
\text{PRO}_{arb} & \text{ paprus } \lambda \text{is-a} \quad \text{žuka yōλ} \\
\text{cigarette smoke-INF bad } & \text{is}
\end{align*}
\]

‘To smoke is harmful.’

A final difficulty with the structure in (30) is that it instantiates a Condition C violation. The r-expression kidbā ‘girl’ is not free. Nonetheless, the example is grammatical.

These arguments indicate that the PRO analysis of BC is untenable. Since none of the arguments is particular to Tsez, they indicate that P&P theory quite generally rules out the possibility of BC, predicting that BC should not exist in natural language. At this point, there are two possibilities. First, we could admit that we have misanalyzed the Tsez construction. Although this is always a possibility, we believe that our interpretation of the facts in sections 3 through 6 is too compelling and cohesive to discount. The second possibility is to modify the theoretical apparatus. A number of researchers working within the Minimalist paradigm have taken up this task quite independently of our concerns. In the next section we explore Hornstein’s (1999) Minimalist reinterpretation of OC and suggest that it more readily permits the existence of BC.

8. A Minimalist analysis

8.1. Forward Control

Hornstein 1999 rejects the P&P analysis of OC inherent in (31) on conceptual and empirical grounds. In its place he develops a Minimalist alternative which reduces OC to movement (see also the proposals in O’Neil 1995 and Manzini and Roussou 1999). His analysis, which we lay out here, relies on the Minimalist assumptions in (33).

(33) a. movement is driven by feature checking
   b. features can be strong or weak
   c. \( \theta \)-roles are features
   d. an NP “receives” a \( \theta \)-role by checking the \( \theta \)-feature of a verb that it merges with
   e. there is no upper bound on the number of \( \theta \)-roles a chain can have

(no Theta Criterion)

(33a, b) follow Chomsky 1995 and much Minimalist Program work in taking feature checking as the force behind movement. Movement operations are driven by the need to check grammatical features. Since languages differ with respect to whether movement takes place overtly or covertly, Chomsky divides features into two types: strong and weak. Strong features must be checked prior to Spell-Out because they are illegitimate PF objects and cause a derivation to crash. Elements bearing
strong features thus move overtly. Weak features are in some sense “invisible” at the PF interface and do not cause the derivation to crash. The economy principle Procrastinate thus demands that weak features will be checked as late as possible in the derivation and elements bearing weak features move covertly (Chomsky 1995:chapter 3, and Lasnik 1999 for insightful discussion).

In order to implement θ-role assignment, Hornstein 1999 adopts the proposal that θ-roles are features, (33c). A noun phrase is assigned a θ-role by checking the corresponding θ-feature of the predicate, (33d). In part following other work (Brody 1993, Bošković 1994, Chomsky 1995), Hornstein eliminates the P&P Theta Criterion, (31a), as non-Minimalist. Eliminating the Theta Criterion removes the stipulation that a contentful NP bears exactly one θ-role. Under Minimalist assumptions, an NP is now permitted to bear more than one θ-role. This can be achieved by movement into a θ-position, an operation that was also impossible under P&P assumptions. Under Hornstein’s analysis, the English Forward Control example in (34) receives the derivation in (35), where traces are shown as copies. Relevant checked features are shown below the DPs.

(34) Sue hopes to leave.

(35) [TP Sue [VP Sue hopes [TP Sue to [VP Sue leave]]]]

The derivation in (35) proceeds from right to left as follows. First the NP Sue merges with the embedded verb leave and checks its external θ-role feature. Sue then moves to the embedded subject position to check the strong D-feature of infinitival $T^\circ$, satisfying the EPP. The novel part of Hornstein’s analysis is that the NP then moves into the matrix clause, first to the specifier of the matrix VP to check hope’s external θ-role feature, and then to the matrix spec,TP to satisfy the EPP there and to check Case.

8.2. Backward Control

The movement analysis of OC provides an interesting account of the pattern that we have documented. The BC structure that we need to account for is repeated in (36).

(36) EC [kidbā ziya bišra] yoqsi
     EC.II.ABS girl.II.ERG cow feed II.began
     ‘The girl began to feed the cow.’

Our crucial assumption for obtaining the BC pattern is given in (37). The distinction between Forward Control and Backward Control reduces to whether the control verb’s external θ-role is checked overtly or covertly.

(37) -oqa ‘begin’ has a weak external θ-role feature

The proposed derivation consists of two parts, the overt, pre-Spell-Out derivation in (38) and the covert, post-Spell-Out derivation in (39) below. The structures are shown with head-final projections and English words.

(38) [TP [VP [TP girl [VP girl cow feed] begin]]]

(39) [TP [VP girl [VP girl cow feed]] begin]
In the overt derivation, (38), the NP girl merges with the embedded V' *feed the cow* and checks the external θ-role feature of *feed*. It then moves to the embedded spec,TP to satisfy the EPP and check its ergative Case feature. There is no overt movement after this point. The infinitival clause then merges with the verb *begin* as its complement. Finally, T’ merges with the VP. Spell-Out applies (we will return to the unfilled matrix subject position, an apparent violation of the EPP, in the next section).

The covert derivation continues in (39).

(39) \[
\begin{array}{c}
\text{TP} & \text{girl} & [\text{VP} & \text{girl} & [\text{VP} & \text{girl cow feed}] & \text{girl begin}] & \text{CASE/EPP} & \text{CASE/EPP} & \theta_{\text{feed}} & \theta_{\text{begin}} \\
\end{array}
\]

Post-Spell-Out, the NP girl moves into the matrix clause. It first moves into the specifier of VP to check *begin*'s external θ-role feature. It then moves to spec,TP to satisfy the EPP. Given the agreement facts, it also checks absolutive Case (we discuss the apparent multiple Case checking in the next section). Assuming a copy theory of movement, we arrive at the LF in (40).

(40) \[
\begin{array}{c}
kidbä_i & [kidbä_i & ziya & bišra] & yoqsi & \text{girl.II.ABS} & \text{girl.II.ÉRG} & \text{cow} & \text{feed} & \text{II.began} \\
\end{array}
\]

This is fundamentally the desired structure in (36). Forward Control and Backward Control structures are identical at LF and differ only in where the overt NP is at Spell-Out. This suggests why the Tsez construction has all the properties of OC: it has the same derivation under Hornstein’s analysis once LF is taken into account. In the next subsection we more carefully step through the desirable consequences of the analysis.

### 8.3. Consequences

The movement analysis of BC accounts for the construction’s characteristics, repeated in (41). These properties are a consequence of *-oqa’s* weak θ-role.

(41) a. *-oqa* has a thematic subject
b. the logical subject of complement verb remains in lower clause
c. the subject of *-oqa* is a coindexed empty category

*Oqa* has a thematic subject, (41a), because it has an external θ-role feature, even though it is weak. This accounts for the idiom facts and selectional restrictions in section 3. At Spell-Out, however, *-oqa* has no structural subject. The NP that will come to check the external θ-role feature remains in the complement clause, (41b). This derives the surface-oriented syntactic observations in section 4 that show that the complement clause contains the overt subject at Spell-Out. At LF, *-oqa* does have a syntactic subject which can participate in LF syntax. This captures the additional syntactic facts in section 5: agreement, licensing of reflexives, and depictive interpretation are done at LF.5 The weak θ-role feature also accounts for the OC properties from section 6. First, an overt subject of *-oqa* and Forward Control are

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5. Dominique Sportiche points out that the strong crossover fact receives no explanation under this account.
impossible, (28), because a weak \( \theta \)-role feature must not be checked pre-Spell-Out according to Procrastinate. The subject of \(-oqa\) will thus never be overt. Second, the coindexed, control interpretation in (27) is required because no lexical material can be introduced during the covert derivation (Chomsky 1995: chapter 3). The weak \( \theta \)-role feature must be checked in the covert syntax by an NP that was merged into the derivation overtly. Lastly, the Condition \( C \) violation that was problematic for the PRO analysis in P&P does not arise because Condition \( C \) does not govern the distribution of members of a movement chain. We thus conclude that, despite other potential difficulties (Brody 1999), the movement analysis of Control is surprisingly successful in handling Tsez BC.

8.4. Unresolved issues

Two analytical issues remain unresolved from the movement analysis of BC: the apparent EPP violation in the subject position of \(-oqa\) and multiple Case checking on the raised NP. While we cannot solve these problems here, we would like to mention some potential approaches.

First, it is evident from the overt portion of the BC derivation that the subject position in the \(-oqa\) clause is unfilled at Spell-Out. This translates into an EPP violation, an unchecked strong D-feature of \( T˚ \). In order for the derivation to converge, this feature must be checked by some other means or a principled reason for why it is not strong, and need not be checked overtly, needs to be found. We will simply suggest a number of alternatives and leave the issue for future research: 1) following McCloskey 1996 and Alexiadou and Anagnostopoulou 1998, the verb \(-oqa\) is exceptional in being able to check the strong feature via movement to \( T˚ \) and so no XP movement to spec,TP is necessary, 2) if movement is a copy-and-delete strategy, then BC may have exactly the same derivation as Forward Control and differ only in that the lower rather than the higher copy is pronounced, 3) the specifier of TP position of the \(-oqa\) clause is filled by an expletive (but see footnote 3), and 4) there is no EPP in Tsez. The second complication in the above derivation is that the overt NP checks Case twice. It checks Case appropriate for the lower clause subject position, as is evidenced by the morphology, and then raises to the \(-oqa\) clause where it checks absolutive Case and triggers agreement on \(-oqa\). Multiple Case checking is not a phenomenon particular to the Tsez BC construction. Assuming that infinitivals in Tsez check Case on their subject, the Tsez raising and Forward Control constructions in (42) illustrate the same problem.

(42) a. kid\(_1\) [t\(_i\) ziya bišra] y-oqsi
girl.II.Abs cow.Abs feed.INF II-began
‘The girl began to feed the cow.’

b. kidbä\(\) [P\(_R\) ziya bišra] roži roy\(\)
girl.ERG cow.Abs feed.INF word made
‘The girl promised to feed the cow.’

Furthermore, multiple Case checking is documented in numerous other languages (see Bejar and Massam 1999 for an overview and analysis). We conclude that multiple Case checking is an orthogonal problem.
9. Conclusion

In this paper, we have argued that the Tsez verb -oqa ‘begin’ participates in a Backward Subject Control structure repeated in (43).

(43) EC [kidbā ziya biāra] yoqsi
  EC.II.ABS girl.II.ERG cow feed II.began
‘The girl began to feed the cow.’

A series of empirical arguments support the central claims of this structure: the subject of the embedded clause is overt and the subject of the verb -oqa ‘begin’ is a coindexed thematic empty category.

A central question raised by our proposal is whether syntactic theory should allow BC. If no, we suggested the Principles and Parameters framework (Chomsky and Lasnik 1993) rules it out. On the other hand, if our analysis of Tsez is on the right track then it argues for a syntactic theory that permits BC. We suggested that a Minimalist-based movement analysis of OC (Hornstein 1999) allows the construction. This is desirable if Tsez indeed instantiates the BC possibility.

Given that a Minimalist analysis permits Backward Control, a question arises as to why this pattern does not occur more often in natural languages. Although more work is needed to answer this question in full, we have two considerations to offer. First, a weak external θ-role feature (as in (37)) is ostensibly a marked option, which should limit BC’s cross-linguistic occurrence. Second, it is possible that other languages do have BC and it simply has not been documented. Aside from Tsez, we are aware of at least one other Nakh-Daghestanian language where BC is attested, Tsaxur (Kibrik 1999: 492-514). It is possible that the recognition of BC as a theoretical option would lead to its discovery in other languages.

References


