

## Narrow scoping content question items in shifty contexts: A case of surprising non-quotation in Uyghur

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**Abstract.** This paper analyses finite (indexically shifted) complements in Uyghur with narrow scoping content question items. Using novel data, this paper discusses the distribution of null subjects in Uyghur, which can be licensed without a controller in embedded clauses except for interrogative intensional complements. I argue, following Suñer (1993), that complements with interrogative intensional interpretations (containing narrow scoping content question items) are syntactically larger than their extensional counterparts, containing a Force phrase (ForceP). Following Holmberg et al. (2009)’s theory of null subject licensing, I argue that Uyghur is a partial null subject language in which the heads of referential CPs contain a valued [D] feature which can check with the unvalued [*u*D] feature on typically controlled pronouns (in the Holmberg et al. 2009 sense), resulting in an interpretation in which the embedded (null) subject is not coreferent with a controller but rather some discourse provided individual. Referential CPs cannot be embedded directly under ForcePs, and so complements with narrow scoping content question items, which I take to be ForcePs, ban this kind of null subject.

**Keywords.** content question items; embedded questions; partial null subject; quotation; scope; syntactic diagnostics; Uyghur

**1. Background.** Uyghur (Turkic) is a language which exhibits indexical shift, in which indexical items such as first and second person pronouns shift reference in the complements of attitude predicates to represent the perspective of the attitude holder rather than the speaker of the overall utterance. Like indexical shift, quotation also forces indexicals to refer to referents other than those of the current context (see Kaplan 1989). However, while quotation is opaque to syntactic movements between the quoted constituent and material outside of the quotation, including NPI licensing (1-a) and LF-movement of content question items (aka wh-items, CQIs) (1-b), complements with indexical shift can still undergo such operations as seen in the Uyghur examples in (2), where the first person pronoun *men* is used to refer to the attitude holder rather than the overall speaker, but NPI licensing (2-a) and wide scope interpretation of CQIs (2-b) are possible.

- (1) a. \*Liam didn’t say “I saw anyone.”  
b. \*Who<sub>i</sub> did Liam say, “I saw *t<sub>i</sub>*.”?
- (2) a. Tursun [ *men*        *hichkim-ni*   *kör-d-üm*        ] *dé-mi-di*.  
Tursun   1SG.NOM nobody-ACC see-PST-1SG   say-NEG-PST  
‘Tursun<sub>i</sub> didn’t say that he<sub>i</sub> saw anyone’

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- b. Tursun [ men kim-ni kör-d-üm ] dé-di?  
 Tursun 1SG.NOM who-ACC see-PST-1SG say-PST  
 ‘Who<sub>1</sub> did Tursun<sub>i</sub> say he<sub>i</sub> saw  $t_1$ ?’ [Uyghur; Shklovsky & Sudo 2014:84]

Because such syntactic opacity is a hallmark of quotation, the availability for content question items to have wide scope under attitude predicates is often used as a diagnostic for indexical shift across multiple languages, including Uyghur (Sudo 2010; Shklovsky & Sudo 2014; Deal 2020). I define the CQI diagnostic as a implicational statement (3).

- (3) CQI DIAGNOSTIC: If a CQI in a shifty embedded clause is interpreted with wide scope (scoping over the embedded clause), then the embedded clause is not an instance of quotation.

While such a diagnostic is good for ruling out quotation in instances of non-opaque syntactic constructions, it does not discriminate between instances of quotation and instances of indexical shift with narrow-scoping CQIs. As a result, the interaction between content question item scope and indexical shift can be difficult to probe, as differences in CQI scope may be conflated with differences between indexical shift and quotation.

This paper aims to clarify instances of indexical shift in Uyghur by arguing that Uyghur makes robust use of non-quotational (shifty) embedded clauses with narrow-scoping CQIs. Evidence comes from clear instances of non-quotational narrow-scoping CQI clauses, as well as from more subtle interactions between Uyghur’s ability to license subject drop and the scoping of CQIs. This paper follows Etxepare (2010) in assuming that narrow-scoping CQIs with intensional interpretation may derive from embedded ForcePs, which block CQIs from raising into the matrix clause, and follows Holmberg et al. (2009) in assuming that null subjects are derived through chain reduction in which subjects whose features form a subset of the features of another constituent (typically a DP or T-head) form an A-chain with that constituent and are deleted in phonological form (Bobaljik 2002).

This paper argues that Uyghur is a partial null subject language in the sense of Holmberg et al. (2009) patterning with languages like Finnish, Brazilian Portuguese, and Marathi in the licensing of subject drop (Section 2), with an exception in that Uyghur allows non-controlled (in the Holmberg et al. 2009 sense) subject drop in embedded clauses if and only if any CQI in the embedded clause takes wide scope interpretation. I call such licensing which is atypical of other partial null subject languages ‘exceptional subject dropping’ (ESD). In Section 3 I discuss ESD, provide evidence that Uyghur allows non-quotational complements with narrow-scoping CQI interpretation, and argue that instances of embedding where ESD is not licensed must be explained through some mechanism other than quotation. In Section 4, I follow the analyses of Spanish in Suñer (1993) and Etxepare (2010) and argue that complements with narrow-scoping CQI interpretation in Uyghur are embedded ForcePs, where interrogative force prevents wide-scoping interpretations of CQIs. In Section 5 I argue that ESD can be derived from the presence of referential C-heads with a [D] feature, following Holmberg et al. (2009)’s theory of subject dropping as a byproduct of chain reduction. These referential C-heads exist in a limited set of environments, following Melvold (1991) and de Cuba (2017)’s theories of referential CPs, and are not licensed in matrix contexts or under embedded ForcePs, thus deriving that ESD can only apply in embedded clauses which have wide-scoping interpretations of CQIs. Such a system provides support for Holmberg et al. (2009)’s theory of null subject

licensing, while opening up the typology of null subject licensing to include languages like Uyghur. It also provides a basis for analyzing shifty clauses with narrow scoping CQIs as non-quotational in Uyghur.

**2. Uyghur as a partial null subject language.** Partial null subject (PNS) languages are languages in which subjects cannot be dropped unless (a) the subject has a generic interpretation, in which case dropping is mandatory, (b) the subject is controlled (in the Holmberg et al. 2009 sense) by an antecedent in a higher clause, in which case dropping is optional, and (c) in some languages, first and second person pronouns may optionally drop (Holmberg et al. 2009; Holmberg & Sheehan 2010).

For this section, I will compare Uyghur to Finnish, a well-established PNS language (Holmberg et al. 2009). Finnish (4) and Uyghur (5) both generally allow for first and second person subject dropping.

- (4) a. (Minä) söin kakkua.  
1SG.NOM eat-PST-1SG cake-PTV  
'I ate cake.'
- b. (Sinä) söit kakkua.  
2SG.NOM eat-PST-2SG cake-PTV  
'You ate cake.'
- [Finnish]
- (5) a. (Men) tort-ni yé-d-üm.  
1SG.NOM cake-ACC eat-PST-1SG  
'I ate cake.'
- b. (Sen) tort-ni yé-d-üng.  
2SG.NOM cake-ACC eat-PST-2SG  
'You ate cake.'
- [Uyghur]

However, in both languages, third person matrix subjects cannot drop, even when they have a discourse referent in a previous utterance which could act as an antecedent (6).

- (6) a. Pesikö 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. 2009:66]
- b. Tursun tünügün bazar-gha bar-d-i. — \*(U) kim-ni kör-d-i?  
Tursun yesterday store-DAT go-PST-3 3SG.NOM who-ACC see-PST-3  
'Yesterday, Tursun went to the market. — Who did he see?' [Uyghur]

When a third person subject in an embedded context is controlled by the subject of a superordinate clause, dropping becomes optional in PNS languages. This can be seen in Finnish in both instances where the dropped subject is in a finite complement clause (7-a) and an adjunct clause (7-b).

- (7) a. Marja luulee että (hän) on hyvännäköinen.  
Marja thinks COMP 3SG.NOM is good-looking  
Marja<sub>i</sub> thinks that she<sub>i</sub> is good-looking. [Finnish; Holmberg et al. 2009:80]
- b. Eeva saa tulla mukaan jos (hän) lupaa olla hiljaa.  
Eeva may come along if 3SG.NOM promises be quiet  
'Eeva<sub>i</sub> may come along if she<sub>i</sub> promises to be quiet.'

Like Finnish, third person subjects within adjunct clauses may be deleted when controlled by a subordinate subject in Uyghur (8).

- (8) Ayishe xoshal i-d-i, chünki (u) nahayiti köp sowghat tapshur-up al-d-i.  
 Ayishe happy COP-PST-3 because 3SG.NOM many lot gift submit-CVB take-PST-3  
 ‘Ayishe<sub>i</sub> was happy because she<sub>i</sub> received many gifts.’

For Uyghur, finite complement clauses under attitude predicates have mandatory indexical shift, and because first person subjects indiscriminately may be dropped in Uyghur (5-a), control into finite complement clauses cannot be used as a diagnostic for PNS in Uyghur. Otherwise, all other third person pronouns with some referent must be pronounced (with an exception in Uyghur discussed in Section 3).

Both Finnish and Uyghur require a null subject under generic readings (9). In Finnish, third person singular agreement is required on the verb in the case of a generic subject, while in Uyghur there is no distinction between singular and plural third person agreement, and default agreement is third person.

- (9) a. Tässä (\*hän / \*he) {istuu / \*istuvat} mukavasti.  
 here 3SG.NOM 3PL.NOM sit-3SG.PRS sit-3PL.PRS comfortably  
 ‘One can sit comfortably here.’ [Finnish; based on Holmberg 2005:548]  
 b. Yaponiye-de (\*u / \*ular) Yaponche sözle-y-du.  
 Japan-LOC 3SG.NOM 3PL.NOM Japanese speak-PRS-3  
 ‘They (generic) speak Japanese in Japan.’ [Uyghur]

Such diagnostics categorize Uyghur as a PNS language, and indeed Uyghur seems at first to act identically to Finnish with respect to null subject licensing. In the next section I will discuss an exception to this behavior, and how this exception helps to shed light on the underlying structure of the left periphery of Uyghur.

**3. Exceptions to the partial null subject diagnostic.** One difference between Uyghur and canonical PNS languages is that in Uyghur, third person subjects may drop in embedded clauses without a controller in a superordinating clause. While the Finnish pronoun *hän* is mandatory in (10) in order to have an interpretation in which the matrix subject and the embedded subject have disjoint reference, the Uyghur pronoun *u* may drop in the embedded context (11) and still have disjoint reference between matrix subject and embedded subject.

- (10) Pekka väittää että \*(hän) puhuu englantia hyvin.  
 Pekka claims COMP 3SG.NOM speaks English good  
 ‘Pekka<sub>i</sub> claims that he<sub>j</sub> speaks English well.’ [Finnish; based on Holmberg 2005:539]  
 (11) Tursun (u) kim-ni kör-d-i dé-d-i?  
 Tursun 3SG.NOM who-ACC see-PST-3 say-PST-3  
 ‘Who did Tursun<sub>i</sub> say she<sub>j</sub> saw?’ [Uyghur]

For brevity, I will refer to instances of subject drop which do not pattern with typical PNS languages like in (11) as exceptional subject drop (ESD). Importantly, matrix third person subjects with non-generic readings are always overt in Uyghur, and so we may assume that ESD is licensed only in embedded clauses.

3.1. NULL SUBJECT AND SCOPAL INTERACTIONS. The distribution of exceptional subject drop (ESD) in Uyghur is itself restricted to a limited number of environments. In general, sentences with overt third person embedded subjects allow both narrow- and wide-scope interpretations of embedded CQIs (12). In (12-a), the CQI *kimni* is interpreted with wide scope, representing a question asked by the overall author of the sentence; in (12-b), the CQI *kimni* is interpreted with narrow scope, representing the speaker's report of a question asked by the matrix subject.

- (12) Tursun u kim-ni kör-d-i dé-d-i  
 Tursun 3SG.NOM who-ACC see-PST-3 say-PST-3  
 a. ✓ 'Who did Tursun<sub>i</sub> say she<sub>j</sub> saw?' (Wide Scope)  
 b. ✓ 'Tursun<sub>i</sub> said, 'Who did she<sub>j</sub> see?'' (Narrow Scope)

Because the subject in (12) is not controlled by any superordinate subject, if it were null, then the sentence would necessarily be an instance of exceptional subject drop. As seen in (13), exceptional subject drop is only licensed when any embedded CQI is interpreted with wide scope (13-a), and not when the CQI has narrow scope, as in (13-b).

- (13) Tursun kim-ni kör-d-i dé-d-i  
 Tursun who-ACC see-PST-3 say-PST-3  
 a. ✓ 'Who did Tursun<sub>i</sub> say she<sub>j</sub> saw?' (Wide Scope)  
 b. ✗ 'Tursun<sub>i</sub> said, 'Who did she<sub>j</sub> see?'' (Narrow Scope)

As an initial hypothesis, one might assume that the ungrammaticality of (13-b) is derived as a result of mandatory quotation. If (13-b) is necessarily derived through quotation, then the embedded clause is opaque to any interactions from the superordinate clause. As a result, the quotation is effectively treated as a matrix clause, and ESD cannot be licensed, as evidenced by the mandatory third person pronoun in matrix clauses like (6-b). However, such an analysis assumes that narrow scope in (12) can only be licensed via quotation, and not through some kind of non-quotative construction with narrow scoping CQIs. Basically, it assumes both the CQI diagnostic discussed in (3) and its converse, where narrow scoping CQIs are necessarily licensed by quotation, I will call this assumption Narrow Scope Quotation Equivalence (NSQE) (14).

- (14) NARROW SCOPE QUOTATION EQUIVALENCE (NSQE): If a CQI in a shifty embedded clause is interpreted with narrow scope (scoping under the embedded clause), then the embedded clause is an instance of quotation.

In the next section I will show that the NSQE does not capture the data in Uyghur, and that instead, we must assume a separate mechanism which blocks ESD licensing in contexts with narrow-scoping CQIs.

3.2. NON-QUOTATIONAL CLAUSES WITH NARROW SCOPING CQIs. Cross-linguistically, narrow scoping CQIs often appear in non-quotational embedded clauses, particularly under rogative predicates. Such can be seen in Uyghur as well (15), where the complementizer *dep* takes a finite clause with a narrow scoping CQI. While it could be argued that *dep* functions additionally as a quotational marker, speakers generally agree that such a statement is not a direct quotation, but an indirect quotation (p.c. Gülnar Eziz).

- (15) Reyhan kim tort-ni yé-d-i dep sori-d-i.  
 Reyhan who cake-ACC eat-PST-3 COMP ask-PST-3  
 ‘Reyhan asked who ate the cake.’ [Uyghur]

More evidence for the presence of non-quotational narrow scoping CQIs in Uyghur comes from accusative subject constructions (Asarina 2011; Shklovsky & Sudo 2014; Major 2021). In Uyghur, accusative subjects are disallowed in matrix contexts (16) but permissible in finite complement clauses (17).

- (16) \*Uni kim-ni kör-d-i?  
 3SG.ACC who-ACC see-PST-3  
 Intended: ‘Who did she see?’ [Uyghur]
- (17) Tursun uni kim-ni kör-d-i dé-d-i  
 Tursun 3SG.ACC who-ACC see-PST-3 say-PST-3  
 a. ✓ ‘Who did Tursun<sub>i</sub> say she<sub>j</sub> saw?’ (Wide Scope)  
 b. ✓ ‘Tursun<sub>i</sub> said, ‘Who did she<sub>j</sub> see?’ (Narrow Scope)

In Shklovsky & Sudo (2014), it is argued that the accusative subject is derived by movement of the embedded subject to a specifier position in the embedded CP; typically taken as above indexically shifting monsters. Major (2021) argues that Uyghur allows both raising constructions, in which the subject moves into the matrix clause, and proleptic constructions, in which an accusative DP is generated in the matrix clause and a resumptive pronoun is generated in the embedded clause which controls agreement (18).

- (18) Tursun uni u kim-ni kör-d-i dé-d-i  
 Tursun 3SG.ACC 3SG.NOM who-ACC see-PST-3 say-PST-3  
 a. ✗ ‘Who did Tursun<sub>i</sub> say (of her) that she<sub>j</sub> saw?’ (Wide Scope)  
 b. ✓ ‘Tursun<sub>i</sub> said (of her), ‘Who did she<sub>j</sub> see?’ (Narrow Scope)

The grammaticality of the narrow scope reading in (17-b) is problematic if we assume it must be derived quotationally. If (17-b) contains a quotation, then *uni* cannot be derived via movement, as this movement is licensed only in embedded clauses. As a result, either *uni* must be generated in the matrix clause, or generated in the embedded clause without any movement past subject position. The latter is impossible, as an accusative subject is disallowed in a matrix clause (16), and thus should not be allowed in the matrix clause of a quotation. If *uni* is generated in the matrix clause, then the complement of (17-b) must have a null third person subject, which is also disallowed in matrix clauses as well (6-b). Thus there is no position in which *uni* can be generated in (18-b) compatible with NSQE.

If non-quotational clauses can have narrow scoping CQIs in Uyghur, then we must either assume that some mechanism other than quotation determines ESD, or we must make an argument that clauses with accusative subjects are somehow exceptions to NSQE. In this paper I pursue the former approach, and argue that ESD is blocked not only by quotation, but by the embedding of a Force phrase (ForceP), which enforces the narrow scoping of CQIs. In the following section, I will discuss an analysis of embedding ForcePs in Spanish as pursued in Suñer (1993) and Etxepare (2010), and argue for a similar approach to Uyghur.

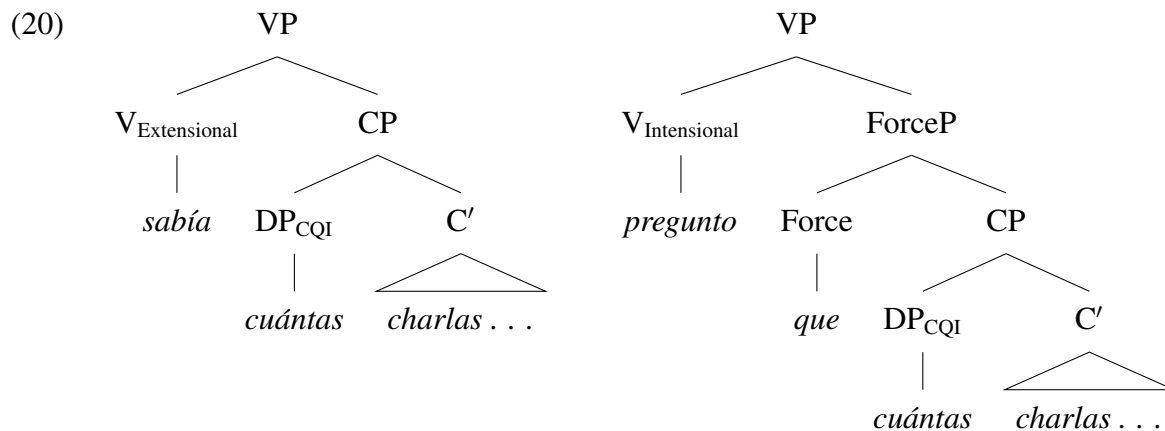
**4. Embedding force in Spanish and Uyghur.** Force phrases are commonly understood as phrases existing in the left periphery of the clause, which encode the illocutionary force of

the clause. While often considered encoded at the highest position in a sentence, illocutionary force, and by extension ForcePs, have been analyzed as embeddable under certain attitude predicates (Hooper & Thompson 1973; Suñer 1993; Etxepare 2010; Rabinovitch 2020).

Suñer (1993) analyzes Spanish intensional predicates as embedding ForcePs, which must be embedded via the word *que*. In (19-a), the intensional predicate *pregunto* embeds a clause with a narrow scoping CQI *cuántas* via *que*. In (19-b), the extensional predicate *sabía* embeds the same clause without *que*. While both sentences have narrow scoping CQIs, only (19-a) is interpreted with illocutionary force, representing a report of a question with interrogative force. The interpretation of (19-b) is not as a report of a question, but rather as a description of some set of non-interrogative propositions known by the matrix subject.

- (19) a. Sue pregunto        que cuántas charlas planeaban    los estudiantes.  
          Sue ask-3SG.PRET QUE how.many talks    plan-3PL.IPF the students  
          ‘Sue asked how many talks the students were planning.’  
       b. Bri sabía            cuántas charlas planeaban    los estudiantes.  
          Bri know-3SG.IPF how.many talks    plan-3PL.IPF the students  
          ‘Bri knows how many talks the students were planning.’ [Spanish; Suñer 1993:53]

Suñer (1993) and Etxepare (2010) assume a syntax similar to that shown in (20), with the structure of an extensional complement without a ForceP on the left, and the structure of an intensional complement with a ForceP on the right.



This can be further extended to verbs like *dijo*, which can take both intensional and extensional interrogative complements, with interpretation differing based only on the presence or absence of *que*.

- (21) a. Juan dijo                    [<sub>ForceP</sub> que    quién venía                    ].  
          Juan say-3SG.PRET        QUE who    come-3SG.IPF  
          ‘Juan said: who was coming?’  
       b. Juan dijo                    [<sub>CP</sub> quién venía                    ].  
          Juan say-3SG.PRET        who come-3SG.IPF  
          ‘Juan said who was coming.’ [based on Etxepare 2010:618]

Suñer (1993) analyzes Spanish attitude predicates and finds that attitude predicates can be categorized into five groups based on whether or not they allow embedding of propositional, interrogative extensional, and interrogative intensional complements. To justify this distribution in

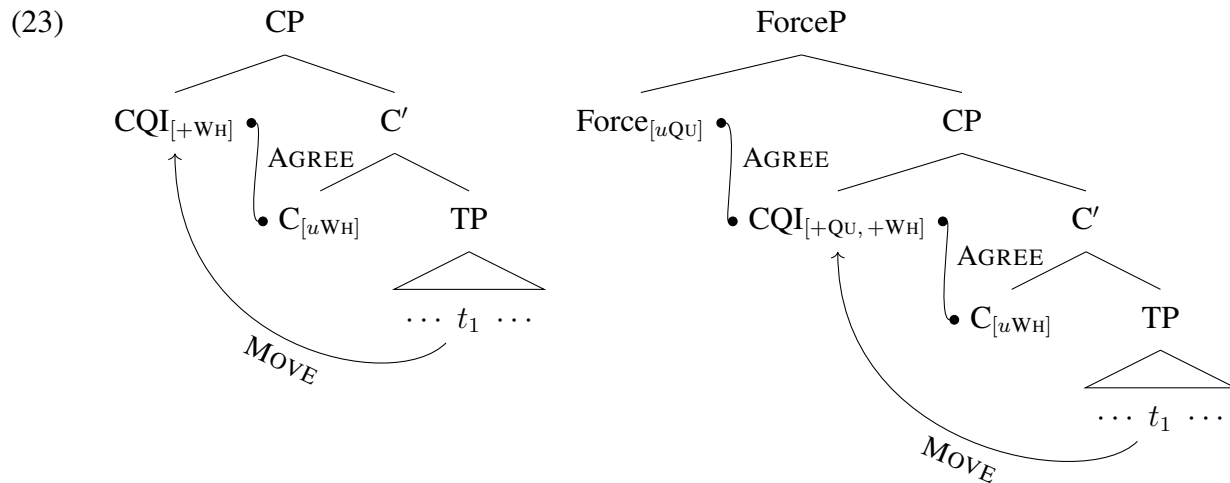
Spanish, as well as a different distribution in English, Suñer (1993) derives two features which categorize attitude complements and can be selected for by attitude predicates. These two features are [WH], which defines a clause as have syntactic cooccurrence with a CQI in SpecCP, and [QU], which defines the clause as having an intensional interpretation with respect to the CQI. Through these two features, the three categories of clause can be determined (22).

(22) Attitude Features (Suñer 1993:63)

- a.  $[-WH, -QU]$ : Propositional attitudes (that-complements)
- b.  $[+WH, +QU]$ : Interrogative intensional attitudes (indirect questions)
- c.  $[+WH, -QU]$ : Extensional intensional attitudes (semi-questions)
- d.  $[-WH, +QU]$ : —

Embedded finite clauses in Uyghur are generally incapable of having extensional interpretations (though see Rabinovitch to appear for a more detailed description and explanation), and so I will not include discussion of them in this paper. In the next section, I will instead use a similar approach to the one just described to explain the differences between clauses with narrow scoping CQIs with intensional interpretation and clauses with wide scoping CQIs.

4.1. FEATURAL REPRESENTATIONS OF CQI INTERPRETATIONS. I adopt an approach similar to Suñer (1993) in which interrogative intensional and extensional attitudes differ both in syntactic size and their features. I maintain the feature system used in Suñer (1993), and argue that [WH] appears as a valued feature on CQIs, and as an unvalued feature on C-heads for which any embedded material has a CQI. Both covert and overt Wh-movement derive from a feature checking system in which an  $[+WH]$  CQI moves into SpecCP to check the C-head's  $[uWH]$  feature, corresponding to a semantic interpretation in which the CQI takes scope over the CP content.

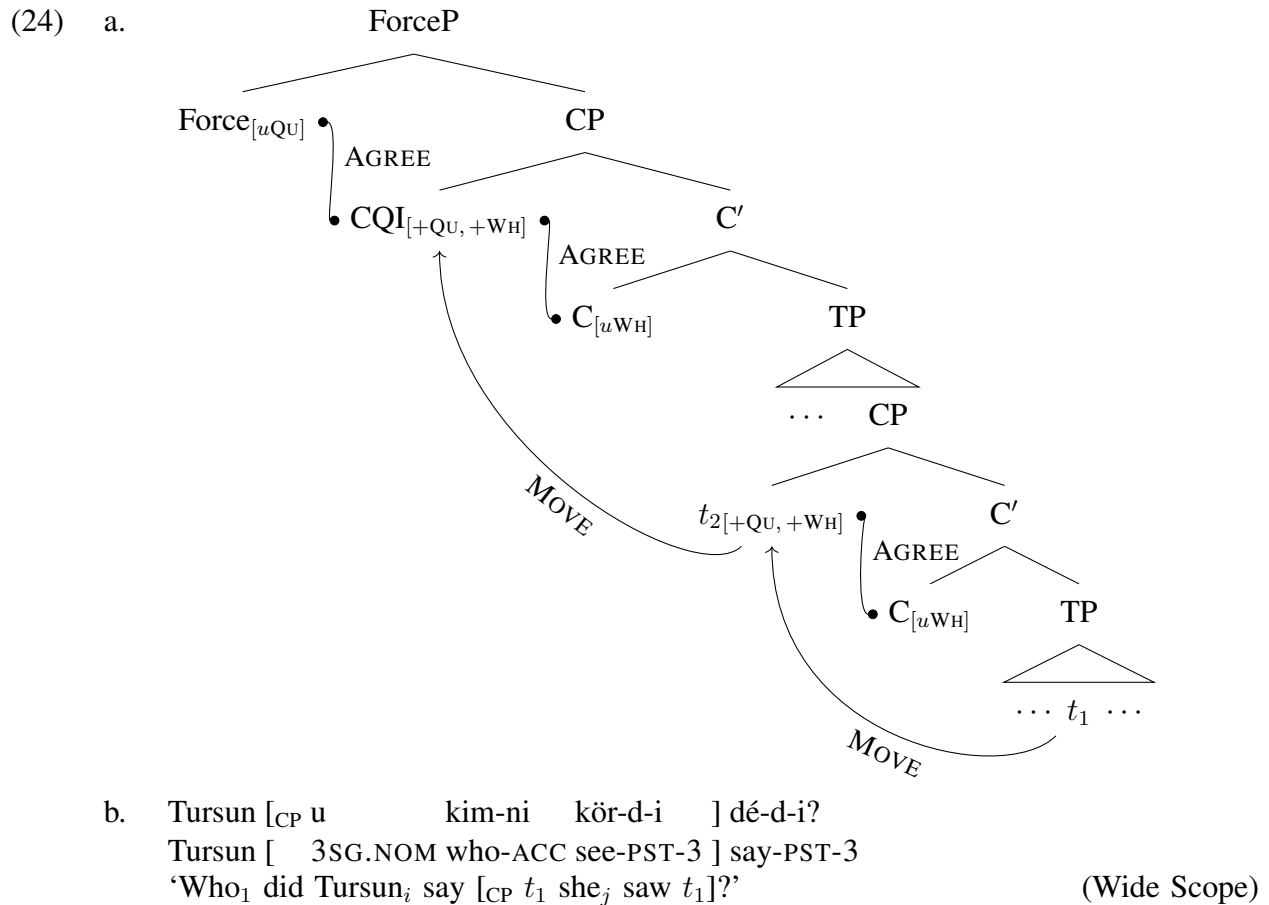


[QU] appears as a valued feature on CQIs which receive an intensional reading, and as an unvalued feature on interrogative Force-heads. A  $[+QU]$  CQI which has raised to SpecCP can act to feature check the  $[uQU]$  Force-head, corresponding to a semantic interpretation in which the CQI represents that which is being asked/wondered about in an indirect or direct question.

I assume that the ForceP is a phase and blocks movement or probing for features following the Phase Impenetrability Condition (Chomsky 2000). While a C-head can probe for  $[+WH]$  within the CP, including the specifiers of embedded CPs, the C-head is blocked from

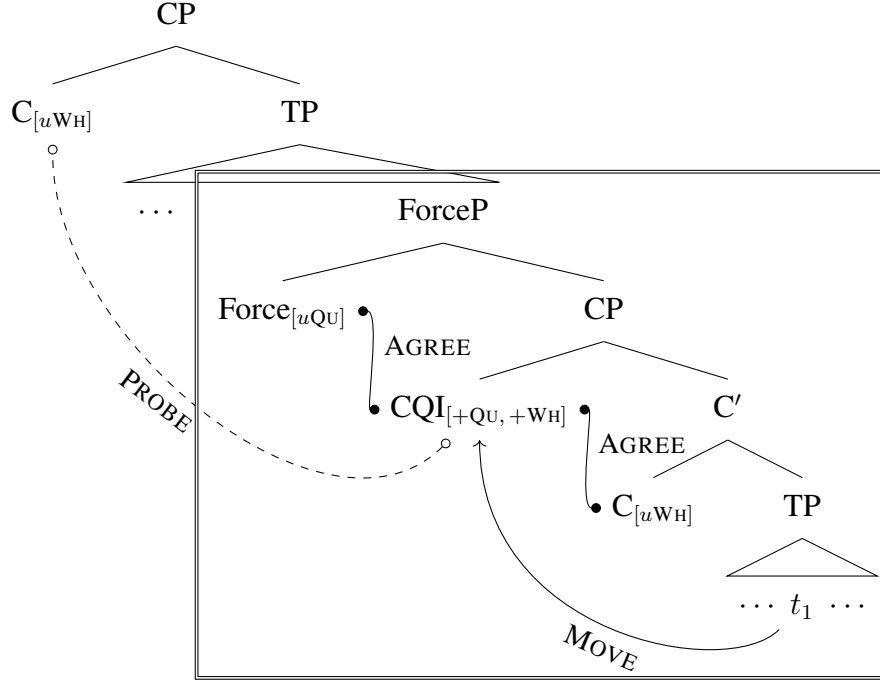


probing within embedded ForcePs, preventing CQI raising past a ForceP. In (24), we see the structure of a sentence with wide-scoping CQI interpretation: the matrix clause embeds a CP which contains a [+QU, +WH] CQI. This CQI raises to SpecCP of the lower clause in order to check the embedded C-head's [*u*WH] feature. The CQI then is probed by the matrix C-head and raises to SpecCP of the matrix clause in order to check features with the higher C head. At this point, the CQI is in a position local to the Force-head of the matrix clause, and can check its [*u*QU] feature as well. In a language with overt wh-movement like English, the CQI would appear at the beginning of the sentence with a gap in the subordinate clause, while in a language without overt wh-movement, like Uyghur, the CQI remains in the subordinate clause (24-b).



In (25), we see the structure of a sentence with narrow-scoping CQI interpretation: the matrix clause embeds an interrogative ForceP which contains a [+QU, +WH] CQI. While the embedded C-head can probe for the embedded CQI and cause wh-movement of the CQI to the embedded SpecCP, the ForceP blocks the matrix C-head from probing within the ForceP, as designated by the double-lined block around the ForceP, and the dashed line representing a failed probe between the matrix C-head and the embedded CQI. The CQI agrees with the embedded C-head and Force-head and is interpreted with in the embedded clause, giving it narrow scope. In a language with overt wh-movement like English, the CQI would appear at the beginning of the embedded clause with a gap in the embedded clause, while in a language without overt wh-movement, like Uyghur, the CQI remains in its base-generated position (25-b).

(25) a.



- b. Tursun<sub>[ForceP u]</sub> kim-ni kör-d-i ] sori-d-i.  
 Tursun [ 3SG.NOM who-ACC see-PST-3 ] say-PST-3  
 ‘Tursun<sub>i</sub> asked [<sub>Force</sub> who<sub>1</sub> she<sub>j</sub> saw *t*<sub>1</sub>].’

(Narrow Scope)

This analysis is able to derive the syntactic differences between clauses with wide- and narrow-scoping CQIs, but it does not give insight into how these differences allow exceptional subject drop under embedded Forceless CPs and block exceptional subject drop under full ForcePs. In the next section, I will discuss Holmberg et al. (2009)’s theory on how partial null subject languages derive null subjects, and use this theory to explain how Uyghur differs from canonical PNS languages in deriving exceptional subject drop.

**5. Licensing partial subject drop.** Holmberg et al. (2009) derives the behavior of partial null subject languages from an interaction between features assigned to the Tense-head and to different kinds of pronouns in a given language. Holmberg et al. (2009) defines a [D] feature which is associated with a referential index or definiteness, similar to Rizzi (1982)’s [REFERENTIAL] feature. Holmberg et al. (2009) assumes that pronouns come in at least two varieties: D-pronouns, which are DPs and have  $\phi$ -features (person, number, gender) as well as a valued [D] feature and an unvalued case [*uK*] feature, and  $\phi$ -pronouns which are  $\phi$ Ps and are relatively deficient, having  $\phi$ -features and a [*uK*] feature, but no [D] feature. Holmberg et al. (2009) follows Roberts (2006) in arguing that a probe and goal form an A-chain when one contains a superset of features of the other. The A-chain is thus subject to chain reduction: namely, the highest copy, and only the highest copy within the chain, may be pronounced (Bobaljik 2002).

In consistent null subject languages, tense hosts an unvalued [*uD*], which must be valued either by agreement with the subject if the subject is a DP, or through a null topic called the Aboutness-shift Topic (A-topic) in SpecCP (Frascarelli 2007; Frascarelli & Hinterhölzl 2007). In (26), a DP subject pronoun contains a [D] feature, valued as some referent *k*. During agreement between the tense and subject, tense shares its case features with the subject, and the subject shares its  $\phi$ -features and its [D] feature with tense. As a result, the features of tense

are a superset of those of the subject, and so the subject and tense form a chain and the subject deletes by chain reduction.

(26) Subject DP in a Consistent Null Subject Language

- a. Tense =  $[T, K, u\phi, uD]$ , Subject =  $[uK, \phi, D = k]$
- b. Tense =  $[T, K, \phi, D = k]$ , Subject =  $[K, \phi, D = k]$  [AGREE]
- c. Tense =  $[T, K, \phi, D = k]$ , Subject =  $[\cancel{K}, \phi, \cancel{D = k}]$  [CHAIN REDUCTION]

In (27), a  $\phi$ P subject pronoun contains a no  $[D]$  feature. Like with a D-pronoun subject, the features of tense become a superset of those in the subject after agreement, and so the subject and tense form a chain and the subject deletes by chain reduction. However, the tense is still unvalued in  $[uD]$ . Higher in the CP, a (possibly covert) A-topic, which functions to introduce or reintroduce a topic in the discourse, is merged with the clause. The A-topic is always definite, and thus contains a valued  $[D]$ . The A-topic is accessible for probing by the tense, and thus the two agree, resulting in the tense having its  $[D]$  feature valued as a referent of the A-topic. The result is an interpretation in which the subject is the A-topic.

(27) Subject  $\phi$ P in a Consistent Null Subject Language

- a. Tense =  $[T, K, u\phi, uD]$ , Subject =  $[uK, \phi]$
- b. Tense =  $[T, K, \phi, uD]$ , Subject =  $[K, \phi]$  [AGREE]
- c. Tense =  $[T, K, \phi, uD]$ , Subject =  $[\cancel{K}, \phi]$  [CHAIN REDUCTION]
- d. A-topic =  $[D = k, \dots]$ , Tense =  $[T, K, \phi, uD]$ , Subject =  $[\cancel{K}, \phi]$  [MERGE]
- e. A-topic =  $[D = k, \dots]$ , Tense =  $[T, K, \phi, D = k]$ , Subject =  $[\cancel{K}, \phi]$  [AGREE]

A-topics themselves may be null pronouns which are given reference via the discourse, typically via the A-topics of previous sentences. Such is the case in Italian, where a third person null matrix subject cannot be licensed (28-a), unless it is coreferent the A-topic of the previous sentence (28-b).

- (28) a. Questa mattina, la mostra è visitata di Gianni. Più tardi \*(egli / lui) ha  
this morning the exhibition was visited by Gianni later he he have  
visitato l'università.  
visited the-university.  
'This morning, the exhibition was visited by Gianni. Later he visited the university.'
- b. Questa mattina, Gianni ha visitato la mostra. Più tardi (<sup>?</sup>egli / <sup>??</sup>lui) ha  
this morning Gianni have visited the exhibition later he he have  
visitato l'università.  
visited the-university.  
'This morning Gianni visited the exhibition. Later he visited the university.'

[Italian; Samek-Lodovici 1996:31–32]

PNS languages differ from consistent null subject languages in that the tense contains no  $[D]$  feature, only valued tense and case features, and unvalued  $\phi$ -features  $[T, K, u\phi]$ . As a result, subject DPs and D-pronouns cannot drop, as their feature-set and the tense feature-set never form a superset-subset relationship, and thus cannot form an A-chain and undergo chain reduction (29).

(29) Subject DP in a Partial Null Subject Language

- a. Tense =  $[T, K, u\phi]$ , Subject =  $[uK, \phi, D = k]$
- b. Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi, D = k]$  [AGREE]

When the subject is a  $\phi$ -pronoun, agreement between the tense and the subject results in an A-chain forming, and thus the subject is dropped (30). However, because neither the tense nor the subject have a  $[D]$  feature, the resulting interpretation is one where the subject has no referent, and is thus generic.

(30) Subject  $\phi$ P in a Partial Null Subject Language

- a. Tense =  $[T, K, u\phi]$ , Subject =  $[uK, \phi]$
- b. Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi]$  [AGREE]
- c. Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi]$  [CHAIN REDUCTION]

Such an analysis can account for the fact that null matrix subjects in PNS languages necessarily have a generic interpretation. But what about null embedded subjects controlled by superordinate subjects? For this, Holmberg et al. (2009) argues that PNS languages employ a third kind of pronoun: a D-pronoun with an unvalued  $[uD]$  feature. Such a pronoun has unvalued reference, and must gain reference from elsewhere. In this way, these kinds of pronouns are referential but necessarily bound. Given how A-topics are accessible  $[D]$  items which c-command the subject, it would seem that they should be a prime candidate as controllers, just as the T-head may get its  $[uD]$  feature valued by the A-topic in consistent subject drop languages like Italian. This, however, would mean that  $[uD]$  featured pronouns freely drop in subject position, which would make PNS languages equivalent to consistent null subject languages in this respect. Holmberg et al. (2009) instead argues that PNS languages have subjects as default A-topics, meaning that there are no A-topics licensed from the discourse like in Italian, as a null A-topic will be interpreted as coreferent with the subject. The result is that  $[uD]$  subjects can be licensed (and dropped) only when they are an embedded subject coreferent with a superordinate subject as in the Finnish (7), modelled in (31).

(31) Unvalued  $[uD]$  Subject in a Partial Null Subject Language

- a. Tense =  $[T, K, u\phi]$ , Subject =  $[uK, \phi, uD]$
- b. Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi, uD]$  [AGREE]
- c. Controller =  $[K, \phi, D = k]$ , Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi, uD]$  [MERGE]
- d. Controller =  $[K, \phi, D = k]$ , Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi, D = k]$  [AGREE]
- e. Controller =  $[K, \phi, D = k]$ , Tense =  $[T, K, \phi]$ , Subject =  $[K, \phi, D = k]$  [CHAIN REDUCTION]

In (31), an unvalued  $[uD]$  subject gains case from the tense, but cannot undergo chain reduction, as the subject has an unvalued  $[uD]$  feature, which is not a subset of the tense's features. The clause is eventually merged with a controller, who is given case assumedly from the matrix tense. It enters an agree relation with the embedded subject, making them featurally equivalent, after which the lower copy in the chain is deleted.

5.1. LICENSING EXCEPTIONAL SUBJECT DROP. How does one then account for Uyghur's exceptional subject drop, in which the embedded null subject is not controlled by the matrix subject? I propose that, like other PNS languages, Uyghur also licenses  $[uD]$  featured subject pronouns. This feature may either be checked by the matrix subject, resulting in coreference,

or by a [D] featured C-head in the embedded clause. I follow Melvold (1991), de Cuba (2017), and Huang (2021) in assuming that complement clauses can be separated into referential and non-referential types, where referential clauses (typically representing factive complements or propositions previously established in the discourse) are featured as definite. I assume that the [DEFINITE] feature used in Melvold (1991) is equivalent to the [D] feature used in Holmberg et al. (2009).

Uyghur would thus derive ESD as shown in (32), where the subject gains case from the tense, but cannot undergo chain reduction, similar to (31). This time however, a [D] featured C-head merges before a controlling subject: this C-head values the [*u*D] feature on the embedded subject and thus forms an A-chain, this time where the subject's features form a superset of the C-head's features. The chain then undergoes reduction where only the highest copy, the C, is pronounced.

(32) Exceptional Subject Dropping ( $\phi$ P)

- a. Tense = [T, K, *u* $\phi$ ], Subject = [*u*K,  $\phi$ , *u*D]
- b. Tense = [T, K,  $\phi$ ], Subject = [K,  $\phi$ , *u*D] [AGREE]
- c. C = [D = *k*], Tense = [T, K,  $\phi$ ], Subject = [K,  $\phi$ , *u*D] [MERGE]
- d. C = [D = *k*], Tense = [T, K,  $\phi$ ], Subject = [K,  $\phi$ , D = *k*] [AGREE]
- e. C = [D = *k*], Tense = [T, K,  $\phi$ ], Subject = [~~K~~,  $\phi$ , ~~D = *k*~~]

[CHAIN REDUCTION]

This [D] featured C-head, however, must be restricted to certain environments. In de Cuba & Ürögdi (2009) it is argued that referential clauses are inherently smaller in syntactic size than their non-referential counterparts. If this is the case, then it follows that referential C-heads may only be licensed when the syntactic size of the clause is relatively small. I argue that [D] featured C-heads can thus only occur when they are the highest head in their extended projection. Such a constraint ensures that C-heads immediately embedded under a ForceP do not have a [D] feature. Because, embedded ForcePs can only license C-heads with no [D] feature, we are able to derive our distribution of ESD licensing only inside clauses with no force (and thus wide-scoping CQIs). Additionally, this means that matrix clauses, which I assume always contain ForcePs, are unable to have [D] featured C-heads. Such a distribution of referential CPs follows the observations that generally the things which referential CPs represent, namely factive complements and propositions previously established in the discourse, do not appear in matrix clauses or under intensional predicates, which would necessarily contain ForcePs.

The question then arises as to how the C-head gets a discourse provided referent, which can then value the subject, allowing interpretation of the dropped embedded subject as someone other than matrix subject. One simple solution to this is that the referent of C can be provided through the discourse. In this way, while A-topics themselves cannot gain referents from previous sentences, embedded referential Cs can. This then allows us to treat ESD similarly to A-Topic licensed dropping in consistent null subject languages. Another solution is that the referent of the C is the thing which the attitude holder has an attitude about: namely it represents the topic of the contents of the attitude. The matrix verb may select for a referent which the attitude is held about, which does not surface as a DP, but rather as the C-head itself. Evidence for this may come in the fact that in Uyghur, attitude verbs can license direct object DPs, but only when the complement is interpreted as having narrow-scoping CQIs, as seen in the proleptic constructions in (18), repeated here.

- (18) Tursun uni            u            kim-ni    kör-d-i    dé-d-i  
 Tursun 3SG.ACC 3SG.NOM who-ACC see-PST-3 say-PST-3
- a. ✗ ‘Who did Tursun<sub>i</sub> say (of her) that she<sub>j</sub> saw?’ (Wide Scope)  
 b. ✓ ‘Tursun<sub>i</sub> said (of her), ‘Who did she<sub>j</sub> see?’ (Narrow Scope)

I propose that (18) can only be interpreted as embedding a ForceP (and thus having a narrow-scoping CQI) precisely because when the matrix verb embeds a CP, any potential object is realized not as a DP, but as the [D] featured C-head. Only when embedding a ForceP is a [D] featured C-head blocked from being generated in the embedded clause, and thus any object of the matrix verb will be realized as a true object DP and given accusative case as in the *uni* in (18).

**6. Conclusion.** Uyghur’s instances of exceptional subject drop are unusual in their reliance on scoping effects; however, they can be explained through the Holmberg et al. (2009) approach of null subject licensing through chain reduction as a byproduct of the limitations of referential C-head licensing under clauses with illocutionary force. Such an analysis provides diagnostics to check the interaction between indexical shift and CQI scope, and raises the issue of other potential interactions between subject licensing and CQI scope. The confluence of ForcePs and their interaction with licensing make them act similarly in opacity to quotations, and indeed this raises the question of whether or not quotation itself should be seen as an opaque delimiter between clauses, or rather, like the ForceP, a culmination of various opacities which appear at the left periphery. Additionally, if this theory is on the right track, it further raises questions about the typology of languages, namely how the aforementioned systems may interact in other languages; we may expect to see languages for which subject drop only occurs under referential CPs, or languages which are not consistent subject drop but have allow for a discourse provided A-topic.

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