Review of *Phrasal Movement and Its Kin*

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This monograph investigates the types of movement and movement-like relations, focusing on \textit{wh}-questions of various kinds. It has been recognized that some grammatical relations are \textit{covert} in that expected movement is not reflected phonologically. Pesetsky claims that there should be two types of covert movement. Feature movement is always covert since it does not carry along phonological features. Phrasal movement can be covert, too, if a pronunciation rule of that language chooses to pronounce the phrase in the ‘trace’ position, not in the moved position. (‘Phrasal’ means a word- or larger-sized syntactic unit here.) The latter type has not been accepted in the standard minimalist framework, in which feature movement makes the only type of covert movement (Chomsky [1]). Pesetsky argues against this view and shows that his analysis is superior in that it accounts for the properties of \textit{wh}-questions of various types in a principled way.

In Chapter 1, Pesetsky first argues for covert phrasal movement with antecedent-contained deletion (ACD) construction data, exemplified by (1a).

\begin{enumerate}
\item a. Mary $[_{\text{VP}} \text{ invited } [_{\text{DP}} \text{ everyone that I did } [_{\text{VP}} \Delta]]]$. \hfill (p. 3)
\item b. $[_{\text{DP}} \text{ everyone that I did } [_{\text{VP}} \Delta]] [_{\text{VP}} \text{ invited }]$ [Mary $[_{\text{VP}} \text{ invited }]$ ]
\end{enumerate}

To recover the VP-gap, the whole object DP must undergo covert movement to a VP-external position, leaving its trace (or, a copy that is interpreted as a variable at LF) in situ, as shown in (1b). Adopting ACD as a test tool for covert phrasal movement, Pesetsky shows that \textit{wh}-in-situ also undergoes covert phrasal movement.

\begin{enumerate}
\item a. Which girl invited [which student that John did $[_{\text{VP}} \Delta]$]? \hfill (p. 6)
\item b. $[_{\text{DP}} \text{ everyone that I did } [_{\text{VP}} \Delta]]_2 C \ [_{\text{DP}} \text{ everyone that I did } [_{\text{VP}} \Delta]]_1 [_{\text{VP}} \text{ invited } ]$ [Mary $[_{\text{VP}} \text{ invited }]$ ]
\end{enumerate}

According to Pesetsky, Attract Closest (AC) requires C to firstly attract \textit{wh}_1 (the closer
wh-phrase) to its Spec. C then attracts wh₂ (the less close wh-phrase) to its second, inner Spec. (This kind of ‘tucking-in’ derivation is originated by Richards [4].)

Then, how is the phrasal movement made covert? Pesetsky adopts single-output syntax, in which phrasal movement is a default pattern. (Feature movement takes place only under marked conditions.) Phrasal movement makes two identical copies, and it is a pronunciation rule of each language that determines which copy to pronounce. For example, English adopts the following rule.

(3) a. The first instance of wh-phrase movement to C is overt, in that wh is pronounced in its new position and unpronounced in its trace positions.

b. Secondary instances of wh-phrase movement to C is covert, in that wh is pronounced in its trace position and unpronounced in its new position. (p. 8)

In (2b), therefore, wh₁ is pronounced in [Spec, CP] and wh₂ is pronounced in situ. In this sense ‘wh-in-situ’ is only apparent.

It should be noted that the ACD test in (2) merely proves that wh-in-situ undergoes covert phrasal movement. It does not necessarily mean that the movement is targeting C. Then, what motivates the covert ‘wh’-movement hypothesis? The hypothesis opens the way for a unified account for single and multiple wh-fronting languages. It constitutes the main discussion in Chapter 2. Bulgarian is an example of multiple wh-fronting languages, in which every wh-phrase in a multiple question occupies [Spec, CP] overtly. Also, it exhibits the Superiority-like effect in that wh₁ always occupies the leftmost position. Pesetsky assumes that Bulgarian differs from English minimally in the following pronunciation rule.

(4) All wh-phrase movement to C is overt, in that wh is pronounced in its new position and unpronounced in its trace positions. (p. 8)

Schematically, a Bulgarian multiple question exhibits the following structure.

(5) [CP wh₁ wh₂ wh₃ C [TP wh₁ … wh₂ … wh₃ … ]] C firstly attracts the closest wh₁ to its Spec, and then wh₂ and wh₃ to its inner Specs.
The pronunciation rule (4) requires all the *wh*-phrases to be pronounced in [Spec, CP]. Also, *wh₁* is always leftmost since it is attracted to the first, highest [Spec, CP].

Parallelism is also observed in locality. It is well known that covert *wh*-movement is not subject to Subjacency although it remains unclear why this is the case. Pesetsky’s analysis gives an answer to this question. Consider the following Bulgarian examples of overt *wh*-extraction out of the Complex NP Island:

(6) a. *koja kniga₁ otrečе senatorát [məlvata če iska da zabrani t₁]?
   which book denied the-senator the-rumor that wanted to ban
   ‘Which book did the senator deny the rumor that he wanted to ban?’

   b. ?koj senator₁ koja kniga₂ otrečе t₁ [məlvata če iska da zabrani t₂]?
   which senator which book deny the-rumor that wanted to ban
   ‘Which senator denied the rumor that he wanted to ban which book?’

(6a) long *wh*-extraction causes ungrammaticality. However, (6b) shows that the same extraction is allowed if it takes place as a second instance of movement. Pesetsky adopts the Principle of Minimal Compliance (PMC) proposed by Richards [4] for the explanation of this fact. To put it simply, if a first instance of movement observes Subjacency, a second one can violate the constraint. *Wh*-extraction in (6a) is problematic since the Subjacency-violating step is a first instance of movement. On the other hand, the same *wh*-extraction in (6b) is not problematic since it is a second instance of movement. (The validity of the PMC is extensively argued for by Richards.) Assuming that *wh*-in-situ in English also undergoes *wh*-movement, it can be given the same account. Movement of *wh*-in-situ can violate Subjacency not because it is ‘covert’ but because it is a second instance of *wh*-movement.

Chapter 3 and Chapter 4 discuss cases in which AC is apparently violable, i.e. in a multiple question containing D-linked *wh*-phrases, and in a non-binary multiple question containing more than two *wh*-phrases. In these cases, *wh₁* can remain in situ
legitimately. Pesetsky maintains that \( wh_1 \)-in-situ in these cases undergoes feature movement, which is confirmed by the following test containing ACD.

\[
(7) *I need to know which girl_2 Sue ordered [which boy that Mary (also) did \( \Delta \)]_1 to congratulate \( t_2 \). \quad \text{(p. 31, slightly modified)}
\]

The deviance of (7) shows that \( wh_1 \)-in-situ cannot recover its VP-gap by undergoing covert phrasal movement. The same holds for \( wh_1 \)-in-situ in a non-binary multiple question. According to Pesetsky, \( wh_1 \)-in-situ is generated in the following manner. AC requires C to first attract \( wh_1 \), and \( wh_1 \) undergoes feature movement. C then attracts \( wh_2 \), and it undergoes phrasal movement to [Spec, CP]. Movement of \( wh_2 \) is overt since it forms the first [Spec, CP]. Movement of \( wh_1 \) is covert since it is feature movement. The question we really need to ask, therefore, is why feature movement of \( wh_1 \) is possible in such cases.

Pesetsky proposes the following condition on C for English.

\[
(8) \text{Except in questions where a } wh\text{-phrase is D-linked, } C_{m\text{-spec}} [\text{multispecifier complementizer}] \text{ requires more than one } wh\text{-specifier.} \quad \text{(p. 41)}
\]

Assuming that \( C_{m\text{-spec}} \) is obligatory in English multiple questions, the presence/absence of phrasal \( wh \)-movement is accounted for in the following way. In a binary multiple question, both \( wh \)-phrases must undergo phrasal movement to [Spec, CP] to satisfy the requirement of \( C_{m\text{-spec}} \). When a binary multiple question is D-linked, however, (8) allows either \( wh \) to undergo exceptional feature movement. \( Wh_1 \)-in-situ is therefore allowed in a D-linked multiple question. (Recall that AC only requires a first attraction of \( wh_1 \). The movement of \( wh_1 \) can be either phrasal or featural as long as it conforms to (8).) Also, in a non-binary multiple question, \( wh_1 \) can undergo feature movement legitimately since the other \( wh \)-phrases (\( wh_2 \) and \( wh_3 \)) undergo phrasal movement to [Spec, CP] and satisfy the requirement of \( C_{m\text{-spec}} \).

One might pose a question regarding the reality of (8). The condition involves an exception to handle an exception (D-linking). Moreover, it is unclear what
motivates the invention of C\textsubscript{m-spec}. Why does C\textsubscript{m-spec} require ‘more than one’ (not ‘all’) \textit{wh}-specifier? Is there any reason for semantic interpretation? In fact, Pesetsky leaves the conceptual status of (8) for future research. The empirical merit of inventing various Cs is argued for in Chapter 5.

Chapter 5 deals with \textit{wh}-questions in various languages, focusing on their \textit{intervention effects}, which is generalized as in (9).

(9) \textit{Intervention effect}: A semantic restriction on a quantifier (including \textit{wh}) may not be separated from that quantifier by a scope-bearing element. (p. 67)

The intervention effect is observed overtly in languages such as German, French, Italy, and Japanese (cf. Rizzi [5]). The same effect is expected for covert \textit{wh}-movement as well. Specifically, covert feature movement of \textit{wh\textsubscript{1}}-in-situ should exhibit intervention effects since it strands the restriction in situ, whereas covert phrasal movement of \textit{wh\textsubscript{2}}-in-situ should not. These predictions are borne out, as shown in (10).

(10) a. Which person\textsubscript{1} \textit{t\textsubscript{1}} didn’t read \textit{which book\textsubscript{2}}?

b. *Which book\textsubscript{2} didn’t \textit{which person\textsubscript{1}} read \textit{t\textsubscript{2}}?

c. *What\textsubscript{2} didn’t \textit{who\textsubscript{1}} give \textit{t\textsubscript{2}} to whom\textsubscript{3}?

(a, b from p.60, c from p.66, slightly modified)

Moreover, it is predicted that the type of C determines the properties of multiple questions in each language. If a language contains C\textsubscript{m-spec}, as in English and Bulgarian, apparent \textit{wh}-in-situ also undergoes phrasal movement. It accounts for the Superiority effect and the absence of intervention effects for \textit{wh}-in-situ, as we have seen above. Then, what if a language adopts C\textsubscript{1-spec} for a multiple question? The language is expected to show the following properties. (I) Single \textit{wh}-fronting occurs since C\textsubscript{1-spec} requires one \textit{wh}-specifier. (II) Superiority is not observed since \textit{wh\textsubscript{1}} can legitimately undergo feature movement. (III) The intervention effect is relevant to any \textit{wh}-in-situ since \textit{wh}-in-situ is related to C\textsubscript{1-spec} by feature movement. These are exactly what we see in German multiple questions. Last, if a language bears C\textsubscript{0-spec} for a multiple
question, a similar intervention effect is expected since all in-situ wh-phrases are related to C0-spec by feature movement. Pesetsky shows that this is exactly the case with no-wh-fronting languages like Japanese and Korean.

Summing up, Pesetsky’s claim is very simple: there are two types of covert movement. Given this, various instances of covert dependency are systematically categorized into the two types, and the syntactic properties of each dependency are given a principled account. The suggested analysis not only provides an account for a wide range of wh-data but also provides a more sophisticated version of minimalist syntax.

Before closing this review, I would like to raise two questions as to Pesetsky’s analysis. Although his analysis accounts for a very wide range of wh-question data, several assumptions such as pronunciation rules and the inventory of Cs are more or less circular in that their validity is confirmed by the data they try to explain. Second, direct evidence for covert phrasal movement is exiguous: it crucially depends on the ACD construction. If his discussion is correct, the effect of covert phrasal movement should be observed in other types of sentences. One such example would be a reconstruction effect.

(11) a. John1 thinks that Bill2 picked up [that picture of himself1/2]?

b. [Which picture of himself1/2], does John1 think [t’; that Bill2 picked up t1]?

The wh-phrase in (11b) moves successive-cyclically to satisfy the Shortest Movement Condition (SMC) (or, the minimality of phase (cf. Chomsky [2, 3])). Since John binds into the wh-phrase (t’) in the embedded [Spec, CP], himself can be coreferential with John. If Pesetsky is correct, we expect the same effect for wh-in-situ.

(12) a. Which person1 thinks that Bill2 picked up [which picture of himself1/2]?

b. [which person1 [which picture of himself1/2], C [ t1 thinks [cp t’; that … t1]]]

Given (8), the D-linked wh-in-situ in (12a) undergoes either feature or phrasal movement. When it undergoes phrasal movement, it should move in a
successive-cyclic fashion. (Successive-cyclic movement should not be violable since it is required by a derivational requirement (local economy).) Therefore it is expected that the in-situ wh-phrase drops in at the embedded [Spec, CP], as in (12b), and the anaphor (himself) can be bound by which person there. As far as my informants are concerned, however, no one has accepted such a binding relation. This fact might indicate that apparent covert wh-movement is not quite the same as overt wh-movement. A closer inspection will be needed for further understanding of the syntactic properties of wh-in-situ.

These questions do not devalue Pesetsky’s analysis but show that several of his assumptions need more empirical confirmation. Since the overall syntactic framework that Pesetsky envisages is general and sophisticated, each confirmation of his assumptions will lead not only to a refinement of his analysis but also to further development of minimalist syntax.
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References


