

Bypassing or Smuggling in Syntax of Object
Raising Constructions in English

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Bypassing or Smuggling in Syntax of Object Raising Constructions in English

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This article is concerned with the various properties of Verbal *Tough* Constructions (henceforth, VTCs) and Double Passive Constructions (henceforth, DPCs) in connection with Collins's (2005) and Hicks's (2009) smuggling (or bypassing) approach. I focus on the verbal aspects of Verbal *Tough* Constructions (VTCs), which shows the properties distinct from those of Adjectival *Tough* Constructions (ATCs). That is, VTCs, whose infinitival clauses are deleted (or semantically concealed), have the structures of Double Object Constructions and Prepositional Datives, whose syntactic relationship might be called the Dative Alternation. I also show that two types of Object Raising Constructions, namely VTCs and Double Passive Constructions, avoid the constraint violation through the bypassing behavior, which can be captured by the mechanism of Collins's (2005) smuggling approach in syntax.

1. Introduction

This article will be concerned with the various properties of Verbal *Tough* Constructions (henceforth, VTCs) and Double Passive Constructions (henceforth, DPCs) in connection with Collins's (2005) and Hicks's (2009) smuggling (or bypassing) approach. I also argue that VTCs, whose infinitival clauses are deleted (or semantically concealed), have the structures of Double Object Constructions and Prepositional Datives, whose syntactic relationship might be called the Dative Alternation.

2. The Properties of Verbal *Tough* Constructions (VTC)

This article discusses Verbal *Tough* Constructions (henceforth, VTCs), illustrated in such attested examples like (1), in contrast to Adjectival *Tough* (-movement) Constructions (henceforth ATCs) like (2), where the main predicates are adjectival. I return later to "Double Passive Constructions (DPCs)."

- (1) A big guy costs money. Things ain't scaled for him. He costs to feed, to put clothes on, and he can't sleep with his feet in the bed. (FML, p.248)

キーワード：密輸方式の統語論、動詞的tough構文、二重受動、二重目的語構文、与格構文

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(2) John is easy to please.

Huddleston (1971: 163) and Huddleston and Pullum (2002: 1245) give the following paradigm (slightly modified), with the hollow clause is enclosed in brackets, with the site of the missing NP, the gap, is shown by ‘___’.

- (3) a. It took an hour (for John) to read the letter
 b. The letter took an hour (for John) to read.
 c. It took (John) an hour to read the letter
 d. The letter took (John) an hour to read
 (Huddleston (1971: 163))
 e. cf. the cake took you all day to help John bake (in that oven).

(Chomsky 1981: 318, n.32)

(4) The problem took her only a few minutes [to solve ___]. (Huddleston (2002: 145), Kajita (1977: 68) analyses this type of sentence from the perspective of Dynamic Model of Syntax, producing the data like the following¹.

(5) a. Maybe it *takes deep plowing* to get rid of cactus, I said. (MNA, p. 32)

b. Cactus takes deep plowing to get rid of.

Kajita (1977) makes much of the fact that the italicized part consists of the complex verb instead of the simple lexical item. Pesetsky (1987: 129, 133) terms adjectival and verbal *Tough* constructions to describe (6) and the following structure. Here *e* represents the phonologically null element.

(6) a. It amuses Mary to read this book.

b. This book amuses Mary to read *e*.

Pesetsky (1987: 130, 133-134) notes that the

subject position may be filled by an expletive, that the experiencer verbs like “annoy, please, worry, frighten, amuse and anger” form VTCs and that an infinitival clauses may be deleted. Thus, two types of VTCs are distinguished in such structures like (4). Note that the subject position may be filled by an expletive (Pesetsky 1987: 133). So the subject position of VTC might be assumed to be the non- θ -position (i.e. which is not assigned a theta role).

In passing I would like to point out that *cost*-type verbs like (1) constitute yet another type of VTCs, which is neither Kajita’s (1977) and Huddleston’s (1971) *take* (NP₁) NP₂ *to* VP type VTCs nor Pesetsky’s (1987) *annoy* NP *to* VP type VTCs, in that *cost* manifests the following paradigm:

- (7) a. A big guy costs money. (FML, p. 248)
 a’. The rock cost John ten dollars. (Nanni 1978: 61)
 c. It cost us a million dollars to build the museum.
 c’. It costs a lot of money to die comfortably.
 (Samuel Butler)
 d. He costs to feed, to put clothes on, and he can’t sleep with his feet in the bed.
 (FML, p.248)
 d’. The opaque glass covered building, designed by the Italian architect Renzo Piano, cost \$136.8 million to build.
 (*International Herald Tribune*, Fri., June 29, 2001, p.1)

In non-VTCs like (7c-c’) an experiencer (like *us*) optionally show up in the structure, but in VTCs like (7d-d’) an experiencer is usually deleted/concealed/shadowed.

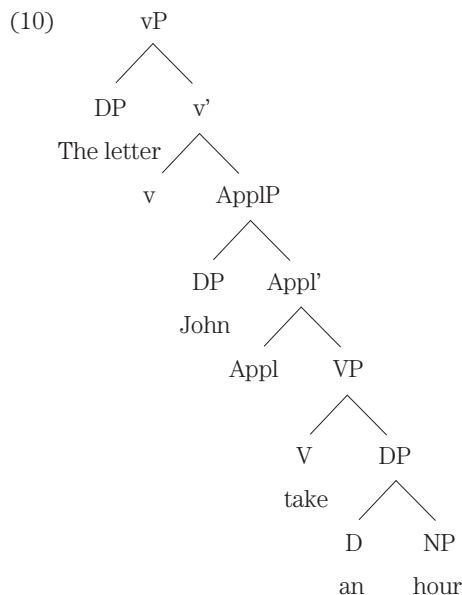
In this section, I argue first the VTCs like (3b, d, e) in parallel with Double Object Constructions in the spirit of Pylkkänen (2008) and Collins (2021: Ch. 5). Namely, I assume that VTCs with a deleted infinitival clause in (8a) show the dative alternation-like behavior and I claim that (8b) is derived from the structure underlying (8a).

- (8) a. The letter took John an hour.
 (Double Object Construction)
 b. The letter took an hour for John.
 (Prepositional Dative)

I claim that VTCs with a “shadowed” infinitival clause like (8a) is involved with an argument-introducing head “(Low) source applicative (Meaning: transfer-of-possession relation between two individuals: asserts that the direct object is *from* the possession of the indirect object (Pylkkänen 2008: 8).” But I follow Collins (2021: 100) in that it is possible to obtain the semantics attributed to the low applicative syntax from a high applicative syntax and assume the definition of the high applicative lexical entry as follows (with some modification):

- (9) $[[\text{APPL}]] = \lambda P. \lambda x. \lambda e. [P(e) \wedge \text{from-the-possession}(e, \text{Theme}(e), x)]$ (Collins: 2021: 100)

Also I follow Collins’ (2021: 100) proposal that (9) adds just one more flavor to the high applicative head. Based on these frameworks, a partial underlying structure of (8a) is given below (leaving out the movement of the V to Appl and the movement of Appl to v from the representation).



Then I propose (8b) is derived from (8a) by smuggling: VP movement smuggles the theme (*an hour*) past the experiencer (*John*) in the spirit of Collins (2021: 101-102). The derivation is given in (11) below. Here an unpronounced VP is represented pretheoretically as <VP>.

- (11) The letter took John an hour
- a. $[_{\text{AppIP}} \text{John} [_{\text{Appl}'} \text{Appl} [_{\text{VP}} \text{V} [_{\text{DP}} \text{an hour}]]]]$
 ➡ Merge Voice
- b. $[_{\text{VoiceP}} \text{Voice} [_{\text{AppIP}} \text{John} [_{\text{Appl}'} \text{Appl} [_{\text{VP}} \text{V} [_{\text{DP}} \text{an hour}]]]]]]$
 ➡ Move VP
- c. $[_{\text{VP}} \text{V} [_{\text{DP}} \text{an hour}]] [_{\text{VoiceP}} [_{\text{Voice}} \text{for}] [_{\text{AppIP}} \text{John} [_{\text{Appl}'} \text{Appl} <\text{VP}>]]]]$

According to Collins (2021: 99), “smuggling is defined as follows: Suppose a constituent YP contains XP. Furthermore, suppose that XP is inaccessible to Z because of the presence of W (a barrier, phase boundary, or intervener for the Minimal Link Condition and/or Relativized Minimality) which blocks a syntactic relation between Z and XP (e.g., movement, Case checking, agreement, binding, etc.). If YP

moves to a position c-commanding W, we say that YP smuggles XP past W. This is illustrated as follows:

(12) Z [YP XP] W <[YP XP]>

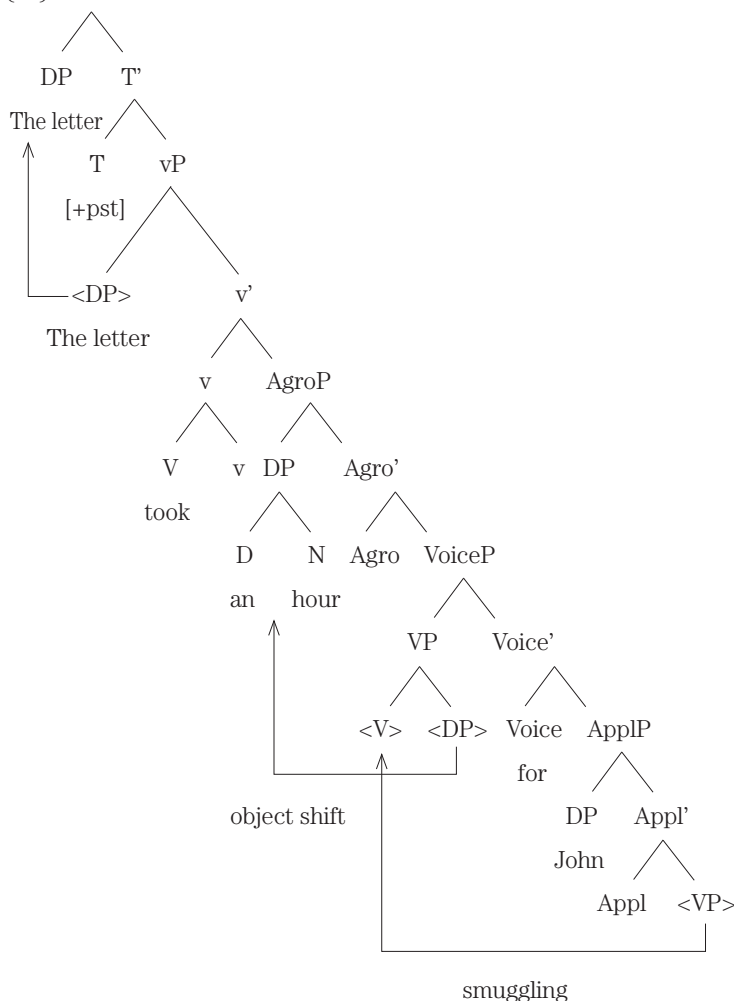


(Collins 2021: 99)

Let us return to the derivation (11). According to Collins (2021: 101), the (incremental) theme DP (=an hour) must undergo one subsequent

A movement of the DP in order to avoid the situation where due to the presence of the fronted VP constituent, the theme does not in fact c-command the experiencer (=John) (the theme DP is dominated by VP, which does not dominate the experiencer DP). In accordance with Collins (2021: 101), I assume the theme DP moves to SpecAgroP (object agreement phrase). With all these steps being put together, the following structure is yielded:

(13) TP



(cf. Collins 2021: 102)

What is important is that movement of VP, which dominates *an hour*, smuggles *an hour* across the experiencer *John*.

What is characteristic about *take*-type (as well as *cost*-type) Double Object Constructions is that it can take not only an Indirect Object and a Direct Object but also an infinitival complement CP as in “The letter took John an hour [to read].” However, I would like to point out that even ordinary Double Object Constructions can take an additional XP (e.g., PP), as shown in the following sentence:

(14) “Could you grab me my face wash from my backpack?” (IWEYP, p. 115)

Jespersen (1927: 14.61) also observes that the direct object might be the infinitival: *I gave Mr. Peggotty to understand that she was as jolly as I could wish*.

Next, consider the fact that the infinitival complements in VTCs may be phonologically null (Pesetsky (1987: 129) and Asakawa & Miyakoshi (1996)). It might be questioned whether this is deletion or Meaning Concealment. I adopt the notion of “Meaning Concealment (MC)” proposed in Asakawa and Miyakoshi (1996). According to Asakawa and Miyakoshi (1996: 116), “The notion of MC is defined as follows: Suppose that the canonical semantic representation of syntactic form F1 is M1. Now, suppose also that there is a certain context in which F1 is interpreted as having the meaning M2 containing M1 as its subpart. Since only a subpart of M” is syntactically expressed in F1, it seems that the remaining part is concealed within F1. In this case, F1 is said to satisfy the condition for MC.” Note that

the subject [_{NP} *the letter*] in (8a) satisfies the condition of the meaning concealment (MC); namely, its syntactic form does not directly correspond to its complete interpretation (N.B. Asakawa and Miyaoshi 1996: 118)). Let us consider how to derive the interpretation of (8a). (8a) can be interpreted in various ways, but it is most naturally construed as a statement about reading or writing the letter, namely “Reading/writing the letter took an hour.” (N.B. Grimshaw (1991: 161), Asakawa and Miyakoshi (1996: 118). Based on Pesetsky’s (1995: 28ff) suggestion, sentences involving logical polysemy (or metonymy) such as (8a) can be explained in terms of the lexical semantics of a *take/cost*-NP₁-NP₂ type verbs used in VTCs (= (15)) and that of a subject noun (cf. Gil’s (2005) “association”).

(15) *take/cost*: θ_A (θ) θ

(13) shows the argument structure specification: The verb *take/cost* takes an external argument, an optional internal (experiencer) argument (*for* NP) and an obligatory internal argument (the incremental theme) and assigns the external argument a θ -role (θ_A) which denotes an activity. The lexical semantics of the noun *letter*, reading and writing, among a number of imaginable activities, are supposed to be essential aspects of a word’s meaning regarding our knowledge about a letter (N.B. Pustejovsky (1995: 76). Then, as Pustejovsky (1995: 222) points out, the lexical conceptual structure of *letter* (= snail-mail) is to contain such information as the following:

(16) LETTER: a writing; a handwritten physical object; one which is read; one

which is created by an act of personal/
private writing

Given (8a), a semantic rule tries to coerce the meaning of the subject into the semantic type θ_A required by (13). This is possible, because the letter has the lexical information showing that it is related to an act of writing or reading. Thus, the natural interpretation for (8a), i.e., ‘reading the letter’ can successfully be obtained. Note that (7d) is natural when taken in isolation but it would be preferable to have some context. It has just been noted that a subject which *take/cost/annoy* type verbs used in VTCs take semantically denote some activity (or psychological activity/experience) normally associated with the subject. While the subject *letter* in (8a) inherently denote some event or process which involves the letter itself, i.e., normally ‘reading/writing,’ the subject *A big guy* contains no information that denotes any activity, which, however, does not render (7d) so unnatural. That is, a default verbal interpretation available in the noun *letter* is somehow available in *A big guy*, thus (7d) is acceptable. Compare now (7d) with (17a). (7d) is completely acceptable, but (17a) is odd when taken in isolation and has the interpretation different from that of VTCs even if an appropriate context is added like (17b), which means John spent a period of time during which he did something (such as reading the letter)². Huddleston (1971: 163) notes (17b) is a case of subject-raising (not object-raising such as VTCs).

(17) a. ??John took an hour.

b. cf. John took an hour to read the letter.

Or consider the following example. The subject *he* in (18b) contains no information that denotes any activity, which renders VTCs like (18b) indeterminate. However, if it appears in an appropriate context (such as given in (16a) – “smoking jujus (= narcotic)”).

(18) a. “I knew a guy once who smoked jujus,”
she said. “Three highballs and three
sticks of tea and it took a pipe wrench
to get him off the chandelier.”

(FWML, p. 73)

b. ... he took a pipe and wrench to get off
the chandelier.

In this connection, one might speculate that the underlined part of (19) might be the type that children first utter.

(19) a. He turned to leave then stopped.
‘Maybe you should show me that move
again before I head in.’ She raised an
eye brow. ‘It takes a lot of practice.’

(BF, p. 58, my underline)

b. “Right now I should be whistling *Roses*
of Picardy,” he said, and paused. “That
would cost you,” he said.

(FWML, p.240, my underline)

c. Garage doors are not built to resist a
man armed with a tire iron and
determination – not in southern
California in 1970. It took seconds.
Carving *Frank* into pieces I could carry
and stuff into my car took much longer.

(DS, p.259, my underline)

This satisfies the argument structure required by *take*, since the subject is pro-sentential, and refers to a certain propositional meaning previously uttered in a discourse.

3. A Smuggling Analysis of Verbal Tough Constructions

Chomsky (1977: 104) argues that *easy-to-please* (or *hard-to-find*) constructions in general have the relevant properties of *wh*-movement. A null operator (Op) moves to Spec CP of the infinitive complement of an adjective *hard* and stays there (cf. Bošković 2021: 72).

(20) (Some say) quality Tasmanian_i wines are hard [_{CP} Op_i [_{TP} PRO find *t_i*]]. (*Jetstar*)

Hicks (2009) proposed the complex Op+smuggling analysis, where a null OP is merged with *quality wines* in (20). Hicks' (2005) analysis attempts to reduce several unexplained theoretical issues related to TCs (including the *tough* subject's Case-mismatch and why apparent A-movement exhibits empirical characteristics of A'-movement) to a single factor, namely the internal structure of the complex null operator (Hicks 2003: 79). In other words, Hicks (2003, 2005) attempts to answer three important questions remain unanswered in the previous analysis. First, *Tough* Movement (TM) apparently involves movement from an A'-position (a non-argument position) to an A-position (an argument position), which is generally banned as an Improper Movement configuration (Hicks 2003: 49). Second, the question of why [_uCase] (unchecked Case) on the embedded object (to become the *tough* subject) is not checked *in situ* (ibid. p. 51). Third, the question of how this object can move a potentially unbounded distance out of its own clause on the way to the matrix TP (ibid., p.51). Hicks (2003, 2005)

assumes the structure in (21), where *John* is the complement of Op, which heads the NP complement of D. Note that Bošković (2021: 73) proposes the structure in (22) to support his account that the freezing ban (the ban on movement out of the moved elements) holds only for successive-cyclic movement but not for smuggling. But for ease of exhibition we will assume (21) for the moment.

(21) [_{DP} [_D [_{NP} [_{N'} Op John]]]] (Hicks 2003, 2005)

(22) [_{DP} John [_{D'} D [_{NP} [_{N'} Op]]]] (Bošković (2021: 73))

Hicks (2005) assumes that the null operator Op is a kind of *wh*-phrase with a complex internal structure and that the head D has the *wh*-feature and Op is a predicate which requires an argument. Thus, Op selects *John* as its argument and yield the structure shown in (21). In English, in order for *John* to check its case feature [_uCase], morphologically characterized functional categories are required as the head, such as prepositions like *of* or the possessive 's of D (e.g., *John's books*), but since there is no such morphologically overt functional categories inside the complex operator Op, [_uCase] remains unchecked within this complex operator. Thus, *John* inside the complex operator can be "smuggled" into the Specifier position of the infinitive complement CP without being Case-checked. Then at the phase edge position Spec, CP, upper DP's features like [_iQ, *u*WH] are checked, and the DP movement into the relevant matrix position to check the case feature [_uCase] of *John* can be accomplished without infringing the ban on

the assignment of double cases on the same NP. In addition, A'-movement of the complex operator Op and the subsequent A-movement of *John* are distinct, thus voiding the Improper Movement ban.

In a nutshell, Hicks (2009) tries to couch the central problems facing 'TM' within the terms of a minimalist program based on the derivation by phase framework (Chomsky 2000, 2001). Hicks (2009: 537, fn. 2, 558) also notes that there are verbal predicates which exhibit properties quite similar to those of typical *tough*-predicates. Hicks (2009: 558) suggests that the same holds true for 'VTCs' like (23) below without providing the concrete derivation of VTC. This article intends to flesh it out in details.

- (23) a. It takes over an hour to solve problems like this one.
 b. Problems like this one take over an hour to solve. (Hicks 2009: 558)
 c. ... this effect may require a great deal of time and effort to achieve ...

(WE, p.210)

Note that I have already proposed the analysis of the main clause of the "complex" VP type VTCs like (23) in parallel with Double Object Construction in the line of Collins (2021: Ch. 5).

4. Null Operators a.k.a. "Smugglers" : Complex Null Operators of Hicks (2009) and VTCs

Below I adopt Hicks' (2009: 547) proposal that a null operator is a *wh*-phrase with a more complex internal structure than is traditionally

assumed. The D head bears *wh*-features, yet the null nominal component of the DP might be considered to be a predicate requiring a single argument. Then selection motivates the merger of a DP with the null nominal, as shown in (24).

$$(24) \underset{[\text{ip}, \text{uCase}, \text{iQ}, \text{uWH}]}{[\text{DP}]} \quad \underset{[\text{ip}, \text{uCase}]}{[\text{D}]} \underset{[\text{NP}]}{[\text{N Op}]} \underset{[\text{DP}]}{[\text{Rebus}]}$$

(Hicks 2009: 547, slightly modified)

According to Hicks (2009: 547), in order for a DP-internal DP (like *Rebus* in (24)) to get its [uCase] checked in English, there obviously must be some morphologically marked functional head: either *of* (as in *mugshots of Rebus*) or the possessive D's (like *Rebus's mugshots*). Since the complex null operator has no morphologically overt functional element inside, the [uCase] feature of the DP-internal argument of the null operator cannot be valued within the DP (Hicks 2009: 547). Hicks (2009: 547) claims that this internal structure of the complex null operator solves the fundamental problems with the previous analysis of (V)TM. Hicks (2009: 558) suggests the possibility that verbal predicates like *take* could also involve the complex null operator. The purpose of this section is to examine whether usual *tough*-constructions with adjectival predicates and VTC could be given a completely parallel analysis or not. As an illustration, I outline the derivation of a simple VTC such as (25).

(25) He costs to feed. (FML, p. 248)

(26) He_i costs [_{CP} [Op+_{t_i}]_i [to feed _{t_i}]].

In my complex Op+smuggling analysis in the spirit of Hicks (2009), a null Op is merged with *he* in (26). The complex operator Op+*he*

moves to the SpecCP of the *tough*-verb infinitival complement. Then, *he* moves out of the complex operator (I will refer to this movement as verbal *tough*-movement; see also above for the internal structure of the complex operator). This approach combines the null Op approach and the improper movement approach (Brody (1993) and Hornstein (2001)), since it involves both operator movement (A'-movement) to the infinitival Spec CP and movement of *He* to the matrix SpecIP (A-movement), where the first movement essentially smuggles *He* with respect to the traditional Improper Movement ban (i.e., the ban on (inconsistent) A-A'-A movement). In other words, the improper movement is circumvented by different constituents (one (in this case *He*) merged with Op within the same DP) undergo A- and A'-movement respectively (cf. Hicks (2003: 53-54, 64). The logic behind smuggling remains unchanged, although complex movement involves smuggling with respect to the Improper Movement ban, as well as intervention effects/Relativized Minimality caused by the intervening (optional) incremental theme and the experiencer if any (e.g. “The journey takes me 3 days to complete”), as in Collins’s (2005) original cases. The violation is averted by the smuggling movement of ZP in (28), which avoids creation of t' by avoiding the offending movement step from t_i to t'_i (Bošković (2021: 73)).

(27) $XP_i t'_i [_{ZP} \dots t_i \dots]$ (Bošković (2021: 73))

(28) $XP_i [_{ZP} \dots t_i \dots]_j t_j$ (Bošković (2021: 73))

Note that this situation applies to Double

Passives (e.g. [_{IP} DP *be attempted* [_{CP} [_{IP} t' to *be concealed* t_j]]) (where t is lexically governed by a passive participle *concealed* in the embedded infinitival clause but t' is neither lexically nor antecedent governed, thus an offending trace (cf. Chomsky and Lasnik (1995))), which case I suspect the smuggling movement / bypass is involved with, and I return to this later.

Returning to the original topic, there is another smuggling component is involved in VTCs. The subject of VTCs is Case-licensed in the matrix clause, not in the infinitival complement, as shown by the fact that it must bear nominative case, accusative case being prohibited.

(29) *He*/**Him* costs money to feed.

(cf. FML, p. 248)

The complex Op can be thought to smuggle the subject of the verbal *tough* construction with respect to Case-licensing, enabling it to avoid being Case-licensed in the infinitival complement (note that the pronoun is not the object of *feed* in (25) but the complex operator DP (see the structure (24)), which dominates the pronoun, is the object of *feed*. In order to be accessible to a DP-external Case licensor, the pronoun needs to extract out of the big DP (= the smuggler), which occurs only after the big DP moves to SpecCP. Thus the complex Op smuggles the verbal *tough* subject satisfying both the Improper (i.e., Inconsistent) Movement ban and Case-licensing.

Next, it should be noted that Chomsky’s (1977) null Op movement analysis are adaptable to an analysis of VTCs, as shown in (30).

(30) the cake_i took you all day [_{CP} Op_i [_{TP} PRO to

help John bake t]].

(cf. Chomsky 1981: 318, n.32)

Although this approach seems intuitively attractive, I will re-examine it from the perspective of the bypassing / smuggling analysis of Collins (2005) and Hicks (2003, 2009). In Chomsky's null Op movement analysis, like overt *wh*-phrases, a null operator needs to undergo "successive-cyclic movement" to a Spec, CP position, but unlike A-movement, A'-movement is characteristically capable of crossing subjects. However, Hicks (2003: 44ff.) points out theoretical problems behind Chomsky's approach, namely "just as cases of *tough* deletion (Lasnik and Fiengo (1974)), Chomsky's (1977) analysis violates standard violations of the θ -criterion ... " In addition, Chomsky's (1981) improved analysis of TC, which assumes that *easy to please* is a lexical item with no internal structure with recourse to "renalysis" based on Nanni's (1978, 1980) claim. However, as Hicks (2003: 47) notes, "REANALYSIS,' which is not a composite operation deriving from Merge and Agree, is irreconcilable with the philosophy underlying the minimalist framework." See Hicks (2003: 42ff.) for other arguments against the simplex null operator analysis of Chomsky (1977, 1980).

Finally, let us consider the evidence for *wh*-movement in the VTC infinitival. First, I point out that a *tough*-adjectives like *difficult* and *tough*-verbs like *require* seem to be able to share the same infinitival complement. Note that *tough*-adjectives take the infinitival complement involving A'-movement of a

phonologically null *wh*-operator (N. B. Chomsky (1977), Hicks (2009) and others).

(31) The synthesis of this compound was difficult – requiring 10 years and 25 people to complete. (PMKRK, p. 89)

Second, extraction from the VTC infinitival yields the kind of locality effect typically noticed in overt *wh*-movement environments.

(32) a. the nuclear missile takes approximately five minutes to shoot on this submarine.

b. *which missile does this submarine take (approximately) five minutes to shoot on?

c. *[_{CP} which missile_i does [_{TP} this submarine_j [_{VP} take five minutes [_{CP} Op_i [_{TP} PRO to shoot *t_i* on *t_j*]]]]]

(based on Chomsky's (1977: 105) analysis)

The ungrammaticality attested in the VTC (32b) arises because the Spec, CP position in the embedded infinitival clause is occupied with the moved null operator (Op) and thus cannot be targeted by the overt *wh*-phrase (*which missile*) on the way to the matrix Spec, CP. Thirdly, as (33a) shows, VTCs permit long-distance dependencies across multiple clauses, provided that no intervening category fills an intermediate Spec, CP position, as *why* is assumed to intervene in (33b).

(33) a. A large telescope like Hale requires a lot more energy [to imagine [any scientist believing [he could build]]].

b. ??A large telescope like Hale requires a lot more energy [to imagine [any scientist wondering [why he would agree to build]]].

Fourthly, VTCs license parasitic gaps. Only if VTCs involve application of some variety of *wh*-movement is the asymmetry in the grammaticality of gaps in VTCs and raising constructions explained.

(34) a. (?)Lloyd Webber musicals_i require no thinking [Op_i to condemn *t_i* [without even watching *e_i*]].

(cf. Hicks 2009: 542)

b. *Lloyd Webber musicals_i are likely [Op_i to be condemned *t_i* [without anyone even watching *e_i*]]. (Hicks 2009: 542)

5. Extension to Double Passives

Let us briefly consider Double Passive Constructions (DPCs), as shown below.

(35) Her eagerness to be gone from Norland was preserved from diminution by the evident satisfaction of her daughter-in-law in the prospect of her removal; a satisfaction which was but feebly attempted to be concealed under a cold invitation to her to defer her departure.

(SS, p. 28-29)

(36) ... and drench the casks with sea-water; which afterwards, at varying intervals, is removed by the ship's pumps. Hereby the casks are sought to be kept damply tight ... (MD, p. 516, footnote *)

(37) Some journalists have been attempted to be attacked. (Radford 1988: 365)

Passive raising out of infinitival complements of *try*-class verbs (*try*, *seek*, *attempt*, *manage*, *refuse* and so on) is prohibited, but such attested examples as in (35-37) are included in the corpus of 19th-century and present-day

English (Gen'ei (1999), Fowler (1994)). Sentence in (35) has the following structure (Note that the implicit argument [_{Voice'} [_{Voice} *by*] [_{VP} DP [_v [_v <Part(icipal)P(hrase)>]]], which is roughly corresponding to [_{PP} *by* DP], is structurally present, represented as [_{Voice'} *e*] [_{VP} [_{DP} *e*] ...]. Note also that V does not raise to *v* in the passive but raise to Part and then PartP raises to Spec,VoiceP (which is a phase) (Collins (2005: 90, 102), Bošković (2021: 66)). Here unpronounced elements are represented pretheoretically such as <a satisfaction+which>.

(38) a. [a satisfaction_i [_{CP} <a satisfaction> which_i [_{IP} <a satisfaction+which> was but feebly [_{PartP} attempted <a satisfaction+which>] <[_{Voice'} [_{Voice} *e*] [_{VP} [_{DP} *e*] [_v v <Part P>] [_{CP} *e* [_{IP} <a satisfaction+which> to be [_{PartP} concealed <a satisfaction+which>]] [_{Voice'} [_{Voice} *e*] [_{VP} [_{DP} *e*] [_v v <Part P>]]]]]]]

b. cf. She tried [_{CP} *e* [_{IP} PRO to conceal a satisfaction]] (Active Sentence)

If the head *e* of CP were to license the trace in (38b), raising of *a satisfaction* to the main clause IP subject position would be allowed (cf. Chomsky and Lasnik 1995: 83-85). Example (38b) illustrates the fact that *e* does intervene between the matrix verb and the embedded subject PRO, blocking the government between them (N.B. Chomsky and Lasnik 1995: 85)). Then, in the structure (38a), [_{DP} [_{NP} [_{N'} which a satisfaction]]] or [_{DP} a satisfaction [_{D'} D [_{NP} [_{N'} which]]]] first appears in the passive infinitival complement object position but it will not receive Case at all. The intermediate head C (= *e*(*empty head*)) bars (antecedent) government

of the intermediate copy of *which* + *a satisfaction* or *a satisfaction* + *which*, either. Note that when X^0 other than C^0 allows XP to raise, head-governing and thus licensing the first copy left behind, that is not true of C (N.B. Chomsky and Lasnik (1995: 58, 83-85, 134)).

Intuitively, the relevant structure might be represented in the following “pre-minimalist” “Principles and Parameters” style, which would make it easier to understand the problem.

(39) *The book_i was tried [_{CP} *e* [_{IP} *t*_i to be stolen *t*_i]]

The book is “head-governed” in the embedded object position, thus licensing the trace left behind (= *t*). However, the head of CP, *e*, functions as an intervening head, but not a proper governor, licensing the intermediate trace (i.e., the intermediate trace is not antecedent governed by *the book*) (N.B. Chomsky and Lasnik (1995:85, 134)). In order for this structure to be legitimate, *the book* must bypass the intermediate trace position.

Thus, the double passive structures like (35) is doomed to crash but attested in English data. This paper argues that the smuggling movement of Collins (2005) is involved in Double Passives as well. Namely, *a satisfaction* and *which* forms complex operator in the sense of Hicks (2009). Then in the line of Collins (2005), the complex operator is first smuggled out of the infinitival object position via the participle raising over an implicit argument (roughly, a covert *by*-phrase of the embedded infinitival clause), and then it is further smuggled out of the infinitival complement via SpecCP. The smuggled goods

(*a satisfaction* + *which*) is again smuggled over an implicit argument (roughly, a covert *by*-phrase in the matrix clause) by the raising of PartP to the relevant Case available position (the higher SpecIP position, where nominative Case of T is checked). I will not go into the question of how the noun phrase and the relative clause form a constituent here. Tentatively, I assumed the operation superficially similar to antecedent raising, avoiding potential problems by forming a complex operator in the line of Hicks (2009). But what is important is that I argue here that DPCs like (36) and (37) are also involved with the derivation by the smuggling movement.

6. Conclusion

In this paper I have focused on the verbal aspects of VTCs, describing the properties distinct from those of ATCs, including the Dative Alternation like behavior of VTCs whose infinitival complements are (semantically) concealed or deleted. I have also shown that two types of Object Raising Constructions, namely VTCs and Double Passive Constructions, avoid the constraint violation through the bypassing behavior, which can be captured by the mechanism of Collins’s (2005) smuggling in syntax.

Note

1)Kajita’s (1977: 68) other examples are the following:

- (i) a. It does not require specialized knowledge to read the book.

- b. The book does not require specialized knowledge to read.
- c. It is far beyond the scope of this study to examine the question.
- d. The question is far beyond the scope of this study to examine.
- e. It was over his capacity to bear the burden.
- f. The burden was over his capacity to bear.

2) The attested example of MC might be the following: (i) I don't know how long it took to write. The early McBains usually took a month. Nowadays, perhaps because the novels are longer, they take *two* months. *Cop Hater* took a much longer time because there was a lot of research to do for the first book in the series. (CH, Introduction)

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