EQUATIVE CONSTRUCTION WITH HONORARY NPS IN ENGLISH

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This paper is concerned with the syntax and the semantics of equative construction with honorary NPs (PP subjects) in English, and argues that on the basis of detailed examination of the construction, it does not have the same distribution as similar constructions (Preposing around BE and Locative Inversion). It will be argued that a structural analysis for non-agentive verbs, and feature checking analysis, based on the feature specification of the preverbal PPs and the verbs, can provide a consistent accounting for the construction. It will be also argued that the preverbal PPs are DPs with a null D head, and that they are ¤-complete.*

Keywords: equative, honorary NPs, subject status, preverbal PPs, postverbal DPs

1. Introduction

In the literature of generative grammar, two similar constructions have been extensively discussed. They are Preposing around BE (PAB) and equative construction with the PPs which Safir (1983) calls “honorary NPs” (hereafter, EQPP), exemplified in (1a, b), respectively.

(1)  a. Under the bed was a large box.
    b. Under the bed is a cozy place to hide.

Although the PPs appear to be permuted with the postverbal DPs over the copular verb ‘be’ in (1), the distribution of the two constructions is quite different. This paper aims to consider EQPP in detail, and to

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clarify the properties of the construction, showing several differences between EQPP and similar constructions, and second, to provide a natural account for EQPP within the minimalist framework.

The discussion below falls into five sections. In Section 2 the data on PAB and EQPP will be introduced and characterized. Section 3 provides a description of the properties of preverbal PPs in EQPP. In Section 4 we will clarify the properties of the verbs in EQPP. Section 5 describes the properties of the postverbal DPs in EQPP. Section 6 discusses an account for the derivation of EQPP within the minimalist framework.

2. The Distribution of PAB and EQPP

PAB is a construction in which constituents such as predicative adjective phrases, participles, and prepositional phrases are permuted with subject DPs over 'be,' and the inverted sentences are acceptable. Now consider (2) and (3):

(2)  a. More important has been the establishment of legal services.
    b. Speaking at today's lunch will be our local congressman.
    c. On the porch is a larger wicker couch.

(3)  a. The establishment of legal services has been more important.
    b. Our local congressman will be speaking at today's lunch.
    c. A larger wicker couch is on the porch.

In the case of PAB, the inverted sentences in (2) are possible without much difference in meaning as the non-inverted sentences in (3). Keeping (2) and (3) in mind, let us consider (4):

(4)  a. Under the bed is a cozy place to hide.
    b. A cozy place to hide is under the bed.
    c. Under the bed makes a good place to store things.
    d. *A good place to store things makes under the bed.

The contrast shown in (4c, d) indicates that the PPs in EQPP cannot be permuted with the DPs. In the case of the EQPP example with the *be* verb, the PP appears to be permuted with the DP. However, the non-inverted sentence and its inverted counterpart in (4a, b) denote different meanings. The available reading in (4a) is equative or identificational. The postverbal DP is not a predicate, but a uniquely referring expression, and the sentence equates the referent of two different ele-
ments, namely, the preverbal PP and the postverbal DP. Example (4a) means that the area under the bed is itself a cozy spot to hide. In other words, the sentence asserts that the referent of the postverbal DP is the same as the referent of the preverbal PP.\(^1\) This indicates that the verb *be* has two arguments. The sentence in (4b), on the other hand, means that there is a cozy spot located under the bed. The sentence means that under the bed somewhere is a cozy place to hide. As the meaning of (4b) shows, the verb *be* is predicational. The contrast in interpretation between (4a) and (4b), that is, identificational reading and predicational reading can be supported by the difference in the following pair of examples.\(^2\)

\[
(5) \quad a. \text{Under the bed is a cozy place to hide, which you know well.}
b. \text{*A cozy place to hide is under the bed, which you know well.}
\]

(meaning that the free relative modifies the PP, *under the bed*)

A free relative has been claimed to modify only arguments in the literature. Given this, the postverbal element in (4a) is an argument, whereas the element in (4b) is not an argument.

The difference between (4a) and (4b) shown above indicates that the two examples are yielded by different derivations.

Let us now examine other differences between PAB and EQPP. Unlike PAB, a class of verbs (equative verbs) such as *be*, *make*, *become*, and *constitute* can appear in EQPP. Consider (6):\(^3,4\)

\[
(6) \quad a. \text{In the attic is a good place to think about linguistics.}
\]

\(^1\) Note that specification reading is not available in (4a). The specification sentence like the following example is not about the entity denoted by the subject.

\[
(i) \text{My best friend is Bill.}
\]

Rather the sentence functions like the heading of a list, where the complement specifies an item on the list. The distinction between the 'identificational,' 'predicational,' and 'specification' *be* is made in Higgins (1973).

\(^2\) Example (5b) is acceptable when the free relative modifies the whole sentence, or when it modifies the first part of (4b), *a cozy place to hide.*

\(^3\) For some speakers, examples (6c, d) are bad, but not crushingly bad.

\(^4\) In addition to the verbs in (6), the verb *take* can appear in EQPP as in the following example.

\[
(i) \text{From San Francisco to Los Angeles takes about 6 hours to drive.}
\]

(i) can be paraphrased as (ii). There is not any difference in their truth conditions.
b. Under the bed makes a good place to store things.
c. After the remodeling, under the stairs became a favorite meeting place.
d. Under the ocean and on mountains over 15,000 feet constitute the only locations on earth free of advertising.

Examples in (6) show that the verbs, which denote equation, can be used in the EQPP. Consider (7) in this connection.

(7)  
a. *In the attic still remains a good place to think about linguistics.
b. *In the attic exists a very good place to think about linguistics.

Examples in (7) show that unaccusative verbs cannot appear in EQPP although the verbs share some properties of the verbs in EQPP, as will be discussed later.

There are further pieces of evidence to show that the distribution of EQPP is different from that of PAB. First, Subject-Aux Inversion (hereafter, SAI) is possible in EQPP, while it is not in PAB. Consider (8):

(8)  
a. Is under the bed a cozy place to hide?
b. *Was under the table a large box?

Second, there is a sharp contrast between EQPP and PAB as to wh-extraction as shown in (9).

(9)  
a. In which room did you say that under the bed is a cozy place? (Nishihara (1999a: 184))
b. *In which room did you say that under the table was a large box? (meaning that in which room does not modify the matrix clause)

Third, the sentences like those in (2) cannot occur in embedded sentences, while EQPP can. Furthermore, EQPP can occur in the embedded complements in ECM constructions, although PAB cannot occur in

(ii) From San Francisco to Los Angeles is about a 6 hour drive.
In this sense (i) has an equative reading. Note, however, that there is a subtle difference in meaning. (i) seems to focus more on the act of driving, whereas (ii) strikes us about the route, as shown below.

(iii) ??From San Francisco to Los Angeles takes 6 beautiful hours to drive.

(iv) From San Francisco to Los Angeles is a beautiful 6 hour drive.
the complements. The following examples illustrate these facts.

(10)  a. *Bill wonders why more important has been the establishment of legal services. (Emonds (1976: 35))
  b. *I consider under the table (to be) a large box.
  c. Bill wonders why under the bed is a cozy place to hide.
  d. I consider under the bed (to be) a cozy place to hide.

As will be shown later, the distribution of PAB is similar to that of Locative Inversion (hereafter, LI). Based on the syntactic facts, it is plausible to say that PAB and EQPP are yielded by different derivations.

3. The Properties of the PPs in EQPP

3.1. The Subject Status of the Locative PPs in EQPP

This section presents the properties of the preverbal PPs in EQPP, comparing them with those in LI. Locative PPs appear in the sentence-initial position in both LI and EQPP, as shown in (11).

(11)  a. Under the bed is a nice place to hide. (EQPP)
  b. Behind the tree appeared to stand a large building of some kind. (LI)

However, there are several differences in the distribution of the locative PPs in the constructions. Although some of the properties of the preverbal PPs in EQPP have been discussed (Bresnan (1994) and Levine (1989)), we will consider them further and clarify the differences between the preverbal PPs in LI and EQPP.

The locative PPs in EQPP are unlike typical locative PPs in LI, which have both subject-like status and topic-like status.5 The PPs in EQPP have only subject-like status, and they behave like subjects. Let us consider seven different properties of the locative PPs in EQPP and

5 LI constructions share certain distributional properties with topicalized constructions. For example, extraction is not possible in LI and topicalized constructions.

(i) *In which park did you say that in the foliage fluttered a number of gray birds?
(ii) *To whom does he say that the other wine, we should give? (Nishihara (1999a: 182))

The unacceptability of the examples above is due to the topic island. As to the dual status of the preposed PPs, see Nishihara (1999b).
LI. First, consider the contrast in availability of SAI in both constructions, which is pointed out by Bresnan (1994).

(12)  a. Is under the bed a nice place to hide?  
       (Bresnan (1994: 110))
    b. *Did behind the trees appear to stand a large building of some kind?  
       (Levine (1989: 1036))

A piece of supporting evidence for the subject status of the PPs in EQPP can be seen in (12), which shows that SAI is possible in EQPP, while it is not possible in LI.

Second, the operation of short subject questioning shows the crucial differences between EQPP and LI. Consider (13)-(14):6

(13)  a. Under the bed is a cozy place to hide.
    b. Under which bed is a cozy place to hide?

(14)  a. Into the room walked a man with long hair.
    b. Out of the barn ran a black horse.
    c. In the swamp was found a missing child.
    d. *Into which room walked a man with long hair?
    e. *Out of which barn ran a black horse?
    f. *In which swamp was found a missing child?

Examples in (13)-(14) indicate that EQPP and LI show different distribution with respect to the short subject questioning. The short subject questioning which the PPs in LI resist is allowed in EQPP. Given the subject status of the PPs in EQPP, the acceptability of (13b) can be attributed to the subject status of the PPs.

Third, given the subject status of the PPs in EQPP, we can also accommodate the data below.

(15)  a. Pat considers under the bed (to be) a cozy place.  
       (Nishihara (1999a: 184))
    b. We let in the park be an exempt zone.  
       (Nishihara (1999a: 184))
    c. I regard under the bed as a cozy place to hide.
    d. *John believes in this room to have slept a President of the United States.  
       (Culicover and Wilkins (1984: 74))
    e. *The warden made in the prison yard stand all of the

6 Note that for some British speakers, (14d) is acceptable, and that Coopmans (1989), and Hoekstra and Mulder (1990) judge (14e) as acceptable.
2000 inmates. (Nishihara (1999a: 183))

As is clear from (15), the PPs in EQPP can appear in the embedded subject positions in ECM and Small Clause complements, while those in LI cannot. This fact again presents a piece of evidence for the analysis we are pursuing here. The PPs in EQPP have subject status, but those in LI do not.7, 8

Fourth, the subject status of the locative PPs in EQPP can be seen in the example (16).

(16) a. Under the bed is a cozy place to hide in the living room.
   b. In which room did you say that under the bed is a cozy place? (Nishihara (1999a: 184))
   c. In the foliage fluttered a number of gray birds in the park.
   d. *In which park did you say that in the foliage fluttered a number of gray birds? (Nishihara (1999a: 182))
   e. In which room did you say that John ate bananas?

In contrast to the LI, the EQPP do not resist extraction of PP in the VP of the same clause, as shown in (16b). Unlike the PPs in LI, the preverbal PPs in EQPP do not create an island for the extraction. The locative PP in LI, on the other hand, constitutes a topic island, a barrier for wh-movement, as we have already discussed in footnote 5. Therefore, (16d) is ungrammatical. The similarity between (16b) and (16e) reinforces our claim that the preverbal PPs in EQPP have different properties from those in LI, and that they have subject status.

Fifth, a sharp contrast can be observed in EQPP and LI as to the agreement properties of the verbs. Levine (1989) points out the following difference. Consider (17):

(17) a. Under the bed is a cozy place to hide.
   b. *Under the bed are not the best places to hide your toys.

7 Nishihara (1999b) argues that topicalized elements move up to the Specifier position of Topic P, which is generated between CP and TP by way of subject position (TP, Spec). In the case of ECM constructions, Topic P is not available, and hence (15d) and (15e) are not acceptable.

8 Note that PAB cannot be embedded in the ECM complements, as shown in (10b). SAI is impossible in the case of PAB, which is shown in (8b). These facts indicate that the preverbal PPs in PAB also occupy the topic position like the PP in LI.
c. Under the bed and in the fireplace are not the best (combination of) places to leave your toys.  
   (Levine (1989: 1015))

d. *On the wall was hanging two portraits of the famous artists.

e. On the wall were hanging two portraits of the famous artists.

The verbs in EQPP agree with the preverbal PPs, as shown in the contrast between (17a), (17b), and (17c). The verbs in LI, on the other hand, agree with the postverbal NPs, but not with the preposed PPs, as shown in (17d) and (17e).

A sixth argument in favor of the position that the PPs in EQPP behave like subject DPs, not like the PPs in LI, is obtained from the following facts. Consider (18):

(18)  a. Joe amused Mary without PRO exerting himself /*herself.  
   (Postal (1977: 149))

b. In the bath tub is a good place to think, without PRO being a good place to do homework.

c. On the roof is a good place to put an antenna without PRO being a good place to attract pigeons.

d. Under the bed, not being a particularly warm and cozy spot, is not the cat’s favorite spot place to sleep.  
   (Bresnan (1994: 110))

e. *On the cornerk stood a woman without PROk being near another woman.  
   (Ura (1996: 431))

f. On the corner stood womank without PROk being near another woman.  
   (Ura (1996: 431))

The subject DP in (18a) can control PRO subject in the adjunct phrases. The PPs in EQPP, as shown in (18b, c), can also control the PRO subject. Moreover, the PP in (18d) permits control of the attributive VP. In LI the preposed PP cannot control PRO although the postverbal DP can control it. This presents another piece of supporting evidence for the subject status of the PPs in EQPP.

We present our final argument in favor of the position that the PPs in EQPP behave like subject DPs, not like the PPs in LI. Consider (19):

(19)  a. Under the bed /*z/ a great place to hide.

b. *In San Jose */z/ a great restaurant.  
   (Kaisse (1985: 40))

Example (19), first pointed out by Kaisse, and cited by Bresnan (1994), supports the claim that the PPs in EQPP behave like subjects. As they
observe, voicing assimilation of the reduced form of ‘is’ is possible when the pre-clitic phrase occupies the subject position, but not when it appears in the fronted topic position, as shown in (19b).

We have shown so far the fact that the preverbal PPs in EQPP and LI have different properties, and that the PPs in EQPP are like subject DPs, which can undergo all of the syntactic operations discussed above. The contrast in acceptability between EQPP and LI in those syntactic operations provides the basis for a convincing argument that the constructions involve different derivations. The Table in (20) illustrates and highlights the relevant properties of the preverbal PPs in EQPP and LI, which are syntactically distinguishable.

(20)

<table>
<thead>
<tr>
<th></th>
<th>SAI</th>
<th>Short Subject Questioning</th>
<th>Embedded Subject Positions</th>
<th>Wh-Movement</th>
<th>Agreement with Verbs</th>
<th>Controlling PRO Subjects</th>
<th>Reduced Form of be</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPs in EQPP</td>
<td>OK</td>
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<tr>
<td>PPs in LI</td>
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</table>

The above table shows the striking properties of the preverbal PPs in EQPP, namely the properties of subjects. Based on this, it is plausible to conclude that the PPs in EQPP are indeed subjects.

3.2. Internal Structure of the Preverbal PPs

In the preceding section we have argued for the subject status of the locative PPs in EQPP. The next question we have to address here is the categorical status of the PPs. Bresnan (1994) claims that the PPs in EQPP constitute NP in her terms, and that the examples of EQPP have an elliptical flavor and are best in contexts in which the semantics requires or the context presupposes a place or time argument. She claims that the PPs are actually ‘place’ or ‘time’ NPs whose missing nominal heads are contextually interpreted as instance of ellipsis. Bresnan proposes the following structure.

(21) \[DP (a place) [PP under the bed]]

We will argue that her proposal is correct in its essentials, though wrong in certain details. As we have already seen, the preverbal PPs have the subject status, and they show the DP-like behavior. Although Bresnan’s analysis captures this fact, her analysis fails to capture the following fact pointed out by Safir (1983).
(22) Angry/unwanted is a terrible way to feel. (Safir (1983: 731))

According to Safir (1983), an adjectival phrase as in (22) shows similar distribution to the PPs of EQPP. The syntactic tests we have utilized in the preceding section show that the AP in example (22) has the subject-like status. Let us now consider (23):

(23) a. Is angry such a terrible way to feel? (Safir (1983: 731))
   b. I regard angry as a terrible way to feel.

The APs in (23) can undergo SAI, and it can be embedded in the small clause. They behave like the PPs in EQPP. Thus examples in (23) raise a problem for Bresnan’s claim that the preverbal elements in EQPP are actually ‘place’ or ‘time’ NPs.

Bresnan also claims that the missing nominal heads in EQPP are contextually interpreted as instances of ellipsis. However, as to the example (22), the following paraphrase is impossible.

(24) *The state of being angry/unwanted is a terrible way to feel.

Example (24) is semantically ill-formed since we cannot equate the state of being angry or unwanted with something.

What we propose here instead is that the preverbal elements under consideration constitute DPs with a null D head like bare nominals as in (25), and that the DP is ɸ-complete. (25) illustrates the relevant structure.

(25)  
```
DP
  D'
  D  PP (or AP)
     under the bed (angry/wanted)
```

Given the structure in (25), the preverbal PPs in EQPP have the null D head. This predicts that the null D head cannot co-occur with the overt determiner. This prediction is borne out as in (26).

(26) *The under the bed is dusty. (Francis (1998: 162))

The structure in (25) can also account for the referentiality of the PPs in EQPP. As Bresnan (1994) observes, the PPs in EQPP have clear semantic properties of their own, and thus have intrinsic content, namely, referential interpretation such as time, place, or some sort of a feel-
Given Chomsky's (2000, 2001) theory of referentiality, the referentiality of the PPs in EQPP follows from the null D head. According to Chomsky (2000, 2001), D or at least one variant of D might be associated with referentiality.

Third, the DP structure with a null head proposed here further predicts that the preverbal PPs in the equative construction that we have been examining can be replaced by gerundive constituents such as a genitive gerund constituent, an accusative gerund constituent, and a PRO gerund constituent. In the literature of generative grammar, it has been argued that these gerund constituents also form DPs with a null D head. The prediction is borne out in as shown, (27):

(27)  a. The UN's withdrawing troops from Utopia is a good way to avoid controversy.
   b. The UN withdrawing troops from Utopia is a good way to avoid controversy.
   c. Sitting/Soaking in the bathtub is a good way to relax.
   d. In the bathtub is a good place to relax. (EQPP)

Fourth, the DP structure in (25) is well-motivated by the fact that the preverbal elements in EQPP support pronominalization with it. Consider (28):

(28)  a. Under the bed is a cozy place to hide, but it is a lousy place to keep raw liver.
   b. From 7:00 to 8:00 seems to be a good time to have dinner to me, but it strikes Mary as too late.

The availability of pronominalization in the above examples supports the DP analysis proposed here since the elements that have DP antecedents

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9 As to the referentiality of the preverbal PPs in EQPP, they have to denote time, place, or some state of a feeling, which can be equated with the referent of the postverbal DPs. Keeping this in mind, consider the following examples pointed out by one of the anonymous reviewers.

(i) The man from the U.S is a nice partner to work with.
(ii) *From the U.S is a nice partner to work with.

The second example does not mean the first one. This is mainly because a parser assumes time or place when s/he hears the first part of (ii). Time or place cannot be equated with the referent of the DP that denotes a person.

10 For analyses along these lines, see the accounts of Tonoike (1991) and Radford (1997). As to the internal structure of the gerundive constructions, they propose different structures. We will not go into a detailed analysis for the internal structure of the gerundive constructions.
are eligible to undergo pronominalization.

A fifth advantage of the present approach is seen in extraction phenomena. Consider (29):

(29) *Who did [a story about t] amuse you?

Example (29) illustrates the subject condition of Chomsky (1973). The DP complement of P in the DP is not eligible to undergo wh-movement. Similarly, wh-movement of the DP complement of P in the DP under discussion is also blocked. Consider (30):

(30) *Which bed is [under t] a cozy place to hide?

Assuming that a DP is a strong phase, as Oba (1999) claims, and that movement is subject to the Phase Impenetrability Condition (PIC) (Chomsky (2000)), the impossibility of (29) and (30) can be easily accounted for.

(31) a. PIC

The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.

   (Chomsky (2001: 14))

b. \[ \text{[ZP Z} \ldots [\text{HP } \alpha [H YP]]] \]

In the structure of (31b), HP is the strong phase, YP the domain of H, and \( \alpha \) the edge of H. PIC allows only the extraction of either the head or the element in the specifier position of the head. In the strong DP phase PIC allows the D head, or the element of the specifier position of D to undergo movement. Thus PIC blocks movement of the complement DP in (29) and (30) since they are neither the head nor the element of the head in the phase.

A sixth advantage of the proposed analysis here is obtained from DP-movement such as passivization, raising, and Heavy NP Shift (hereafter, HNPS). Only the elements that can undergo DP movement are DPs (NPs in the traditional term). Under our analysis the preverbal PPs are DPs, and hence they can undergo passivization, raising, and HNPS. This prediction is consistent with the data below.

(32) a. Under the bed is believed to be a cozy place to hide.
   b. Under the bed seems to be a cozy place to hide.
   c. ?Everyone considers to be a cozy place to hide, under the bed, but not in the attic.

We are now in a position to discuss the \( \phi \)-completeness of the preverbal PPs in EQPP. As is clear from (32a, b), the PPs are raised to the Spec of TP. As is well-known, DP movement such as passivization and raising is triggered by the Case-oriented requirement, Case feature
checking with T. In order to capture this requirement we adopt Chomsky’s theory (2000, 2001) of Agree. Agree holds between a feature of a lexical item (the probe P) and the feature that it matches (the Goal G). The Agree relation is subject to the following conditions: first, the probe must be identical to the goal in features, second, the probe must c-command the goal, and third, there is a locality relation between the probe and the goal. Given the $\phi$-completeness of the DP with a null D head that contains the preverbal PP, we can correctly account for (32a, b). Agree holds between T and the DP with the preverbal PP, which is placed in the Spec of TP, and deletes the Case feature of the DP with the preverbal PP.

If examples in (32a, b) are motivated by the Case-oriented requirement, (33) is to be excluded by the requirement.

(33) a. *It seems under the bed to be a nice place.  
   (Stowell (1981: 732))

   b. *It is believed under the bed to be a good place to hide.

The deviance of (33) is due to the property of the raising verb seem and the past participle believed: since they do not have Case feature, the feature of under the bed is not valued and deleted. Thus (33) results in unacceptability.

The following similarity between ECM construction and EQPP further supports our claim that the preverbal elements in EQPP is $\phi$-complete. Consider (34) and (35):

(34) a. *I believe irrefutably him to be a liar.
   b. I believe him to be a liar.  
   (Tanaka (1992: 41))

(35) a. *They believe strongly under the bed to be a cozy place to hide.
   b. They believe under the bed to be a cozy place to hide.

The Case feature checking is blocked when adverbial elements intervene between verbs and embedded subject DPs. This fact indicates that the intervening elements block the agreement relation between the verbs and the postverbal DPs, and that the locality relation between the probe and the goal is not satisfied.

The analysis we are pursuing here also accounts for the contrast between (17b, c). The PPs embedded in the DPs allow plural verb agreement when they are conjoined in subject position. This is regarded as the manifestation of $\phi$-feature checking relation with T, and as a result, the preverbal elements in DP agree with the verbs.

Let us now consider the properties of subjects that the DPs under
According to Ura (1996), the properties of subject are yielded by a feature checking relation with T. Since the preverbal elements in EQPP check T's EPP-feature and $\phi$-features under our analysis of EQPP, they can enter into a checking relation with T, which produces the properties of subjects. Since they have subject properties, they behave like nominal subject. Thus EQPP allows SAI (see (12a)), occurrence in the embedded subject position (see (15a–c)), and the reduced form for the pre-clitic phrases in subject position (see (19)). Moreover, the DPs that contain the preverbal PPs can c-command PRO in the adjuncts that are attached to the main clauses, as shown in (18b–d).

3.3. The PPs in EQPP as Subject

We have already shown that the preverbal PPs in EQPP are subject DPs with the null D, and that they are $\phi$-complete. One might argue, however, that the PPs under consideration can appear in a position which are normally filled by DPs, based on the contention of Jaworska (1986). According to Jaworska, the PPs can appear in object position, subject position in a passive sentence, or object position of a preposition, as shown in (36).

(36)  a. The campaigners planned until Christmas in detail.
    b. Until Christmas was planned in detail.
    c. Behind the garage is being reclaimed by the new tenants.
    d. He picked up the gun from behind the counter.

(Jaworska (1986: 356))

She also claims that contra Stowell (1981), Safir (1983), and Williams (1984), the PPs are not limited to copular constructions (equative verbs in our terms). Consider (37) below:

(37) In capital letters will have the best effect.

We will argue here, however, that the PPs in (36) and (37) are not the same as those in EQPP. There are several pieces of evidence to support this idea. First, the examples in (36a–c) and (37) are contextualizable. Those examples are acceptable when they are used in the appropriate discourse. However, unlike the PPs in EQPP, they sound odd in isolation. Example (36) and (37) are possible in the following contexts, respectively.

(38)  a. We made plans for the month of December in advance, but the planning was incomplete. We planned until
Christmas in detail.

b. We made plans for the month of December in advance, but the planning was incomplete. Until Christmas was planned in detail, but the last week of the month was left somewhat vague.

c. After our neighbor died, the property got divided up. The front yard will be sold at auction; the area on the other side of the house is going to be turned into a public path; and behind the garage is being reclaimed by the former owner.

(39) Should I do it in lower case or in capital letters?
I think that in capital letters will have the best effect.
(meaning printing in capital letters)

The above examples indicate that (36a–c) and (37) are elliptical. They also indicate that (38) and (39) show ‘quote’ or ‘contrast.’ These characteristics are not observable in the PPs in EQPP.

Second, the verbs used in Example (38) and (39) do not denote equation, although the verbs in EQPP have to denote equation.

Based on the observations above, we claim that the PP-NP sequence in (38a, b, c) and (39), which are cited by Jaworska (1986), are not the same as the PPs in EQPP. The interpretation of the PPs in (38) and (39) depends on an appropriate context. Without a context, they have to follow appropriate DPs. In the case of (38c), for example, the nominal, the area, is needed when the sentence is pronounced in isolation. This fact indicates that the PPs under consideration are ‘place’ or ‘time’ DPs with missing nominal heads, which crucially depend on appropriate contexts. In order to capture this fact, we propose that the PPs in (38) and (39) are realized as DPs at syntax, and then the nominal parts are elided after the appropriate interpretation is made.

Given the DP structure for the PPs in (38) and (39), we can easily account for the fact that they appear in the positions filled by DPs: They are subject position, including the subject position in a passive sentence, object position, and the object position of a preposition.

Let us now consider (36d), repeated here as (40).

(40) He picked up the gun from [behind the counter].
(Jaworska (1986: 356))

As to the bracketed part in (40) there is a piece of evidence to show that it is an example of preposition compounding, and that it is a complement of a preposition with [[P-P] DP] structure. This idea is sup-
ported by the following fact.

(41) *Behind the counter, he picked up the gun from.

The ill-formedness of (41) indicates that the first P and the second P cannot be detached by movement operation. This is attributable to the fact that from behind the counter in (40) is an example of preposition compounding.

Preposition compounding, that is, possible combinations of prepositions, are highly restricted. The prepositions that have [[P-P] DP] structure are behind, from, since, and until. (42) gives such examples.

(42) a. The film lasted until after 10 o'clock.
   b. Tom has been in the army since before 1997.

Let us next consider (43), which Jaworska claims is acceptable.

(43) We talked about [DP between [DP the wars]].

(Jaworska (1986: 357))

Apparently, the bracketed DP seems to occupy object position of a preposition. However, example (43) refers to something that is British-specific. It only refers to the period 1919–1939. According to my informants, (43) is unacceptable without a nominal part, as is clear from (44).

(44) We discussed the Crimean War and the First World War, and then talked about *(the period) between the wars.

We have argued in this section that the preverbal PPs in EQPP are actually DPs with a null head, and that they are $\emptyset$-complete, based on the syntactic facts. We have also argued that the P-DP sequence in similar constructions are the example of preposition compounding in some cases, and that the interpretation of the sequence is dependent on a discourse context in other cases.

4. More on the Properties of the Verbs in EQPP

From the previous discussion we now know the different patterning of the preverbal PPs in EQPP and some similar constructions. We will consider here the properties of the verbs in EQPP. Let us begin by considering what kinds of verbs can appear in EQPP. As we have already seen before, the verbs in EQPP are restricted to a class of verbs, namely equative verbs such as be, make, become, and constitute. Consider (45):

(45) a. In the attic is a good place to think about linguistics.
   b. Under the bed makes a good place to store things.
c. After the remodeling, under the stairs became a favorite meeting place.
d. Under the ocean and on mountains over 15,000 feet constitute the only locations on earth free of advertising.

Examples in (45) show that the verbs that have equative reading can be used in the construction under consideration. Consider (46) in this connection:

(46) a. *In the attic still remains a good place to think about linguistics.
b. *In the attic exists a very good place to think about linguistics.

As shown in (46), the unaccusative verbs cannot appear in EQPP although the verbs in EQPP share some properties with unaccusative verbs, as will be shown later in this section. Consider further (47):\(^{11}\)

(47) *Under the bed pleased the cat. (Stowell (1981: 268))

Example (47) indicates that a transitive verb cannot appear in EQPP. Given that EQPP is possible only with a class of equative verbs, the impossibility of (47) is easily accounted for. Since the verb in (47) is not an equative verb, (47) results in unacceptability. Semantically, the verbs in EQPP have to denote that one referent equates with another referent.

With respect to V-movement the be verb shows a well-known contrast with other verbs which appear in EQPP. The following, however, is the characteristics which all of the verbs in EQPP have in common.

(48) a. *Ralf had under the bed be a good place to store things.
b. *Ralf had under the stairs become a favorite meeting place.
c. *Ralf had on mountains over 15,000 feet constitute locations on earth free of advertising.

Examples in (48) show that EQPP cannot appear in the complements of the causative have. As discussed in Ritter and Rosen (1993), causative

\(^{11}\) Jaworska (1986) claims that (i) is acceptable.

(i) Under the chair attracted the cat’s attention.

According to my informants, however, (i) is not acceptable, while (ii) is acceptable.

(ii) Under the chair is attractive to the cats.

We will leave the dialectal variation, namely, the acceptability of (i) for further study.
have requires a complement whose subject is an Agent argument with volitional control. EQPP cannot appear in the complements of the causative have since it does not have an Agent argument. As is already shown above, the verbs in EQPP are equative verbs, so they do not have an Agent argument. Now consider (49):

(49) a. *Ralf had the plants grow.
   b. *Ralf had the walls crack.

(Ritter and Rosen (1993: 526-527))

The impossibility of (49) is attributed to the fact that the unaccusative verbs do not take Agent arguments. Thus the parallelism between (48) and (49) indicates that there is no Agent argument in the case of the verbs in EQPP and unaccusative verbs. According to Radford (1997), Agent originates in the Spec of vP (as the subject of an agentive light verb), but other arguments originate within VP in the VP-shell structure. Thus in the case of EQPP there is no element in the Spec of vP at the point of derivation that reaches the small vP structure. As will be shown later, this position is projected when the preverbal elements in EQPP move from their original position to subject position by way of the Spec of the small vP. The small vP is not a strong phase since it is not headed by an agentive light verb, and the head does not have EPP feature.

In Section 4 we have argued that only the equative verbs can appear in EQPP.

5. The Properties of the Postverbal DPs in EQPP

This section argues for the position of the postverbal DPs in EQPP. We claim, based on several pieces of syntactic evidence, that the DPs are within VP. Consider the following example of EQPP where the postverbal DP occurs to the left of a postverbal, but apparently VP-internal PP.

(50) In the attic is the best place to hide treasure inside my house.

Consider (51) in this connection:

(51) a. ??(*)Everyone said that John would hide his treasure in the attic inside his house, hide his treasure in the attic he did inside the house.
   b. ??(*)Pat hid his treasure in the attic inside his house, and Chris did so in the basement.
c. Pat hid his treasure in the attic inside his house, and Chris did so, too. (Nishihara (1999a: 185))

As is shown in (51), tests for VP constituency applied to the non-inverted counterpart of (50) suggest that the PP placed in the sentence-final position is inside the VP in (51). Thus this fact leads us to claim that the postverbal DP originates in the VP-internal position. Consider further (52):

(52) Under the bed is a good place to hide and makes a good place to store things.

Example (52) indicates that the verb and the postverbal DP in EQPP form a constituent, and that the DP is in VP.

6. A Structural Analysis and Feature Checking

Through the previous discussions we have clarified the properties of EQPP. We will propose here a possible derivation for EQPP in the minimalist program. Let us begin by considering a structural analysis for EQPP. In order to provide a consistent account for the derivation of EQPP, we utilize a VP-shell structure proposed in Radford (1997) and Nishihara (1999a, 1999b) for unaccusative verbs and the verbs in LI, and claim that the verbs in EQPP move up to a higher non-agentive v head, and that they do not move any further. We also argue, following Nakajima (1996), that the be verb in EQPP is specified as an auxiliary verb and it has [+Aux] feature, and that the verb further moves up to T in order to delete the [+Aux] feature in T when T is [+Tense], and it is not filled by other auxiliary verbs. (53) illustrates the relevant derivation sketched above.12

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12 One might argue that the postverbal DPs that have a Theme role have to be placed in the complement position of V, according to thematic hierarchies proposed by Jackendoff (1972) and Grimshaw (1990). There is, however, no consensus on the ranking of Themes although all agree that Agents rank higher than Themes. Contra Jackendoff (1972) and Grimshaw (1990), Carrier-Duncan (1985), Larson (1988), and Baker (1989) argue that Themes rank higher: Agent > Theme > Goal / Benefactive / Location.
V-movement to $v$ and the proposed structure in (53) meet the adjacency requirement between the verbs (except for the ‘be’ verb) and the postverbal DPs in EQPP, which participate in a specifier-head relationship with the Spec $vP$ under $vP$. The V-movement process also captures the non-agentive nature of the verbs in EQPP, which we have discussed in Section 4. The small $v$ is non-agentive, so the verbs, which move to the $v$, must be semantically compatible with the $v$ head. The V-movement process also has a desirable consequence as for the constituenthood of the verbs and the postverbal DPs as in (52).

We are now ready to discuss the derivation of the preverbal elements in EQPP. As shown in (53), the preverbal elements in EQPP occupy the complement position of the verb. We assume that the verbs and the preverbal elements in EQPP have P-features, and that the strength of the P-feature of the verbs can be parameterized. The P-feature of the equative verbs, including equative (identificational) be, are strong, whereas those of predicational be is weak. We further assume that V moves up to $v$ due to the strong feature of $v$, and that the be verb specified as [+aux] moves further up to T.\textsuperscript{13} Since the P-feature is strong in the case of EQPP, this triggers movement of the elements placed in the complement position of V. Those elements move up to the Spec of $vP$ for P-feature checking. Then the elements move up higher to the Spec of TP for EPP-feature checking, which enables the elements to

\textsuperscript{13} We leave the nature of feature open. Note that Radford (1997) suggests that $v$ contains an affixual light verb, and thus $v$ is strong. Lasnik (1995) claims that $v$ has the strong theta-feature.
have subject status at this point of derivation. The parameter for the strength of the P-feature captures the fact that the inverted sentences are impossible in the case of EQPP, as already shown above. On the other hand, the P-feature of the predicational be is weak, and the element in the complement of V does not move up. (54) illustrates the derivation sketched above.

(54) a. TP
   └── DP T'
      └── under the bed T vP
          └── a cozy place to hide t v'
                └── be v
                    └── VP
                        └── DP V'
                            └── a cozy place to hide V DP t t

b. TP
   └── DP T' vP
      └── under the bed T
          └── a cozy place to hide t v'
                └── be v
                    └── VP
                        └── V PP
                            └── under the bed

The derivations sketched above satisfy Rothstein’s (1995) predication principle, which requires that syntactic predicates like v-bar, V-bar, T-bar should have subjects. In the structure of (54a), VP has the subject a cozy place to hide, vP a trace of under the bed, and TP under the bed as its subject. In the structure of (54b), on the other hand, VP and vP have a trace of a cozy place to hide, and TP a cozy place to hide as its subject.

Given the derivation of (54a), we can account for short subject questioning allowed in EQPP.

(55) Under which bed is a cozy place to hide?

The verbal phrase in (55) is not a strong head since it is not headed by an agentive head, and the small v is irrelevant to EPP feature assignment since it is not an agentive v. Thus movement of the preverbal elements in EQPP to the Spec of TP is not subject to PIC, and the derivation is legitimate.
7. Conclusion

We have discussed the different properties of PAB and EQPP in English. We have also discussed the distribution of the preverbal elements in EQPP. As for the behavior of the preverbal elements in EQPP, we have shown that they constitute DPs with a null D head, and they are $\phi$-complete, and as a result the parallelism between the preverbal elements in EQPP and DP is observed in syntactic behavior. Our analysis for the preverbal elements in EQPP has also shown that empty categories play as central a role in the syntax of DP as they do in the syntax of clauses: that-less clauses are assumed to be TP headed by an empty category in the literature of generative grammar. In addition, we have shown the differences between EQPP and similar constructions (preposition compounding and elliptical constructions in the discourse level). We have further considered the properties of the verbs and the postverbal DPs. As to the verbal phrase in EQPP, we have clarified the fact that the verbal phrase including the small $v$ is not a strong phase, and an EPP feature is not assigned by the verbal head. This supports Chomsky’s idea that there are at least two types of small $v$ (agentive, and non-agentive), and that the $vP$ headed by the agentive $v$ is a strong phase, while the $vP$ headed by the non-agentive verbs like unaccusative verbs is a weak phase.

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