

## Subjacency effects on overt *wh*-movement in *wh*-in-situ languages: Evidence for nominal structure

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**Abstract.** This paper investigates whether overt *wh*-movement in Korean, a *wh*-insitu language, triggers Subjacency violations in the same set of bounding configurations as English. Yoon (2013) and Jung (2015) showed that Korean *wh*-islands display Subjacency effects, and we ask whether the Complex NP and Coordinate Structure Constraints are also observed. We find that they are not. We propose that this is because Korean nominal expressions need not project DP. Our analysis supports previous accounts of Korean nominal structure (Kim et al. 2010), which suggest (based on optionality of determiners) that "Korean NP structure is non-configurational or lacks the category D."

**Keywords.** syntax; Korean; English; *wh*-in-situ; overt movement; Subjacency; Empty Category Principle; Complex NP Constraint; Coordinate Structure Constraint

- **1. Introduction.** This paper investigates whether overt wh-movement in Korean, a wh-in-situ language, triggers Subjacency violations in the same set of bounding configurations as English. The paper will proceed as follows: First, we briefly review the difference between Subjacency and the Empty Category Principle (ECP), showing how Subjacency applies at Spell-out and the ECP applies at LF. This is important, given that the ECP applies to all wh-constructions in Korean, including those with covert LF wh-movement, and that Subjacency can only apply to overtly moved wh-elements. We next review a previous debate about whether overt whmovement in Korean and Japanese is sensitive to wh-island type Subjacency constraints. Here, recent papers by Yoon (2013) and Jung (2015) show that it is. Then, turning to other environments in which Subjacency is known to apply, we show that overt wh-movement in Korean is not sensitive to extraction from nominal islands, namely those which are typically involved in Complex NP Constraint (CNPC) and Coordinate Structure Constraint (CSC) violations. Our analysis of these facts proposes that this is not the result of any variability of Subjacency itself, but rather because Korean nominal expressions need not project DP and thereby need not project bounding domains. Our analysis confirms previous accounts of Korean nominal structure (e.g., Kim et al. 2010) which suggest (based on optionality of determiners) that "Korean NP structure is non-configurational or lacks the category D." Finally, we will compare this behavior to that of other languages, such as Bulgarian, whose lack of DP projections licenses wh-movement out of configurations (e.g., clausal subjects) that are not possible for English and French.
- **2. Subjacency vs. the ECP.** Bounding constraints on *wh*-movement (i.e., Subjacency constraints) involve the prohibition of movement across more than a single bounding node at one time. Given bounding nodes DP and IP (formerly NP and S), this means that *wh*-movement will be degraded in acceptability if it crosses two bounding nodes at a time, typically involving DP or

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wh-islands. In (1a), the movement of who crosses a single IP node in each movement and is acceptable. In each of (1b) and (1c), however, two bounding nodes are crossed in a single step. In (1b), who crosses the DP node dominating books and the matrix IP node in a single step. In (1c), who crosses both IP nodes in a single step, since the lower specifier of CP is already occupied by why. Both (1b) and (1c) violate Subjacency.

- (1) a. Who<sub>1</sub> do [ $\mathbf{IP}$  you remember [ $\mathbf{CP}$  t<sub>1</sub> [ $\mathbf{IP}$  that we criticized t<sub>1</sub> ]]]?
  - b. \*Who<sub>1</sub> do [ $_{IP}$  you remember [ $_{DP}$  books [ $_{CP}$   $t_1$  that [ $_{IP}$  criticized  $t_1$  ]]]?
  - c. \*Who<sub>1</sub> do [ $_{\text{IP}}$  you remember [ $_{\text{CP}}$  why [ $_{\text{IP}}$  we criticized  $\mathbf{t}_1$  ]]]?

Potentially complicating Subjacency violations and making them worse is the ECP, which demands that traces be properly governed. Proper government of a trace can be satisfied either by its being the semantic argument of a verb (i.e., theta-governed) or by its being anteceded by another co-indexed element that is close enough (i.e., antecedent governed). The contrast between (1b) and (2b) illustrates.

- (2) a. How severely 1 do [IP you remember [CP  $t_1$  [IP that we criticized his actions  $t_1$ ]]]?
  - b. \*How severely<sub>1</sub> do [IP you remember [DP the actions<sub>2</sub> [IP we criticized t<sub>2</sub> t<sub>1</sub> ]]]?

In (1b), movement of *who* across the DP node dominating *books* and the matrix IP node in a single step violates Subjacency, but the trace of *who* as object of the verb *criticized* allows it to be properly (theta) governed by the verb. In (2b), movement of *how severely* across the DP node dominating *the actions* and the matrix IP node in a single step also violates Subjacency, but the trace of *how severely* is not theta-governed by the verb *criticized* and cannot be antecedent governed by the moved *wh*-element. It thus also violates the ECP, making (2b) much worse than (1b).

**3. Subjacency vs. the ECP in Chinese and Japanese.** We can now turn to languages (Chinese and Japanese) that ordinarily have covert *wh*-movement (i.e., movement at LF). Because ECP violations are incurred at LF and Subjacency violations are triggered at Spell-out, these languages usually show effects of the former and not the latter.

In arguing for LF as a syntactic level of representation, Huang (1982, 1995) demonstrates that (i) Chinese *wh*-expressions undergo movement at LF and are subject to ECP constraints at that level of structure, and (ii) LF movement does not trigger Subjacency violations. Example (3) illustrates a case in which an embedded in-situ *wh*-element can have perfectly natural main clause question interpretation in a structure that would normally trigger a Subjacency violation in English.

- (3) a. ni zui xihuan [NP [mai **shenme**]-de ren]? you most like buy what REL person 'What is the x such that you like the man who bought x?'
  - b. \*What do you like the man who bought  $t_1$ ?
- (3') LF:  $[CP \text{ shenme}_1 \quad [IP \text{ ni} \quad zui \quad xihuan \quad [NP [IP \text{ mai} \quad t_1] de \quad ren]]]$ ?

Example (3a), as we see here in (3'), involves an LF interpretation which would, if Subjacency applied at LF, trigger a CNPC violation. Example (3b), the English equivalent of (3a), involving

overt wh-movement, is ungrammatical. Note that the trace of *shenme* 'what' in (3') is properly (theta) governed by the verb mai 'buy'.

However, while Subjacency violations are avoided by delaying *wh*-movement until LF, the ECP still applies. Example (4), like (3a) but with a *wh*-adjunct, is ungrammatical.

- (4) \*ni zui xihuan [NP [ weishenme mai shu]-de ren]?
  you most like why buy books-REL person
  'What is the reason x that you like the man who bought books for that reason?'
- (4') LF: [CP] weishenme [CP] ni zui xihuan [CP] [CP] t mai shu]-de ren]]]?

Here in (4'), the trace of *weishenme* 'why' fails to be properly (antecedent) governed at LF, and the structure is ungrammatical. According to Huang, the movement of *shenme* 'what' in (3a) and *weishenme* in (4) are delayed until LF, and Subjacency only applies at Spell-out. In both structures, the *wh*-elements cross two bounding nodes (NP and IP) but incur no Subjacency violations. Example (4) fails at LF, though, because the trace of *weishenme* fails to be properly governed. Further demonstrating the ECP effects at LF in Chinese, Huang shows how it can block one of two possible interpretations when a complement clause contains two *wh*-elements. Example (5) contains the *wh*-elements *shenme* and *weishenme*, and while the object *wh*-element *shenme* can have a matrix scope after LF movement, the movement of the *wh*-adjunct *weishenme* is blocked.

- (5) ta xiang-zhidao [wo **weishenme** mai **shenme**]? he wonder I why buy what
  - a. 'What is the x such that he wonders why I bought it?'
  - b. \*'What is the reason x such that he wonders what I bought for that reason x?'
- (5') a. LF: [CP] shenme $_1$  [IP] ta xiang-zhidao [CP] weishenme $_2$  [IP] wo [CP] mai [CP] with [CP] weishenme $_2$  [CP] wo [CP] mai [CP] with [CP] weishenme $_2$  [CP] with [C
  - b. LF: [CP weishenme2 [IP ta xiang-zhidao [CP shenme1 [IP wo t2 mai t1]]]]?

The structures shown in (5') illustrate why this is so. In (5a'), the trace of *shenme* is properly (theta) governed by the verb *mai* 'buy', and the interpretation is available (since Subjacency does not apply). In (5b') the trace of *weishenme* is not properly governed, since it is not theta governed by the verb and it cannot be antecedent governed by its coindexed antecedent.

As regards ECP violations in Japanese, Lasnik & Saito (1992) show that LF movement in Japanese shows the same argument-adjunct asymmetry that we observed for Chinese. In (6), we see two sentences with embedded *wh*-elements, *nani* 'what' in (6a) and *naze* 'why' in (6b). Only the first of these can be interpreted as a main clause *wh*-operator.

- (6) a. John-wa [Mary-ga **nani-o** katta kadooka] siritagatte iru no? John-TOP Mary-NOM what-ACC bought whether wants.to.know Q (**What**<sub>1</sub> does John want to know whether Mary bought **t**<sub>1</sub>?)
  - b. \*John-wa [Mary-ga **naze** soro-o katta kadooka] siritagatte iru no? John-TOP Mary-NOM why it-ACC bought whether wants.to.know Q (**Why**<sub>1</sub> does John want to know whether Mary bought it **t**<sub>1</sub>?)

<sup>1</sup> Others argue that LF movements involve invisible feature/operator movement, and wh-phrases do not necessarily move to check a [+wh] feature in the head of CP (Aoun & Li 1993, Chomsky 1995).

In (6a), after LF movement to the matrix Spec,CP, the trace of *nani* is properly (theta) governed, while in (6b) the trace of *naze* is not properly governed and violates the ECP.

**4. Overt scrambling vs.** *wh***-movement in Japanese and Korean.** Having illustrated the differential effects of Subjacency and the ECP for *wh*-in-situ constructions, we turn to the matter of Subjacency effects in Japanese and Korean when embedded *wh*-elements are overtly moved to the beginning of a matrix clause. In some instances, their movement may involve focus-triggered scrambling while in others it may be pure *wh*-movement.

Saito (1989) provides examples of overt scrambling of *wh*-expressions in Japanese, shown here in (7). In (7), only the embedded clause is marked as an interrogative, and *nani* 'what' is interpreted as being within the scope of *ka* in both (7a) and (7b). Saito assumes that *nani* in (7b) is scrambled and then reconstructed to its original embedded position at LF.

- (7) a. John-ga [Mary-ga **nani-o** katta **ka**] sitteiru. John-NOM Mary-NOM what-ACC bought **Q** knows 'John knows what Mary bought.'
  - b. nani-o<sub>1</sub> John-ga [Mary-ga t<sub>1</sub> katta ka] sitteiru. what-ACC John-NOM Mary-NOM bought Q knows 'John knows what Mary bought.'

Example (8) presents a different, and more complex, problem. In (8), both the matrix and embedded clauses are interrogative, with ka signaling [+Q] on the lower clause and no signaling [+Q] on the matrix clause. Here, either the matrix or the embedded clause can be interpreted as a yes-no question. For the interpretation in (a), it is assumed that nani moves to Spec,CP of the embedded clause and remains within the scope of ka. For interpretation (b), nani would move to the matrix CP and check the Q-feature of no, leaving the embedded ka to signal a yes-no question. Note that in order for (b) to be available, Subjacency must not apply at LF (Takahashi 1993).

- (8) John-wa [Mary-ga **nani-o** tabeta **ka**] siritagatteiru **no**? John-TOP Mary-NOM what-ACC ate **Q** wants.to.know **Q** 
  - (a) 'Does John want to know what Mary ate?' or
  - (b) 'What<sub>1</sub> does John want to know whether Mary ate  $t_1$ ?'

It is a fact, though, that (8) tends to be more readily interpreted as a main clause *yes-no* question (i.e., interpretation (a)), and some Japanese linguists (Nishigauchi 1990, Watanabe 1992) have therefore suggested that Subjacency might apply at LF in Japanese. We take no position on this.

Comparing the two structures in (7) and (8), involving respectively (i) overt movement of wh-expressions and (ii) matrix and embedded interrogatives in the same sentence, we turn to what happens when these two factors are combined in Korean. Here, in example (9), we see a wh-phrase nwukwu 'who' overtly moved to the beginning of the clause. Alongside this, both the matrix and embedded clauses are interrogatives, marked with -ci and -ni, respectively.

- (9) **Nwukwu-lul**<sub>1</sub> ne-nun [ku-ka partner-lo **t**<sub>1</sub> senthaykha-l-**ci**] al-ko sip-**ni**? who-ACC you-TOP he-NOM partner-as choose-FUT-**Q** wants.to.know-**Q** 
  - (a) 'Do you want to know **who** he will choose as his partner?'
  - (b) ??'Who1 do you want to know whether he will choose t1 as his partner?'

The two interpretations shown here are dependent on whether *nwukwu* is scrambled into the main clause as in (a), leaving the main clause as a *yes-no* interrogative and *nwukwu* to be interpreted within the scope of *ci*, or whether it is *wh*-moved into the matrix clause as in (b), leaving the embedded interrogative to get a *yes-no* question interpretation.<sup>2</sup>

The interpretation of (9) has been controversial. While Lee (1993) claims that both interpretations of (9) are available, subsequent research has disputed this (inconclusively). In Park (2010), it is claimed that only (b) is available, while Kim (1998) and Shin (2005) assert that (9) can only be interpreted as in (a). More recent work by Yoon (2013) and Jung (2015) has shed some additional light on the question. In Yoon (2013), an experimental reading test found that native Korean speakers preferred interpretation (a) over (b) by a factor of about 10 to 1 (91.2% to 8.8%). This preponderant preference for scrambling interpretation (a) over *wh*-movement interpretation (b), led Yoon (and Jung) to tie the results to Subjacency effects, and to suggest that the interpretation of overt *wh*-movement in Korean is restricted (unsurprisingly) by Subjacency.

- **5. CNPC and CSC effects in Korean.** Having seen here above that overt *wh*-movement can respect Subjacency in Korean, at least as regards *wh*-islands, we are led to ask whether other Subjacency constraints, such as the Complex NP Constraint (CNPC) and Coordinate Structure Constraint (CSC), are also observed. We find they are not. Examples (10) and (11) illustrate apparent violations of the CNPC and CSC, respectively.
- (10) a. Dan-i [[Hana-ka **mwues-ul** mek-ess-ta-ko] malha-n saram-ul] po-ass-ni? D-NOM H-NOM what-ACC eat-PST-DECL-COMP speak-MOD person-ACC see-PST-Q (Did Dan see [the person [who said that Hana ate what]]?) \*non-echo interpretation
  - b. **mwues-ul**<sub>1</sub> Dan-i [[Hana-ka **t**<sub>1</sub> mek-ess-ta-ko] malha-n saram-ul] po-ass-ni? what-ACC D-NOM H-NOM ate-DECL-COMP speak-MOD person-ACC see-PST-Q (**What**<sub>1</sub> did Dan see [the person [who said that Hana ate **t**<sub>1</sub>]]?)
- (11) a. Hana-ka [mwues-kwa banana-lul] mek-ess-ni?
  Hana-NOM what-and banana-ACC eat-PST-Q
  (Did Hana eat [what and a banana]?) \*non-echo interpretation
  - b. **mwues-kwa**<sub>1</sub> Hana-ka [ **t**<sub>1</sub> banana-lul] mek-ess-ni? what-and Hana-NOM banana-ACC eat-PST-Q (**What**<sub>1</sub> did Hana eat [ **t**<sub>1</sub> and a banana]?)
  - c. Hana-ka [banana-wa **mwues-ul**] mek-ess-ni?
    Hana-NOM banana-and what-ACC eat-PST-Q
    (Did Hana eat [a banana and what]?) \*non-echo interpretation

(b) ??'Who<sub>1</sub> do you want to know whether he will choose t<sub>1</sub> as his partner?'

<sup>&</sup>lt;sup>2</sup> It is important to note that a matrix clause interpretation for the embedded *wh*-expression *nwukwu* 'who' is not more available when it is left in situ as when it is overtly moved to the matrix clause.

<sup>(</sup>i) ne-nun [ku-ka partner-lo **nwukwu**-lul senthaykha-l-**ci**] al-ko sip-**ni**? you-TOP he-NOM partner-as who-ACC choose-FUT-**Q** wants.to.know-**Q** 

<sup>(</sup>a) 'Do you want to know **who**<sub>1</sub> he will choose **t**<sub>1</sub> as his partner?'

<sup>&</sup>lt;sup>3</sup> A listening test showed that subjects are quite sensitive to sentence intonation. When the target sentence was asked with *wh*-question intonation, Korean speakers showed preference for a *wh*-question interpretation (60%) over a *yes-no* question interpretation (37.5%). However, when the target sentence was presented with *yes-no* intonation, 82.5% of participants interpreted it as a *yes-no* question, but 17.9% interpreted it as a *wh*-question.

d. **mwues-ul**<sub>1</sub> Hana-ka [banana-wa **t**<sub>1</sub>] mek-ess-ni? what-ACC Hana-NOM banana-and eat-PST-Q (**What**<sub>1</sub> did Hana eat [a banana and **t**<sub>1</sub>]?)

In (10) and (11), we see that overt movement of the *wh*-element *mwues* 'what' is perfectly acceptable out of a complex NP in (10b) and out of either the first or the second position within the conjoined noun phrase in (11b) and (11d). These sentences do not display acceptability deficits that would ordinarily be expected of Subjacency violations.<sup>4</sup>

It is important to point out here that examples (10) and (11) all involve bare, non-discourse-linked (D-linked) *wh*-expressions. As originally explained in Pesetsky (1987), D-linked interrogative expressions, such as *which banana*, are distinguished from non-D-linked interrogatives, such as *what*, in that they (the former) imply "the existence of a context set of familiar entities of the type denoted by the nominal" (e.g., a set of already mentioned bananas).<sup>5</sup> This is important to our observations because D-linked *wh*-expressions can readily violate locality constraints. That the extraction of bare *wh*-expressions is grammatical in (10) and (11), in contrast with (9), is quite telling, since if Subjacency could block any objects from extraction, it should be these.

It needs be acknowledged here that left-dislocated, bare *wh*-expressions in *wh*-in-situ languages (such as Japanese and Korean) may in fact be D-linked. Following Pesetsky (1987), which asserted a categorical D-linking difference between bare and complex *wh*-expressions, research on Japanese and Korean *wh*-movement has argued for left-dislocation of *wh*-expressions in those languages to involve scrambling and for scrambling to involve D-linkage. Thus, according to Miyagawa (2006), scrambled *wh*-expressions can at some point be D-linked (Miyagawa 2006, Yoon 2013). This is illustrated in Miyagawa (2006), wherein it is suggested for pair-list questions, such as (12), that a scrambled *wh*-expression induces D-linkage.

(12) Nani-o<sub>1</sub> dare-ga t<sub>1</sub> katta no? [=Miyagawa 2006:(32)] what-ACC<sub>1</sub> who-NOM bought Q 'What, who bought?'

'[Who and Hana] like Tom?'

(??Who does Hana like [t<sub>1</sub> and Tom]?)

In contrast to (11), which involves subjects and objects of the verb 'eat', the subject and object of 'like' can all be people as in (i), leaving the semantic role of the scrambled elements ambiguous. In these cases, scrambling is confounded by language processing difficulties.

<sup>&</sup>lt;sup>4</sup> According to Lee (1993), scrambling in Korean can sometime be restricted due to an *anti-ambiguity* strategy, which functions as a discourse constraint (see Kuno 1980). The examples in (i), structurally identical to (11), behave differently.

<sup>(</sup>i) a. Hana-ka nwuku-wa Tom-ul cohaha-ni? Hana-NOM who-and Tom-ACC like.PRES-Q 'Who1 does Hana like [t1 and Tom]?'

b. **nwuku-wa**<sub>1</sub> Hana-ka **t**<sub>1</sub> Tom-ul cohaha-ni? who-and Hana-NOM Tom-ACC like.PRES-Q

c. **nwuku-lul**<sup>1</sup> Hana-ka Tom-kwa **t**<sup>1</sup> cohaha-ni? who-ACC Hana-NOM Tom-and like.PRES-Q

<sup>&#</sup>x27;Who<sub>1</sub> does Hana like [ Tom and  $t_1$ ]?'

<sup>&#</sup>x27;Who1 do [Hana and Tom] like t1?'

<sup>&</sup>lt;sup>5</sup> http://www.glottopedia.org/index.php/Discourse-linked\_interrogative\_phrase

Regarding (12), Miyagawa states that the scrambled *wh*-word *nani* 'what' presupposes that there are a specific set of objects which some people bought. Thus, this question is distinct from its unmoved counterpart *who bought what?* by adding additional discourse information.

While Miyagawa (and others) are likely correct in their analysis of scrambling as involving D-linkage, the contrast in the effects of Subjacency on *wh*-islands as in (9) and on CNPC/CSC islands as in (10) and (11) remains and requires an explanation.

**6. Explaining** *wh***-island vs. CNPC/CSC island contrasts: Optional projection of DP.** In order to adequately understand the difference between *wh* and CNPC/CSC islandhood, it is important to realize that the bounding node relevant to the latter is DP, rather than NP. This is shown quite clearly in Davies & Dubinsky (2003) (henceforth D&D 2003), wherein subject islands are proven to involve DP projections that are present in English even when the subject is not nominal (i.e., not an NP).

Noting the distribution of emphatic reflexive pronouns, among several other tests, D&D (2003) demonstrate that all subjects involve a DP projection in English. This is illustrated in (13), where only the clausal subject of *made* in (13a) and not the clausal object of *hate* in (13b) can host an emphatic reflexive.

- (13) a. [DP [That John comes to work drunk]] (itself) made Harry want to fire him.
  - b. Harry hated [that John comes to work drunk] (\*itself).

Having shown that clausal subjects (but not objects) project DP, D&D (2003) go on to demonstrate that the DP-hood of these clausal subjects induces Subjacency violations, as in (15a), in contrast with (15b).

- (14) a. [DP [to get a new bicycle for his birthday]] would make Harry very happy.
  - b. Harry is hoping [to get a new bicycle for his birthday].
- (15) a. \*what<sub>1</sub> would [IP [DP [to get t<sub>1</sub> for his birthday]] make Harry very happy]?
  - b. what<sub>1</sub> is [IP Harry hoping [to get t<sub>1</sub> for his birthday]]?

Returning to consider the differences between (9) on the one hand and (10)/(11) on the other which might lead to such a contrast, we propose that it is due to Korean, unlike English, not needing to project a DP node for its nominal expressions. In (9), wh-movement crosses two IP (bounding) nodes in one movement and violates Subjacency. There, the wh-object nwukwu 'who' in the embedded clause moves to the matrix clause, crossing the wh-island induced by the interrogative affix -ci in the embedded clause.

In the potential CNPC and CSC case, however, Subjacency violations would not arise if *saram* 'person' in (10) and *mwues-kwa banana* 'what and a banana' in (11) are only dominated by NP, and no DP nodes are involved. If the structures in (10b) and (11b) are as shown in (10b') and (11b'), rather than as in (10b") and (11b"), we should not expect locality movement violations to arise.

- (10b') **mwues-ul**<sub>1</sub> [IP Dan-i [NP [CP [Hana-ka  $\mathbf{t}_1$  mek-ess-ta-ko] malha-n] saram-ul] ... (10b") **mwues-ul**<sub>1</sub> [IP Dan-i [DP [CP [Hana-ka  $\mathbf{t}_1$  mek-ess-ta-ko] malha-n] saram-ul] ...
- (11b') mwues-kwa1 [IP Hana-ka [NP t1 banana-lul]...
- (11b") mwues-kwa<sub>1</sub> [ $_{IP}$  Hana-ka [ $_{DP}$   $t_1$  banana-lul]...

This analysis is supported by previous accounts of Korean nominal structure (Kim et al. 2010) which have proposed (based on the optionality of determiners) "that the Korean NP structure is non-configurational or lacks the category D." It is thus the particular structure of Korean nominal expressions that allows for the differences between *wh* and CNPC/CSC islandhood to arise.

**7. Optional DP and Subjacency in other languages: Bulgarian.** Having attributed Subjacency differences between Korean and English as being due to differences in nominal structure, specifically in the projection of DP, we would note that Korean is not alone in this. Other languages are also found to optionally project DPs in contexts where English demands it, and when they do not, Subjacency effects go away. Bulgarian is one of these.

Having shown above that extraction from clausal subjects in English is sensitive to Subjacency and triggered by these clausal subjects projecting DP, we can compare analogous constructions in Bulgarian. Here below, we see for English that *wh*-extraction from an extraposed clausal subject in (16a) is possible, but not out of an in situ clausal subject in (16b). When analogous Bulgarian constructions are compared, we find *wh*-extraction out of clausal subjects to be perfectly acceptable, as in (17c).

- (16) a. What<sub>1</sub> does he think it is important [ $_{CP}$  for you to go to  $_{t_1}$ ]?
  - b. \*What<sub>1</sub> does he think [subj-DP [CP for you to go to  $t_1$ ]] is important?
- (17) a. Mislja [CP če za nego beše vañno [da otide na kino]]. I think that for him was important to go to cinema 'I think that it was important for him to go to the cinema.'
  - b. ?na kakvo<sub>1</sub> misliš [CP če beše vañno za nego [da otide t<sub>1</sub>]]. to what you.think that was important for him to go 'To what do you think that it was important for him to go t<sub>1</sub>?'
  - c. **na kakvo**1 misliš [CP če [da otide  $\mathbf{t}_1$ ] beše vañno za nego]] to what you.think that to go was important for him (To what do you think that to go  $\mathbf{t}_1$  was important for him?)

In D&D (2003), these facts along with other supporting evidence are marshalled to show that Bulgarian clausal subjects, unlike those in English, do not project DP. Thus, we can conclude that Korean, like Bulgarian, is another language in which the divergent distribution of DP projections is found to interact with locality constraints on overt movement.

**8.** Conclusion. In this paper, we have confirmed that Subjacency and the ECP are observed in different conditions. That is, Subjacency applies at Spell-out and the ECP applies at LF. In Korean, regarding constraints on *wh*-movement, the ECP applies to all *wh*-constructions including those with covert LF *wh*-movement, whereas Subjacency can only apply to overtly moved *wh*-elements (similarly to overt *wh*-movement in Japanese). However, we also found that overt *wh*-movement (i.e., leftward scrambling of *wh*-elements) is not blocked out of nominal islands, and that the Complex NP Constraint (CNPC) and Coordinate Structure Constraint (CSC) do not apply to these structures. Our explanation for this apparent incongruity in the application of Subjacency is that Korean nominal expressions need not project DP and thereby need not constitute bounding domains.

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