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WH-IN-SITU AND DISCOURSE: A REPLY TO KUNO AND MASUNAGA

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1 Introduction

In a paper in this volume,¹ Kuno and Masunaga (K&M) (following Kuno and Robinson (1972)) provide some interesting and radical challenges to the approach to WH-in-situ that I adopted and extended in Pesetsky (1986),² and also to specific claims about subjacency in Japanese developed in that paper. In this brief reply, I will focus more attention on K&M's general objections than on their specific objections. I believe it can be shown that their objections to the LF movement analysis of WH-in-situ are without force, and that their own proposals do not respond to the evidence that favors the LF analysis.

On the other hand, I will make only a few remarks about the body of K&M's paper that challenges my earlier discussion of subjacency effects. This is for several reasons.

First, my discussion of subjacency was partially based on earlier work by Choe (1984) and Nishigauchi (1985) (written in 1984).³ In his dissertation (written after K&M), Nishigauchi (1986) considerably strengthens the case for subjacency effects made in the earlier literature, and replies to a number of K&M's objections.

Second, my earlier paper presented subjacency effects as an area on which my claims about "Discourse Linking" might shed useful light. If subjacency simply does not hold of Japanese WH questions, as K&M claim, then one interesting consequence of the analysis disappears. The analysis as a whole does not, however, stand or fall with the discussion of Japanese WH questions.

Finally, while some of K&M's own examples raise interesting problems of their own, K&M's paper amply demonstrates at a minimum that the verdict on subjacency at LF is not yet in. The complexity of the data demands further investigation beyond the intended scope of this reply.

1.1 Pesetsky (1986)

To see in what way K&M challenge the analysis of Pesetsky (1986), I will begin by briefly summarizing certain issues raised in that paper. Because of the debate joined by K&M, some points which were lightly touched on in my earlier paper are given more emphasis here.

1.1.1 Superiority Effects: In English, certain WH-phrases in situ act as if they undergo a movement rule whose effects are not visible in surface linear order. A case in point is Superiority Effects. We make the hypothesis that phrases that show these effects adjoin to S' at LF. On this assumption, "Superiority Effects" with WH-in-situ reduce to familiar "Nested Dependency Effects". Following Chomsky (1976), we also exploit this movement rule to capture alleged *scope ambiguities* of WH-phrases in multiple questions. The existence of these ambiguities was suggested first by Baker (1970), motivated largely by patterns of felicitous answers to multiple questions.

1.1.2 Absence of Superiority Effects: Some WH-in-situ do not show Superiority effects, acting therefore as if they do *not* undergo the LF movement rule. Among these WH-in-situ are *which*-phrases and other WH-phrases that are interpreted as "Discourse-Linked" (D-linked). Here we make the hypothesis that those phrases that do not act as if they undergo movement do not, in fact, move in the mapping to LF. The interrogative operator in such sentences is Baker's *Q*-morpheme, binding a WH-in-situ interpreted as a variable

1.1.3 Testing the Hypothesis: Are there other diagnostics for movement that distinguish D-linked WH-phrases from non-D-linked phrases?

WH-island Effects: For many speakers, what Baker's theory calls the "wide scope reading" for a non-D-linked WH-in-situ is difficult to impossible from a WH-island, but is fully possible for a D-linked WH-in-situ (see also Nishigauchi (1986, 13ff.)). We can explain this effect if movement at LF exists and obeys the WH-island condition. No WH-island effects are observed with D-linked WH-phrases, because they do not move at LF, by hypothesis.⁴

Subjacency in Japanese: Subjacency in general (in particular, the Complex NP Constraint and constraint on extraction from adjuncts) appears to be violated by LF WH-movement. On the other hand, felicitous, formal answers to questions involving a non-D-linked WH-phrase in an island must repeat the entire island. This suggests that the LF representations of these WH-phrases involves pied-piping, reflected in the answers.

This interpretation of answering patterns can be confirmed, given our hypothesis, if answers to questions involving a D-linked WH-phrase in an island do not need to repeat the entire island. Since this seems to be the case, our hypothesis is supported.

Finally, the expression *ittai* (roughly, 'the hell') can be associated with a WH-word in an island only if *ittai* precedes the entire island. These facts are explained as follows: (a) The WH-word must pied-pipe the island at LF (as suggested above), if it must move. (b) Pied-piping of the island entails that the whole island is a WH-phrase. (c) *Ittai* attaches to WH-phrases, i.e. to what moves. Hence if the whole phrase moves, *ittai* must attach to the whole phrase -- not just to the WH-word itself. (d) Pied-piping can be avoided only if the WH-word need not move. (e) The WH-word need not move only if it is D-linked. (f) D-linking is intrinsically incompatible with the meaning of *ittai*.⁵

Polish: Polish shows the LF distinction between D-linked and non-D-linked WH-in-situ at S-structure. All WH-in-situ move at S-structure, except those that are D-linked (Wachowicz (1974)) This supports our general hypothesis distinguishing D-linked from non-D-linked WH-phrases at LF in terms of movement vs. non-movement.

1.2 K&M vs. Pesetsky (1986)

K&M attack these arguments on a number of grounds. In particular, they deny from the start that any issue of scope arises for WH-in-situ in multiple interrogation; they thus deny the presupposition of section 1.1.1. Instead, they offer a sketch of a "functional" account of phenomena that have usually been treated in terms of scope. I will suggest that K&M's general attack on the scope hypothesis for multiple interrogation is ill-founded. Furthermore, their "functional" alternative is implausible as an account of the properties of multiple interrogation constructions.⁶

2 A Functional Approach to WH-in-situ?2.1 Do WH-in-situ Show Scope Ambiguities?

At the heart of K&M's objections lies their observation that "it is risky to attempt to determine the syntax of questions solely on the basis of the syntax of the answers to them". I agree, but the key word that makes their observation correct is *solely*. The LF treatment of WH-in-situ questions is not based solely on the syntax of the answers that they may receive.

My point can be made by recalling some famous chestnuts of generative grammar. If Speaker A were to utter the questions in (1) or (2) below, either answer given would be appropriate. In both examples, as in K&M's, Speaker B's answers depend in part on his assumptions about what A has in mind. Nonetheless, the status of these judgments seems radically different.

(1) Speaker A: Are Smith and Jones visiting dignitaries?

Speaker B: a. Yes. Therefore, Ambassador Smith and Minister Jones **are** entitled to a Secret Service escort when they visit the zoo.

b. Yes. The two school kids are having tea at the Fredonian embassy today.

(2) Speaker A: Did you turn on the TV?

Speaker B: a. Yes, I'm awfully sorry.

b. No, I'm sorry, I forgot.

Consider (1) first. In this case, there is familiar evidence that A's utterance is syntactically ambiguous. The string uttered by A is a terminal string of at least two distinct phrase markers. This syntactic ambiguity can easily be resolved in a number of ways, for example, by substituting a singular NP for *Smith and Jones*.

- (1')a. Is Smith a visiting dignitary?
b. Is Smith visiting a dignitary?

Now imagine the plight of speaker B in example (1). One task facing speaker B is to determine which syntactic representations to assign to the question uttered by speaker A. If speaker B is acting rationally, he surely brings to this task his knowledge of A's beliefs, intentions, etc., as well as his own knowledge of the world.⁷

Thus, in an important sense, B's choice of answer *is* "functionally" determined: functional factors influence B's assumptions about the syntax of A's question. Nonetheless, at the root of the ambiguity is the syntactic analysis of A's question. How do we reach this conclusion? Answering patterns guided us in our analysis, but a wealth of other data, like that in (1'), may play an equal role in supporting the analysis.

In the case of (2), however, there seems to be no argument for attributing the variety of answering patterns to a syntactic ambiguity in the question. The choice of answer (a) or (b) depends entirely on B's assumptions concerning A's desires. To be sure, one might attempt to trace even this distinction back to a syntactic difference, positing null arguments with distinct θ -roles -- e.g. "sufferer" in (a), "beneficiary" in (b). In this case, however, I cannot see any independent syntactic evidence for the fine-grained θ -theory such a distinction would force on us. For example (2), it seems, a purely "functional" account of the answering patterns can answer all our needs.

K&M are thus correct in their general statement: answering patterns should *not* be used as the *sole* evidence relevant to the analysis of the syntax of questions. On the other hand, neither should facts about speaker's assumptions and hearer's assumptions be used as the *sole* evidence relevant to an analysis.

Now consider an example of multiple interrogation from their paper:
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(3) Speaker A: Who remembers where we bought which books?

Speaker B: a. John and Mary remember where we bought which books.

b. John remembers where we bought the physics book, and Martha and Ted remember where we bought *The Wizard of Oz*.

The issue should now be clear. Is the answering pattern distinction in (3) more like the syntactic/functional distinction seen in (1), or like the purely functional distinction seen in (2)? Most work within the "Extended Standard Theory" has assumed without comment an analysis closer to (1); K&M suggest an analysis closer to (2).

K&M's discussion would be of value even if it did nothing but force the advocate of the EST view to reexamine the initial motivation for the LF movement theory of WH-in-situ -- alleged scope ambiguities. The mere presentation of alternative dialogues in (3), as we have seen, cannot decide the issue. We must bring other evidence to bear. In the next two subsections, I wish to present new arguments for the scope analysis of WH-in-situ.

2.2 Evidence from Pronouns as Bound Variables

The syntax of pronouns as bound variables has been much-discussed in the linguistic literature (Reinhart 1976, Lasnik 1976). At the very least, it seems that a pronoun functioning as a bound variable must be within the scope of its quantifier at LF (or whatever does LF's work in some other theory). Thus, (4) does not have the reading indicated by the indices. The reason is that the pronoun is not within the scope of the Q morpheme (or the moved WH) in the lower clause:

(4) *His_i friends asked [who_i Q_i [t_i had left]].

In addition, pronouns as bound variables show "Weak Crossover" effects (under certain conditions, see below) when their quantifier does not c-command them at S-structure:

(5) ??Who_i Q_i did his_i friends say t_i had left

Safir (1984) suggests that Weak Crossover is found whenever a quantifier at LF locally binds two "non-parallel" variables -- for example, an empty category and a lexical pronoun. Example (5) is in violation of Safir's condition, since the matrix *Q* (or *who*) locally binds both the lexical pronoun *his* and the empty category *t*.

Let us next examine Weak Crossover as it affects WH-in-situ in English multiple questions. Example (6a) seems on a par with (5), on the bound variable reading for *his*, as do similar examples. This is straightforwardly explained by Safir's theory of Weak Crossover if the LF representation for (6a) involves movement of the WH-in-situ, as in (6b). In (6b), as in (5), the matrix *Q* locally binds one empty and one lexically filled variable.

- (6)a. ?Who_j *Q*_j *t*_j persuaded his_i publisher to sue whom_i?
 b. [whom_i [who_j *Q*_j *t*_j persuaded his_i publisher to sue *t*_i

Notice now that the Weak Crossover effect with WH-in-situ disappears when the WH-in-situ is D-linked. This observation is easily explained if D-linked phrases do not undergo LF movement, and consequently, do not leave an empty position in their wake.

- (7) Which lawyer persuaded his_i publisher to sue
 which author_i?

This type of contrast (noted first for Japanese by Hoji (1984)) provides obvious and striking evidence for our LF distinction between D-linked and non-D-linked WH-phrases. More to our immediate point, however, it allows us to construct a test for a much more basic tenet of the LF theory of WH-in-situ -- that Baker's distinctions in answering patterns do indeed reflect scope distinctions.

Consider example (8):

- (8) In which issue of the newsletter will John explain
 how best to contact which famous linguist by
 computer mail?

This example allows two types of answering patterns, which an analysis in the spirit of Baker would attribute to a scope ambiguity for the phrase *which famous linguist*:

- (9)a. In the May issue John will explain how best to contact which famous linguist.
 b. In the May issue, John will explain how best to contact Halle; in the June issue, John will explain how best to contact Kiparsky; and in the July issue, John will explain how best to contact Kenstowicz;...

Is this distinction due to scope or to the perceived informational interests of the questioner? To answer this question, contrast (8) with example (10), in which *John* has been replaced by a phrase containing a pronoun as bound variable -- *his students*:

- (10) In which issue of the newsletter will his_i students explain how best to contact which famous linguist_i by computer mail?

One might expect the coindexation indicated to be ruled out as an instance of Weak Crossover, but we have seen in (7) that Weak Crossover effects with WH-in-situ are nullified in environments of D-linking. It is therefore striking that (10) admits only one of the two potentially available answering patterns. The pattern of (11a) seems to be impossible, while the pattern of (11b) is possible:

- (11)a. #In the May issue his_i students will explain how best to contact which famous linguist_i.
 b. In the May issue, his_i students will explain how best to contact Halle_i; in the June issue, his_j students will explain how best to contact Kiparsky_j; and in the July issue, his_k students will explain how best to contact Kenstowicz_k;...

This contrast is easily understood if the answering patterns correspond to scope distinctions in the question. To yield answer (11a), the index on *which students* in the question must have narrow scope with respect to the bound pronoun; but this violates the scope condition on such pronouns. To yield answer (11b), the index must have wide scope, satisfying the scope condition.

It is difficult to imagine a functional account of these contrasts that would obviate the need for a scope distinction in the question. Imagine the questioner knows that in some particular issue of the newsletter groups of students will give information on how to contact their own professors. Such a questioner might well wish to utter (10) and receive an answer like (11a). It seems, however, that this is impossible. The point can be made stronger by examining (12) (brought to my attention by Bernadette Plunkett, personal communication):

- (12) In which issue of the newsletter will their_i students explain how best to contact which famous linguist(s)_i by computer mail?

For some speakers, *their* in (12) contrasts with *his* in (10) in permitting an answer along the lines of (11a). This is not surprising if *their* is functioning as a "pronoun of laziness" (Evans (1980)) rather than as a truly bound pronoun. We know independently that such plural pronouns differ from their bound cousins in not requiring normal scope conditions to obtain.

It is quite unlikely, however, that there is a relevant functional difference between (10) and (12) that can account for the contrast in felicitous answering patterns. By contrast, an account in which answering patterns correlate to scope distinctions in the question does make the required distinctions. The answering pattern of (11a) requires narrow scope for *which famous linguist*. Narrow scope makes it impossible to relate the WH-phrase to a pronoun as bound variable (*his*), but does not interfere with a pronoun of laziness (*their*).⁸

2.3 Evidence from Superiority Effects

K&M do not deal in any detail with the evidence for LF movement in English based on Superiority effects. Nonetheless, the existence of a natural explanation for Superiority effects in terms of well-known properties of visible movement rules (whether these properties stem from the ECP or the Nested Dependency Condition or both) argues strongly for an LF movement analysis of those WH-in-situ that show the effects. Furthermore, this analysis interacts in the right way with alleged scope properties of WH-in-situ. Consider an example like (13):

- (13) Who knows who persuaded whom to buy what?

Speaking in scope terms, we may observe that (13) could potentially have four possible readings:

	whom	what
(i)	embedded	embedded
(ii)	embedded	matrix
(iii)	matrix	embedded
(iv)	matrix	matrix

Some speakers, perhaps obeying the WH-island condition (see above), may find all but reading (i) unacceptable. My informants find (i), (ii), and (iv) to be available, but (iii) seems to be impossible. An answering pattern consistent with (iii) would be:

(14) #John knows who persuaded Mary to buy what; Harry knows who persuaded Sue to buy what; ...

If answering patterns do indeed tell us about scope relations in questions, then the infelicity of (14) as an answer to (13) has a straightforward explanation in terms of the same Nested Dependency Condition that accounts for Superiority effects.⁹ If answering patterns are unrelated to scope, then it is dubious, as in the previous section, that well-formulated functional principles can explain this judgment.¹⁰

3 Subjacency and LF Movement

If we may take it as established that WH-in-situ do show scope ambiguities, which in some cases (with non-D-linked WH-phrases) is related to LF movement, then the body of K&M's paper is a debate over whether such movement obeys subjacency or not. As things stand, K&M's discussion has a rather curious role in the structure of their paper. If subjacency effects are detectable with WH-in-situ (and if subjacency effects are syntactic in nature) then we have an argument for LF movement. If they are not detectable with WH-in-situ, then we lack an argument for LF movement but do not have an argument against it.

Indeed, if LF exists, then it should present a cluster of properties that differentiate it from S-structure, as well as other properties that identify it firmly as a level of syntax. Thus, Chomsky (1981) presents arguments that Principle C of his Binding Theory holds at S-structure, rather than at LF, while Weak Crossover appears to be an LF phenomenon. It might well be the case that Subjacency does not hold at LF; this, in fact, is the view argued for by Huang (1982) and defended by Lasnik and Saito (1984) and many

others.¹¹ Arguing against Subjacency at LF certainly does not seem to push us towards a functional explanation for scope ambiguities with WH-in-situ, but at worst raises important questions about why various levels have the functions that they do.

3.1 Short and Long Answers

First, however, we must distinguish among the examples presented by K&M, since they are not of equal relevance to the subjacency issue. In particular, languages like English show us that pied-piping may occur even when not required by the syntax:

- (15)a. Against which proposal did Mary speak the longest?
b. Which proposal did Mary speak the longest against?
- (16)a. ??The manufacturers of which toxins are you going to fine?
b. ?Which toxins are you going to fine the manufacturers of?

K&M present a number of examples (their examples (6)-(12) in particular) in which "long answers" allegedly indicative of pied-piping are possible despite the evident lack of syntactic motivation for pied-piping. Later in their paper, they hypothesize that short answers differ from long answers in that "the former assumes that the questioner's primary interest lies in the identification of the object that the *wh*-phrase asks about, while the long-form answer assumes that the questioner's interest lies primarily in the identification of the object that the complex NP refers to."¹²

This proposal is entirely plausible as an explanation of cases in which a long-form answer is presented when not syntactically required.¹³ Indeed, it is possible to persuade oneself that some such difference distinguishes (16a) from (16b) as well, though the distinction is weak. Clearly, however, these cases do not undermine the claim that LF pied-piping is responsible for the long-form answers.

The truly relevant examples are those in which pied-piping should be forced by the syntax. If a short-form answer is nonetheless possible, then some explanation must be sought or else the pied-piping theory is in trouble. K&M provide three paradigms that

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they take to demonstrate exactly this type of counterexample.

The first is once again of doubtful relevance to the present issue, though of intrinsic interest. K&M note (in their examples (13) and (14)) that the Coordinate Structure Constraint (CSC) seems to hold of scrambling in Japanese, but not of putative LF WH-movement. They suggest that "at the very least, it seems that [the CSC] involves Subjacency, but a given version of GB might contain some other ways to account for the fact that movement out of a coordinate structure is banned. In any case, the Pied Piping analysis predicts that...the whole coordinate structure...should be raised in LF."

In fact, the Pied Piping analysis makes only a conditional prediction here. LF movement from a Coordinate Structure is banned only insofar as the principles blocking this movement hold at LF. Naturally, if subjacency holds at LF, and if the CSC is reduceable to Subjacency, then the Pied Piping analysis has the consequence that K&M attribute to it.¹⁴ However, I see no obvious way to attribute the CSC to Subjacency, particularly given the well-known Across-the-Board exceptions to the CSC, which do not have parallels with subjacency effects. If the CSC (or its progenitor) does not hold at LF, then K&M's data are in fact predicted by the Pied Piping analysis.

More relevant cases are provided by K&M's examples (15) and (16), where a contrast is drawn between overt extraction from an adjunct clause (ungrammatical) and a short answer response to a question whose WH-word is within the same adjunct (acceptable). Additional relevant examples are provided by K&M's arguments concerning their examples (28) and (29), where if the short answer test indeed relates to subjacency, certain Complex NP violations must be allowed at LF, in violation of subjacency.

If K&M are correct in their claim that subjacency is irrelevant to the WH-construction in Japanese, then the argument from subjacency for LF movement disappears.¹⁵ However, the argument for LF movement can be resurrected if it can be shown that overt movement does mirror the distribution of short and long answers after all. For example, it appears that scrambling from temporal adjuncts, while worse than scrambling from *koto* '(fact) that' clauses, is not as bad as scrambling from true complex NPs.¹⁶ This conforms to English speaker's intuitions about comparable visible extractions:

- (17)a. ?What book did Mary leave the library
after checking out?
b. ??What book did Mary leave the library
after she checked out?

A similar phenomenon seems to hold with K&M's examples (28)-(29). They compare sentences containing *work for NP* with sentences containing *borrow money from NP*. Where "NP" is complex and contains a WH-phrase, they note that a "long" answer is preferred with *borrow from*, as predicted by subjacency, but that the "short" answer is possible with *work for*, contrary to the predictions of subjacency. This distinction is interesting, to be sure, but it in fact has a parallel in overt extractions in English:

- (18)a. ??This product, which I'm working for the
company that makes, is going to revolutionize
the world.
b. *This product, which I borrowed money from a
company that makes, is going to revolutionize
the world.

Clearly, subjacency as classically formulated does not account for (18), nor for K&M's examples. Nonetheless, the parallel between overt and LF movement remains an argument for the latter. The unanswered question, it seems to me, is what causes this contrast that surfaces in both (18) and in K&M's examples. It may be that a "functional" or discourse-based factor is indeed at stake, ameliorating subjacency violations in some cases but not others; but syntactic island conditions cannot be totally irrelevant. (19a-b) show much the same contrast as (18a-b) (for functional reasons, let us assume), but both are better than either of (18a-b) -- clearly for syntactic reasons:

- (19)a. (?)This product, which I'm working for a
manufacturer of, is going to revolutionize
the world.
b. ?(?)This product, which I borrowed money from
a manufacturer of, is going to revolutionize the
world.

Finally, attention should be paid to the analysis of answering patterns outlined in Nishigauchi (1986). In this work, Nishigauchi defends convincingly and at length his pied-piping analysis of Japanese WH

constructions, and shows how this analysis interacts with a variety of other hypotheses concerning the quantificational character of these constructions. With respect to answering patterns, Nishigauchi introduces the possibility of full answers being subject to a truncation rule that can make them resemble short answers. This rule is subject to functional conditions of much the sort mooted by K&M.

If this were all there were to Nishigauchi's story, then the empirical content of the pied piping hypothesis as it applies to answering patterns would be nearly vacated (cf. K&M footnote 12). Nishigauchi suggests, however, that the truncation rule cannot apply in multiple interrogation constructions. Hence, it is predicted that answers to multiple questions will display in their clearest form the pied piping patterns predicted by subjacency. Nishigauchi argues that this is correct. Thus, while answers of the sort seen in (20a) below are standardly found with multiple interrogation constructions not involving islands, they are impossible when islands are involved:

(20) Speaker A:

[[Dare-ga dare-ni kai-ta] tegami]-ga
 who-NOM who-DAT wrote letter -NOM
 mitukari-masi-ta-ka?
 was-discovered-Q

'A letter that who wrote to whom was discovered?'

Speaker B:

- a. *Tanaka-san-ga Nakasone-san-ni desu.
 Mr.-Tanaka-NOM Mr.-Nakasone-DAT is
 'Tanaka did, to Nakasone'
- b. [[Tanaka-san-ga Nakasone-san-ni kai-ta] tegami]
 Mr.-Tanaka-NOM Mr.-Nakasone-DAT wrote letter
 desu.
 is.

'It's the letter that Tanaka wrote to Nakasone.'

If this claim is correct, then one should reexamine the examples presented by K&M, and others like them, to see whether the functional factors they have in mind concern pied piping or a later truncation rule that does not affect multiple interrogations.

3.2 *Ittai*

K&M also challenge the discussion of *ittai* phrases in Pesetsky (1986). Since writing the previous paper, it has come to my attention that there are speakers of Japanese for whom *ittai* has a radically different function than the one I described.

In Pesetsky (1986), *ittai* was taken to be have the effect of non-D-linking the WH-phrase to which it attaches. This characterization is supported by Takubo (1985), who independently noted that *ittai* "implies that the questioner does not have any idea as to the domain of the WH-words". Surprisingly, for some speakers, *ittai* may have exactly the opposite function. Koichi Tateishi (personal communication) notes that for him and certain other speakers *ittai* actually *restricts* the domain of the WH-phrase to a specific context. This alternative lexicalization of *ittai* actually allows even *adjuncts* (see Huang 1982, Lasnik and Saito 1984) to have take scope wider than an island -- rather than preventing them from taking such scope, as is usual:^{17,18}

(21) %[[John-ga *(ittai) naze kaita] hon-o] anata-wa
 John-NOM ittai why wrote book-ACC you-NOM

yonda-no?
 read-Q

'*ittai* why_i did you read [the book John wrote t_i']

Native speakers are clearly divided on these judgments, but factors of this sort may be at the root of some of K&M's examples, in which they note cases of apparently D-linked *ittai* (K&M's (33)), and of *ittai* within an island (K&M's (32)). I have also encountered disagreement with respect to K&M's examples.¹⁹ Note, however, that if for some speaker *ittai* actually D-links the phrase to which it is attached, and if effects of movement then disappear for this speaker, the general analysis of Pesetsky (1986) is actually supported.

4 Conclusions

In one broad sense, K&M and Pesetsky (1986) are in agreement. Both works attempt to demonstrate that "functional" or discourse factors interact in an

important way with island phenomena for WH-in-situ. My paper, however, limited this interaction to one single point: whether a WH-in-situ must undergo LF movement or not. K&M argue that functional factors play a larger role in determining what acts as an island in the first place, and what even what "scope" a WH phrase is assumed to have. In this reply, I have argued as forcefully as possible that the extension of functional factors to matters traditionally handled by scope is a mistake. The issue of what acts as an island in the first place, while not as settled as K&M suggest, remains a somewhat open issue, and, I hope, an important topic for further research.

Nonetheless, even if we grant that the fundamental analysis of D-linking and LF movement in Pesetsky (1986) is to some degree correct, there remain open problems with this analysis not raised by K&M. Among them: Why should the distinction between D-linked and non-D-linked elements correlate as it does with non-movement and movement at LF? Why is Weak Crossover ameliorated with D-linked WH phrases even in cases of *overt* movement? I return to these and related questions in work currently in progress.

FOOTNOTES

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1. Since K&M appears in this volume, I repeat their examples only when crucial to the flow of the discussion.

2. K&M actually reply to an earlier draft of Pesetsky (1986), written in (1984), which differs in a number of minor ways from the final draft.

3. In my earlier discussion, I simplified Nishigauchi's claims in ways that now turn out to be relevant; see below for discussion of Nishigauchi's hypothesis.

4. K&M, in their footnote 9, represent a number of *which* phrases in islands as "clearly unacceptable" for most speakers. This does not accord with my impression of speaker judgments, nor with the judgments generally accepted in the literature since at least Hankamer (1974). Perhaps more rigorous investigative techniques might help clarify the data.

5. K&M criticize an earlier account of this phenomenon (in the first draft of Pesetsky (1986)) as based on an "ad-hoc stipulation". I do not see that there is any ad hoc element in the current account; if *ittai* in the usage considered here is a modifier of *wh*-phrases, then it is natural that it will only attach to such phrases.

6. In addition, K&M do not at all consider the larger paradigm sketched in Pesetsky (1986), where the abstract properties posited for English and Japanese LF appear on the surface in Polish. Even if the Japanese facts should fall by the wayside, the English-Polish parallels still remain.

7. Of course, B might make a mistake in his analysis of A's question, in which case confusion will develop. Such confusion is a normal part of conversation, but does not undermine the syntactic distinctions drawn here any more than mistakes in the interpretation of homonyms undermine distinctions between homonymous lexical items. Thus, K&M's concern "from a pragmatic point of view" about B's ability to reconstruct the Logical Form of a question uttered by A seems somewhat misplaced.

8. This contrast can be made a matter of grammaticality by eliminating entirely the possibility of wide scope for *which famous linguist* by eliminating the matrix Q morpheme:

(i) *His_i students will explain how best to contact
which famous linguist_i by computer mail.

(ii) %Their_i students will explain how best to contact
which famous linguist(s)_i by computer mail.

9. Interestingly, although there is disagreement on this point (Barry Schein, personal communication), (14) appears to be possible as an answer to a version of (13) in which the wide scope WH-phrase is D-linked.

(i) Who knows who persuaded which person to buy what?

10. Another problem for the functional account is taken up in footnote 3 of K&M. A theory with LF movement has at least a handle on why examples like (i) below lack a reading in which *where* takes wide scope out of its COMP (or [SPEC,C]) and is paired with *who*; LF movement, we may say, cannot move from A'-positions:

(i) Who remembers where we bought which books

K&M seem not even to have such a handle on the phenomenon; the proffered explanation in terms of lack of parallelism seems to predict that the unavailability of this reading should be of equal status with the oddness of their example:

(ii) A: Who remembers where we bought which books?
 B: John and Mary remember which books we bought where?

To my ears, the examples differ sharply. The reply in (ii)B is merely odd, while the reading sought for (i) is utterly impossible under any circumstances.

11. K&M argue that this cannot be correct in footnote 2 of their paper, where a number of English WH-in-situ within islands are presented without comment as ungrammatical. The judgments here are at best unclear; to many speakers, the sentences in question are quite acceptable. This fact is, of course, consistent with both pied-piping theories and theories in which LF fails to display subadjacency effects entirely.

12. They also propose that the "semantic richness" of the matrix verb plays a role, though it is unclear how such "richness" is evaluated, so that predicates meaning "worried" (cf. their (12)) are "richer" than predicates meaning "angry" (their (7)). Perhaps an appropriate theory of "bridge" verbs might be relevant here.

13. As K&M notes, it is quite close to the proposal of Nishigauchi (1985); see also Nishigauchi (1986).

14. Similarly if the CSC is reduceable to a version of the Nested Dependency Condition, and if the latter condition holds at LF. Both these suggestions are pursued in Pesetsky (1982); K&M's examples pose clear problems for this theory.

15. There are arguments for pied piping that are not related directly to answering patterns, however. See, for example Hasegawa (this volume).
16. Scrambling from *mae-ni* 'before' clauses, with non-past tense, also seems better than scrambling from *ato-de* 'after' clauses, with past tense.
17. Nobuko Hasegawa notes that (21) is worse if the matrix object is not scrambled.
18. Additionally, Tateishi's judgments differ from those of Takubo (1985: 101 ff.) with respect to the compatibility of *ittai* with the question marker *ka*. Takubo argues that *ka* is semantically incompatible with non-D-linked WH phrases (in our terminology), hence incompatible with *ittai*, given his judgments about the effect of *ittai*. This predicts, perhaps correctly, that those for whom (21) is good with *ittai* should also disagree with Takubo concerning the compatibility of *ittai* and *ka*.
19. Hajime Hoji (personal communication) notes that the question portion of K&M's example (32) actually becomes ungrammatical if the pronoun *kanozyo* refers to anyone but the matrix subject, or if any NP non-coreferent with the matrix subject is substituted. The reason for this is quite unclear.

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