Overt Deixis and Covert Anaphor in Uyghur Attitude Reports

Xiang Li and Paul Portner

1. Introduction

In Kaplan's (1989) seminal work on indexicality, he suggests that the interpretation of indexical expressions such as *I* and *you* is strictly dependent on the *actual* context of utterance and cannot be manipulated by any intensional operators. However, Kaplan's conjecture encounters empirical challenges in cases of *indexical shift* (e.g., Schlenker 1999, Anand & Nevins 2004, Anand 2006, Sudo 2012, Shklovsky & Sudo 2014, Deal 2020). A notable example occurs in Uyghur finite embedded clauses, where the 1st-person nominative subject '*men*' and the corresponding verbal agreement must receive a shifted interpretation. Therefore, the sentence in (1) cannot mean, as its word-for-word translation does in English, that Ali said that the current speaker of the utterance left.

(1) Ali [men ket-tim] di-di.
Ali 1SG.NOM leave-PAST.1SG say-PAST.3SG
SHIFTED: ✓ 'Ali$_i$ said that he$_i$ left.'
NONSHIFTED: ✗ 'Ali said that I$_{speaker}$ left.' (Sudo 2012)

As a *pro*-drop language, Uyghur allows null subjects in both matrix and embedded clauses. Similar to the overt nominative subject in (1), the covert subject in Uyghur also undergoes obligatory shifting and triggers matching agreement on the embedded verb, as shown in (2).

(2) Ali [*pro* ket-tim] di-di.
Ali *pro* leave-PAST.1SG say-PAST.3SG
SHIFTED: ✓ 'Ali$_i$ said that he$_i$ left.'
NONSHIFTED: ✗ 'Ali said that I$_{speaker}$ left.'

Despite the observed similarities between the two elements, our previous research (Li & Portner 2023) has shown that the prevailing view, which posits the covert subject as parallel to its overt nominative counterpart, fails to account for their contrasting behaviors in sentences where two arguments are introduced, as exemplified in (3). In particular, the construction involving a shifted covert subject and an unshifted direct object in (3b) is unexpected if we consider the covert element to be the same as its overt nominative counterpart in (3a). Therefore, the covert subject and the overt nominative subject in Uyghur attitude reports should not be treated in the same way.

(3) a. Ali Aygül-ga [men seni jaxshi kör-imen] di-di.
Ali Aygül-DAT 1SG.NOM 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'
EXCEPTION TO ST: ✗ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes you$_{addressee}$.' (Sudo 2012)

* Xiang Li, Georgetown University, xl570@georgetown.edu. Paul Portner, Georgetown University, portnerp@georgetown.edu. We would like to thank all five Uyghur informants who shared their language, as well as two Finnish informants who provided valuable insights and intuition (all unreferenced examples are from them). We also extend our appreciation to Amy Rose Deal, Haoze Li, the audience and the reviewers of the 41st meeting of WCCFL for helpful discussion and feedback. All errors are our own.

 Proceedings of the 41st West Coast Conference on Formal Linguistics, ed. Nikolas Webster et al., 370-379. Somerville, MA: Cascadilla Proceedings Project.

b. Ali Aygül-ga [*pro* seni jaxshi kör-imen] di-di.
Ali Aygül-DAT *pro* 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'
EXCEPTION TO ST: ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes you$_{addressee}$.' (Sudo 2012)

In this paper, we aim to follow up on our previous work and further explore the nature of the Uyghur covert subject. We first provide a brief overview of our prior findings in section 2, focusing on two main approaches to indexical shifting in Uyghur. We highlight their limitations in accounting for all observed readings in (3). Inspired by previous work on null subject licensing in other Partial Null Subject (PNS) languages such as Finnish, we propose in section 3 that the Uyghur covert subject functions as an anaphor, which is controlled by the antecedent in the higher clause. A careful examination in section 4 shows that the control of 1st-person null subjects in Uyghur finite clauses is uniform and distinct in several crucial aspects when compared to the English control of PRO. This pattern aligns with the control of 3rd-person null subjects in typical PNS languages. Section 5 concludes and raises potential issues for future research.

2. Previous Accounts for Uyghur Indexical Shifting

In studying the Shift Together effects in Zazaki, where all shiftable indexicals within the attitude-context domain obligatory shift, Anand & Nevins (2004) propose that a context-shifting operator (OP$_\forall$) is selected which overwrites the context parameter of *all* indexicals within its scope with the intensional index parameter. Since Uyghur sentences with overt nominative subjects exhibit the same Shift Together effects, as seen in the data repeated in (4), we assume that the context-shifting operator OP$_\forall$ is present in Uyghur finite attitude reports and this operator is responsible for the shifted interpretation of indexicals. Nevertheless, violations of Shift Together effects in the second reading of (5) challenge this analysis, and two possible stipulations to explain the unshifted interpretation of the direct object are examined below.

(4) Ali Aygül-ga [OP$_\forall$ men seni jaxshi kör-imen] di-di.
Ali Aygül-DAT 1SG.NOM 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'
EXCEPTION TO ST: ✗ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes you$_{addressee}$.' =(3a)

(5) Ali Aygül-ga [?OP$_\forall$ *pro* seni jaxshi kör-imen] di-di.
Ali Aygül-DAT *pro* 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'
EXCEPTION TO ST: ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes you$_{addressee}$.' =(3b)

One notable analysis of Uyghur indexical shifting is proposed by Major (2022) who retains some ingredients from the analysis in Anand & Nevins (2004), but argues that the operator in Uyghur is selected only when the embedded subject is nominative. This proposal is motivated by the contrast in (6), where accusative indexical subjects, unlike their nominative counterparts, always remain unshifted.

(6) a. Ali [OP$_\forall$ men ket-tim] di-di.
Ali 1SG.NOM leave-PAST.1SG say-PAST.3SG
SHIFTED: 'Ali$_i$ said that he$_i$ left.' (Major 2022)

b. Ali [ø meni ket-ti] di-di.
Ali 1SG.ACC leave-PAST.3SG say-PAST.3SG
NONSHIFTED: 'Ali said that I$_{speaker}$ left.' (Major 2022)

Major's proposal has significant implications, as it correctly predicts different shifting patterns in sentences with two arguments, based on the case of the embedded subject. When the embedded subject is nominative, both the subject and the direct object must shift together, as in (7a). By contrast, when the subject is accusative, the operator is not selected, resulting in Nonshift Together effects, as seen in (7b).

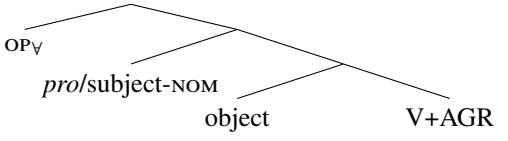
(7) a. Ali Aygül-ga [OP$_\forall$ men seni jaxshi kör-imen] di-di.
Ali Aygül-DAT 1SG.NOM 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER: 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'

b. Ali Aygül-ga [ø meni seni jaxshi kör-idu] di-di.
Ali Aygül-DAT 1SG.ACC 2SG.ACC well see-PRES.3SG say-PAST.3SG
NONSHIFT TOGETHER: 'Ali told Aygül that $I_{speaker}$ like $you_{addressee}$.'

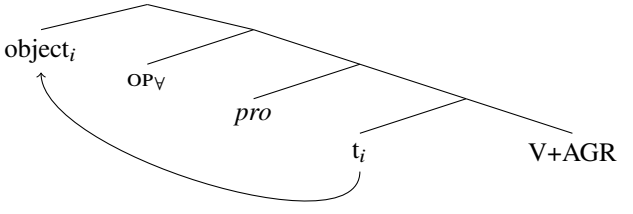
Given that the selection of the operator can affect the interpretation of the direct object, one could argue that the covert subject might bear either nominative or accusative case. If the covert subject were accusative, the operator would not be selected, resulting in the unshifted reading of the direct object in the second reading of (5). However, there are two pieces of evidence against this idea. First, the covert subject exclusively allows a shifted reading, which stands in contrast to the accusative subject in (7b) that must remain unshifted. Second, the covert subject in (5) exclusively triggers matching agreement, in contrast to the invariable 3rd-person agreement triggered by the accusative subject in (7b). These observations suggest that the covert subject cannot bear accusative case. Instead, the cover subject, if deemed an indexical, can only bear nominative case, and the sentence in (5) should contain the context-shifting operator.

With the presence of the operator, an alternative explanation for the second reading in (5) is to assume that the direct object can raise above the operator to obtain an unshifted interpretation, as proposed by Sudo (2012). In the first reading of (5), the direct object remains below the operator and receives a shifted interpretation, as illustrated in (8a). Conversely, in the second reading, the object scrambles to a position higher than the operator, as depicted in (8b). Importantly, when the subject bears nominative case, the object must remain below the operator to obey the 'Shift Together Constraint', as illustrated in (8a).

(8) a.



b.



(Sudo 2012)

Despite its initial appeal, this analysis encounters challenges when we consider sentences with two objects. Here is an example that has not been previously reported:

(9) Ali Aygül-ga [OP∀ *pro* sanga mening kitab-im-ni ber-dim] di-di.
Ali Aygül-DAT *pro* 2SG.DAT 1SG.GEN book-1SG.POSS-ACC give-PAST.1SG say-PAST.3SG
BOTH OBJECTS SHIFT: ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ gave his$_i$ book to her$_j$.'
DIRECT OBJECT SHIFT: ✗ 'Ali$_i$ told Aygül that he$_i$ gave his$_i$ book to $you_{addressee}$.'
INDIRECT OBJECT SHIFT: ✗ 'Ali$_i$ told Aygül$_j$ that he$_i$ gave $my_{speaker}$ book to her$_j$.'
BOTH OBJECTS UNSHIFTED: ✓ 'Ali$_i$ told Aygül that he$_i$ gave $my_{speaker}$ book to $you_{addressee}$.'

If, as proposed by Sudo's analysis, the object indexical in Uyghur can optionally raise above the operator for the unshifted interpretation, sentences like (9), which contain two object indexicals (*sanga* and *mening kitab-im-ni*), should produce four possible outputs. However, our consultants agree that both object indexicals must pick up their references from the same context: either both shift (the first reading) or both remain unshifted (the last reading). This highlights the need for additional constraints to explain the observed facts under Sudo's approach. We would need to explain why the direct and the indirect objects must move together above the operator or both remain below the operator. Thus, an analysis based solely on direct object movement cannot account for the observed violations of Shift Together effects in sentences with covert subjects. Taken together, these findings challenge the view of the Uyghur covert subject as a

true shifted indexical and lead us to two key questions: what is the nature of the covert subject? And how to account for its shifted interpretation? We spend section 3 answering these questions.

3. A New Analysis of Uyghur Overt and Covert Subjects

3.1. Uyghur and Partial Null Subject Languages

In his recent study, Rabinovitch (2022) examines the licensing of subject drop in Uyghur and presents compelling evidence to classify Uyghur as a Partial Null Subject (PNS) language within the framework proposed by Holmberg & Sheehan (2010). By comparing Uyghur to Finnish, a well-established PNS language, Rabinovitch demonstrates that both languages generally allow the dropping of 1st- and 2nd-person subjects, but not 3rd-person subjects in root clauses, as exemplified below:

(10) a. (Minä) söin kakkua.
1SG.NOM eat.PAST.1SG cake.PTV
'I ate cake.' (*Finnish*, Rabinovitch 2022)

b. (Sinä) söit kakkua.
2SG.NOM eat.PAST.2SG cake.PTV
'You ate cake.' (*Finnish*, Rabinovitch 2022)

c. Persikö Jari autonsa? — *(Hän) pesi sen.
washed-Q Jari car.3SG.POSS *(3SG.NOM) washed it
'Did Jari wash his car? — He washed it.' (*Finnish*, Holmberg et al. 2009)

(11) a. (Men) tort-ni yé-düm.
1SG.NOM cake-ACC eat-PAST.1SG
'I ate cake.' (*Uyghur*, Rabinovitch 2022)

b. (Sen) tort-ni yé-düng.
2SG.NOM cake-ACC eat-PAST.2SG
'You ate cake.' (*Uyghur*, Rabinovitch 2022)

c. Tursun tünügün bazar-gha bar-di. — *(U) kim-ni kör-di?
Tursun yesterday store-DAT go-PAST.3SG *(3SG.NOM) who-ACC see-PAST.3SG
'Yesterday, Tursun went to the market. — Who did he see?' (*Uyghur*, Rabinovitch 2022)

Interestingly, subject dropping becomes possible when a 3rd-person subject appears in an embedded context controlled by the subject of a superordinate clause. This can be observed in both Finnish and Uyghur, as illustrated by the following examples, where the subject can be omitted in an adjunct clause:

(12) Eeva saa tulla mukaan jos (hän) lupaa olla hiljaa.
Eeva may come along if (3SG.NOM) promises be quiet
'Eeva$_i$ may come along if she$_i$ promises to be quiet.' (*Finnish*, Holmberg et al. 2009)

(13) Ayishe xoshal i-di, chünki (u) köp sowghat tapshur-up al-di.
Ayishe happy COP-PAST.3SG, because (3SG.NOM) a.lot gift submit-CNV take-PAST.3SG
'Ayishe$_i$ was happy because she$_i$ received a lot of gifts.' (*Uyghur*, Rabinovitch 2022)

It is noteworthy that the two languages exhibit contrasting patterns regarding the licensing of 3rd-person subjects in finite complement clauses. In Finnish, the 3rd-person subject in a finite complement clause can be deleted when controlled by a subordinate subject, as illustrated in (14). In contrast, Uyghur deviates from canonical PNS languages by permitting the drop of 3rd-person subjects in finite complement clauses, even without a controller in a superordinate clause, as exemplified in (15).

(14) Juhani kertoi että (hän) oli ostanut omakotitalon.
Juhani said that (he) have.PAST.3SG bought house
'Juhani$_i$ said that he$_i$ had bought a house.' (*Finnish*, Holmberg et al. 2009)

(15) Tursun (u) kim-ni kör-di di-di?
Tursun (3SG.NOM) who-ACC see-PAST.3SG say-PAST.3SG
'Who did Tursun$_i$ say she$_j$ saw?' (*Uyghur*, Rabinovitch 2022)

Despite the nuanced distinctions between Uyghur and canonical PNS languages, Rabinovitch contends that Uyghur can still be categorized as a PNS language, as it indeed exhibits remarkable similarities to Finnish with respect to the null subject licensing. In the next section, we explore how this categorization helps to shed new light on our understanding of the shifted covert subject in Uyghur attitude reports.

3.2. Overt Deixis and Null Anaphor

Recall that PNS languages such as Finnish allow a null 3rd-person subject in finite complement clauses if it is controlled by a linguistic antecedent in a higher clause (Holmberg et al. 2009, Holmberg & Sheehan 2010). Since Uyghur can be classified as a PNS language, we propose that the 1st-person null subject in Uyghur attitude reports patterns with canonical PNS languages by functioning as an anaphor that is controlled by the antecedent in a higher clause. This feature constitutes a crucial distinction between shifted covert subjects and overt subjects in Uyghur attitude reports. To illustrate this point, the relevant example is repeated below in (16).

(16) Ali Aygül-ga [(OP$_\forall$) *pro* seni jaxshi kör-imen] di-di.
Ali Aygül-DAT *pro* 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.'
EXCEPTION TO ST: ✓ 'Ali$_i$ told Aygül$_j$ that he$_i$ likes you$_{addressee}$.' =(3b)

While the context-shifting operator is optionally selected in Uyghur (Major 2022), the covert subject, functioning as an anaphor, maintains its shifted interpretation regardless of the selection of the operator, as the operator exclusively manipulates indexicals within its scope. By contrast, the interpretation of the 2nd-person direct object, being a true indexical, depends on the presence or absence of the operator. This dependency results in both shifted and unshifted readings.

The interpretation of the covert subject in (16) differs from that of the overt nominative subject in (17) below. While the overt nominative subject in (17) also has to refer to *Ali*, it functions as a typical indexical whose meaning depends on the presence or absence of the operator. As a result, the shifted interpretation of the overt subject diagnoses the presence of the operator, and hence the direct object in (17) must also shift, giving rise to Shift Together effects.

(17) Ali Aygül-ga [OP$_\forall$ men seni jaxshi kör-imen] di-di.
Ali Aygül-DAT 1SG.NOM 2SG.ACC well see-PRES.1SG say-PAST.3SG
SHIFT TOGETHER: 'Ali$_i$ told Aygül$_j$ that he$_i$ likes her$_j$.' =(7a)

When the overt subject bears accusative case, the operator is no longer selected (Major 2022) and hence both the subject and the direct object in the embedded clause must remain unshifted, as shown in (18).

(18) Ali Aygül-ga [ø meni seni jaxshi kör-idu] di-di.
Ali Aygül-DAT 1SG.ACC 2SG.ACC well see-PRES.3SG say-PAST.3SG
NONSHIFT TOGETHER: 'Ali told Aygül that I$_{speaker}$ like you$_{addressee}$.' =(7b)

In summary, by analyzing the covert subject as an anaphor that is controlled by its antecedent in a higher clause, we can provide an explanation for its shifted interpretation. The observed exceptions to Shift Together effects in sentences with covert subjects also align perfectly with the existing theory regarding the optional selection of the operator in Uyghur.

4. Control of Covert Subjects in Uyghur Finite Clauses

Some may have noticed that the control displayed in Uyghur finite clauses bears some resemblance to the English control of PRO. However, as we will demonstrate in this section, while this form of finite control in Uyghur shares certain characteristics with PRO-control, it remains distinct in crucial ways.

4.1. Similarities with PRO-control

Both PRO control and the control relation in Uyghur finite complement clauses involve syntactic binding between an antecedent and a null category. These two relations share several common properties. One is their dependency on a strict c-commanding relationship, as demonstrated in the following examples:

(19) John's$_i$ friend$_j$ decided PRO$_{*i/j}$ to send Mary a book.

(20) Ali-ning aka-si [*pro* ket-tim] di-di.
Ali-GEN brother-POSS.3SG *pro* leave-PAST.1SG say-PAST.3SG
'Ali's$_i$ brother$_j$ said that he$_{*i/j}$ left.' (*Uyghur*)

In (19), PRO must be bound by the matrix subject *John's friend*, not a subpart of it. Similarly, in (20), *Ali* cannot control the null subject in the embedded clause due to a lack of c-command relation. Instead, the covert subject in (20) must be bound by *Ali's brother*. Even when *Ali* appears to be the only plausible antecedent (21a), it still fails to control the null subject, unless it c-commands the embedded clause.

(21) a. *Ali-ning nutuq-isi [*pro* Bëyjin-gha bar-imen de-p] bu xewer-ni
Ali-GEN speech-POSS.3SG *pro* Beijing-DAT go-FUT.1SG say-CNV this news-ACC
éniq qil-di.
clear make-PAST.3SG
Intended meaning: 'Ali's$_i$ speech made the news clear that he$_i$ would go to Beijing.' (*Uyghur*)

b. Ali [*pro* Bëyjin-gha bar-imen de-p] bu xewer-ni éniq qil-di.
Ali *pro* Beijing-DAT go-FUT.1SG say-CNV this news-ACC clear make-PAST.3SG
'Ali made the news clear that he$_i$ would go to Beijing.' (*Uyghur*)

It is worth noting that in canonical PNS languages like Finnish, the absence of a c-command relationship between the antecedent and null subjects also leads to ungrammaticality. This is evident in the contrast between (22a), where *Jari* cannot control the 3rd-person null subject despite being the only possible antecedent, and (22b), where it c-commands and licenses the same null subject.

(22) a. Jarin puhe teki selväksi ettei *(hän) ole syyllinen.
Jari's speech made clear that-not *(he) is guilty
'Jari's speech made clear that he isn't guilty.' (*Finnish*, Holmberg & Sheehan 2010)

b. Jarin teki selväksi ettei (hän) ole syyllinen.
Jari made clear that-not (he) is guilty
'Jari made it clear that he isn't guilty.' (*Finnish*, Holmberg & Sheehan 2010)

Furthermore, just as PRO is limited to the subject position across languages, in Uyghur the dependency relation only holds between the embedded subject (not part of the subject or the object) and a matrix antecedent. Thus, exceptions to Shift Together effects in Uyghur occur only when the shifted pronoun is the subject of the embedded clause. First, consider cases where the covert element is part of the subject:

(23) Ali [*(OP$_\forall$) *pro$_{genitive}$* dost-um-ø meni kör-di] di-di.
Ali *pro$_{genitive}$* friend-POSS.1SG-NOM 1SG.ACC see-PAST.3SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ said that his$_i$ friend saw him$_i$.'
EXCEPTION TO ST: ✗ 'Ali$_i$ said that his$_i$ friend saw me$_{speaker}$.' (*Uyghur*)

(24) Ali [(*OP$_\forall$) *pro$_{genitive}$* dost-um-ni meni kör-di] di-di.
Ali *pro$_{genitive}$* friend-POSS.1SG-ACC 1SG.ACC see-PAST.3SG say-PAST.3SG
NONSHIFT TOGETHER: ✓ 'Ali said that my$_{speaker}$ friend saw me$_{speaker}$.'
EXCEPTION TO ST: ✗ 'Ali$_i$ said that his$_i$ friend saw me$_{speaker}$.' (*Uyghur*)

In (23), the covert genitive pronoun, as part of the nominative subject, cannot be controlled by the higher antecedent *Ali*, as this would lead to exceptions to Shift Together effects caused by the optional selection of

the operator. Instead, the only attested reading requires the embedded subject and the direct object to shift together, suggesting that the covert genitive pronoun functions as an indexical. With a nominative subject, the operator is selected in (23), resulting in the Shift Together effects. Conversely, when the embedded subject is accusative as in (24), the operator is absent and both indexicals must remain unshifted.

The interpretation of the covert genitive pronoun in the object position is also determined by the presence or absence of the operator. When the embedded subject bears nominative case, the operator is selected and hence the covert genitive pronoun in the object position can only receive the shifted interpretation, as in (25). However, if the embedded subject is in the accusative case, the operator is not selected, and hence the covert genitive pronoun in (26) must remain unshifted.

(25) Ali [*(OP$_\forall$) men $pro_{genitive}$ dost-um-ni kör-dim] di-di.
Ali 1SG.NOM $pro_{genitive}$ friend-POSS.1SG-ACC see-PAST.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ said that he$_i$ saw his$_i$ friend.'
EXCEPTION TO ST: ✗ 'Ali$_i$ said that he$_i$ saw my$_{speaker}$ friend.' (*Uyghur*)

(26) Ali [(*OP$_\forall$) meni $pro_{genitive}$ dost-um-ni kör-di] di-di.
Ali 1SG.ACC $pro_{genitive}$ friend-POSS.1SG-ACC see-PAST.3SG say-PAST.3SG
NONSHIFT TOGETHER: ✓ 'Ali said that I$_{speaker}$ saw my$_{speaker}$ friend.'
EXCEPTION TO ST: ✗ 'Ali$_i$ said that I$_{speaker}$ saw his$_i$ friend.' (*Uyghur*)

What happens if both the subject and the genitive pronoun are dropped? If our analysis is correct, the covert subject, as an anaphor, must always shift as it is controlled by the attitude holder. Conversely, the genitive pronoun, as a true indexical, can either shift or remain unshifted, depending on whether the operator is selected. These predictions are confirmed in (27). Thus, while the genitive pronoun in Uyghur can be dropped, only the covert subject can be analyzed as an anaphor controlled by a higher-clause antecedent.

(27) Ali [(OP$_\forall$) $pro_{subject}$ $pro_{genitive}$ dost-um-ni kör-dim] di-di.
Ali $pro_{subject}$ $pro_{genitive}$ friend-POSS.1SG-ACC see-PAST.1SG say-PAST.3SG
SHIFT TOGETHER (ST): ✓ 'Ali$_i$ said that he$_i$ saw his$_i$ friend.'
EXCEPTION TO ST: ✓ 'Ali$_i$ said that he$_i$ saw my$_{speaker}$ friend.' (*Uyghur*)

It should be noted that in Finnish, the anaphoric analysis of null elements extends beyond the subject position. In fact, a genitive pronoun in Finnish can also be dropped when it is bound by an antecedent. This can be demonstrated in the following examples, where the covert genitive pronoun is licensed by the antecedent *Maijan* in either the subject position (28) or the object position (29)[1].

(28) Merja piti houlta, että (hänen) isä-nsä piti hänestä enemmän.
Merja took care that (her) father-POSS.3SG liked her.of more
'Merja$_i$ ensured that her$_i$ father liked her$_i$ more.' (*Finnish*, Huhmarniemi & Brattico 2016)

(29) Merja vakuutti että sinä varastit (hänen) pyörä-nsä.
Merja insisted that you stole (her) bike-POSS.3SG
'Merja$_i$ insisted that you stole her$_i$ bike.' (*Finnish*, Huhmarniemi & Brattico 2016)

The last similarity lies in the derivation of bound readings in *only*-constructions. According to Landau (2013), the empty subject PRO in all obligatory control constructions must be interpreted as a bound variable. This is exemplified in (30), where English PRO requires a bound reading in *only*-constructions.

(30) Only John$_i$ expects [PRO$_i$ to win the game].
i. BOUND READING: ✓ John = only x such that x expects that x would win the game.
ii. COREFERENTIAL READING: ✗ John = only x such that x expects that John would win the game.

The same effects are also observed in Uyghur, where the sentence in (31) is understood as having only a bound reading.

[1] Huhmarniemi & Brattico note that (29) is marginal, but my Finnish consultants agree that this sentence is acceptable.

(31) peqet Ali-la [(OP$_\forall$) *pro* oyun-ni ut-tum] di-di.
only Ali-ONLY *pro* game-ACC win-PAST.1SG say-PAST.3SG
'Only Ali$_i$ said that he$_i$ won the game.'
i. BOUND READING: ✓ Ali = only x such that x said that x won the game.
ii. COREFERENTIAL READING: ✗ Ali = only x such that x said that Ali won the game. (*Uyghur*)

The constellation of data presented in this section leads us to conclude that the finite control of covert subjects in Uyghur attitude reports shares similarities with English control of PRO. However, it is crucial to acknowledge that this form of finite control observed in Uyghur still differs from PRO-control in many other respects, as will be explored in the subsequent section.

4.2. Differences from PRO-control

Landau (2013) argues that PRO in obligatory control constructions should be understood as a bound variable. This implies that PRO must (i) only receive the bound reading in *only*-constructions, and (ii) only receive the sloppy identity under ellipsis. As demonstrated in the preceding section, the covert subject in Uyghur attitude reports can only receive the bound reading in *only*-constructions. However, finite control in Uyghur is less strict than that observed with PRO regarding the sloppy identity under ellipsis. To illustrate, let's first consider the English control of PRO, where it only receives a sloppy reading in (32).

(32) John$_i$ expects [PRO$_i$ to win the game], and so does Tom.
i. SLOPPY READING: ✓ Tom$_j$ also expects that he$_j$ would win the game.
ii. STRICT READING: ✗ Tom also expects that John would win the game.

However, applying this test to Uyghur yields contrasting results. The sentence in (33) can be understood as having both a strict and a sloppy reading.

(33) Ali [(OP$_\forall$) *pro* oyun-ni ut-tum] di-di, we Adil-mu shundaq di-di.
Ali *pro* game-ACC win-PAST.1SG say-PAST.3SG, and Adil-also so say-PAST.3SG
'Ali$_i$ said that he$_i$ won the game, and so did Adil.'
i. SLOPPY READING: ✓ Adil$_j$ also said that he$_j$ won the game.
ii. STRICT READING: ✓ Adil also said that Ali won the game. (*Uyghur*)

In a similar vein, Finnish allows for both sloppy and strict readings under ellipsis, as shown in (34).

(34) Marja luulee että (hän) on ovela, ja niin luulee Jarikin.
Marja thinks that (she) is clever and so thinks Jari-too.
'Marja$_i$ thinks that she$_i$ is clever, and so does Jari'
i. SLOPPY READING: ✓ Jari$_j$ also thinks that he$_j$ is clever.
ii. STRICT READING: ✓ Jari also thinks that Marja is clever.
(*Finnish*, Holmberg & Sheehan 2010)

Another difference between PRO-control and Uyghur finite control is concerned with split antecedents. It is often claimed, based on the unacceptability of sentences like (35), that split antecedent is prohibited in PRO-control (e.g. Williams 1980, Bouchard 1984, Hornstein 1999). However, this classical view is later challenged by Landau (2001). He observes that certain verbs like *propose* and *ask* allow split control, as demonstrated in (36) where the antecedent of PRO can consist of two DPs.

(35) *John$_i$ told Mary$_j$ to [PRO$_{i+j}$ wash each other]. (Hornstein 1999)

(36) John$_i$ proposed to/asked Mary$_j$ to [PRO$_{i+j}$ meet each other at 6]. (Landau 2001)

Unlike English, a null subject in Uyghur finite complement clauses can always have split antecedents, as exemplified in (37) and (38). Remarkably, the sentence in (37) is grammatical and the interpretation where the null embedded subject refers only to one of the arguments in the matrix clause is unacceptable to all consulted speakers.

(37) Ali Aygül-ga [(OP$_\forall$) *pro* bir-bir-miz-ga jaz-imiz] di-di.
Ali Aygül-DAT *pro* one-one-POSS.3PL-DAT write-FUT.1PL say-PAST.3SG
'Ali$_i$ told Aygül$_j$ that they$_{i+j}$ will write to each other.' (*Uyghur*)

(38) Ali Aygül-ga [(OP$_\forall$) *pro* bir-bir-miz-ga jaz-imiz de-p] teklip ber-di.
Ali Aygül-DAT *pro* one-one-POSS.3PL-DAT write-FUT.1PL say-CNV proposal make-PAST.3SG
'Ali$_i$ proposed to Aygül$_j$ that they$_{i+j}$ will write to each other.' (*Uyghur*)

In Finnish, split antecedents are less acceptable (39a) compared to non-split ones (39b). However, in other PNS languages like Marathi, null subjects in finite complement clauses can have split antecedents (40).

(39) a. ?Marja kertoi Jarille etteivät (he) voi matkustaa yhdessä.
Marja told Jari that-not-3PL (they) can travel together
Intended meaning: 'Marja$_i$ told Jari$_j$ that they$_{i+j}$ can travel together.'
(*Finnish*, Holmberg & Sheehan 2010)

b. Marja kertoi Jarille ettei (hän) voi matkustaa hänen kanssaan.
Marja told Jari that-not-3SG (she) can travel him with
'Marja$_i$ told Jari$_j$ that she$_i$ can travel with him$_j$.' (*Finnish*, Holmberg & Sheehan 2010)

(40) Mary-ni Lucy-la sangitlə ki (te) ekatr jau shaktat.
Mary-ERG Lucy-ACC said-3SN that (they) together go happen-PRES-3PL.
'Mary$_i$ told Lucy$_i$ that they$_{i+j}$ can travel together.' (*Marathi*, Holmberg & Sheehan 2010)

4.3. Summary of Similarities and Differences

Throughout this section, we have extensively examined the control of 1st-person null subjects in Uyghur finite clauses, comparing it to the control of 3rd-person null subjects in other canonical PNS languages and English control of PRO. The findings are summarized in Table 1 below.

Table 1. Comparison of control in Uyghur with other Partial Null Subject languages and English PRO

	1st-Person Null Subject in Uyghur	**English Control of PRO**	**3rd-Person Null Subject in PNS Languages**	
			Finnish	**Marathi**
Limit to Subject Postion	Yes	Yes	No	Yes[2]
C-Command Relation	Yes	Yes	Yes	Yes
Split Antecedents	Yes	Limited	Degraded	Yes
Bound / Coreferential Readings	*No - bound only*	*No - bound only*	Yes	Yes
Strict /Sloppy Readings	Yes	*No - sloppy only*	Yes	Yes

As is clear from the table, Uyghur finite control shares similarities with English control of PRO, as both are limited to the subject position, require the antecedent to be in a strict c-commanding position and receive only bound readings in *only*-constructions. However, Uyghur finite control is still distinct from PRO-control in several crucial ways. This includes the ability to accommodate split antecedents, allowing for both a strict and a sloppy reading under ellipsis. The comparison yields an unambiguous conclusion that control of a null 1st-person subject in Uyghur finite complement clauses is freer than PRO-control. These findings align with the control of 3rd-person null subjects in canonical PNS languages such as Finnish and Marathi, as discussed in Holmberg & Sheehan (2010), which also demonstrate a control relationship freer than PRO-control.

[2] In Marathi, the genitive pronoun cannot be dropped. Therefore, the anaphoric analysis of null subjects in Marathi is proposed to be restricted to the subject position.

5. Conclusions and Remaining Issues

In this paper, we build upon our previous work by delving into the nature of covert and overt subjects in Uyghur attitude reports. While the covert subject appears to parallel its overt nominative counterpart as it also undergoes obligatory shifting and triggers matching agreement, our earlier findings show that treating the covert subject as an indexical cannot explain its shifted interpretation. Drawing on existing studies on null subject licensing in Partial Null Subject (PNS) languages, we propose that the 1st-person covert subject in Uyghur functions as an anaphor controlled by the attitude holder in the higher clause. Unlike the overt nominative counterpart, which acts as a true indexical, the interpretation of covert elements is unaffected by the presence or absence of the context-shifting operator. By comparing with English PRO-control, we observe that the control of 1st-person null subjects in Uyghur exhibits a greater degree of freedom. This observation also aligns with the control patterns in other canonical PNS languages.

The examination of the control relation in Uyghur finite complement clauses also raises theoretical considerations for future investigation. An interesting aspect involves comparing control in finite clauses with that in non-finite clauses. In Uyghur, certain attitude verbs such as *qayil qil-* 'persuade' and *wede qal-* 'promise' can introduce both finite and non-finite clauses. Preliminary data indicate that control in these non-finite clauses is also more flexible than PRO-control. Consequently, it seems that the divergence in the control relation between finite clauses and PRO-control could be attributed to the specific verb used rather than the construction itself. Future research is certainly required to assess this hypothesis.

References

Anand, Pranav. 2006. *De de se*. MIT dissertation.

Anand, Pranav & Andrew Nevins. 2004. Shifty operators in changing contexts. In *Semantics and linguistic theory*, vol. 14, 20–37. https://doi.org/10.3765/salt.v14i0.2913.

Bouchard, Denis. 1984. *On the content of empty categories*. Dordrecht: Foris.

Deal, Amy Rose. 2020. *A theory of indexical shift: meaning, grammar, and crosslinguistic variation*. Vol. 82. MIT Press. https://doi.org/10.7551/mitpress/12374.001.0001.

Holmberg, Anders, Aarti Nayudu & Michelle Sheehan. 2009. Three partial null-subject languages: a comparison of brazilian portuguese, finnish and marathi. *Studia linguistica* 63(1). 59–97. https://doi.org/10.1111/j.1467-9582.2008.01154.x.

Holmberg, Anders & Michelle Sheehan. 2010. Control into finite clauses in partial null-subject languages. *Parametric variation: Null subjects in minimalist theory*. 125–152. https://doi.org/10.1017/CBO9780511770784.004.

Hornstein, Norbert. 1999. Movement and control. *Linguistic inquiry* 30(1). 69–96. https://doi.org/10.1162/002438999553968.

Huhmarniemi, Saara & Pauli Brattico. 2016. The finnish possessive suffix. *Finno-Ugric Languages and Linguistics* 4(1-2).

Kaplan, David. 1989. Demonstratives: an essay on the semantics, logic, metaphysics and epistemology of demonstratives and other indexicals. In Joseph Almog, John Perry & Howard Wettstein (eds.), *Themes from kaplan*, 481–563. Oxford University Press.

Landau, Idan. 2001. *Elements of control: structure and meaning in infinitival constructions*. Vol. 51. Springer Science & Business Media. https://doi.org/10.1007/978-94-011-3943-4.

Landau, Idan. 2013. *Control in generative grammar: a research companion*. Cambridge University Press. https://doi.org/10.1017/CBO9781139061858.

Li, Xiang & Paul Portner. 2023. Overt and covert subjects in uyghur: not the same thing. In *Proceedings of the workshop on turkic and languages in contact with turkic*, vol. 8, 1–14. https://doi.org/10.3765/82ev6f42.

Major, Travis. 2022. Revisiting the syntax of monsters in uyghur. *Linguistic Inquiry* 53(4). 780–807. https://doi.org/10.1162/ling_a_00424.

Rabinovitch, Jack Isaac. 2022. Narrow scoping content question items in shifty contexts: a case of surprising non-quotation in uyghur. *Proceedings of the Linguistic Society of America* 7(1). 5235. https://doi.org/10.3765/plsa.v7i1.5235.

Schlenker, Philippe. 1999. *Propositional attitudes and indexicality: a cross categorial approach*. MIT dissertation.

Shklovsky, Kirill & Yasutada Sudo. 2014. The syntax of monsters. *Linguistic Inquiry* 45(3). 381–402. https://doi.org/10.1162/LING_a_00160.

Sudo, Yasutada. 2012. *On the semantics of phi features on pronouns*. MIT dissertation.

Williams, Edwin. 1980. Predication. *Linguistic inquiry* 11(1). 203–238.

Proceedings of the 41st West Coast Conference on Formal Linguistics

edited by Nikolas Webster, Yağmur Kiper, Richard Wang, and Sichen Larry Lyu

Cascadilla Proceedings Project Somerville, MA 2025

ISBN 978-1-57473-483-6 hardback

Ordering information

Orders for the printed edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Li, Xiang and Paul Portner. 2025. Overt Deixis and Covert Anaphor in Uyghur Attitude Reports. In *Proceedings of the 41st West Coast Conference on Formal Linguistics*, ed. Nikolas Webster et al., 370-379. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3767.