
Keywords: feature movement, phrasal movement, wh-movement, Subjacency, intervention effect

1. Overview: Differentiating Three Types of Movement

David Pesetsky’s (2000) Phrasal Movement and Its Kin\(^1\) argues that there are three types of movement and movement-like relations that link positions in syntactic structure: overt phrasal movement, covert phrasal movement, and feature movement. Phrasal movement, overt or covert, refers to movement of any syntactic unit that is word-sized or larger; it corresponds to the traditional notion of Move \(\alpha\), where \(\alpha\) is a category constructed from one or more lexical items.\(^2\) Feature movement, by contrast, refers to movement of something smaller than a word; it does not involve movement of an entire category \(\alpha\) but only

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\(^1\) We will refer to Pesetsky (2000) simply as Pesetsky until section 6, where Pesetsky (1987) is introduced. Page references are to Pesetsky (2000), unless otherwise indicated.

\(^2\) Phrasal movement thus includes not only what are traditionally called DP/NP-movement and \(wh\)-(phrase) movement, but also head movement, although Pesetsky focuses his attention on \(wh\)-movement.
of some feature(s) of \( \alpha \) (or perhaps of some morpheme of \( \alpha \), a possibility Pesetsky examines briefly; see note 3 below and text to it). The data Pesetsky takes up to argue for the three types are intensive in one respect and extensive in another; intensive because he concentrates on \( wh \)-questions, extensive because he examines \( wh \)-questions from various languages including English, Bulgarian, German, Korean and Japanese. Pesetsky argues that \( wh \)-questions involve relations of all three types. That is, movement of \( wh \) to an interrogative \( C \) shows up sometimes as overt phrasal movement, sometimes as covert phrasal movement, and sometimes as feature movement, the choice determined by interaction of universal principles with the nature of the \( C \) selected by a particular type of \( wh \)-question and/or a particular language.

The distinction between overt and covert phrasal movement that Pesetsky argues for is particularly important in the context of Chomsky (1995). Chomsky (1995) proposes replacing Move \( \alpha \) by Move \( F \), \( F \) a feature, arguing from the minimalist perspective that movement at its simplest should copy just the features necessary to ensure convergence. In this view, phrasal movement of a category \( \alpha \) arises when a grammatical feature \( F \) that must be moved cannot be separated from \( \alpha \). Since \( \alpha \) includes all the phonological features relevant to its pronunciation as well as \( F \) motivating movement, movement of \( \alpha \), namely phrasal movement, is necessarily overt, with \( \alpha \) pronounced in its new position and not in its trace position. Pesetsky challenges this view of Chomsky’s (1995) and argues, largely on empirical grounds, that alongside of overt phrasal movement there must be covert phrasal movement, or covert Move \( \alpha \) with \( \alpha \) pronounced in its trace position.

The distinction between (covert) phrasal movement and feature movement is also important. For Chomsky (1995), feature movement but not phrasal movement fits the spirit of economy or minimalism. Pesetsky is skeptical of this view. Note that a feature \( F \) percolates from its smallest bearer to a larger constituent (typically to its maximal projection). Suppose we “view movement as a process by which a head \( H \) in search of a feature \( F \) scans down the tree in order to identify a constituent that bears \( F \) and copies it” (p. 10). For Chomsky (1995), only the feature should be copied, but for Pesetsky the identified constituent is also a candidate for copying, since it is the closest occurrence of \( F \). Pesetsky says that phrasal movement can be seen as copying the closest bearer of \( F \) while feature movement can be seen as copying the smallest bearer of \( F \), and that both conditions—closeness and small-
ness—fit the spirit of "economy" (p. 55).³

Thus, while feature movement cannot be coexistent with covert phrasal movement for Chomsky (1995), it can for Pesetsky. Pesetsky claims that "the phenomenon that Chomsky called 'feature movement' is not an alternative analysis of covert phrasal movement, but a distinct syntactic operation in its own right" (p. 11).

2. Feature Movement vs. Agree

The feature movement proposed in Chomsky (1995), however, is discarded by Chomsky (1998=2000), who proposes a nonmovement operation called Agree. In this connection Pesetsky suggests (p. 58) that the feature movement he is proposing might not be "movement" in the traditional sense but something like Chomsky's (1998) Agree. In fact, in several places Pesetsky translates feature-movement based accounts into ones in terms of Agree, or gives descriptions neutral with respect to the alternatives (see in particular p. 58, p. 107: n. 68, p. 109: n. 78, p. 112: n. 86). Of course, even if feature movement is replaced by Agree, Pesetsky's main contention remains unchanged: that there are three types of movement and movement-like relation that link positions in syntactic structure. Still, we should note that Chomsky's argument for Agree is mainly concerned with constructions involving A-movement (raising to subject and Object Shift) and expletive-associate pairs, while Pesetsky's argument for feature movement is mainly concerned with wh-movement (A'-movement). In other words, Chomsky's Agree is essentially built on the distribution of φ-features and Case, but Pesetsky's feature movement largely relates to wh-features (and some other properties related to the C-system, say Q-feature).

Agree applies to a pair of elements α and β only if the two have some matching, nondistinct features; both α and β have some features in common that differ only in interpretability, or value specification (Chomsky (2001)). If so, movement or copying of any of such features from α to β or from β to α seems to be redundant, and in fact Agree establishes communication between matching features of α and

³ This argument is made in the context of viewing feature movement as morpheme movement. Pesetsky credits these thoughts to a suggestion from Norvin Richards.
without such movement, via value assignment (or we might say value “copying”). In the expletive there-construction, for example, the values of the \( \phi \)-features of the nominal associate of there are assigned to the unvalued matching \( \phi \)-features of the T head of the construction. In the case of the relation between a wh-phrase and its associated C, however, it is not immediately obvious whether they have any matching features. Of course, given a pair of grammatically related elements \( \alpha \) and \( \beta \), with some relatively obvious feature X on \( \alpha \) (say [wh] on a wh-phrase), one could conceive of a matching feature \( X' \) on \( \beta \) that differs from X only in interpretability (say (un)interpretable version of [wh], on C). The problem is what property distinguishes interpretable features from uninterpretable ones. Chomsky (2001) suggests that uninterpretability is identified by lack of specification of value: the \( \phi \)-features of a nominal, for example, are interpretable because they enter the derivation with values, but the \( \phi \)-features of T are uninterpretable because they enter the derivation without values. This way of thinking about interpretability, however, does not seem to extend readily to the features involved in the link between a wh-phrase and its associated C. A wh-phrase may well be distinguished from a non-wh-phrase by virtue of the property [wh], and an interrogative C may well be distinguished from a noninterrogative C by virtue of the property [Q]. However, if the interrogative C of a wh-question has a feature [wh'] that matches [wh] on the wh-phrase, how do [wh] and [wh'] differ in value specification? A similar question arises with a feature [Q'] on a wh-phrase that would match the [Q] on the interrogative C (see note 4). Answers will partly depend on what is meant by “value specification” — is it a matter of positive and negative ([+wh] vs. [−wh]), or presence and absence of a value ([third person] vs. [person]), or something else? At any rate, communication between a wh-phrase and C may be

\(^4\) Pesetsky and Torrego (2001), for example, assume that the interrogative C associated with a wh-phrase has the uninterpretable version of the wh-feature, which they represent as \( uWh \), \( u \) for “uninterpretable.” (Pesetsky (2000) under review makes the same assumption.) Here (un)interpretability is acting like a feature of a feature. Chomsky (1995) assumes that the wh-feature of a wh-phrase is interpretable, whereas Chomsky (2000: 128) suggests that a wh-phrase has an uninterpretable feature [wh] and an interpretable feature [Q], which matches the uninterpretable [Q] of a complementizer, but does not say anything about what property identifies (un)interpretability.
of a different kind from communication between a nominal phrase and T (or v). For example, it may be that the former is not achieved via the value assignment that is characteristic of Agree but via some sort of copying of features that is characteristic of movement but is independent of anything like the EPP-feature. If so, the possibility still remains that neither Agree nor feature movement is an alternative analysis of the other, but both are distinct syntactic operations in their own right.

3. Does Feature Movement Obey Subjacency or Not?

The main reason Pesetsky entertains the possibility that what he is describing as feature movement might not be movement (but an instance of Agree) comes from his view that it does not obey Subjacency (p. 58), unlike (overt) phrasal movement, which generally does. Subjacency is a well-established diagnostic test of movement. If some operation O whose movement status is at stake shows island effects of the sort usually attributed to Subjacency, then O may well involve movement. Pesetsky notes that “wh-feature movement is covert, in that pronunciation continues to target the wh-morpheme in its lower, original position” and that “[q]uite generally, island violations do not cause deviance when the trace position receives a pronunciation” (p. 57, italics in the original). However, he does not give empirical evidence to show that the hypothesized wh-feature movement in English does not display Subjacency effects. It is true that wh-in-situ do not display island effects (at least not as strongly as overt wh-movement), as shown by the contrast in island sensitivity in paired examples like the following (judgments somewhat idealized to highlight the contrast):

(1) a. ?*what does John remember where Mary bought
    b. who remembers where Mary bought what

(2) a. ?*what did John hear the claim that Mary had seen
    b. who heard the claim that Mary had seen what

(1a) and (2a) show detectable island effects, due to the violation of the wh-island condition and the Complex NP Constraint, respectively. The example (1b) is a multiple wh-question of the sort discussed by Baker (1970), where the in-situ wh-phrase, what, has the option of taking matrix scope, in apparent violation of wh-island condition. Similarly in (2b) (adapted from Chomsky (1981: 235)), what, though in a complex NP, is interpreted with the matrix who to give a multiple wh-
question reading. However, examples like these that traditionally have been taken as evidence for island-insensitivity of in-situ wh-phrases do not illustrate wh-feature movement but covert wh-phrase movement, in Pesetsky’s theory: the in-situ what in (1b) and (2b) undergoes covert phrasal wh-movement, not purely featural wh-movement. To see whether or not wh-feature movement obeys Subjacency, we have to construct examples where a wh-phrase that appears in an island must undergo wh-feature movement to satisfy all the grammatical requirements but Subjacency. Unfortunately, such examples, if constructed from English, turn out not to fulfill the purpose that we intend them to achieve.

In Pesetsky’s theory, wh-feature movement in English is forced only on wh₁, namely the wh-phrase that is the highest (hence the subscript 1) of all the wh-phrases before wh-movement:

(3) a. which book did which person buy
b. which book did Mary persuade which person to buy
(4) a. what did who give to whom
b. what did Mary persuade whom₁ to give to whom₃

Such examples as these with wh₁ in situ create Superiority violation configurations, which are allowed when the wh-phrases involved are interpreted as D(iscourse)-linked (Pesetsky (1987)), a type of interpretation favored by wh-phrases with which, or else when there are more than two wh-phrases. Since (3) and (4) meet these conditions, they are acceptable with no detectable Superiority effect. In (3a, b), wh₁-in-situ, which person, undergoes pure wh-feature movement rather than covert wh-phrase movement (for a reason not relevant here). Likewise, the highest wh-phrase before wh-movement, wh₁, is who in (4a) and whom₁ in (4b), and these in-situ wh-phrases undergo wh-feature movement, while the other in-situ wh-phrases, whom in (4a) and whom₃ in (4b), undergo covert wh-phrase movement. In all cases there is an overtly moved wh-phrase that is lower than (c-commanded by) wh₁ before movement, and such is the only situation in English in which we are sure that pure wh-feature movement has taken place, applying to wh₁-in-situ but not to other wh-in-situ.

Now suppose we find an in-situ wh-phrase in an island. For us to be sure that this wh-phrase has undergone wh-feature movement out of the island, there must be another wh-phrase that is lower than this wh-phrase before movement and that has undergone overt wh-phrase movement out of the same island. Such a situation, however, will
make it impossible to determine which of the two movements—wh-feature movement and overt wh-phrase movement—is responsible for any Subjacency effect that may be found. This means, in effect, that it is impossible to test for Subjacency effect on wh-feature movement in English. We only give examples where the relevant islands are complex NPs:

(5) a. which book did John hear the claim that which person bought
   b. which book did John hear the claim that Mary persuaded which person to buy

(6) a. what did John hear the claim that who gave ___ to whom
   b. what did John hear the claim that Mary persuaded whom1 to give ___ to whom3

Although I have not asterisked these examples, they all should have at least the status of the Complex NP Constraint violation. Whatever their acceptability status, however, they virtually do not tell anything about whether Subjacency is obeyed or disobeyed by wh-feature movement (applying to which person in (5), who in (6a), whom1 in (6b)), since it is already violated by overt wh-phrase movement (applying to which book/what).⁶

If we could construct examples in which there is only one wh-phrase in an island and this phrase could only undergo wh-feature movement (rather than covert wh-phrase movement as in (1b) and (2b)), we

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⁵ I avoid giving examples where the relevant islands are wh-islands because they introduce irrelevant complications.

⁶ Saying “already” is misleading, because the overt wh-phrase movement applies after the wh-feature movement applying to wh₁. This is essentially due to the principle Attract Closest (AC), which requires that an attractor (here the interrogative C) attract the closest occurrence of the feature it is searching for (the wh-feature). AC, which Pesetsky adapts from Chomsky (1995), is virtually an inviolable principle that plays a key role in his theory. Because of this principle, wh-movement in multiple wh-questions must first apply to wh₁.

If the number of Subjacency violations were faithfully reflected by the degree of acceptability, the degree of acceptability of (5) could be compared with that of the corresponding examples where which person in (5) is replaced by a non-wh-phrase like that person and where there is evidently a single violation of Subjacency, so that we might be able see whether in (5) the wh-feature movement is causing an additional violation.
would be able to test for Subjacency effect on such feature movement. Unfortunately, such examples cannot be constructed in English.  

4. Principle of Minimal Compliance and “Subjacency Tax”

To be fair to Pesetsky, I must emphasize that his concern is not on the particular question of whether or not feature movement obeys Subjacency. In his attempt to account for special behavior of feature movement (to which we turn shortly) that is not shared by phrasal movement, he is merely suggesting that feature movement may not be an instance of movement but Agree, and he is basing this suggestion on the alleged island-insensitivity of feature movement.

Feature movement, at least wh-feature movement in English, is special in not paying a “Subjacency tax.” If the first instance of movement obeys Subjacency, this usually counts as a “Subjacency tax” payment which allows later instances to bypass the Subjacency effect. This is a consequence of the Principle of Minimal Compliance (PMC) proposed by Richards (1997). Richards (2001: 199) captures the intuition behind PMC by saying that “the presence of a dependency that satisfies a constraint can allow the computational system to ignore another dependency which would be ill-formed in isolation [... T]he computational system tries to avoid checking the same constraint in the same portion of the structure more than once.” As the reference to “dependency” suggests, PMC is not restricted to movement relations in its application but covers other types of dependency as well (see for example Richards (2001: 197f.) for illustration). For the sake of simplicity and clarity, however, we give Pesetsky’s simplified statement of the PMC in terms of movement (p. 25):

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7 An example of the following sort, for example, does not require the wh-phrase in the complex NP, which fish, to undergo wh-feature movement (as the first instance of wh-movement), allowing it to undergo covert wh-phrase movement (as the second instance of wh-movement following the overt wh-phrase movement of which bottle):

\[
\text{(i) which bottle of wine did you persuade [the man who ate which fish] to drink} \\
\]

Details aside, the reason is essentially that which fish, not c-commanding which bottle of wine in pre-wh-movement structure (hence not being a wh1-in-situ), does not count as the closest wh to the matrix C. See the first paragraph of note 6 on AC.
(7) Once an instance of movement to $\alpha$ has obeyed a condition on the distance between source and target, other instances of movement to $\alpha$ need not obey this constraint.

The island-insensitivity of covert phrasal wh-movement, shown by examples like (1b) and (2b), follows from the PMC. In these examples the first instance of wh-movement, namely overt phrasal movement of the subject who, obeys Subjacency and hence pays the "Subjacency tax," allowing the second instance of wh-movement, namely covert phrasal movement of what in an island, to ignore the island. As Pesetsky notes (pp. 56-57), wh-feature movement in English does not pay a "Subjacency tax," as shown by pairs of examples like the following that do not show any detectable contrast in Subjacency effect (Pesetsky's (95) and (97), respectively, along with the judgment indications):

(8) a. ??which book did the senator deny the rumor that he wanted to ban ____
   b. ??which book did which senator deny the rumor that he wanted to ban ____

(9) a. *what do you want to applaud the person that gave ____ to whom
   b. *what does who want to applaud the person that gave ____ to whom

In (8a) which book moves overtly out of a complex NP, producing a detectable Subjacency effect. The subject the senator in (8a) is replaced by which senator in (8b), which undergoes wh-feature movement as the first instance of wh-movement (as required by AC; see note 6). This feature movement obeys Subjacency, and under PMC it should allow the second instance of wh-movement, namely overt phrasal movement of which book, to bypass Subjacency effect of the sort seen in (8a). In fact, however, the effect does not disappear; (8b) is just as bad as (8a). This means that the featural wh-movement applying to which senator has not paid such a "Subjacency tax" as has been paid by the phrasal wh-movement of the subject wh-phrase in examples like (1b) and (2b), or (10) below, which minimally differs from (8b):

(10) which senator denied the rumor that he wanted to ban which book

The same applies to (9). Wh-feature movement applies to the matrix subject who in (9b) as the first instance of wh-movement, but this Subjacency-obeying movement does not cause the Subjacency effect
seen in (9a) to disappear, indicating, again, that wh-feature movement does not pay a "Subjacency tax." It is natural, therefore, that Pesetsky should suspect that feature movement might really not be movement; if it is not movement, it cannot possibly pay a "Subjacency tax" that can only be paid by movement operations.

Japanese, in contrast to English, is a wh-in-situ language, and Pesetsky derives this property from his analysis of Japanese as a language in which wh-movement generally shows up as feature movement. As we saw above, wh-feature movement does not appear to pay a "Subjacency tax" in English, but the argument cannot be directly translated into wh-phrases in Japanese.

As is well-known, wh-phrases in Japanese display wh-island effects, and Pesetsky claims (p. 117: n. 193) that they pay a "Subjacency tax" for wh-island violations, as indicated by a contrast like the following discovered by Watanabe (1992a, b) (judgments somewhat idealized to highlight the contrast):

(11) a. ?*John-wa [Mary-ga nani-o katta ka-dooka]
   John-Top Mary-Nom what-Acc bought whether
   Tom-ni tazuneta-no?
   Tom-Dat asked-Q
   'What did John ask Tom whether Mary bought?'

b. John-wa [Mary-ga nani-o katta ka-dooka]
   John-Top Mary-Nom what-Acc bought whether
   dare-ni tazuneta-no?
   who-Dat asked-Q
   'Who did John ask whether Mary bought what?'

(11a) shows detectable wh-island effect, which, however, disappears in (11b). The matrix wh-phrase in (11b), dare 'who,' seems to be rescuing nani 'what' in the bracketed wh-island from the wh-island effect. This is strongly reminiscent of PMC. Recall, however, that while PMC is stated in (7) with reference to movement, the principle is not limited to movement in its application but applies to non-movement types of dependency as well. Therefore, even if the phenomenon illus-

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8 (8b) and (9b) each satisfy one of the conditions bypassing the Superiority effect: the two wh-phrases in (8b) are of the form with which that is amenable to D-linked interpretation, and there are more than two wh-phrases in (9b) (see the text below (4)). Their ill-formedness therefore can solely be attributed to Subjacency.
trated in (11) is indeed an instance of PMC,\(^9\) it does not follow that a *wh*-phrase in Japanese is associated with an interrogative C by movement; the licit dependency that is first established between *dare* and the matrix C in (11b) rescues, thanks to PMC, the otherwise illicit dependency between *nani* and the same C, but the dependency may or may not involve a movement operation. In this connection it is important to note that we are not sure about the nature of the *wh*-island effect. Does the effect follow from the Subjacency as a condition on movement, or is it an instance of the Minimal Link Condition (MLC) as a condition on attraction (Chomsky (1995: esp. 295, 311)), or else is it an instance of the Defective Intervention Constraint (DIC) as a condition on matching that is prerequisite for Agree (Chomsky (2000: esp. 123, 128))? Suppose that the dependency involved in *wh*-questions in Japanese is established by phrasal movement. Then (11b) is an instance in which the licit phrasal movement establishing the connection *Con*\(_1\) between the matrix *wh*-phrase and the matrix C pays a “Subjacency tax” that allows the otherwise illicit phrasal movement establishing the connection *Con*\(_2\) between the embedded *wh*-phrase and the same C. Suppose that the dependency is not phrasal movement but feature movement (Attract F). Then the example is an instance in which the licit feature movement establishing *Con*\(_1\) pays an “MLC tax” that allows the otherwise illicit feature movement establishing *Con*\(_2\). Suppose that the dependency is a case of Agree. Then the example is an instance in which the licit Agree operation establishing *Con*\(_1\) pays a “DIC tax” that allows the otherwise illicit Agree operation establishing *Con*\(_2\). Examples like (11) do not tell anything about the nature of the *wh*-C dependency in Japanese, in particular about whether it involves movement (or whether it pays a “Subjacency tax”), unless we know about the nature of the *wh*-island effect.

5. Feature Movement in Japanese

As is well-known, *wh*-phrases in Japanese apparently lack the CNP island effect. Where there is an apparent violation of the Complex NP Constraint, it has been suggested in the literature that there is in fact

\(^9\) Richards (2001) gives an alternative view, but since this is irrelevant to the discussion to follow, we will ignore it.
no violation: that the entire complex NP containing a *wh*-phrase is pied-piped (at LF) to [Spec, C] (Nishigauchi (1986, 1990)); that there is an empty operator or a Q-morpheme, associated with a *wh*-phrase in a complex NP but generated outside the NP, and this operator/morpheme moves to (the Spec of) C (Watanabe (1992a, b), Hagstrom (1998); see also Tonoike (1992)). If we assume Pesetsky's distinction between (covert) phrasal movement and feature movement and combine this with Ochi's (1999, 2001) theory of movement, however, a different picture emerges.

Let us assume with Ochi (1999, 2001) that feature movement, being a case of attraction of a feature F by a head in search of F, is only sensitive to Relativized-Minimality (RM) type of islands like *wh*-islands and not to non-RM-type of islands like adjuncts and complex NPs.\(^{10}\) The lack of CNP island effect on *wh*-phrases in Japanese may then be an indication that in this language what connects a *wh*-phrase with an interrogative C is feature movement. There are several theoretical and empirical advantages of this view.

First, note that we no longer need to assume CNP pied-piping, or some operator/morpheme outside CNP, in order to account for the absence of the CNP island effect; nor do we have to account for why a mechanism like pied-piping applies to CNP islands but not to *wh*-islands to overcome the island effect.\(^{11}\)

Note further that being sensitive to *wh*-islands, feature movement out of a complex NP does produce an island effect if that NP contains a *wh*-island and the relevant feature movement takes place out of this island, as shown by the following example from Watanabe (1992a: 59, n. 46), who attributes the observation to an LI reviewer (judgment indication mine):

\[
(12)\ ?*[[\text{Mary-ga nani-o katta ka-dooka}] \text{Tom-ni} \\
\text{Mary-Nom what-Acc bought whether Tom-Dat} \\
\text{tazuneta} \text{hito}-\text{ga kubininatta-no}? \\
\text{asked person-Nom was-fired-Q} \\
\text{(Lit.) 'The person who asked Tom whether Mary bought what was fired?'}
\]

\(^{10}\) Strictly speaking, certain type of complex NPs with their modifier clauses not involving an operator movement; see Ochi (2001).

\(^{11}\) Richards (2000), adopting a pied-piping approach, gives an account for why *wh*-islands cannot be pied-piped.
Nishigauchi (1986, 1990), in his CNP pied-piping proposal, claims that as a prerequisite of CNP pied-piping, *wh*-movement takes place inside the complex NP that is to be pied-piped. This CNP-inside *wh*-movement will account for the *wh*-island effect in (12). But the simple feature movement analysis along the lines of Ochi accounts for the unacceptability of (12) straightforwardly, without assuming double application of *wh*-movement (i.e., CNP-inside *wh*-movement and *wh*-movement of CNP itself (=CNP pied-piping)). Note in this connection that Watanabe’s observation concerning (11) carries over to (12), although he does not note this. That is, if we change the dative argument *Tom-ni* in (12), which is inside the complex NP but outside the *wh*-island, to a *wh*-phrase like *dare-ni* ‘who-Dat,’ then the *wh*-island effect disappears, as in the following:

\[
(13) \quad [[[Mary-ga nani-o katta ka-dooka] dare-ni tazuneta] hito-ga kubininatta-no?]

Mary-Nom what-Acc bought whether who-Dat asked person-Nom was-fired-Q

(Lit.) ‘The person who asked whom whether Mary bought what was fired?’

This is predicted by PMC combined with the analysis of *wh*-phrases in Japanese as associated with an operation with the *wh*-island-sensitive (but CNP-island-insensitive) property. As noted in the discussion of (11), this operation need not be feature movement, but the feature movement as analyzed by Ochi (1999, 2000) does have the required property.

Finally, note the lack of CNP island effect on a *wh*-phrase inside stacked complex NPs, as in the following, taken from Watanabe (1992a: 59):

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(14) \quad John-wa [[[dare-o hihanshita] ronbun]-ga notta] zasshi-o sagashite-iru-no?

John-Top who-Acc criticized article-Nom appeared journal-Acc looking-be-Q

(Lit.) ‘John is looking for the journal where an article that criticized who appeared?’

Although this is predicted by the CNP pied-piping approach as well as by the simple feature movement approach, the former approach has to assume one more additional *wh*-movement inside complex NPs, while the latter approach assumes only one occurrence of *wh*-feature movement per *wh*-phrase throughout, irrespective of how many complex NPs
are stacked on the relevant *wh*-phrase.

6. Covert Phrasal Movement in Japanese


In Ochi’s theory, phrasal (or category) movement, in contrast to feature movement, is subject to non-RM-type of islands like complex NPs. Thus if phrasal movement applies to a *wh*-phrase (or for that matter any type of phrase) to extract it out of a complex NP, this should produce a CNP island effect, and this is precisely the case seen in overt *wh*-phrase movement in English (and also in scrambling out of a complex NP in Japanese). Since he is basing his theory on Chomsky’s (1995) conception of movement, however, Ochi keeps to overt phrasal movement (Move α) and feature movement (Attract F), and does not consider the possibility of covert phrasal movement, in particular covert phrasal *wh*-movement. Pesetsky (2000), who does recognize the possibility of the covert phrasal *wh*-movement strategy for *wh*-in-situ languages (p. 92), nonetheless does not apply it to Japanese *wh*-movement, which he analyzes as being realized as feature movement. Evidence for *wh*-feature movement against covert *wh*-phrase movement in this language comes from the intervention effect discussed by Hagstrom (1998) and others, which we will turn to in section 7. For now just suppose that covert phrasal movement, along with feature movement, is an option in Japanese (perhaps, in fact, universally). If covert phrasal movement is forced to apply to a *wh*-phrase inside a complex NP to link it to an interrogative C outside, then the CNP island effect should show up. This is, in my view, what Pesetsky effectively demonstrated in his 1987 paper, although in his 2000 book under review he does not consider this interpretation of his 1987 observation and in fact does not even refer to it.

Pesetsky’s (1987) observation is that acceptable occurrence of a *wh*-phrase in a complex NP in Japanese becomes unacceptable if the *wh*-phrase has the emphatic adverbial *ittai* ‘on earth’ attached to it, as shown by an example like the following, adapted from Pesetsky (1987: 112):

(15) Kimi-wa [Aiko-ni (*ittai) nani-o ageta hito]-ni you-Top Aiko-Dat on-earth what-Acc gave person-Dat atta-no? met-Q
Note that *ittai* can in principle occur in an embedded clause; an example like the following with *ittai* in the bracketed complement clause is acceptable, or at least better than (15) with *ittai* in a complex NP (see Pesetsky (1987: 124, n. 18)):

(16) Kimi-wa [Taro-ga Aiko-ni ittai nani-o ageta-to] you-Top Taro-Nom Aiko-Dat on-earth what-Acc gave-C thought-Q

‘What on earth did you think that Taro gave to Aiko?’

Pesetsky (1987) suggests that while a complex NP with a *wh*-phrase in it may be pied-piped at LF, an occurrence of *ittai* attached to the *wh*-phrase prohibits such pied-piping and forces the *wh*-phrase itself to undergo LF *wh*-movement, giving rise to the CNP-island effect. Within the framework that distinguishes feature and covert phrasal movement, Pesetsky’s suggestion is reinterpreted as saying that a *wh*-phrase that otherwise has the feature movement option is forced to undergo covert phrasal movement when it has *ittai* attached to it.

For Pesetsky (1987), the question is why CNP pied-piping is impossible if *ittai* is attached to the *wh*-phrase in the complex NP, to which he does not give an explicit answer, merely suggesting that “*ittai* simply must attach to the *wh*-phrase that moves” (Pesetsky (1987: 126, n. 27)). For us the question is why the feature movement option is unavailable with *ittai* attached to the *wh*-phrase; why is it, in an example like (15) with *ittai* present, that *nani* cannot undergo feature movement to escape the CNP island effect, and must instead undergo covert phrasal movement? An answer is suggested by examining the properties of *ittai*.

6.2. *Ittai*: Its Properties

Note that *ittai* in the emphatic adverbial usage we are concerned with must appear in an interrogative and not in a declarative sentence, but...
the interrogative sentence need not be a wh-question but may be a yes-no question as well:

    Taro-Top on-earth university-Dat was-accepted
    (Lit.) ‘Taro on earth was accepted into a university.’

b. Taro-wa ittai daigaku-ni ukatta-no?
    Taro-Top on-earth university-Dat was-accepted-Q
    ‘Was Taro accepted into a university at all?’

c. Taro-wa ittai doko-no daigaku-ni
    Taro-Top on-earth where-Gen university-Dat
    ukatta-no?
    was-accepted-Q
    (Lit.) ‘Where on earth was Taro accepted into the university of?’

As the English gloss ‘at all’ in (17b) suggests, however, the meaning of ittai in a yes-no question differs somewhat from that in a wh-question; see Takubo (1985: esp. 114, n. 8) for related issues. Furthermore, if ittai is to appear in an embedded yes-no question, it requires the morphologically complex word ka-dooka rather than the simplex version ka as the interrogative complementizer that introduces the question:13

(18) a. Goro-wa [Taro-ga ittai daigaku-ni
    Goro-Top Taro-Nom on-earth univ.-Dat
    ukatta-no-ka-dooka]-o Aiko-ni tazuneta
    was-accepted-whether-Acc Aiko-Dat asked
    ‘Goro asked Aiko whether or not Taro was accepted
    into a university’

b. Goro-wa [Taro-ga (?*ittai) daigaku-ni
    Goro-Top Taro-Nom on-earth univ.-Dat
    ukatta-no-ka]-o Aiko-ni tazuneta
    was-accepted-Q-Acc Aiko-Dat asked
    ‘Goro asked Aiko whether Taro was accepted
    into a university’

13 Here the accusative marker o is added to the embedded yes-no question
    clauses to exclude a “semi-indirect speech” interpretation that is otherwise possible
    in (18b); without o, the ka-headed clause in (18b) could be interpreted as if it were
    a parenthetical direct speech (namely on a par with a matrix question), in which
    case the acceptability of ittai would be much improved.
Note that *ka* and *ka-dooka* are generally interchangeable in an embedded *yes-no* question if *ittai* does not appear in it. Note further that *ka* is the only option available for an embedded *wh*-question, and in such a case *ittai* can appear with a *wh*-phrase:

(19) Goro-wa [Taro-ga ittai doko-no daigaku-ni
Goro-Top Taro-Nom on-earth where-Gen univ.-Dat
ukatta-no-ka]-o Aiko-ni tazuneta
(Lit.) 'Goro asked Aiko where on earth Taro was accepted
into the university of'

These cooccurrence restrictions suggest that *ittai* is licensed by combination of the Q-feature and the wh-feature, on the assumption that *ka-dooka* has precisely this combination of features: [Q] on *ka* and [wh] on *doo(ka)*; note that *doo* is obviously a wh-morpheme. *Ittai* is fully licensed by this [Q-wh] feature complex in (18a) but not in (18b), in which the simplex complementizer *ka* has only the Q-feature, which by itself cannot fully license *ittai*. In a *wh*-question, whether it is matrix as in (17c) or embedded as in (19), the interrogative complementizer that introduces it must have an occurrence of the wh-feature as well as the Q-feature to license the wh-phrase in it, so that the occurrence of *ittai* in such a *wh*-question is licensed by the [Q-wh] complex of the complementizer. In a root *yes-no* question as in (17b), where *ittai* is apparently licensed by the Q-feature (on *no*) alone, the adverbial is actually licensed by combination of this Q-feature with, perhaps, some modality (M) feature that is specific to a root context and is excluded in an embedded context like (18b). If so, whatever difference in meaning there may be between the occurrences of *ittai* in (17b) and (17c) might be related to the difference in the feature complex that licenses *ittai*: the [Q-M] complex in (17b) and the [Q-wh] complex in (17c).

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14 Although the occurrence of *ittai* in (19) and also in (18a) may sound somewhat odd, the contrast with (18b) seems clear enough.

15 This, however, would predict that the meaning of *ittai* in the *ka-dooka* clause in (18a), which is apparently an embedded version of a *yes-no* question, is analogous to that of *ittai* in the *wh*-question (17c) rather than in the *yes-no* question (17b).
6.3. Movement and Economy

Let us assume that licensing of ittai as suggested above is performed via movement, except in cases where this adverbial is "base-generated" (by pure Merge) in the Spec of the (interrogative) CP; this base-generation/pure-Merge is a possible analysis for a sentence like (17b).16 If ittai is generated in a position other than the Spec of the complementizer with its licensing features, it must move to such a position, close enough to the licensing features. Whether the movement is covert phrasal movement or just feature movement should be determined by other properties of grammar. In the cases we are concerned with, let's just assume that ittai has the feature movement option available.

Now consider (16) again. Here we have ittai and a wh-phrase in an embedded clause, and they are adjacent but obviously not in a Spec of C in overt syntax. Assume that the two adjacent categories form a syntactic unit; this captures the intuition that ittai directly modifies the wh-phrase. If feature movement applies to each of the two constituents individually, moving the relevant features of the wh-phrase on the one hand and those of ittai on the other, to the matrix C, then in effect movement to one and the same C occurs twice: one for the wh-phrase and the other for ittai. Furthermore, each movement is triggered by the same set of features of the same C: [wh] and [Q]. But there is a more "economical" option available: one-time phrasal movement of the entire unit, ittai nani. Assume that if there is a choice between two-time (feature) movement and one-time (phrasal) movement, the latter is chosen on the grounds of economy, an idea obviously related to the fewest possible steps in a derivation as an instance of economy (Chomsky (1995: 181f.)). The two-time movement option is chosen only when the one-time option is unavailable, as when ittai and the wh-phrase are not adjacent and do not form a unit, found in a case like the following that minimally differs from (16) in the position of ittai:

16 This is in accord with the spirit of Cinque (1999), who argues that adverbs are the overt manifestation of (the specifiers of) functional projections.
Let us turn to the CNP island effect example (15), repeated here as (21):

(21) Kimi-wa [Aiko-ni (*ittai) nani-o ageta hito]-ni you-Top Aiko-Dat on-earth what-Acc gave person-Dat atta-no? met-Q
    (Lit.) ‘What (on earth) did you meet the person who gave to Aiko?’

If *ittai is absent, the *wh*-phrase has the feature movement option available, escaping from the CNP island effect. But if it is present, the phrasal movement option must be exercised, moving *ittai nani* as a unit. Being phrasal, this produces the CNP island effect. What if *ittai* is separated from the *wh*-phrase? If the above argument concerning (20) is correct, feature movement should be able to apply to each of them, and there should be no CNP island effect. This prediction appears to be borne out:

(22) Kimi-wa [ittai Aiko-ni nani-o ageta hito]-ni you-Top Aiko-Dat on-earth what-Acc gave person-Dat atta-no? met-Q
    (Lit.) ‘What (on earth) did you meet the person who gave to Aiko?’

(23) a. *Kimi-wa [tanjoobi-no purezento-ni Aiko-ni ittai you-Top birthday-Gen present-for Aiko-Dat on-earth nani-o ageta hito]-ni atta-no? what-Acc gave person-Dat met-Q (Lit.) ‘What (on earth) did you meet the person who gave to Aiko for a birthday present?’

b. Kimi-wa [tanjoobi-no purezento-ni ittai Aiko-ni you-Top birthday-Gen present-for on-earth Aiko-Dat nani-o ageta hito]-ni atta-no? what-Acc gave person-Dat met-Q (Lit.) ‘What (on earth) did you meet the person who gave to Aiko for a birthday present?’
Pesetsky (1987: 126, n. 27) follows Nishigauchi (1985) in assuming that where *ittai* appears in the initial position of a complex NP as in (22), *ittai* is attached to the entire complex NP, and that this allows the NP to be pied-piped. This analysis, however, does not account for the contrast in (23), where the adverbial *tanjoobi-no purezento-ni* ‘for a birthday present’ appears in the initial position of the complex NP. This adverbial, modifying the embedded predicate, must be a constituent of the embedded clause. *Ittai* appearing to the right of the adverbial must also be a constituent of the same clause, whether it is adjacent to the *wh*-phrase as in (23a) or is separated from it as in (23b). The difference in acceptability seems to be in the expected direction, with (23a) as bad as (21)=(15) with *ittai*, and (23b) as acceptable as (22).

7. Independent Evidence for Covert Phrasal Movement

Our analysis according to which (covert) phrasal movement is forced on the *ittai* *wh*-phrase receives independent support from the intervention effect discussed by Hagstrom (1998) and used by Pesetsky (2000) as evidence for *wh*-feature movement in Japanese. The intervention effect in Japanese is illustrated by such examples as the following:

\[(24)\] a. ?Daremo-ga nani-o tabeta-no?
   everyone-Nom what-Acc ate-Q
   ‘What did everyone eat?’

b. ??Dono hito-mo nani-o tabeta-no?
   every person what-Acc ate-Q
   ‘What did every person eat?’

c. ??Hotondo dono hito-mo nani-o tabeta-no?
   almost every person what-Acc ate-Q
   ‘What did almost every person eat?’

d. ??Taro-shika nani-o tabenakatta-no?
   Taro-anyone-but what-Acc eat-not-Neg-Past-Q
   ‘What didn’t anyone but Taro eat?’

17 Virtually the same effect is discussed by Beck (1996) and Beck and Kim (1997) for German and Korean, by Hoji (1985), Takahashi (1990), Hasegawa (1995), Yanagida (1996), and Sano (2001a) for Japanese, although the relevant intervening scope bearers discussed vary, along with formulations of the effect.
The effect varies with the intervening scope-bearing element. Thus the quantifier *daremo(-ga) 'everyone(-Nom)' in (24a) intervenes between the wh-phrase *nani and its associated Q no to degrade the sentence only a little, but expressions like *hotondo *dono…-mo 'almost every …' and the negative polarity …-shika 'anything/anyone but …' act as rather strong interveners to produce very low acceptability as in (24c, d); and the universal quantifier *dono…-mo 'every…' without *hotondo 'almost,' as in (24b), comes intermediate between the weak and the strong varieties.

In view of cross-linguistic evidence from English, German, Japanese and Korean, Pesetsky (2000: 67) formulates the intervention effect as follows:

(25) Intervention effect (universal characterization)
A semantic restriction on a quantifier (including wh) may not be separated from that quantifier by a scope-bearing element.

Pesetsky (2000) argues that the intervention effect is produced in examples like (24) because in Japanese, wh-movement is realized as feature movement, extracting the wh-feature from a wh-phrase but leaving its semantic restriction in situ; since this results in separation of the restriction from the wh-feature by scope-bearing elements in (24), the intervention effect shows up.

In English, where wh-feature movement shows up only in restricted contexts, the intervention effect accordingly shows up in restricted contexts, as shown by the following paradigm from Pesetsky (2000: 60), an observation which he credits to E. Kiss (1986):

(26) a. Which person ___ | did not/didn't | read which book?
b. Which book did which person not read ___?
c. Which book did(*n't) which person read ___?

Here the relevant scope bearer is the negative *not. In (25a) the negation intervenes between the interrogative C and the in-situ wh-phrase *which book, but there is no intervention effect, because *which book undergoes covert phrasal rather than feature movement. Since the entire wh-phrase including its restriction moves (covertly), there is no separation and no intervention effect. In (25b), the subject *which person, being *wh1, undergoes wh-feature movement, and its restriction is left in situ. But the negation is to the right of *which person and does not intervene between the moved wh-feature and the restriction separated from it, so again there is no intervention effect. The effect
shows up in (26c), with *not* appearing between exactly these two elements.  

The effect seen in the Japanese examples (24) disappears or fades nearly to the vanishing point if the object *wh*-phrase *nani-o* is scrambled to the sentence-initial position:

(27) a. Nani-o daremo-ga tabeta-no?  
   what-Acc everyone-Nom ate-Q  
   ‘What did everyone eat?’

b. (?)Nani-o dono hito-mo tabeta-no?  
   what-Acc every person ate-Q  
   ‘What did every person eat?’

c. ?Nani-o hotondo dono hito-mo tabeta-no?  
   what-Acc almost every person ate-Q  
   ‘What did almost every person eat?’

d. ?Nani-o Taro-shika tabenakatta-no?  
   what-Acc Taro-anyone-but eat-not-Neg-Past-Q  
   ‘What didn’t anyone but Taro eat?’

This is natural, since the scope bearers no longer intervene between the relevant elements, being to the right of the scrambled *wh*-phrase. Note that this is true independently of the particular analysis of *wh*-movement in Japanese. That is, while examples like (24) will argue for the *wh*-feature movement analysis and against the covert *wh*-phrase movement analysis in Japanese under the formulation of the intervention effect in (25), examples like (27) are neutral in this regard. We could view *wh*-scrambling cases like (27) as instances of overt phrasal *wh*-movement in the spirit of Kuroda (1992: Ch. 10) and Takahashi (1993). Pesetsky (2000: 89ff.), referring to Takahashi (1993), also notes the possibility of overt phrasal *wh*-movement in Japanese, but as noted above, he does not consider the covert phrasal movement option to be available to *wh*-phrases in Japanese, precisely because of the intervention effect. We, however, do have means to force covert phrasal movement: by adding *ittai* to the *wh*-phrase. As expected, such addition weakens the intervention effect to varying degrees, in accord-

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18 According to Pesetsky (2000: 60f.), an example like this with the intervening negation becomes marginally acceptable if a context is supplied that calls for a single-pair answer. Under the pair-list reading the example is completely unaccept-

able.
ance with the strength of the intervener:

(28)  

a. Daremo-ga ittai nani-o tabeta-no?  
everyone-Nom on-earth what-Acc ate-Q  
‘What on earth did everyone eat?’

b. (?)Dono hito-mo ittai nani-o tabeta-no?  
every person on-earth what-Acc ate-Q  
‘What did every person eat?’

c. ?Hotondo dono hito-mo ittai nani-o tabeta-no?  
almost every person on-earth what-Acc ate-Q  
‘What did almost every person eat?’

d. ?Taro-shika ittai nani-o tabenakatta-no?  
Taro-anyone-but on-earth what-Acc eat-not-Neg-Past-Q  
‘What didn’t anyone but Taro eat?’

In other words, the ittai wh-phrases in (28) behave just like the overtly moved wh-phrases in (27). This, in my view, constitutes independent evidence for covert phrasal movement (and also for Pesetsky’s formulation of the intervention effect (25)), although strictly speaking the operation applies to the ittai wh-phrase as a whole rather than to the wh-phrase proper.

Another piece of evidence for covert phrasal movement applying to ittai wh-phrases comes from the “Subjacency tax” payment made possible by such phrasal movement. As noted by an anonymous EL re-

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19 Although the informants I consulted find the contrast between (24) and (28), namely the ameliorating effect of ittai on sentences that otherwise show stronger instances of the intervention effect, this does not mean that the judgment on sentences like (28) is stable, as is already suggested by question marks. In fact, disagreement on the judgment has been expressed by an anonymous EL reviewer, who reports no ameliorating effect. Judgment of quantified sentences often varies with the intonation with which they are read, and sentences like (28) are no exception. It seems that the relative stress on the subject and the object is a factor affecting the judgment. Thus, putting a focal stress on the object nani ‘what’ and destressing the subject improves the sentences in (28), and the opposite stress pattern lowers their acceptability. Note that the subjects of the sentences (28b–d) end with mo or shika, a postposition called a “focus particle,” and are more likely to assume a focal stress than the nominative subject daremo-ga in (28a) (where mo is no longer functioning as a focus particle but is a morpheme of the single word daremo). The tendency for the intervener to assume a focal stress may be related to the fluctuating acceptability for those who find the ameliorating effect of ittai, and to the unacceptability for those who do not.
viewer, a sentence like (15) = (21) with *ittai* is not improved if the matrix subject *kimi(-wa) ‘you(-Top)’* is replaced by a *wh*-phrase like *dare(-ga) ‘who(-Nom)’*, whose licit movement to the interrogative C might be expected to pay a “Subjacency tax” that would allow the *ittai* *wh*-phrase movement to bypass the Subjacency effect. Note, however, that even if *ittai* is omitted (so that there could be no Subjacency effect in the first place), such a multiple *wh*-question sounds unacceptable as in (29a) below, unless the word order is changed so that the subject *wh*-phrase comes after the complex NP as in (29b):

(29) a. *Dare-ga [Aiko-ni nani-o ageta hito]-ni who-Nom Aiko-Dat what-Acc gave person-Dat atta-no? met-Q
(Lit.) ‘Who met the person who gave what to Aiko?’

b. [Aiko-ni nani-o ageta hito]-ni dare-ga Aiko-Dat what-Acc gave person-Dat who-Nom atta-no? met-Q
(Lit.) ‘Who met the person who gave what to Aiko?’

Let us therefore see whether there is any “Subjacency tax” payment in examples with the CNP-subject word order. First consider the following with *ittai* in the complex NP:

(30) [Aiko-ni ittai nani-o ageta hito]-ni {??kimi-wa/ Aiko-Dat on-earth what-Acc gave person-Dat you-Top *dare-ga} atta-no?
who-Nom met-Q
(Lit.) ‘You/Who met the person who gave what on earth to Aiko?’

With the matrix subject *kimi(-wa) ‘you(-Top),’* the sentence is marginal, due to the Subjacency effect arising from phrasal movement of the *ittai* *wh*-phrase out of the complex NP. But the sentence is still bad (perhaps even worse) if the matrix subject is the *wh*-phrase *dare(-ga) ‘who(-Nom),’* indicating that *wh*-movement of *dare(-ga) has not paid a “Subjacency tax.” Note, however, that the matrix subject *wh*-phrase undergoes feature movement, without anything like *ittai* that forces phrasal movement. As noted in the discussion of (8) and (9), a licit instance of *featural wh*-movement does not pay a “Subjacency tax” to rescue an illicit instance of *phrasal wh*-movement in English, either. Thus (30) is comparable to (8) and (9), and the phenomena may be
universal. Recall also that phrasal wh-movement does pay a "Subjacency tax" to rescue an illicit instance of the same type of movement, as in (1b), (2b) and (10) (see Pesetsky (2000: 118, ll. 1-11) for relevant discussion). Now if, as we have been claiming, *ittai* wh-phrases undergo phrasal movement, we predict that adding *ittai* to *dare-ga* in (30) allows the resulting phrasal movement to pay a "Subjacency tax" and rescue the phrasal movement of *ittai nani(-o)* from the Subjacency effect, and indeed it does:

(31) [Aiko-ni *ittai* nani-o ageta hito]-ni *ittai* dare-ga atta-no?
    Aiko-Dat on-earth what-Acc gave person-Dat on-earth who-Nom met-Q
    (Lit.) ‘Who on earth met the person who gave what on earth to Aiko?’

It appears that everything that we have observed concerning *ittai* and its associated wh-phrase within the context of the CNP island effect, the intervention effect, and the “Subjacency tax” payment, converges on the single point: the syntactic unit formed by the two undergoes (covert) phrasal movement.

8. Concluding Remarks

As has been noted several times in this review article, Pesetsky (2000) argues that Japanese is a language in which wh-movement shows up as feature movement. He attributes this to the special property of the interrogative complementizer of the language: $C_{0\text{-spec}}$, the complementizer that tolerates no specifiers. This sharply contrasts with English, where wh-questions can be introduced either by $C_{1\text{-spec}}$ requiring one wh-specifier or by $C_{m\text{-spec}}$ requiring more than one. Because the Japanese lexicon contains only $C_{0\text{-spec}}$ as an interrogative com-

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20 The argument is weakened, though not contradicted, by the observation that omitting *ittai* in the complex NP while keeping the matrix occurrence of *ittai* intact makes the sentence awkward:

(i) ???[Aiko-ni nani-o ageta hito]-ni ittai dare-ga atta-no?
    Aiko-Dat what-Acc gave person-Dat on-earth who-Nom met-Q
    (Lit.) ‘Who on earth met the person who gave what to Aiko?’

The awkwardness of (i) would have to be accounted for independently.
plementizer, every *wh*-question in Japanese must be introduced by this complementizer, and only featural *wh*-movement, which creates no specifier in its landing site, is possible in this language.

Pesetsky (2000) uses the intervention effect as a test for the type of interrogative complementizer. In Japanese, a *wh*-question in which a scope-bearing element c-commands a “bear” *wh*-phrase without *ittai* shows the intervention effect, and this is accounted for if the question is introduced by *C₀-spec*. Because of this complementizer, phrasal movement that creates a specifier is impossible and feature movement must be chosen, which results in the intervention-effect configuration in which the semantic restriction on the *wh*-quantifier is separated from it by the scope-bearing element. However, we have seen that the intervention effect virtually disappears when the *wh*-phrase is accompanied by *ittai*. Pesetsky (2000: 92) himself notes that the absence of the intervention effect in nonmultiple *wh*-questions in a *wh*-in-situ language would be an indication that *wh*-questions in such a language are introduced by *C₁-spec* or *Cₘ-spec*, with the in-situ *wh*-phrases actually undergoing covert phrasal movement so that there is no separation of the sort inducing the intervention effect. If so, then the absence of the intervention effect (and similarly the presence of the CNP island effect and the “Subjacency tax” payment) with an *ittai* *wh*-phrase would indicate that a question with an *ittai* *wh*-phrase is introduced by *C₁-spec* or *Cₘ-spec*, and we must abandon the hypothesis that the Japanese lexicon contains only one type of interrogative complementizer, *C₀-spec*. Instead, we must assume that *wh*-questions are sometimes introduced by *C₀-spec* and sometimes by *C₁-spec* or *Cₘ-spec*, depending on whether *ittai* attaches to the *wh*-phrases or not.²¹ In (29b), for example, with no

²¹ In fact, Pesetsky (2000: 91) also considers the possibility of the three types of interrogative complementizer in Japanese in discussing putative overt *wh*-movement of the sort discussed by Takahashi (1993) (see the discussion below (27) in the present article). He further suggests another possibility for such overt movement: it is an instance of focus movement, with the *wh*-phrase overtly attracted by “an optional focus head above or below *C₀-spec*, which optionally takes multiple specifiers” (Pesetsky (2000: 91)). This focus movement analysis may be extended to the in-situ *ittai* *wh*-phrase cases discussed in this article, with covert movement of an *ittai* *wh*-phrase analyzed as a covert instance of focused-phrase movement rather than of *wh*-phrase movement (see Yanagida (1996: 27f.) for a different analysis). I am indebted to Shigeru Miyagawa for discussing the issue.
occurrence of *ittai* the two *wh*-phrases undergo feature movement, as dictated by the matrix C0-spec, whereas in the corresponding example (31) the two *ittai wh*-phrases undergo phrasal movement to satisfy the multiple specifier requirement of Cm-spec. This obviously leads to unwanted complexity in the grammar of Japanese, and unwanted redundancy as well. We have argued that *ittai wh*-phrases undergo phrasal movement because of a principle of economy that favors one-time movement over two-time movement; the choice of phrasal movement is determined independently of the type of complementizer. Now suppose that, other things equal, there is a general preference of feature movement over phrasal movement in the spirit of Chomsky (1995), a possibility Pesetsky (2000) also considers on page 56 in spite of the claim made on page 55 (see the penultimate paragraph of section 1 of the present article). Under these circumstances, whether the complementizer has a specifier would virtually be determined by principles of economy: a “bear” *wh*-phrase undergoes feature movement because of the general preference that is plausibly derived from a economy principle, and an *ittai wh*-phrase undergoes phrasal movement because of the preference of fewer steps in a derivation, also an instance of economy. Thus, at least in *wh*-in-situ cases, whether the complementizer has a specifier or not seems to be determinable without stipulating an EPP-like property of the complementizer.

Of course, what has been just suggested applies only to cases of invisible communication between a *wh*-phrase and its associated C; overt movement cases require independent consideration. It is precisely because Pesetsky (2000) has convincingly argued for the distinction between covert phrasal movement and feature movement, however, that consideration along the lines presented in this article is made possible. The discovery of the linguistic significance of the distinction will mark an important step toward better understanding of the relations that link positions in syntactic structure, a domain of investigation that has attracted linguists’ attention ever since generative grammar was born.22

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22 See Sano (2001b) for argument for covert phrasal movement (and Agree) from focus particle licensing in Japanese.
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