

An English *Tough*-construction Resolution: A Minimalist Account

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Sungshim Hong. 2009. An English *Tough*-construction Resolution: A Minimalist Account. *Language and Information* 13.1, 127–143. *Tough*-construction is, undoubtedly, one of the most puzzling syntactic problems in the history of transformational grammar. Various approaches have been proposed including Deletion approaches (Akmajian, 1972; Lasnik and Fiengo, 1974) and movement approaches. Among the movement approaches, Chomsky (1977; 1981) argues for movement of null Operator, and Hornstein (2001) argues for a two-step movement equipped with Sideward movement. Most recently, Schueler (2004) and Hartman (2009) each have also argued for a kind of movement approach. With the development of the Minimalist syntax (Chomsky, 1995; Chomsky, 2000; Chomsky, 2001), *tough*-construction, an age old problem in the description of grammar, turns into another round toward to a more satisfactory answer. By examining the most recent competing analyses of *tough*-constructions, this paper defends and extends Schueler's (2004) analysis, rather than Hartman's (2009) two step movement approach. Furthermore, this paper proposes that *tough*-subject originates from the intermediate CP internal Spec-TopicP position rather than from the iterated CP layer (Authier, 1992). This approach has more descriptive power than it was originally argued for in Schueler (2004) and is a step closer toward Minimalism insofar as the conception of government is no longer utilized. (Chungnam National University)

Key words: *tough*-construction, sentential subject, Sideward movement, Extraposition effect, Phase, Defective Intervention effect, Improper movement, left periphery

1. Introduction

Undoubtedly, in the history of transformational-generative grammar, the *tough*-construction is one of the most puzzling and difficult constructions. In the 60's

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and 70's when the transformational component of the grammatical description is rich and powerful, *tough*-subject, i.e., the surface subject of the *tough*-constructions has been considered to be transformationally derived. For example, consider the following:

- (1) a. John is tough to please
 b. John is tough [OP_i [PRO to please t_i]]
- (2) a. It is tough to please John
 b. [That John failed in the syntax exam] is tough to believe

As (1a), 'John' starts from the direct object position of 'please' and turns into the subject of the sentence. The peculiar properties of *tough*-constructions can be summarized as follows: First the surface subject is understood as the direct object of 'please'. Second, this surface subject position can be occupied by an expletive 'it' as in (2a), which means that this position is theta-less. Thirdly, this position can also be occupied by a clausal argument as in (2b). Finally, the understood object position of 'please' is a thematic & Case position, which means there is no theory-internal reason for the object to (A-) move.¹

Under LGB (Chomsky, 1981), the agentive thematic role of 'please' requires PRO as its subject, and a null Operator (with potentially +WH in nature) moves from the thematic position to the intermediate CP. The surface subject 'John' is inserted later in the derivation, let say, S-structure, yielding (1b). The later insertion of the syntactic object has to be guaranteed since (2a) is also grammatical. The grammaticality of (2a) with the expletive 'it' indicates that the surface subject position is a theta-less position.²

However, this LGB analysis of *tough*-construction has been immediately discarded because not only 'John' but also 'That John failed in the syntax exam' can also serve as a surface subject. This means that the surface subject position may *not* be theta-less, in some situations such as (2b).

In later years, more proposals and analyses have been suggested. For example, Brody (1993) and Hornstein (2001). Hornstein (2001) proposes a Sideward movement analysis for *tough*-construction. The Sideward movement allows 'John' originates from the thematic position of 'please' and moves to the CP. Then there is a sub-tree that contains an AP [_{AP}John-tough],³ and finally 'John' moves to the surface position.⁴

Most recently, however, there are two proposals that have surfaced in the field of generative syntax: one is Schueler's (2004) and the other is Hartman's (2009) proposal. Both analyses have one thing in common. That is, the surface subject in *tough*-constructions is a derived syntactic object rather than a base-generated

¹ Note that A-movement is normally Case driven movement to a theta-less position.

² Compare "John is tough", in which 'John' bears some kind of a thematic role of the predicate "being tough", whereas 'John' in "John is tough to please" has no such role.

³ More like a Small Clause in nature.

⁴ Hornstein (personal communication) has given up his Sideward movement analysis of *tough*-constructions for some independent reasons.

denizen. Schueler's point is that the surface subject starts from the intermediate CP adjoined position and Hartman's stance is that such subject is from the embedded thematic position of 'please'. Schueler's approach can be characterized as "A Composite Chain Approach" because his analysis involves two Chains; one A-bar Chain headed by a null Operator (as Chomsky (1981) did for Topicalization) and A-Chain headed by the *tough* subject. Thus, under this view, *tough*-construction is the result of two composite Chains with both A-Chain and A-bar Chains. Hartman's proposal is more or less traditional in that the *tough*-subject originally starts from the thematic position and lands at the surface position via intermediate CP.⁵

This paper examines Hartman's (2009) and Schueler's (2004) proposals, both of which are written under the Minimalist spirit, and shows that *tough*-construction in English can be better analyzed under Schueler's approach with a modification on the internal structure of CP. The overall organization of this paper is as follows: In Section II, Hartman's arguments are briefly sketched, and Schueler's analysis of *tough*-construction in the context of definite/indefinite DP situation is given. In Section III, this paper defends Schueler's analysis over Hartman's, and provides a modification and some empirical supports. In so doing, a various array of data is investigated and justified as well. In the final Section, conclusion follows.

2. Surface subjects in *tough*-constructions

2.1 Hartman (2009)'s arguments for *tough*-subjects as derived subjects

Hartman (2009), from different perspectives, shows that *tough*-subjects in English *tough*-constructions are derived rather than base-generated in its surface position. Consider his examples:

- (3) a. It is tough (for Mary) to please John ("expletive construction")
 b. John is tough (for Mary) to please ("*tough* construction")

Since 'for Mary' in (3a) is isomorphic with [_{PP} for DP], it is hard to tell whether 'for Mary' is in the matrix clause [_{PP} for DP] or a *for*-complementizer [_{CP}for [_{IP} DP...]].

Relying on the following "Defective Intervention effect" (Chomsky, 2000) as a diagnostic, he shows that 'John' in *tough*-construction (3b) must be derived from the theta-position of 'please' for three reasons.⁶

(4) Defective Intervention Configuration (DIC):

$\alpha > \beta > \gamma$, where $>$ is a *c*-command, β and γ match the probe α , but β is inactive so that the effects of matching [between α and γ] are blocked.

Under DIC, the matrix T⁰ is a probe, and the Experiencer DP is a "matching goal". But since the Experiencer DP is inactive, (having already checked its Case

⁵ This constitutes an instance of what has been called "Improper movement". Hartman, however, notices the issue. Yet, he left it without further speculation or conjecture, obscuring the problem.

⁶ There is another cross-linguistic argument given by Hartman, which seems irrelevant for this paper. See Hartman (2009)

with its selecting preposition), and it blocks Agree relation between the matrix T^0 and the relevant embedded DP.

Having established the ground, let me briefly summarize his arguments below. First, the Experiencer DP can take other than 'for' which is homophonous to non-finite Complementizer 'for'.

- (5) a. It is easy (for Mary) to please John ("expletive constructions")
 b. John is easy (for Mary) to please ("tough-constructions")
- (6) a. It is [_{AP} easy [_{PP} for Mary_i] [PRO_i to talk to John]]
 b. John is [_{AP} easy [_{PP} for Mary_i] [PRO_i to talk to ----]]
- (7) a. It is easy [_{CP} for Mary to talk to John]
 b. John is easy [_{CP} for Mary to talk to ----]

Since the examples in (5) involve 'for' which is homophonous between a preposition 'for' and a Complementizer 'for', the structures of (5) are ambiguous. The example (5a) can be either (6a) (= prepositional *for*-phrase) or (7a) (=Complementizer *for*-phrase) in its structure. Likewise, the example (5b) can be either (6b) (= prepositional *for*-phrase) or (7b) (=Complementizer *for*-phrase). To tease them apart, i.e., which structure is the relevant structural representation of the example (5b), Hartman presents "expletive construction" examples which take different prepositions.

- (8) a. It is important [_{to} John] to avoid cholesterol
 b. It is annoying [_{to} the girls] to make small-talk
 c. It was tough [_{on} me] to lose my wife

Since the examples in (8) involve 'to'/'on', they are no longer isomorphic to a non-finite Complementizer 'for'. It is certain that these phrases inside the brackets are PPs rather than CPs. Having established that, Hartman considers the following examples and their grammatical contrasts.

- (9) a. It is enjoyable (to John) to eat strawberries
 b. Strawberries are enjoyable (*to John) to eat
- (10) a. It is important (to Mary) to avoid cholesterol
 b. Cholesterol is important (*to Mary) to avoid
- (11) a. It is annoying (to those boys) to talk to John
 b. John is annoying (*to those boys) to talk to
- (12) a. It was very hard (on me) to give up sugar

- b. Sugar was very hard (*on me) to give up

The ungrammaticality of all of the (b)'s in (9)-(12) shows the Defective Intervention effects (DIC); the Experiencer DP (within PP) has already Agreed (that is, its Case checked with the preposition), (and therefore, it is) inactive, and it would block the Agree relation between the matrix T^0 (probe) and the embedded DP. Agree within this framework is the prerequisite for movement. Thus, the Experiencer belongs to the matrix clause so that it c-commands the thematic position of each predicate, 'avoid ___', 'talk to___', and 'give up ___', then there is an inactive element that c-commands the direct object. The occurrences of the PP in each (b) of (9)-(12)⁷ block the movement to the surface position, yielding the ungrammaticality.⁸ Therefore, it is fair to conclude that the correct structure of (5b) is (6b) rather than (7b). In other words, the sentence "John is easy for Mary to please" is grammatical only under the interpretation of 'for Mary' being the matrix Experiencer PP; it cannot be "for-CP".

It is important to note that the embedded subject will not function as an intervener under Hartman's proposal since the matrix T^0 probes some kind of [WH] or A-bar feature and the embedded subject (even in the absence of the Experiencer) is not a matching goal.

The second argument is based on the scope difference between expletive-construction and *tough*-construction. Consider the following:

- (13) a. It is_[AP important] [_{PP to everyone}] [to arrive on time]
 b. [To arrive on time] is [_{AP important} [_{PP for [sic] everyone}]]⁹
 (**Everyone**>**Important**; ***Important**>**Everyone**)
 c. It is disappointing [to me] [for everyone to arrive late]
 d. [For everyone to arrive late] is disappointing to me

(13a)-(13b) show that the scope of QP, 'everyone' takes a wider scope than AP 'important'; this is so because QP 'everyone' belongs to the matrix clause (within PP), and covertly raises to a higher position than AP 'important' yielding **Everyone**>**Important** but *not* **Important**>**Everyone**. On the other hand, (13c)-(13d) shows that 'everyone' belongs to the lower clause that **Disappointing**>**Everyone**, but *not* **Everyone**>**Disappointing**.¹⁰ Therefore, using this as a diagnostic, Hartman tests the following:

⁷ As the author points out, English subject-to-subject raising with 'seem' type shows no such intervention effect with the Experiencer, which seems another problem, as in "*John_i seems [to Mary]_i [t_i to be intelligent]*"

⁸ Note that PRO in the non-finite CP must not qualify as potential β for the matching between [α and γ], and Hartman argues for two-step movement from the thematic position to the Edge of CP and again to the surface subject position of the *tough*-predicates.

⁹ Hartman in his original example (p. 5), contains "for-PP" in (b), whereas "to-PP" in (a). An anonymous reviewer points this typo to me, which I am fully aware of.

¹⁰ Hartman has not been explicit about Quantifier Raising-type of covert movement, but he must have assumed some mechanism that allows 'everyone' to take the wide scope than the matrix AP, for example.

- (14) It is impossible for every student to fail this test
(ambiguous: **Impossible**>**Everyone** or **Every student**>**Impossible**)
- (15) This test is impossible for every student to fail
(Unambiguous: **Impossible**>**Every student**, but ***Every student**>**Impossible**)

(14) shows ambiguity with respect to the relative scope of 'impossible' and 'everyone', but such scope ambiguity disappears in (15). Thus, in (15), the surface subject 'This test' must have originated from the lower clause than the main clause Experiencer, 'every student', disallowing a wider scope.

Finally, Chomsky's (1973) examples with two *for*-phrases are used to show the derivation of the surface *tough*-subjects.

- (16) a. It is easy for the rich for the poor to do the work
b. It is convenient for John for Mary to bring the wine.
- (17) a. *The work is easy [for the rich] [for the poor to do ___]
b. *The wine is convenient [for John] [for Mary to bring___]

The occurrences of prepositional phrase '*for*-phrase' in (17a) and (17b) yield the ungrammatical results. Therefore, the '*for*-phrase' in the matrix clause must have induced DIC. In summary, Hartman shows that the Experiencer DP belongs to the matrix clause, and its existence will give rise to a blocking effect. In short, *tough*-subjects must be derived from the thematic positions of the embedded CP.

What Hartman proposes is that this movement of *tough*-subjects is *not* a one-fell-swoop movement; if it were, it would cause a violation of locality of A-movement, or the T⁰ of the matrix clause will probe for a matching goal, and the subject of the embedded clause will qualify as a defective intervener, blocking the movement of the lower object. Therefore, *tough*-constructions will never allow *for*-phrases, contrary to fact. Although Hartman has not explicitly shown, the following must be the sequences of the derivations that Hartman has in mind:

- (18) a. John is tough to please
b. ___ is tough [_{CP} [_{IP} PRO to please John]]
c. ___ is tough [_{CP} John_i [_{IP} PRO to please t_i]] (first step)
d. John_i is tough [_{CP} t'_i [_{IP} PRO to please t_i]] (second step)
- (19) a. John is tough for Mary to please
b. ___ is tough [_{CP} for [_{IP} Mary to please John]]
c. ___ is tough [_{CP} John_i [_{C'} for [_{IP} Mary to please t_i]]]] (first step)
d. John_i is tough [_{CP} t'_i [_{C'} for [_{IP} Mary to please t_i]]]] (second step)

(18a) is derived from (18b), followed by (18c), and the final structure of (18a) is (18d). Likewise, (19a) is from (19b) and subsequently by (19c); (15d) is the final structural representation of (19a).

As Hartman has noted, however, this movement is peculiar because it is what has been called “Improper movement”. Improper movement is movement from A-position to A-bar position again to A-position. So long as Improper movement remains problematic, Hartman’s analysis of *tough*-construction is less desirable than that of Schueler’s.¹¹

In what follows, I discuss Schueler’s proposal which is proposed to capture the distinction between definite DPs and indefinite ArtPs. It is shown that his proposal blocks the possibility of Improper Movement from the beginning by having two sets of movement (or Chains) and therefore, should be preferred over Hartman’s analysis.

2.2 Schueler’s (2004) Analysis of sentential subjects and *it*-extraposition

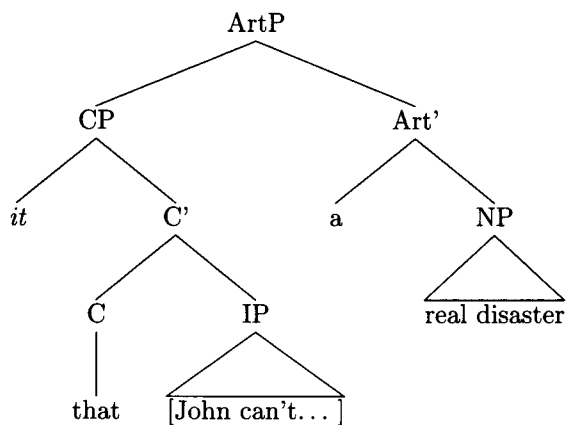
Schueler (2004) has shown that “Extraposition effect” is responsible for the following grammatical contrast, and there are basically two types of DPs, adopting the insights from Campbell (1996).

- (20) a. It is a real disaster that John can’t come to the party
 b. That John can’t come to the party is a real disaster
- (21) a. *It is the real disaster that John can’t come to the party
 b. That John can’t come to the party is the real disaster

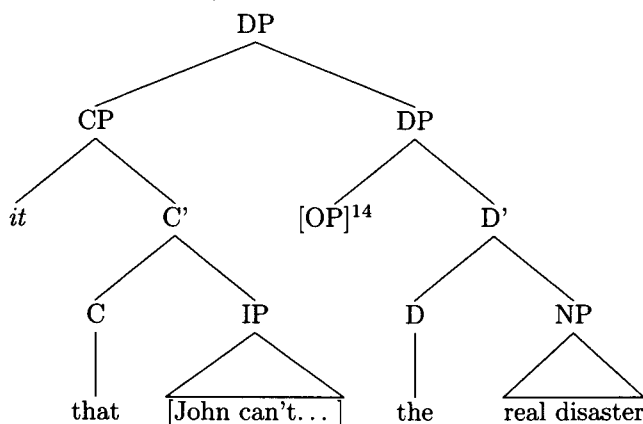
Note that there is no grammatical difference between the sentential subjects in (20b)-(21b), whereas *it*-extraposition examples in (20a) and (21a) do show the difference. Schueler, combing the idea of Campbell’s ArtP/DP distinction, an extension of DP as a Phase (Chomsky 2001), along with Stroik (1996)’s structure of *it*-extraposed sentences, (20a) and (21a) have structures in (22a) and (22b), respectively.

¹¹ Improper Movement has been a serious problem within LGB-style framework, although it is not as clear whether it is still as problematic as LGBish description of grammar. This is so because within LGB, A-movement leaves an A-trace, and A-bar movement leaves an A-bar trace, respectively and each type of trace is subject to different Binding condition. Binding A applies to A-trace and Binding C applies to A-bar trace. However, under the Minimalist framework Chomsky (1995), Chomsky (2000), Chomsky (2001), D-structures/S-structures have been eliminated, Binding conditions applies only in LF, and Movement leaves Copies rather than traces. Now instead of traces, copies are around. Which copies are the ones to receive PF interpretation and which copies are to receive LF interpretations need to be decided, however. This means that there have to be two sets of constraints for the situation, virtually returning to the same problem of Improper Movement.

(22a) (=Schueler's 29a)

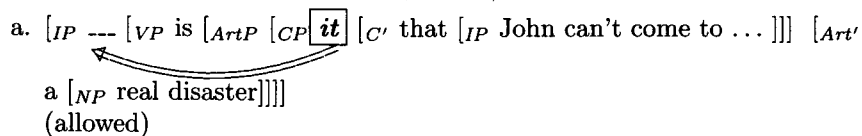


(22b) (=Schueler's 29b)



Schueler proposes that DP but not ArtP is a Phase (Chomsky, 2001) so that 'it' in the Spec of CP which occupies Spec-DP in (21a),(=22b)) cannot move to the matrix clause, yielding some kind of Subjacency/Locality/Left Branch constraint/violation. On the other hand, in the case of (20a) (=22a), 'it' in the Spec-CP which occupies the Spec-ArtP can successfully move to the matrix subject; this is possible if ArtP is not a Phase so that the movement of 'it' to the subject position of the matrix sentence crosses only one barrier, CP.

(23) Graphic presentation of the entire derivations for (20a)-(21a)



¹² This null Operator is called Specificity Operator in the DP structure, and it is not significant in the present discussion. When necessary, though, it will be discussed. All it says is that the DP is specific.

- b. $[IP \text{ --- } [VP \text{ is } [DP [CP \text{ it} [C' \text{ that } [IP \text{ John can't come to ... }]]] [DP [OP] [DP \text{ the } [NP \text{ real disaster}]]]]]$
 (disallowed since the extraction of 'it' violates Left branch constraint/ Subjacency)
- c. $[IP \text{ It}_i [VP \text{ is } [ArtP [CP \text{ t}_i [C' \text{ that } [IP \text{ John can't come to ... }]]] [Art' \text{ a } [NP \text{ real disaster}]]]]]$
 (extraposed)
- d. $[IP \text{ --- } [VP \text{ is } [DP [CP \text{ it}_i [C' \text{ that } [IP \text{ John can't come to .. }]]] [DP [OP] [DP \text{ the } [NP \text{ real disaster}]]]]]$
 (illicit derivation since the expletive 'it' lacks Case)

In the case of (21a), 'it' extraction out of DP is disallowed, yielding the ungrammaticality. To derive the correct surface word order, after 'it' A-moves to the sentence initial position, the remaining CP can Extrapose to the right-end of the sentence as the schematic representation (23c) shows. No such movement is available in the case of (23d) since the derivation has already violated Subjacency of some sort.¹³

For *that*-clauses, sentential subject examples in (20b)-(21b) have a different base structure. That is, there is no 'it' base-generated in the Spec-CP.¹⁴ Thus, the movement of the entire *that*-clause to the matrix subject position is allowed since the CP sits in the Spec of DP adjoined to a DP with a null [+Specify] Operator. Recall that the Edge of a Phase is a zone from which extraction is allowed; and the sentential subject (the entire CP) either within ArtP or DP can be extracted. Schematically speaking, the following is what Schueler has shown.¹⁵

- (24) a. $[IP \text{ --- } [VP \text{ is } [ArtP [CP \emptyset [C' \text{ that } [IP \text{ John can't come to ... }]]] [Art' \text{ a } [NP \text{ real disaster}]]]]]$
- b. $[IP \text{ --- } [VP \text{ is } [DP [CP \emptyset [C' \text{ that } [IP \text{ John can't come to ... }]]] [DP [OP] [DP \text{ the } [NP \text{ real disaster}]]]]]$

¹³ It is not shown in Schueler (2004) exactly where the CP lands. Presumably, this rightward operation can be an adjunction to IP, for example. I have no specific position to take in this paper, though.

¹⁴ Alrenga (2005) has argued for similar basic representations for English sentential subjects, i.e., either 'it' exists in the base or not, although he has provided an account for the asymmetry in English sentential subjects such as the following pair:

- (i) It {seems/happens/appears/turns out} that the Giants lost the World Series
 (ii) *That the Giants lost the World Series {seems/happens/appears/turns out}
 (iii) It really {sucks/blows/bites/stinks} that the Giants lost the World Series
 (iv) *That the Giants lost the World Series really {sucks sucks/blows/bites/stinks}

However, Alrenga differs from Schueler in that the former argues for the base-generation of sentential subject in Spec-CP with a null Operator in Spec-TP. Schueler, on the other hand, argues that the CP-subject (or the sentential subject) occupies the Spec-TP/IP. See for a proposal that Hong (2008) argues for Topic-to-Topic Raising in Sentential Subject constructions.

¹⁵ Just for the sake of convenience, the bracket notations are used in this paper. See Schueler for a tree version.

Therefore, the movement of the entire CP, [$_{CP}\emptyset$ [$_{C'}$ that [$_{IP}$ John can't come to ...]]] out of DP is also allowed since, the CP occupies the Spec position and movement of an element at the Edge of the Phase is allowed within the theory. The grammaticality of (20b)-(21b) can be explained as desired.¹⁶ Now turning to *tough*-constructions, Schueler uses the structures of (24a)-(24b) in order to account for the following *tough*-constructions that contain ArtP/DP.

- (25) a. John was a real mistake to call
 b. *John was the real mistake to call

Note that under Schueler's analysis, (25a) contains an ArtP ('a real mistake') whereas (25b) contains a DP ('the real mistake'). The derivation of the surface forms is given below.

- (26) a. [$_{IP}$ --- [$_{VP}$ is [$_{ArtP}$ [$_{CP}$ John [$_{C'}$ OP $_i$ [$_{IP}$ PRO to call t_i]]]] [$_{Art'}$
 a [$_{NP}$ real mistake]]]]]
 b. [$_{IP}$ --- [$_{VP}$ is [$_{DP}$ [$_{CP}$ John [$_{C'}$ OP $_i$ [$_{IP}$ PRO to call t_i]]]] [$_{DP}$ [OP]
 [$_{DP}$ the [$_{NP}$ real mistake]]]]]

In (26a), 'John' which is base-generated in the Spec-CP A-moves to the surface subject position for EPP/Case reason, and then the entire CP is "extraposed" to the end of the sentence, yielding "*John is a real disaster to call*". For (26b), too, *tough*-subject 'John' is in the Spec-CP, just like (26a). However, this time, this CP is in the Spec of DP, and Schueler argues that DP (as well as CP) is a Phase (Chomsky, 2001).

Note that if a sentence is without ArtP/DP (such as "John is easy to please"), there seems to be no *a priori* reason to postulate the CP in front of 'easy' (so that Extrapolation must apply). However, for examples with DP/ArtP such as (25)-(26), after 'John' of the CP '[$_{CP}$ John [$_{C'}$ OP $_i$ [$_{TP}$ PRO to call t_i]]]' A-moves to the matrix subject position, the remaining '[$_{CP}$ t_k [$_{C'}$ OP $_i$ [$_{TP}$ PRO to call t_i]]]' needs to extrapose to the right-end for the correct surface word order facts.

Furthermore, if a syntactic object is at the Edge of a Phase, it is allowed to move.¹⁷ Therefore, Schueler's analysis can account for the following as well as (25a)-(25b).

- (27) a. John was an easy man to call

¹⁶ Note that under Schueler's analysis, "extrapolation" of the remainder of the CP is necessary to guarantee the surface word order. This is so since Schueler posits the CP in question in the Spec of either ArtP or DP. By doing so, he is able to account for the grammatical difference between the extraction of 'it' out of ArtP (20a) and the extraction of 'it' out of DP (21a). This process being done, the surface word order is still not (20a) yet, for example. Therefore, he needs an additional grammatical operation, "Extrapolation". This point has been made clear in the graphic presentation of (20)-(21) in (23a)-(23d).

¹⁷ Normally for A-bar movement so that successive cyclic movement via Spec-CPs is allowed. In this case this movement is to an A-position, which renders an interesting point that this movement is from A-bar position to A-position.

- b. ?John was the easy man to call¹⁸

Under his analysis, (27b) is predicted to be ungrammatical since ‘John’, since the *tough*-subject, ‘John’ occupies the Spec-CP which in turn occupies the Spec-DP (‘the easy man’). The movement out of the Spec-CP violates Left Branch Constraint. The marginal status of the example is mysterious, but the contrast between (27a) and (27b) still holds.

In summary, Schueler has demonstrated that (i) DP and ArtP behave differently and this asymmetry can be accounted for if DP, but not ArtP, is a Phase (ii) “Extrapolation effect” can correctly distinguish movement out of DP¹⁹ (iii) since there is no overt relation between the thematic position and the surface subject position, the possibility of Improper Movement is entirely non-existent. That is, there are two Chains in a simple *tough*-constructions;²⁰ one is A-bar Chain headed by a null operator whose tail is the thematic position of ‘please’ and the other is A-Chain headed by the surface subject position.²¹

3. Proposal: *tough*-Subject from Intermediate TopP

In this section, I will adopt Schueler’s structure of *tough*-subject having originated from the intermediate CP, rejecting Hartman (2009), and furthermore I propose that instead of CP adjoined position (as Schueler has advocated), *tough*-subject starts out from the CP-internal Topic position. With such a modification, a more comprehensive range of examples can be accommodated. More importantly, this proposal would not contradict what Hartman has discovered in DIC effect, Scope interaction phenomena, and two *for*-phrases fact. The theoretical consequence of my proposal is that CP-internal Topicalization does not have to rely on what Authier

¹⁸ Howard Lasnik (personal communication) points out that Schueler’s approach, too, cannot handle the following minimal pair:

- (i) John is an easy man to please
 (ii) *John is an eager man to please.

If Schueler’s approach is successful, (ii) is predicted to be grammatical. I leave this issue open for further research, but ‘John is eager to please’ has a totally different structure. My speculation is that ‘eager’ is an obligatory Control adjective so that the structural representation is the following:

- (iii) [John_i is [_{AP} eager [_{CP} [_{TP} PRO_i to please]]]]

The rationale behind this is that ‘*John is eager*’ is perfectly fine and the subject position of ‘eager’ is a thematic position.

¹⁹ Schueler has pointed out that Specificity effect (Stowell, 1989) can also be achieved under his analysis. The relevant examples are such as ‘*Who did you sell {a/*the} picture of.*’

²⁰ The current analysis of having set two Chains for *tough*-constructions is very similar to some analysis of parasitic gap constructions in which parasitic gap involves a two different sets of Chains.

²¹ The obvious assumption is that the null Operator and ‘John’ will undergo some kind of Predication just like the Head noun and its relative clause as in [the man_i [OP_i [that John met t_i]]] That is, co-index is automatic under movement, but the Head noun in relative clause and the null Rel. Operator is subject to Predication.

(29a) is the structure that I propose for (28a), and (29b) might be Schueler's structure for (28a). Note that 'John' is the Topic within the CP whose Spec is occupied by a null Operator in (29a).²⁸ The advantage of the structure (29a), as opposed to (29b), is that no new additional mechanism is needed to the clausal structure of TP-CP. (29b), on the other hand, needs to allow the iteration/recursion of CP (Authier, 1992) even in the case of English. The disadvantage of allowing CP iteration/recursion is that such an analysis has to rely on "un-Minimalistic" conceptions such as "government".²⁹ Besides, CP being a Phase (Chomsky, 2001), the postulation of multi-layered CPs can complicate the theory, all else being equal.

For (28b), the example is ungrammatical if the sequence of 'for-Mary' is an Experiencer PP.³⁰ This means that 'for-Mary' is a CP. The structural representation of (28b) is (29c), and after the null Operator A-bar moves, and 'John' from the CP-internal Topic Position A-moves to the surface position, the resulting structure is (29d). The first A-bar movement of the null Operator in (29c) is just what Chomsky (1977; 1981) has proposed and the subsequent movement of 'John' was the Topic of the embedded clause is triggered by the EPP/Case reason.³¹

Note again, that after 'John' moves to the surface subject position, the entire CP undergoes rightward movement to the right end of the sentence. In its effect, the process of "extraposition" is something like heavy NP shift in nature. I have shown the derivation of a simple case like (28a) and a slightly more complex case of (28b).

4. Non-finite Sentential Subjects

Now, the original motivation for Schueler's proposal comes from the grammatical contrast between *it*-extraposed clauses and *that*-sentential subjects in (20)-(21), repeated below for an expository purpose.

- (30) a. It is a real disaster that John can't come to the party
 b. That John can't come to the party is a real disaster
- (31) a. *It is the real disaster that John can't come to the party
 b. That John can't come to the party is the real disaster

Now that the grammatical contrast is attributed to the ArtP/DP distinction for the ungrammaticality of (31a) as opposed to grammatical (30a), the prediction is that non-finite sentential subject of the following sort show the identical grammatical contrast, and this prediction is borne out.

²⁸ Presumably, one might argue that this structure can cause a problem for Relativized Minimality (Rizzi, 1990). However, the intervening C has [+WH] feature, and there is no other DP that matches WH feature. Thus, Relativized Minimality issue does not arise.

²⁹ See Hornstein (2009) for details.

³⁰ See the original examples (9)-(12) of Hartman's.

³¹ Under Minimalist framework (Chomsky, 1995; Chomsky, 2000; Chomsky, 2001; Hornstein, 2001; Hornstein, 2009), D-structures and S-structures have been eliminated. The structure-building operation is (internal and external) Merger (and Labelling). The data I have discussed is compatible with any version of phrase structure building mechanism.

the *tough*-subject is actually a Topic of the embedded clause. Then the issue of Improper movement never arises, and TopicP, ‘John’, ‘this violin’, ‘this pen’ A-moves to the surface position for Case reason, assuming that Topic phrase needs Case as well. This A-movement forms only one A-Chain, and there is no A-A’-A Chain problem. This derivation is very reminiscent of what Chomsky (1977) has proposed for English Topicalization and Rizzi’s (1997, pp.292-293).

(37) ... [_{CP} OP_i [_{TopP} John [_{TP} Fred said [[Susan really hates t_i]]]]]]

(38) ... [_{CP} ∅ [_{C'} that [_{TopP} tomorrow [_{TP} John will come]]]]]

As Rizzi puts it, Topic, unlike Focus, is never quantificational. Therefore, if ‘John’ in (35a) starts as a Topic of the embedded clause, it is only natural that there is no inverse phenomena in *tough*-constructions and when this Topic A-moves (for Case or EPP reasons), it does not take a wider (matrix) scope. This is a natural explanation for Hartman’s 2nd argument in the example 15, Section 2.1. The remaining question can be whether the embedded Topic, ‘tomorrow’ further A-moves to the matrix clause. Descriptive generalization seems that adjunct cannot be the *tough*-subject, and ‘tomorrow’ is a nominal adjunct.

In the case of a simple *tough*-construction, the CP-internal Topic position indicates that ‘John’ is the topic of the embedded clause, just like ‘John’ in (37) is, and later in the derivation, it becomes the subject of the matrix sentence. This subsequent movement is, of course, triggered by the T⁰ in the matrix clause. Furthermore, the *too...to...* construction, too, is virtually identical in its structure to *tough*-construction.

(39) a. John_j is too stubborn [_{CP} OP_i [_{TopP} t_j [_{TP} PRO to talk to t_i]]]]

b. John_j is too hard [_{CP} OP_i [_{TopP} t_j [_{TP} PRO to persuade t_i]]]]

Postulating the CP-internal TopicP category as a left periphery to TP indicates that ‘John’ is the Topic of the embedded clause, and serves the subject of the matrix clause.

5. Conclusions

The current paper has proposed a Minimalist account on English *tough*-constructions, providing a new internal structure of CP-internal TopP. That is, *tough*-constructions are argued to be the result of having two sets of Chains, one is A-bar Chain headed by a null Operator, and the other is A-Chain headed by the surface subject. The A-Chain starts from the intermediate Topic Phrase on the left periphery of the embedded TP and below the embedded CP. This development/extension of Schueeler’s idea (i) accounts for all the data Hartman (2009) has dealt with, (ii) does not induce Improper Movement controversy, and (iii) explains more data than Schueeler’s without adding further grammatical mechanisms other than already accepted clausal structures. The theoretical by-products of this analysis contain (i) DP being a Phase whereas ArtP a non-Phase and (ii) no need to rely on the GB-ish concept

of “government” for the constraining the recursion of CPs. The details of how to implement “Extrapolation”, an instance of rightward movement, remain to be answered, though.

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