

Distributional Differences between PPs and Clauses in English*

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1. Introduction

It is well known that the distribution of clauses are crucially different from that of nominals (Emonds (1970, 1976), Horn (1974, 1975)).¹ With respect to distribution, PPs lie in between nominals and clauses: they are partly similar to nominals in distribution and partly similar to clauses. Like clauses, PPs can appear in non-Case positions as well as in Case positions. However, there are some significant differences in distribution between PPs and clauses.

First, PPs can appear in the subject position of a nonfinite clause (Chametzky (1985), Jaworska (1986)):

- (1) a. They considered [[_{PP} after the holidays] to be too late for a family gathering].

(Jaworska (1986:359) cited in Matsubara (2000:132))

- b. Kim considers [[_{PP} under the bed] a good hiding place].

(Chametzky (1985:30) cited in Matsubara (2000:132))

This makes a sharp contrast with the fact that clauses cannot appear in the subject position of a nonfinite clause (Stowell (1981)):

- (2) a. *I consider [[_{CP} that John got a new job] to be fortunate].

(adapted from Stowell (1981:149))

- b. *We didn't find [[_{CP} that he had won a medal] very surprising].

(adapted from Higgins (1973:159))

Second, PPs can appear in the complement position of a preposition (Radford (1988)), whereas clauses cannot appear in that position (Stowell (1981)):

- (3) a. I'm saving the cognac [for [PP after dinner]].
 (Radford (1988:280))
 b. The man escaped [from [PP behind the curtain]].
 (adapted from Radford (1988:280))
- (4) a. *We talked [about [CP that they went on an overseas trip]].
 (adapted from Stowell (1981:149))
 b. *We talked [about [TP to go on an overseas trip]].
 (adapted from Stowell (1981:168))

Third, PPs can appear between a verb and a clausal complement, whereas clauses cannot appear between a verb and a PP complement (Emonds (1970, 1976)):

- (5) a. They didn't mention [PP to the candidate] that the job was poorly paid.
 (adapted from Authier (1991:730))
 b. They reported [PP to the press] that a fight had occurred.
 (adapted from Emonds (1976:128))
- (6) a. *They didn't mention [CP that the job was poorly paid] to the candidate.
 (adapted from Authier (1991:730))
 b. *They reported [CP that a fight had occurred] to the press.
 (adapted from Emonds (1976:128))

In the present paper, I would like to consider the above examples and other related examples with the aim of providing a principled account for each of the relevant facts. In the next section, I argue that a small clause is a projection of an empty T. In section 3, I suggest an analysis involving the Oblique Case Principle to account for the occurrence of PPs and the nonoccurrence of clauses in the subject position of a finite clause, and the occurrence of PPs and the nonoccurrence of clauses in the complement position of a preposition. In section 4, I advance the A'-Chain Condition to account for the relevant facts, including the nonoccurrence of clauses between a verb and a PP complement. Section 5 is the summary of the present work.

2. An Analysis of Small Clauses

The relevant examples in the preceding section contain small

clauses and copular sentences (the latter of which are derived from structures containing small clauses (Chomsky (1995b), Lasnik (1992, 1995), Stowell (1978, 1981))). Before considering the relevant examples, therefore, it is necessary to have a proper analysis of small clauses. More specifically, I suggest that a small clause is a projection of an empty T with a complete set of ϕ -features and an EPP-feature,² and optionally with a Case value-assigning property.³ That an empty T has to have a complete set of ϕ -features is confirmed by the fact that subjects and predicate nominals of small clauses have to agree in ϕ -features.⁴

In the minimalist framework (Chomsky (2000, 2001, 2004)), the operations Agree and Move are subject to the following principle:

- (7) The operations Agree and Move require a goal that is both local and active. (Chomsky (2000:123))

According to Chomsky (2001:9), the locus of Case/agreement/EPP may be taken to be T, v^* (*Locus_{Tv*}*) or T, V (*Locus_{Tv}*). Suppose that *Locus_{Tv*}* is adopted (Chomsky (2001)).

We are now in a position to show that an empty T has to have an EPP-feature. To see this, consider the following examples:

- (8) a. I want John to be employed.
 b. I want John employed. (a, b adapted from Postal (1974:409))

The structures underlying (8a) and (8b) contain (9a) and (9b), respectively:⁵

- (9) a. [_{TP} [_T to] [be [employed John]]]
 b. [_{TP} T employed John]

Note that the infinitival T in (9a) has an EPP-feature (Radford (2004)).⁶ Agree holds between the infinitival T and *John*, and *John* raises to the Spec of infinitival T, forming (10):

- (10) [_{TP} John [_T to] [be [employed *t*]]]

The derivation converges as (8a). The similarities between (8a) and (8b) suggest that the analysis of (8a) should be extended to example (8b). If the empty T in (9b), like the infinitival *to* in (9a), has an EPP-feature, *John* raises to the Spec of empty T, forming (11):

- (11) [_{TP} John T employed *t*]

The derivation converges as (8b). The important point to note is that the formation of (11) from (9b) requires that the empty T have an EPP-feature so that *John* can raise to the Spec of empty T.

That an empty T has to have a Case value-assigning property is confirmed by examples such as (12a, b):

- (12) a. Bill is a chief engineer.
 b. I consider [John a fine mathematician].

(adapted from Chomsky (1986:95))

Example (12a) is derived from a structure containing a small clause such as (13a), and example (12b) is derived from a structure containing (13b):

- (13) a. [_{TP} Bill T a chief engineer]
 b. [_{TP} John T a fine mathematician]

Suppose that the empty T in (13a) has a Case value-assigning property. Agree holds between the empty T and *engineer*, valuing and deleting the Case of *engineer* and other relevant features.⁷ Merge of *be* and other relevant operations form (14):

- (14) T [be [Bill T a chief engineer]]

I follow the standard assumption that the copula *be* has no Case value-assigning property (Chomsky (1995b, 2000, 2001, 2004)). *Bill* raises to the Spec of finite T, yielding example (12a). The important point to note is that the derivation of (12a) requires that the empty T in (13a) have a Case value-assigning property so that it can value and delete the Case of *engineer*. Similar remarks apply to the derivation of (12b) from a structure containing (13b).

We have seen that the derivation of examples like (12a, b) requires that an empty T have a Case value-assigning property. We will next show that an empty T must optionally have a Case value-assigning property in order to derive both examples like (15a, c) and (15b, d):

- (15) a. There is a strange man in the garden.
 (Chomsky (1993:200) cited in Lasnik (1995:616))
 b. A strange man is in the garden. (Lasnik (1995:617))

- c. I want there to be someone in the room.
 d. I want someone to be in the room.

(c, d adapted from Lasnik (1992:384))

These examples are derived from structures containing small clauses (Chomsky (1995b), Lasnik (1992, 1995), Stowell (1978, 1981)). Suppose that a structure such as (16) has been constructed:

(16) [_{TP} T [be [a strange man T in the garden]]]

The derivation of (15a) from (16) requires that *a strange man* remain in situ. The derivation of (15b) from (16), on the other hand, requires that *a strange man* raise to the Spec of finite T. Suppose that the empty T in (16) has a Case value-assigning property, and that Agree is allowed to hold between a head T and its specifier.⁸ Agree between the empty T and *man* renders *man* inactive, and *a strange man* remains in situ. *There* is merged in the Spec of finite T, yielding (15a).⁹ If, on the other hand, the empty T lacks a Case value-assigning property, *a strange man* raises to the Spec of finite T, and the derivation converges as (15b). Thus, the derivation of (15a) from (16) requires that the empty T have a Case value-assigning property, whereas the derivation of (15b) from (16) requires that the empty T lack a Case value-assigning property. Similar remarks hold for paired examples (15c, d). Thus we see that an empty T must optionally have a Case value-assigning property.

This is further confirmed by examples like the following:

- (17) a. A man is [*t* in the room].
 b. Who is there [*t* in the room]?

(a, b from Chomsky (1981:178))

As noted by Chomsky (1981:178), the trace left by NP-movement in (17a) is not Case-marked, whereas the trace left by *wh*-movement in (17b), being a variable according to his definition of variables,¹⁰ is Case-marked. The structures underlying (17a, b) are (18a, b), respectively:

- (18) a. A man is [_{TP} *t* T in the room]
 b. Who is there T [_{TP} *t* T in the room]

In (18a), the trace left by NP-movement is in a non-Case position, which in turn indicates that the empty T lacks Case. In (18b), on the

other hand, the trace left by *who*, being a variable, has Case. The derivation of (17b) from (18b) requires that the empty T have a Case value-assigning property in order to value and delete the Case of the trace. Thus we see that the derivation of examples like (18a, b) requires that an empty T optionally have a Case value-assigning property.

3. The Oblique Case Principle

Discussing the distribution of clauses within the GB framework, Stowell (1981) suggests the Case-Resistance Principle (CRP):

(19) *The Case-Resistance Principle* (CRP)

Case may not be assigned to a category bearing a Case-assigning feature. (Stowell (1981:146))

Assuming that tensed and infinitival clauses have the Case-assigning feature [+ Tense], Stowell argues that the CRP predicts the deviance of examples (2a, b) and (4a, b), repeated as (20a, b) and (21a, b), respectively:¹¹

- (20) a. *I consider [[_{CP} that John got a new job] to be fortunatel].
 b. *We didn't find [[_{CP} that he had won a medal] very surprising].
- (21) a. *We talked [about [_{CP} that they went on an overseas trip]].
 b. *We talked [about [_{TP} to go on an overseas trip]].

Discussing the distribution of clauses within the Case-checking framework (Chomsky (1993, 1995a, b)), Bošković (1995) argues that clauses have to have Case when they undergo movement to subject position. Assuming that prepositions are oblique Case-assigners (Chomsky (1981)),¹² Bošković attributes the deviance of examples (21a, b) to the clauses in the complement position of the preposition being unable to bear oblique Case. The oblique-assigning feature of *about* in (21a, b) remains undeleted, which causes the derivation to crash. This accounts for the deviance of (21a, b).

Essentially following Bošković (1995), I assume that clauses optionally have Case as a result of the following rule:

- (22) C and T optionally have Case.

Bošković's observation that clauses cannot bear oblique Case may be stated as (23):

(23) The Oblique Case Principle (OCP)

The value oblique cannot be assigned to the Case of C or T.

Let us next proceed to show that prepositions and ECM (exceptional Case-marking) verbs share some similarities with respect to Case assignment (Chomsky (1981), Johnson (1988)). We will begin by considering examples with gerundive clauses in the complement position of a preposition:

(24) a. I left without [him explaining the story].

(Johnson (1988:588))

b. Sam left despite [John saying that he wouldn't].

(Johnson (1988:589))

The structure underlying (24a) contains the following:¹³

(25) [_{FP} without [_{TP} him [_T -ing] ...]]

According to Johnson (1988), *him* is Case-marked by the preposition *without*. Note that this is a case of ECM (Chomsky (1981)), i.e. Case-marking of the subject of the embedded TP complement. Given that prepositions have oblique-assigning properties (Chomsky (1981)), the subject of the TP complement is assigned the value oblique rather than accusative.

Let us compare (24a, b) with the ECM cases (26a, b) discussed by Chomsky (1981):

(26) a. I'm eager for [you to take part].

b. I believe [him to be incompetent].

(a, b from Chomsky (1981:66))

The structures underlying (26a, b) contain (27a, b), respectively:

(27) a. [_{CP}[_C for][_{TP} you [_T to] take part]]

b. [_{v*P} v*-believe [_v [_{TP} him [_T to] be incompetent]]]

Given that the complementizer *for*, like prepositions, has an oblique-assigning property (Chomsky (1981)),¹⁴ the embedded subject in (27a) is assigned the value oblique. Suppose that *believe* in (27b) has an oblique-assigning property as a result of the following rule:

(28) ECM verbs have oblique-assigning properties.

In that case, the embedded subject in (27b) is also assigned the value oblique. Given (28), therefore, we can assign the value oblique to the embedded subject of an ECM construction, thereby providing a unified analysis of ECM cases like (24a, b) and (26a, b).

Furthermore, rule (28) allows us to account for several different facts. Note that prepositions can be assigned the value oblique, as shown by the grammaticality of (3a, b), repeated as (29a, b):

- (29) a. I'm saving the cognac [for [PP[P after] dinner]].
 b. The man escaped [from [PP[P behind] the curtain]].

The structure underlying (29a) contains (30):

- (30) [PP[P for][PP[P after] dinner]]

If the preposition *after* has Case,¹⁵ it has its Case valued and deleted by the preposition *for*, and the derivation converges as (29a). (If *after* lacks Case, the oblique-assigning property of *for* remains undeleted, causing the derivation to crash.) The grammaticality of examples like (29a, b) indicates that prepositions can be assigned the value oblique.

With this in mind, let us consider examples (1a, b), repeated as (31a, b), respectively:

- (31) a. They considered [[PP[P after] the holidays] to be too late for a family gathering].
 b. Kim considers [[PP[P under] the bed] a good hiding place].

Recall that a small clause is a projection of an empty T, as argued in the preceding section. According to the TP analysis, the structure underlying (31a) contains (32):

- (32) [TP[T to][be [TP[PP[P after] the holidays] T too late for a family gathering]]]

Note that the preposition *after* has to have Case so that the PP *after the holidays* can undergo movement to the Spec of infinitival T in accordance with principle (7). Movement of *after the holidays* and other relevant operations form (33):

- (33) [_{v*P} v*-consider [VP tv [TP[PP[P after] the holidays] to be [TP t T too late for a family gathering]]]]]

The preposition has its Case valued and deleted by *v*-consider*, and the derivation converges as (31a).

At some stage of the derivation of (31b), a structure such as (34) is constructed:

- (34) [_{v*P} *v*-consider* [_{VP} *t_v* [_{TP} [_{PP} [_P *under*] the bed] T a good hiding place]]]

Suppose that the preposition *under* has Case. The preposition has its Case valued and deleted by *v*-consider*. Suppose next that the preposition lacks Case. Note that an ECM verb has to have a Case value-assigning property in order to value and delete the Case of the embedded subject. If *under* lacks Case, the Case value-assigning property of *v*-consider* remains undeleted, causing the derivation to crash. Thus we see that the prepositions *after* in (31a) and *under* in (31b) have to have Case. The grammaticality of (31a, b) indicates that the prepositions *after* and *under* have their Case valued and deleted by *v*-consider*. Given that the ECM verb *consider* has an oblique-assigning property, we can account for the grammaticality of (31a, b) in the same way as that of (29a, b).

Second, rule (28) allows us to account for the following examples:

- (35) a. *Bill thinks himself.
 b. Bill thinks [himself to be the best student in the class].
 c. Bill thinks [himself the best student in the class].
 d. *They deemed him.
 e. They deemed [him too old for the job]. (Postal (1974:314))

The deviance of (35a) is attributable to the Case of the embedded subject remaining undeleted, which indicates that the verb *think* lacks a Case value-assigning property. The grammaticality of (35b, c), on the other hand, indicates that the ECM verb *think* has a Case value-assigning property to value and delete the Case of the embedded subject. Similarly, the deviance of (35d) indicates that the verb *deem* lacks a Case value-assigning property, whereas the grammaticality of (35e) indicates that the ECM verb *deem* has a Case value-assigning property. Given that the ECM verb *think* has an oblique-assigning

property as a result of rule (28), it can value and delete the Case of the embedded subject, yielding (35b, c). The non-ECM verb *think*, not being subject to rule (28), lacks a Case value-assigning property. This accounts for the deviance of (35a).

Similarly, given that the ECM verb *deem* has an oblique-assigning property as a result of rule (28), it can value and delete the Case of the embedded subject, yielding (35e). The non-ECM verb *deem*, on the other hand, lacks a Case value-assigning property; hence the deviance of (35d). Thus we see that rule (28), which allows us to account for the grammaticality of (31a, b), also enables us to account for the grammaticality of (35b, c, e), as opposed to the ungrammaticality of (35a, d).

Third, rule (28) enables us to account for the nonoccurrence of clauses in the subject position of a nonfinite clause, as shown by the deviance of (20a, b), repeated as (36a, b):

- (36) a. *I consider [that John got a new job] to be fortunate.
 b. *We didn't find [that he had won a medal] very surprising.

At some stage of the derivation of (36a), a structure such as (37) is constructed:

- (37) [_{v*P} v*-consider [_{VP} t_v [_{TP}[_{CP}[_C that][_{TP} John got a new job]]] to [be
 [_{TP} t T fortunate]]]]

Suppose that C has Case as a result of (22), which renders CP accessible to movement from the position of *t* to the Spec of infinitival T. Note that *v*-consider* with an oblique-assigning property cannot value and delete the Case of C because of the OCP. Suppose next that C lacks Case. In that case, CP remains in the position of *t*, and the oblique-assigning property of *v*-consider* remains undeleted. In either case, therefore, the derivation crashes. This accounts for the deviance of (36a).

The structure underlying (36b) contains structure (38):

- (38) [_{v*P} v*-find [_{VP} t_v [_{TP}[_{CP}[_C that][_{TP} he had won a medal]]] T very
 surprising]]

Suppose that C has Case as a result of (22). C cannot have its Case

valued and deleted by *v*-find* with an oblique-assigning property because of the OCP, which causes the derivation to crash. Now suppose that C lacks Case. In that case, the oblique-assigning property of *v*-find* remains undeleted, causing the derivation to crash. This accounts for the deviance of example (36b).¹⁶

In this connection, consider examples (21a, b), repeated as (39a, b):

(39) a. *We talked [_{PP}[_P about][_{CP}[_C that] they went on an overseas trip]].

b. *We talked [_{PP}[_P about][_{CP} to go on an overseas trip]].

Suppose that C in (39a) has Case as a result of rule (22). Note that C cannot have its Case valued and deleted by the preposition *about* because of the OCP, which causes the derivation to crash. If, on the other hand, C lacks Case, the oblique-assigning property of the preposition remains undeleted, causing the derivation to crash. This accounts for the deviance of (39a). Thus, the OCP, in conjunction with rule (28), can provide a unified account for the nonoccurrence of clauses in the subject position of a nonfinite clause and the nonoccurrence of clauses in the complement position of a preposition.

To summarize, we have seen that heads of PPs can be assigned the value oblique, whereas heads of clauses cannot be assigned the value oblique, as stated by the OCP. Given that not only prepositions and the complementizer *for*, but also ECM verbs (i.e. verbs selecting complementizerless nonfinite clauses with lexical subjects) have oblique-assigning properties, we can account for the relevant differences in distribution between PPs and clauses.

4. Clauses and A' -Movement

Discussing the distribution of clauses within the GB framework, Stowell (1981) notes that clauses in Case positions can undergo topicalization as in (40), whereas clauses in non-Case positions cannot as in (41):

(40) a. [_{CP} That Jim lives with his sister], Paul already knows *t*.

- b. [_{CP} That the water is bad], Jenny forgot to mention *t*.
 (a, b from Stowell (1981:159))
- (41) a. * [_{CP} That the computer will break down], I know that Neil is
 afraid *t*. (Stowell (1981:206))
- b. * [That he has to eat well], John is aware *t*.
 (Stowell (1981:431))

Bošković (1995) also argues that clauses have to bear Case in order to undergo topicalization.

In this connection, Müller (1997) argues that an element must have a [top] feature in order to undergo topicalization. To see this, consider the following examples:

- (42) a. I think [_{CP} that John likes Mary].
- b. I think [_{CP} that Mary_i John likes *t*].
 (a, b from Müller (1997:116))

As noted by Müller, the derivation of (42a) is chosen over the derivation of (42b) by the Fewest Steps Condition,¹⁷ since the latter involves topicalization. This blocks the derivation of (42b). To avoid this undesirable result, he suggests that the derivation of (42b), unlike that of (42a), involves a [top] feature, and that the two derivations are not in the same reference set. This allows (42b) to be derived without violating the Fewest Steps Condition.

Essentially following Müller, I assume that an uninterpretable feature such as [top] renders an element accessible to topicalization.

There are examples indicating that Agree has to apply to the trace left by topicalization. Relevant examples include the following:

- (43) a. [That Sonia was really quite competent], I couldn't convince
 Frank of *t*. (Postal (1994:70))
- b. [That Bill was a fool] we believed [*t* to be obvious].
 (Horn (1975:346, fn.5))
- c. [That he had solved the problem] we didn't find [*t* very
 surprising]. (adapted from Higgins (1973:159))

Note that the trace of the topicalized clause appears in the complement position of a preposition in (43a), in the subject position of an

infinitival complement in (43b), and in the subject position of a small clause in (43c). The grammaticality of these examples indicate that traces of clauses, unlike clauses, can be assigned the value oblique. If Agree is assumed to hold before application of topicalization, examples such as (43a-c) cannot be derived because of the OCP. The grammaticality of the examples indicates that Agree can apply to the trace left by topicalization,¹⁸ which in turn indicates that the OCP has to be revised to (44) so that traces of clauses can be immune to the principle:¹⁹

(44) The Oblique Case Principle (revised)

The value oblique cannot be assigned to the Case of C or T heading a projection with phonetic content.

(Iwakura (2002b:269))

Let us proceed to consider examples (40a, b) and (41a, b). The structures underlying (40a) and (41a) are (45a) and (45b), respectively:

- (45) a. [_{CP}[_C that][_{TP} Jim lives with his sister]] ... *v**-know [_{VP} *t*_v *t*]
 b. [_{CP}[_C that][_{TP} the computer will break down]] ... afraid *t*

Under the copy theory of movement, a moved element and its trace are identical in constitution (Chomsky (2000, 2001, 2004)). If CP in (45a) has Case as a result of rule (22), its trace also has Case.²⁰ The chain (CP ... *t*) meets the following condition:²¹

(46) The A'-Chain Condition

If α or β in the A'-chain (α ... β) is a nominal or a clause, and if its terminal trace is in an A-position, both α and β must have Case.

The trace in (45a), being immune to the revised OCP, has its Case valued and deleted by *v**-know. To delete the Case of the topicalized CP, we can resort to a convention suggested by Chomsky (1995b), which may be stated as (47):

(47) The A'-Chain Convention

In the chain (α ... β), if α or β has its formal features deleted, other elements in the chain also have their formal features deleted.

When the trace in (45a) has its Case valued and deleted, CP has its Case deleted by the A'-Chain Convention, and the derivation converges as (40a).

Returning next to (45b), let us suppose that CP in (45b) has Case. In that case, its trace also has Case. The chain (CP ... *t*) meets the A'-Chain Condition. However, the trace, being in a non-Case position, cannot have its Case valued and deleted, which causes the derivation to crash. If, on the other hand, the topicalized CP in (44b) lacks Case, its trace also lacks Case. The A'-chain (CP ... *t*) with CP and *t* lacking Case does not meet the A'-Chain Condition, and (44b) is ruled out. In either case, therefore, the derivation crashes; hence the deviance of (40a). Thus, the suggested analysis can account for the applicability of topicalization to clauses in Case positions, as opposed to the inapplicability of topicalization to clauses in non-Case positions.

Let us now consider examples containing verbs with PP and nominal or clausal complements. We will begin by considering the following examples:

- (48) a. They didn't mention it to the candidate.
 b. *They didn't mention to the candidate it.
 c. They reported it to the press.
 d. *They reported to the press it.

With respect to *mention*-class verbs, I suggest the following rule:²²

- (49) *Mention*-class verbs with PP and nominal or clausal complements have oblique-assigning properties.

There are two possible structures for (48a), one containing (50a) and one containing (50b):²³

- (50) a. [_{v*P} *v**-mention [_{VP}[_{PP} to the candidate] *t*_v it]]
 b. [_{v*P} *v**-mention [_{VP} it *t*_v [_{PP} to the candidate]]]

It is important to note that *it* in (50a) is in a non-Case position, whereas *it* in (50b) is in a Case position. In fact, (50a) is a part of the structure underlying the deviant example (48b).

With this in mind, let us next consider the following examples:

- (51) a. They never mentioned it to the candidate that the job was poorly paid. (Postal and Pullum (1988:643))
 b. They reported it to the press that a fight had occurred. (adapted from Emonds (1976:128))

If example (48a) is derived from a structure containing (50b), it follows that (51a) should be derived from a structure containing (52), which is based on the assumption that the associate of expletive *it* is adjoined to VP (Stowell (1981)):

- (52) [_{v*P} v*-mention [_{VP} it t_v [_{PP} to the candidate]]]_{CP}[C that] the job was poorly paid]]]

It is important to note that the adjoined clause, asymmetrically c-commanding *it*, is closer to *v*-mention* than *it* (Chomsky (2000)). If Agree is subject to principle (7), therefore, Agree will hold between *v*-mention* and CP rather than between *v*-mention* and *it*. This gives rise to a problem: expletive *it* cannot have its Case valued and deleted, which causes the derivation to crash. To avoid this undesirable result, we may resort to the following principle suggested by Chomsky (2000, 2001):

- (53) Only the head of an A-chain (equivalently, the whole chain) blocks matching under the Minimal Link Condition (MLC). (Chomsky (2001:16))

Note that CP in (52), being in an A' -position, cannot be the head of an A-chain, and hence does not block matching. Given (53), Agree is allowed to hold between *v*-mention* and *it* in (52), and the derivation converges as (51a).

Similar remarks apply to the passive counterparts of (51a, b) such as those in (54):

- (54) a. It was never mentioned to the candidate that the job was poorly paid.
 b. It was reported to the press that a fight had occurred. (Emonds (1976:128))

If example (51a) is derived from a structure containing (52), it follows that example (54a) should be derived from a structure such as (55):

- (55) [_{TP} T [be [_{VP}[_{VP} it mentioned [_{PP} to the candidate]]]_{CP}[C that] the job was poorly paid]]]]

Given principle (53), Agree holds between the finite T and *it*, and the derivation converges as (54a). Thus we see that principle (53) is necessary to derive examples like (51a, b) and (54a, b).

We are now in a position to consider the nonoccurrence of a clausal complement between a verb and a PP complement. Let us consider examples (5a, b) and (6a, b), repeated as (56a, b) and (57a, b), respectively:

- (56) a. They didn't mention [_{PP} to the candidate] that the job was poorly paid.
 b. They reported [_{PP} to the press] that a fight had occurred.
 (57) a. *They didn't mention [_{CP} that the job was poorly paid] to the candidate.
 b. *They reported [_{CP} that a fight had occurred] to the press.

There are two possible structures for (56a) such as (58a, b):

- (58) a. [_{v*P} v*-mention [_{VP}[_{PP}[_P to] the candidate] *t_v* [_{CP}[C that] the job was poorly paid]]]
 b. [_{v*P} v*-mention [_{VP}[_{CP}[C that] the job was poorly paid] *t_v* [_{PP}[_P to] the candidate]]]

Note that *mention* has an oblique-assigning property as a result of rule (49). Suppose that the preposition *to* in (58a) has Case. Agree holds between *v*-mention* and the preposition,²⁴ valuing and deleting the relevant features, and the derivation converges as (56a). Turning next to (58b), let us suppose that C has Case.²⁵ In that case, C cannot have its Case valued and deleted by *v*-mention* because of the OCP. If C lacks Case, the oblique-assigning property of *v*-mention* remains undeleted. In either case, therefore, the derivation crashes. Thus we see that so far as example (56a) is concerned, it appears that structure (58a) should be chosen over (58b).

However, there arises a problem with respect to the following example:

- (59) [That the job was poorly paid], they didn't mention to the candidate.

There are two possible structures for (59) such as (60a, b):

- (60) a. [_{CP}[_C that] the job was poorly paid] ... *v**-mention [_{VP}[_{PP} to the candidate] *t_v* *t*]
 b. [_{CP}[_C that] the job was poorly paid] ... *v**-mention [_{VP} *t* *t_v* [_{PP} to the candidate]]

If CP in (60a) has Case, its trace also has Case. The chain (CP ... *t*) meets the A' -Chain Condition. However, the trace, being in a non-Case position, cannot have its Case valued and deleted. If CP in (60a) lacks Case, its trace also lacks Case. The chain (CP ... *t*) does not meet the A' -Chain Condition, and (60a) is ruled out. In either case, therefore, the derivation crashes.

Turning next to (60b), let us suppose that CP has Case. In that case, the trace also has Case. The chain (CP ... *t*) meets the A' -Chain Condition. The trace of CP, being immune to the revised OCP, has its Case valued and deleted by *v**-mention, and CP has its Case deleted by the A' -Chain Convention. The derivation converges as (59). Thus we see that example (59) can be derived from structure (60b), but not from (60a). In fact, there is no uncontrived way to derive (59) from (60a).

If (59) is derived from (60b), it follows that (56a) should be derived from a parallel structure containing (58b) rather than (58a).²⁶ Let us suppose, following Stowell (1981), that CP in (58b) undergoes extraposition, forming a structure such as (61):²⁷

- (61) [_{*v**P} *v**-mention [_{VP}[_{VP} *t_v* *t* [_{PP} to the candidate]]][_{CP}[_C that] the job was poorly paid]]]

If CP has Case, its trace also has Case. The chain (*t*, CP) meets the A' -Chain Condition. The trace of CP has its Case valued and deleted by *v**-mention, and CP has its Case deleted by the A' -Chain Convention. The derivation converges as (56a).

Let us next suppose that CP in (58b) does not undergo extraposition. Note that *v**-mention has an oblique-assigning property. If C has Case, it cannot have its Case valued and deleted by *v**-mention

because of the OCP. If, on the other hand, C lacks Case, the oblique-assigning property of *v**-mention remains undeleted. In either case, therefore, the derivation crashes. This accounts for the deviance of (57a). Thus we see that if CP in (58b) undergoes extraposition, example (56a) is derived, and that if CP does not undergo extraposition, the derivation crashes. In other words, the suggested analysis permits examples like (56a, b) while still blocking examples like (57a, b), thereby accounting for the nonoccurrence of clausal complements between a verb and a PP complement.

Summarizing, I have suggested the A'-Chain Condition to account for the applicability of topicalization to clauses in Case positions, as opposed to the inapplicability of topicalization to clauses in non-Case positions. Since traces of clauses can be assigned the value oblique, the OCP has to be revised so that traces of clauses can be immune to the principle. The suggested analysis can account for the nonoccurrence of clausal complements between a verb and a PP complement.

5. Conclusion

To summarize, we have seen that there are significant differences in distribution between PPs and clauses. I have suggested an analysis involving the Oblique Case Principle. The suggested analysis has been shown to be capable of accounting for the occurrence of PPs and the nonoccurrence of clauses in the subject position of a nonfinite clause, the occurrence of PPs and the nonoccurrence of clauses in the complement position of a preposition, the occurrence of PPs between a verb and a clausal complement, and the nonoccurrence of clauses between a verb and a PP complement. I have also advanced the A'-Chain Condition to account for the applicability of topicalization to clauses in Case positions and the inapplicability of topicalization to clauses in non-Case positions.

If the preceding discussion is correct, it can be concluded that heads of PPs can be assigned the value oblique, that heads of clauses cannot be assigned the value oblique, and that not only prepositions and the

complementizer *for*, but also ECM verbs selecting complementizerless nonfinite clauses with lexical subjects and *mention*-class verbs selecting PP and nominal/clausal complements have oblique-assigning properties.

Notes

- * I would like to thank Peter Skaer, Fuminori Matsubara, Akiko Kobayashi, and three anonymous reviewers for their invaluable suggestions and comments on an earlier version of this paper. I am also grateful to Joseph Lauer and Michael Gorman for suggesting stylistic improvements. Needless to say, responsibility for the present contents is entirely my own. This work was supported in part by a Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science, Grant No. 16520297.
- 1 Nominals include NPs and DPs (Chomsky (1995b, 2000)). With respect to the distinction between NPs and DPs, Chomsky (1995b:342) states that "the associate in an expletive construction ... is nonspecific, NP rather than DP (D assumed to be the locus of specificity)." Furthermore, Chomsky (2000:139) states that "[i]f true D relates to referentiality/specificity in some sense, then an indefinite nonspecific nominal phrase ... must be a pure NP, not DP with D_{null}."
 - 2 This is based on Hornstein and Lightfoot's (1987) analysis of a small clause as a projection of an empty INFL. Chomsky (1993:175) suggests the AgrP analysis of small clauses, but that analysis is rejected by Chomsky (1995b:353) since the category Agr is disallowed in the framework. For other analyses of small clauses, see Aarts (1992), Nakajima (2001), Nakajima and Tonoike (1991), Stowell (1981), Williams (1983), and references cited there.
 - 3 I leave it open what kind of Case value an empty T assigns.
 - 4 I am grateful to Fuminori Matsubara for pointing out to me that there are a small number of exceptions to this generalization such as those in the following examples:
 - (i) a. Children are a nuisance.
 - b. John is all thumbs. (a, b from Matsubara (1997:202))
 Suppose that copular sentences are derived from structures containing small clauses (Chomsky (1995b), Lasnik (1992, 1995), Stowell (1978, 1981)). In that case, (ia, b) are derived from structures such as ((ia, b), respectively:
 - (ii) a. T [be [TP children T a nuisance]]
 - b. T [be [TP John T all thumbs]]
 I leave it for future research to account for these examples.
 - 5 If the infinitival complement in (i) is a TP, the null hypothesis is that the infinitival complement in (9a) is also a TP (see Iwakura (2002b)):
 - (i) I expect [John to be employed].
 - 6 Radford (2004:316) states that "T always carries an [EPP] feature in all types of (finite and non-finite, main and complement) clauses." See also Chomsky (2000:109), who states that "[t]he EPP-feature of T might be universal." I am thankful to Fuminori Matsubara for drawing my attention to Chomsky (2004:127, note 56), who, discussing a raising construction, states that "intermediate T,

though defective, must satisfy EPP."

- 7 As noted by Nakajima (1994), Chomsky (1986:95) suggests the possibility that the predicate nominals in (12a, b) may not be assigned Case. (See Nakajima (1984, 1994), Law (1996), and Travis (1996) for the suggestion that predicate nominals need not have Case. However, there is evidence that predicate nominals have Case. To see this, consider the following examples:

- (i) a. I wonder what kind of teacher John is *t*.
 b. What kind of teacher do you consider [John to be *t*]?

Chomsky (1981:177) states that "variables must have Case." It may be assumed that the trace in (ia) is a variable according to the following definition:

- (ii) α is a variable if and only if
 a. $\alpha = [\text{NP } e]$
 b. α is in an A-position (hence bears an A-GF)
 c. there is a β that locally A'-binds α (Chomsky (1981:185))

If the trace in (ia) is a variable, it has Case. Under the copy theory of movement (Chomsky (2000, 2001, 2004)), a moved element and its trace are identical in constitution. If, therefore, the trace in (ia) has Case, *what kind of teacher* also has Case. Then it follows that predicate nominals have Case.

- 8 If Agree is allowed to hold only between a probe α and a goal β in α 's c-command domain, as suggested by Chomsky (2001, 2004), it is difficult to see how one can derive examples like (i) as noted elsewhere (Iwakura (2002a:187, fn. 3)):

- (i) It was believed (held, reasoned, ...) that the conclusion was false.
 (Chomsky (1981:125))

In the structure underlying (i), *it* is merged in the Spec of finite T, yielding (ii) (Chomsky (1981)):

- (ii) [it T [be [believed (held, reasoned, ...) [CP that ...]]]]

The derivation of (i) from (ii) requires that Agree hold between the finite T and *it* to value and delete the Case of *it*. Thus we see that the derivation of examples like (i) requires that Agree hold between a head T and its specifier.

- 9 The derivation of (15a) requires that Agree hold between the finite T and *man* with its Case deleted (see Tanaka (2002) and references cited there (Carstens (2003) and Pesetsky and Torrego (2001))).

Expletive *there* is assumed to have Case (Lasnik (1992, 1995), Bošković (1997), Groat (1999), and Iwakura (2002a)). See also Chomsky (2004:126, note 47). (I am grateful to Akiko Kobayashi for drawing my attention to the note.) That *there* has Case is confirmed by the fact that *there*, like nominals, can occur in Case positions, but not in non-Case positions. If expletive *there* is assumed to lack Case, expletive *there* has to be treated as the only exception to the generalization (i):

- (i) Case-bearing elements can occur in Case positions.

- 10 See note 7.

- 11 The CRP approach is not unproblematic. This principle requires that clauses in the subject position of a finite clause be moved leftward to an A'-position, and that clauses in the complement position of a transitive verb be moved rightward to an A'-position (Stowell (1981:153, 159)). These movements, however, are inconsistent with Müller's (1997) Fewest Steps Condition (see note 17). Furthermore, examples like (1a, b) and (3a, b) with PPs in Case positions pose

- problems for the CRP, as noted by Jaworska (1986). See also Bošković (1995:36-37, fn. 10) for a critique of the CRP.
- 12 This is stated as (i):
 (i) NP is oblique if governed by P. (Chomsky (1981:170))
- 13 Structure (25) is based on Johnson's (1988) analysis of the gerundive complement in (24a) as an S.
- 14 Chomsky (1981) calls the complementizer *for* a prepositional complementizer. See note 16.
- 15 Following Matsubara (2000), I assume that prepositions optionally have Case. Note that if P has Case, it follows that its projection PP has Case. More generally, when HP is a projection of a head H, "HP has Case" means "HP has Case assigned to its head H." If, therefore, H has Case, it follows that its projection HP has Case, and vice versa.
- 16 Given that the complementizer *for* has an oblique-assigning property (see note 14), we can account for the deviance of (i) in the same way as that of (36a, b):
 (i) *For [that they make saddles] to be well-known would surprise me.
 (Emonds (1970:82))
- 17 Müller states this condition as (i):
 (i) *Fewest Steps* :
 If two derivations D₁ and D₂ are in the same reference set and D₁ involves fewer operations than D₂, then D₁ is to be preferred over D₂.
 (Müller (1997:117))
- As noted by Müller, this condition is a part of Chomsky's (1991:161) least effort condition, which requires that both derivations and representations "be minimal in a fairly well defined sense, with no superfluous steps in derivations and no superfluous symbols in representations."
- 18 In this connection, see Chomsky (1995b:303), who states that "in A-movement the formal features of the trace are deleted ... but in *wh*-movement (and other operator movement), these features remain intact." This implies that Agree can apply to the trace left by *wh*-movement to value and delete the Case of the trace. See also Chomsky (2001:23-24), who states that the trace left by Th (thematization)/Ex (extraction) is accessible to Agree.
- 19 As noted by Stowell (1981:153), the CRP approach is based on the assumption that traces of clauses are immune to the CRP.
- 20 In this connection, see Stowell (1981:175), who states that "[i]n order for a well-formed Topic structure to result, the verb must assign Case to the trace of the topicalized constituent."
- 21 Following Stowell (1981), I assume that a clause can be the head of a chain, and that the trace of a clause can be a variable. The A'-Chain Condition can be derived from the following assumptions:
 (i) a. Variables have Case. (Chomsky (1981))
 b. A moved element and its trace are identical in constitution.
 (Chomsky (2000, 2001, 2004))
- 22 *Mention*-class verbs include verbs which can select PP and nominal or clausal complements.
- 23 Radford (1997:433) suggests a structure such as (50a) for an example like (48a)

in the framework involving the category Agr. His suggestion, however, cannot be adopted, since the category Agr is not allowed in the current minimalist framework (Chomsky (2000, 2001, 2004)).

- 24 Note that the derivation of examples like (31a, b) and (i) below requires that prepositions have a complete set of ϕ -features in order to undergo Agree (Matsubara (2000)):

(i) [PP Under the chair] is a nice place for the cat to sleep.

(Stowell (1981:268) cited in Matsubara (2000:131))

- 25 The occurrence of *that*-clauses in the subject of a finite clause or in the complement position of a transitive verb indicates that they have a complete set of ϕ -features in order to undergo Agree.

- 26 Radford (1997:432-433) suggests that an example containing a verb with a nominal and a PP complement and an example containing a verb with a clausal and a PP complement should be derived from parallel structures. If (48a) is derived from a structure containing (50b), and if (59) is derived from (60b), the derivation of (56a) from a structure containing (58b) should be chosen over the derivation of (56a) from a structure containing (58a).

- 27 I leave it open whether extraposition is a feature-driven operation or not.

Extraposition of clauses are in any case necessary to derive examples such as (i):

(i) They reported last Monday [that a fight had occurred].

Structure (61) is based on the assumption that the extraposed clause is adjoined to VP (Stowell (1981)).

References

- Aarts, Bas (1992) *Small Clauses in English: The Nonverbal Types*, Mouton de Gruyter, Berlin.
- Authier, J.-Marc (1991) "V-Governed Expletives, Case Theory, and the Projection Principle," *Linguistic Inquiry* 22, 721-740.
- Bošković, Željko (1995) "Case Properties of Clauses and the Greed Principle," *Studia Linguistica* 49, 32-53.
- Bošković, Željko (1997) *The Syntax of Nonfinite Complementation: An Economy Approach*, MIT Press, Cambridge, MA.
- Carstens, Vicki (2003) "Rethinking Complementizer Agreement: Agree with a Case-Checked Goal," *Linguistic Inquiry* 34, 393-412.
- Chametzky, Robert (1985) "NPs or Arguments: Exocentricity vs. Predication," *CLS* 21, 26-39.
- Chomsky, Noam (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, Noam (1986) *Knowledge of Language: Its Nature, Origin, and Use*, Praeger, New York.
- Chomsky, Noam (1991) "Some Notes and Economy of Derivation and Representation," *Principles and Parameters in Comparative Syntax*, ed. by Robert Freidin, 417-454, MIT Press, Cambridge, MA. Also in *The Minimalist Program*, by Noam Chomsky, 1995, 129-166, MIT Press, Cambridge, MA. (The page reference is to the version in *The Minimalist Program*.)
- Chomsky, Noam (1993) "A Minimalist Program for Linguistic Theory," *The View from*

- Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. by Kenneth Hale and Samuel Jay Keyser, 1-52, MIT Press, Cambridge, MA. Also in *The Minimalist Program*, by Noam Chomsky, 1995, 167-217, MIT Press, Cambridge, MA. (The page reference is to the version in *The Minimalist Program*.)
- Chomsky, Noam (1995a) "Bare Phrase Structure," *Government and Binding Theory and the Minimalist Program*, ed. by Gert Webelhuth, 383-439, Blackwell, Cambridge, MA.
- Chomsky, Noam (1995b) "Categories and Transformations," *The Minimalist Program*, by Noam Chomsky, 219-394, MIT Press, Cambridge, MA.
- Chomsky, Noam (2000) "Minimalist Inquiries: The Framework," *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89-155, MIT Press, Cambridge, MA.
- Chomsky, Noam (2001) "Derivation by Phase," *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 1-52, MIT Press, Cambridge, MA.
- Chomsky, Noam (2004) "Beyond Explanatory Adequacy," *Structures and Beyond: The Cartography of Syntactic Structures, Volume 3*, ed. by Adriana Belletti, 104-131, Oxford University Press, Oxford.
- Emonds, Joseph E. (1970) *Root and Structure-Preserving Transformations*, Doctoral dissertation, MIT. [Reproduced by the Indiana University Linguistics Club.] (Page reference is to the version reproduced by Indiana University Linguistics Club.)
- Emonds, Joseph E. (1976) *A Transformational Approach to English Syntax: Root, Structure-Preserving, and Local Transformations*, Academic Press, New York.
- Groat, Erich M. (1999) "Raising the Case of Expletives," *Working Minimalism*, ed. by Samuel David Epstein and Norbert Hornstein, 27-43, MIT Press, Cambridge, MA.
- Higgins, Francis Roger (1973) "On J. Emonds's Analysis of Extraposition," *Syntax and Semantics* Vol. 2, ed. by John P. Kimball, 149-195, Seminar Press, New York.
- Horn, George M. (1974) *The Noun Phrase Constraint*, Doctoral dissertation, MIT.
- Horn, George M. (1975) "On the Nonsentential Nature of the POSS-ING Construction," *Linguistic Analysis* 1, 333-387.
- Hornstein, Norbert and David Lightfoot (1987) "Predication and PRO," *Language* 63, 23-52.
- Iwakura, Kunihiro (2002a) "A Minimalist Approach to Expletive Constructions in English," *English Linguistics* 19, 186-210.
- Iwakura, Kunihiro (2002b) "Nonfinite Clauses in English," *Linguistic Analysis* 32, 253-286.
- Jaworska, Ewa (1986) "Prepositional Phrases as Subjects and Objects," *Journal of Linguistics* 22, 355-374.
- Johnson, Kyle (1988) "Clausal Gerunds, the ECP, and Government," *Linguistic Inquiry* 19, 583-609.
- Lasnik, Howard (1992) "Case and Expletives: Notes toward a Parametric Account," *Linguistic Inquiry* 23, 381-405.
- Lasnik, Howard (1995) "Case and Expletives Revisited: On Greed and Other Human Failings," *Linguistic Inquiry* 26, 615-633.
- Law, Paul (1996) "Remarks on the Verb *Be* and the Expletive *There* in English,"

- Linguistische Berichte* 166, 492-529.
- Matsubara, Fuminori (1997) "Bunri I Kasetsu-to NegP (The Split I Hypothesis and NegP)," *Eigo Seinen* 143.4, 200-204.
- Matsubara, Fuminori (2000) "p*P Phases," *Linguistic Analysis* 30, 127-161.
- Müller, Gereon (1997) "Optional Movement and the Interaction of Economy Constraints," *The Role of Economy Principles in Linguistic Theory*, ed. by Chris Wilder, Hans-Martin Gärtner, and Manfred Bierwisch, 115-145, Akademie Verlag, Berlin.
- Nakajima, Heizo (1984) "「seem + NP」 Koubun: Sono GB Riron-e-no Hakyuu (The Seem NP Construction: Its Consequences for GB Theory)," *Eigo Seinen* 130.3, 121-122.
- Nakajima, Heizo (1994) "X-Bar Riron Saihihan-e-no Okotae (A Reply to the Second Critique of X' Theory)," *Gengo* 23.12, 99-101.
- Nakajima, Heizo (2001) "Shousetsu (Small Clause)," [*Saishin*] *Eigokoubun Jiten (The Taishukan Contemporary Dictionary of English Constructions)*, ed. by Heizo Nakajima, 273-290, Taishukan, Tokyo.
- Nakajima, Heizo and Shigeo Tonoike, eds. (1991) *Topics in Small Clauses: Proceedings of Tokyo Small Clause Festival*, Kurosio, Tokyo.
- Pesetsky, Davis and Esther Torrego (2001) "T-to-C Movement: Causes and Consequences," *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 355-426, MIT Press, Cambridge, MA.
- Postal, Paul M. (1974) *On Raising: One Rule of English Grammar and Its Theoretical Implications*, MIT Press, Cambridge, MA.
- Postal, Paul M. (1994) "Parasitic and Pseudoparasitic Gaps," *Linguistic Inquiry* 25, 63-117.
- Postal, Paul M. and Geoffrey K. Pullum (1988) "Expletive Noun Phrases in Subcategorized Positions," *Linguistic Inquiry* 19, 635-670.
- Radford, Andrew (1988) *Transformational Grammar: A First Course*, Cambridge University Press, Cambridge.
- Radford, Andrew (1997) *Syntactic Theory and the Structure of English: A Minimalist Approach*, Cambridge University Press, Cambridge.
- Radford, Andrew (2004) *Minimalist Syntax*, Cambridge University Press, Cambridge.
- Stowell, Tim (1978) "What Was There Before There Was There," *CLS* 14, 458-471.
- Stowell, Tim (1981) *Origins of Phrase Structure*, Doctoral dissertation, MIT.
- Tanaka, Hiroyuki (2002) "Φ-Features on C," *Linguistic Analysis* 32, 72-102.
- Travis, Lisa (1996) "Notes on Case and Expletives: A Discussion of Lasnik's Paper," *Current Issues in Comparative Grammar*, ed. by Robert Freidin, 190-202, Kluwer, Dordrecht.
- Williams, Edwin (1983) "Against Small Clauses," *Linguistic Inquiry* 14, 287-308.