We Need LF Copying: A Few Good Reasons Why

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1. Introduction

In sluicing, an interrogative clause is phonologically reduced to a *wh*-phrase (the '*wh*-remnant'**).** The *wh*-remnant can, but need not, have an overt correlate in the antecedent, as illustrated in (1) and (2).

(1) a.   Sam is drinking <u>something</u>, but I don't know **what**.
     b.   … I don't know what <Sam is drinking>.

(2) Sam has been drinking all evening, but I don't know **what/why/at which bar**.

Within generative syntactic frameworks, the generation of sluicing uncontroversially involves some type of ellipsis, but the question of the exact nature of the ellipsis remains open. There are two primary schools of thought on the derivation and structure of sluicing: PF Deletion (Ross 1969, Merchant 2001, inter alia)[1] and LF Copying (Chung, Ladusaw, and McCloskey 1995 (henceforth CLM), Lobeck 1995, inter alia.)[2] This paper seeks to contribute to the ongoing conversation.

This paper has three goals. First, I seek to motivate the need for an improved 'LF Copying' approach within a standard Minimalist framework (Chomsky 1995, 2008). Second, I propose the outline of a Minimalist-minded LF Copying approach, which addresses some of the criticisms that have been advanced in the literature against CLM's original analysis. Finally, I argue that this approach is uniquely suited to account for the empirical problem posed by some languages, such as Indonesian, which subvert the Preposition Stranding Generalization (Merchant 2001).

2. The structure of sluicing

PF Deletion and LF Copying share a number of assumptions regarding the structure of sluices. Under both types of analyses, the *wh*-remnant is located in [Spec, CP] before Spell Out, and takes scope over a phonologically null TP. The *wh*-remnant is 'linked', in some sense, to a position within the null TP, which itself is 'identical'[3], in some sense, to an antecedent TP. The crucial divergence between the two schools of thought involves the mechanism by which the *wh*-remnant arrives in [Spec, CP]. Under PF Deletion, sluices are derived identically to non-elliptical *wh*-questions: *wh*-remnants undergo *wh*-movement, in the same manner, and for the same reasons, that *wh*-phrases in non-elliptical *wh*-questions do. Under LF Copying, on the other hand, sluices are derived in a manner distinct from *wh*-questions, and do not involve *wh*-movement. CLM propose that *wh*-remnants are base-generated in their surface position. At Spell Out, the TP which the *wh*-remnant takes scope over is both phonologically null and devoid of internal structure. To provide this TP with the necessary structure,

[1] See also the references cited in Merchant 2001.

[2] See also the references cited in Merchant 2001.

[3] The nature of this identity is also a significant, and still open, question. Merchant (2001), for example, argues that the identity condition is strictly semantic: the sluiced clause and the antecedent clause must each entail the other. More commonly, the relevant identity condition is argued to be morphosyntactic (see, e.g., CLM).

the LF representation of the antecedent TP is 'recycled' into an LF representation of the TP in the sluice. Once this occurs, the *wh*-remnant is syntactically coindexed with a variable within the recycled TP, in order for it to be interpreted. If the antecedent clause contains an overt correlate (typically an indefinite), the *wh*-remnant is coindexed with that variable; CLM dub this process, which is by hypothesis specific to sluicing, 'Merger'. (To distinguish this process from the Minimalist structure-building operation 'Merge', I refer to it in this paper as 'CLM-Merger'.) If the antecedent clause lacks a correlate, a variable is created, via a second sluicing-specific process, 'Sprouting'.

The two schools of thought have differing empirical strengths. The strongest empirical evidence for PF Deletion are 'connectivity effects' (Ross 1969), cases in which the *wh*-remnant is subject to the same morphosyntactic constraints as a *wh*-phrase in the corresponding, non-elliptical question. The existence of these effects, which include morphological case-matching effects in languages such as German (3), is easily handled if sluices are formed identically to non-elliptical questions. LF Copying, in contrast, must stipulate that (and how) the morphological realization of the *wh*-remnant is limited.

(3) Er will   **jemandem**   schmeicheln,aber   sie wissen nicht,   **wem/**   ***wen.**
    He wants   **someone.DAT** flatter,   but   3PL know   NEG   **who.DAT/**   ***who.ACC**
    'He wants to flatter someone, but they don't know who.' (Ross 1969)

The strongest empirical evidence for LF Copying, on the other hand, involves cases in which the behavior of *wh*-remnants differs from the behavior of *wh*-phrases in non-elliptical questions. Signficant among these are the lack of island effects in sluicing. This differential behavior, which includes a lack of Subjacency effects in sluicing (4), is straightforwardly predicted if and only if the *wh*-remnant does not undergo *wh*-movement.

(4) Chris was disappointed because he lost some contest, but I don't know…
    a.   * … **which contest** [$_{TP}$ Chris was disappointed because [$_{TP}$ he lost ~~which contest~~]]
    b.   … **which contest**.

To account for this lack of expected island effects, PF Deletion assumes that island effects, and the conditions which yield them (such as Subjacency), are exclusively PF phenomena: Subjacency-violating movements are allowed, but yield illformed PF representations. By hypothesis, PF representations can be repaired by ellipsis, a process sometimes dubbed 'salvation by deletion': if the 'violation' itself is eliminated from the PF representation, the island effect vanishes as well. One well-known wrinkle of salvation by deletion is that island effects are not universally obviated under ellipsis. VPE, for example, appears to respect islands. Consider (5): under both sluicing (5a) and VPE (5b), the island is subsumed by the ellipsis site. In VPE, however, the island violation persists (Merchant 2001).

(5) a.   Abby wants to hire someone who speaks a Balkan language, but I don't know **which Balkan language** <Abby wants to hire someone who speaks>.
    b.   * Abby wants to hire someone who speaks Greek, but I don't remember what kind of language she **doesn't** <want to hire someone who speaks>.

To account for this contrast between sluicing and VPE, Fox and Lasnik (2003) argue that 'one-fell-swoop movement' is uniquely possible under sluicing. Parallelism requirements on sluicing mandate that one-fell-swoop movement be available: intermediate traces left by successive-cyclic movement in the sluiced clause, which are not mirrored in the antecedent, should cause ellipsis to fail. One-fell-swoop movement is not available under VPE (nor non-elliptical contexts), given that parallelism requirements are here irrelevant: instead, movement is required to proceed successive-cyclically.

3. Why we need LF Copying

Under PF Deletion, Subjacency is treated as a 'hybrid' condition, having both derivational and representational aspects. As summarized in Lasnik 2001 (69), 'a Subjacency violation… places a * at some specific place in the structure… Deletion of the island then eliminates the *. If deletion is a PF

process then, rather curiously, we are led to the tentative speculation that it is the PF level that ultimately determines Subjacency violations.' As a derivational constraint, Subjacency violations 'place a *' on the offending structure; as a representational constraint, Subjacency violations are 'determined' at PF.

As discussed at length by Kitahara 1999, the '*'-placing procedure violates the Inclusiveness Condition, one of the pillars of Minimalism. Within Minimalism, then, the hybrid view is not a prinicipled option. There are two other possibilities for Subjacency that are consistent with the standard Minimalist architecture: as a strictly representational condition (Chomsky 1986), or as a strictly derivational condition (Chomsky 1995 (Ch. 4), 1998, 2001, 2004). The choice is not without consequence for an analysis of sluicing. As seen above, PF Deletion requires an (at least partially) representational view of Subjacency. Under a representational Subjacency, Subjacency-violating movements can occur, and yield illformed representations. Under a derivational Subjacency, Subjacency-violating movements are impossible; by hypothesis, the Minimal Link Condition (MLC) is part of the definition of Move, meaning that no application of Move is able to violate the MLC.

If PF Deletion is to be maintained, only one option remains: Subjacency as a purely representational condition. This view is not without precedent. Chomsky (1986), for example, proposed a representational Subjacency (6).[4]

(6) β is subjacent to α iff there are fewer than 2 barriers for β that exclude α (Chomsky 1986: 30)

Unfortunately for PF Deletion, this (and any) purely representational view of Subjacency falls prey to a loophole, and overgenerates. The loophole, illustrated in (7), arises in this way: once a *wh*-phrase makes one 'legal' move, Subjacency is satisfied for both copies. Even if the *wh*-phrase goes on to make an 'illegal' move, the effects of this aren't registered.

(7) * **Who$_3$** did [$_{TP2}$ you hear [$_{DP}$ a rumor ~~who$_2$~~ [$_{TP1}$ Robin visited ~~who$_1$~~]]]

Note that, by the definition in (6), in (7) who$_1$ is subjacent to who$_2$, and who$_2$ is subjacent to who$_1$. Additionally – and somewhat counterintuitively – who$_3$ is subjacent to who$_2$ and who$_1$: there are not two barriers for who$_3$ that exclude who$_2$ or who$_1$. This representation is thus ruled in, incorrectly.

Intuitively, the problem with (7) is that who$_2$ is 'too far' from who$_3$, but there is no easy fix. It is stipulative to require that who$_2$ be subjacent to who$_3$: under the Copy Theory of Movement, all copies are identical, and there is no principled way to formalize a requirement that pertains to just a single copy. Requiring that every copy be subjacent to every other copy would be too strong, as it rules out successive-cyclic movement: in (8), who$_1$ is not subjacent to who$_3$ or to who$_4$.

(8) **Who$_4$** do [$_{TP3}$ you think ~~who$_3$~~ [$_{TP2}$ Pat said ~~who$_2$~~ [$_{TP1}$ Dana likes ~~who$_1$~~]]]

Subjacency needs to be a condition calculated over individual applications of Move, and there appears to be no way to build this in to a purely representational Subjacency. Additional problems for such a view arise within Minimalism. For one, this view requires that information about syntactic categories be available in the PF representation, which flouts one of the underlying tenets of Minimalism (the Bare Output Conditions, which mandate that PF representations be composed only of PF-interpretable objects). Moreover, such a view appears to result in a fundamental incompatibility with phase-based models (e.g. Chomsky 2008, Uriagereka 1999). Within such models, Spell-Out

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[4] Chomsky's primary empirical goal was to account for the distribution of parasitic gaps (i). Although the parasitic gap is not related to the lower copy of the *wh*-phrase by movement, nor does the parasitic gap bind or c-command this copy, it must nonetheless be subjacent to this copy.

(i) Who$_2$ did [$_{TP}$ [$_{DP}$ a picture of *pg*] upset ~~who$_1$~~]]?

The problem with a representational Subjacency, as described in the text, is not exclusive to a 'barrier-based' formulation of Subjacency; I merely adopt it here for expository purposes.

occurs automatically by phase, rendering the complement of the phase head inaccessible to further operations. Interphasal movement necessarily proceeds successive-cyclically, from phase edge to phase edge. Fox & Lasnik's (2003) argument that parallelism requirements on ellipsis mandate that one-fell-swoop movement be possible *only* under sluicing requires non-trivial look-ahead, assuming it can be implemented at all.

In sum, Subjacency as a purely representational condition cannot be formulated in a way that is empirically adequate, or that is consistent with standard Minimalist architecture. Furthermore, phase-based models lose all predictive power without a derivational Subjacency. If, as I've argued, Subjacency can't be formulated representationally, the only alternative, within Minimalism, is to adopt the derivational view of Subjacency. Recall that, under this view, the MLC is part of the definition of Move, meaning that all instances of Move – whether or not they are followed up by deletion – are constrained by the MLC. This gives rise to the 'PF Deletion Paradox', summarized in (9):

(9) a.   Ellipsis (sluicing) is claimed to 'ameliorate' Subjacency violations.
     b.   If MLC is part of the definition of Move, Subjacency-violating movements cannot occur.
     c.   If (b.) is correct, (a.) cannot be correct: there is no way for island violations to be 'repaired' under ellipsis if the island violation itself is impossible to generate in the first place.

If the arguments in the previous section are on track, the consequence is that PF Deletion cannot be maintained. The contrast between (4a) and (4b), for example, is not accounted for: (4a) cannot be generated, correctly, while (4b) is undergenerated. Under a derivational view of Subjacency, sluices cannot be derived identically to *wh*-questions. I conclude from this that LF Copying, under which *wh*-remnants are base-generated clause-peripherally, deserves a re-evaluation, as it is, unlike PF Deletion, consistent with a derivational Subjacency.

4. Towards A Minimalist LF Copying Analysis
4.1. Renovation 1: There is no sprouting

CLM propose that the derivation of some sluices involves 'sprouting', a sluicing-specific operation which obtains when the antecedent clause lacks an overt correlate. Sprouting creates a null correlate of the same syntactic category as the *wh*-remnant, providing the *wh*-remnant with the variable it needs to bind. By hypothesis, sprouting thus involves countercyclic structure building. Problematically, this is inconsistent with the Minimalist axiom that all structure building occurs cyclically, and is constrained by the Extension Condition.

Fortunately, CLM's assumption that antecedent correlates are not represented syntactically unless they have some sort of phonological content arguably fails to hold; if my arguments here are on track, then, there is no need to assume that sprouting exists. First, note that the distribution of 'sprouted' arguments in sluices is limited to those cases where the verb independently permits implicit arguments.

(10) a.   Alex ate.   b.   Alex ate, but I don't know what.
     c.   *Pat solved.   d.   *Pat solved, but I don't know what.

Second, as is well-known (and discussed at length by CLM), argument structure alternations are prohibited between the antecedent and sluiced clauses quite generally. The mismatch in argument structure between *serve* in the antecedent and *serve* in the sluiced clause in (11b) results in ungrammaticality.

(11) a.   She served$_1$ the soup, but I don't know **to whom** <she served$_1$ the soup>.
     b.   *She served$_1$ the soup, but I don't know **who** <she served$_2$ the soup>.
     c.   She served$_2$ the students, but I don't know **what** <she served$_2$ the students>. (CLM 1995: 248)

(12) SERVE$_1$: [agent$_{DP}$ __ theme$_{DP}$ goal$_{PP}$]
     SERVE$_2$: [agent$_{DP}$ __ goal$_{DP}$ theme$_{DP}$]

The syntactic representation of implicit arguments in sluices should not differ from the syntactic representation of implicit arguments elsewhere. Chomsky (1995) argues that there are no optionally realized arguments; rather, 'optionally transitive' verbs have two distinct lexical entries (13).

(13) EAT$_1$: [agent$_{DP}$ __]
     EAT$_2$: [agent$_{DP}$ __ theme$_{DP}$]

Under such a view, (10b) is predicted, contrary to fact, to be as illformed as (11b).

Fillmore (1986) proposes an alternative view, which provides us a reconciliation. He suggests that certain verbs have 'implicit null complements', which have conventionalized interpretations. He notes that *eat,* for example, allows two distinct implicit null complements, one general (14a), the second specialized (14b): 'In [its] more general intransitive use, [it] designates simply the physical activity of eating stuff… [on the specialized reading] *eat* is used to mean something like *eat a meal*' (p. 96-97).

(14) a.   When my tongue was paralyzed, I couldn't eat.
      b.   We've already eaten.

Interestingly, it appears that the 'stuff' reading is far more resistant than the 'meal' reading to being an implicit correlate (15), a discrepancy which offers further support for this view of implicit correlates.

(15) a.   * After your mouth heals, you can eat, but I don't know **what**.
      b.   After your mouth heals, you can eat <u>something</u>, but I don't know **what**.
      c.   Terry ate, but I don't know **what**.

Sluicing can be shown to be further sensitive to the 'meal' reading of the implicit correlate. Consider the contrast in (16): (16c) is arguably blocked because a single raisin isn't construed as a meal, a clash which yields a semantic incompatibility.[5]

(16) a.   Did Pat eat yet today?
      b.   She ate, but I don't know **which meal**.
      c.   * She ate, but I don't know **which raisin**.

I conclude that the derivations of (17a) and (17b) both involve the same operation, namely CLM-Merger, the details of which will be addressed in Section 4.3. I depart from CLM's analysis, then, in that my representation (17b) contains a null correlate. I assume that the null correlate is indefinite. I further assume that the indefinite bears an interpretable feature, [-Q] (following Chomsky 1963).

(17) a.   Pat ate **something**, but I don't know what.
      b.   Pat ate $\varnothing_{DP}$, but I don't know what.

4.2. Renovation 2: TP Copying is Sideward Movement

Next, I propose that CLM's sluicing-specific 'recycling' operation is the independently-motivated operation of sideward movement (Nunes 1995).[6] Sideward movement takes a syntactic object from one derivational workspace and merges it into the phrase marker being built in another derivational workspace. I assume the antecedent clause and the sluiced clause are constructed in separate workspaces; it is an open question whether these two clauses are eventually merged into a single phrase marker.

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[5] The contrast in (16) is unexpected under the alternative view that the null DP is an existential quantifier, as suggested by Bresnan 1978 and Merchant 2000, 2007.

[6] Repp (2009) independently proposes that sideward movement is involved in the derivation of gapping structures; however, the details of the analysis (and of the construction itself) significantly differ.

More specifically, I propose that sideward movement of the antecedent TP takes place, after the C^0 of the sluiced clause is introduced into its workspace, as a 'repair' mechanism. At this point in the derivation, C^0's selectional feature (TP) has not yet been met; sideward movement provides a TP complement for C, thereby satisfying this selectional feature. Inasmuch the motivation for cyclic structure building is reducible to linearization considerations at the PF interface, the proposed countercyclic merge of TP introduces no new phonological content, and so would yield no difficulties for the linearization mechanism. Moreover, it is arguably more computationally efficient than building a second, identical, TP from the bottom-up.
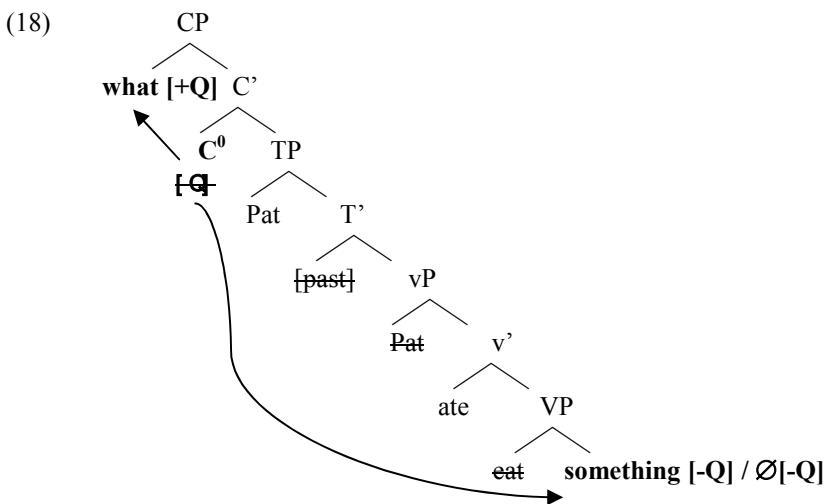
4.3. Renovation 3: CLM-Merger is Agree

We now turn our attention to CLM-Merger, the sluicing-specific operation that obtains when the *wh*-remnant has an (overt) correlate in the antecedent. Problematically, within Minimalism, CLM-Merger relies on coindexation between the *wh*-remnant and its correlate, which violates the Inclusiveness Condition. I propose that CLM-Merger is simply long-distance Agree. Agree is not subject to as strict a locality constraint as Move, which is constrained by the MLC: Agree is constrained only by Relativized Minimality (Bošković 2007). If Fox and Lasnik (2003) are on track with their claim that barriers do not exist under sluicing, this is neatly captured here.

In the derivation of sluices, I argue that Agree obtains between C^0 (the probe), and the *wh*-remnant and its correlate in the copied TP (the goals). There are two goals because both the correlate and the *wh*-remnant are 'equidistant' from C^0, and both bear the necessary [Q] feature, permitting C^0 to Agree with both simultaneously. This Agree relation yields a three-way connection between C^0, the *wh*-remnant, and its correlate, valuing C^0s [uQ] feature, and providing a variable for the *wh*-remnant to bind. I hypothesize that the relation is also sensitive to morphosyntactic features, so that the goal and the *wh*-remnant must be identical with respect to, e.g., syntactic category and morphological case, to account for the morphosyntactic connectivity effects noted in Section 2.

4.4. Deriving sluices

With the necessary machinery now in place, let us consider in detail the derivation of a sluice (17), the final stage of which is depicted in (18).

(18)

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                    CP
                   /  \
           what [+Q]   C'
                      /  \
                    C⁰    TP
                   [Q]   /  \
                       Pat   T'
                            /  \
                        [past]  vP
                               /  \
                             Pat   v'
                                  /  \
                                ate   VP
                                     /  \
                                   eat   something [-Q] / ∅[-Q]
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First, the antecedent clause is built, and Spelled Out, once C is merged. The antecedent clause now contains only LF information. Second, from a separate subnumeration (which contains only C^0 and the material needed for the *wh*-remnant), C^0 is introduced into a separate derivational workspace. Third, sideward movement of the antecedent TP obtains, to satisfy C^0's selectional feature. The *wh*-remnant Merges with C^0. Fourth, C^0 Agrees with both the correlate and the *wh*-remnant, checking its Q feature.

By hypothesis, if there is any sort of mismatch between the correlate and the *wh*-remnant – e.g., syntactic category or morphological case – Agree fails, and the derivation crashes.

5. An empirical gain for LF Copying

With the outline of a Minimalist LF Copying analysis in place, I now turn to an empirical gain for LF Copying. Merchant (2001) noted a correlation, which he dubbed the Preposition Stranding Generalization (henceforth, the PSG), between preposition stranding in non-elliptical *wh*-questions and preposition omission from sluices (19).

(19) A language will allow prepositions to be deleted [from *wh*-remnants] under sluicing if and only if it also allows preposition stranding under 'regular' *wh*-movement.

English, for example, allows both (20), while Greek, for example, permits neither (21).

(20) a. **Who** did Pat speak **to**?
  b. Pat spoke **to** someone, but I don't know who.

(21) a. ***Pjon**   miluse   i   Anna   **me**?
    who   was.talking   the   Anna   with
    'Who was Anna talking with?'   (Merchant 2000: 49, ex. 24a)

  b. I   Anna   miluse   me   kapjon   ala δen   ksero   ***(me)   pjon**.
    the   Anna   was.talking   with   someone   but not   know.1SG   **(with) who**
    'Anna was talking with someone, but I don't know who.'   (Merchant 2000: 50, ex. 26)

The PSG, inasmuch as it captures a morphosyntactic connectivity effect, has been taken to be solid empirical evidence for PF Deletion; under this analysis of sluicing, the preposition is pied-piped along with the *wh*-phrase in the same manner as it is in non-elliptical *wh*-questions. Given that island violations in general can be 'repaired' under ellipsis, it is puzzling that PP island violations are not repaired under ellipsis.[7] To address this, it is assumed that, in languages like Greek, the islandhood of PP is unique; it's not (merely) a property of PF representations (Merchant 2001, Abels 2003).

The PSG is not, however, universal. Indonesian, for example, prohibits P-stranding in non-elliptical *wh*-questions, yet allows preposition deletion from *wh*-remnants (Fortin 2007). Both the prepositionless (22b) and prepositionful (22c) variants of a sluice are consistently judged equally, and fully, acceptable. Indonesian and its ilk pose an empirical puzzle for PF Deletion, which predicts that there will be no differential behavior between *wh*-phrases in non-elliptical questions and *wh*-remnants.

(22) a. ***Siapa** (yang)   Ali   sedang   berbicara   **dengan**?
    who   (COMP)   Ali   PROG   INTR-speak   with
    'Who is Ali speaking with?'

  b. Ali berbicara   dengan seseorang,   tapi   saya   tidak   ingat   **siapa.**
    Ali INTR-speak   with   someone   but   1SG   NEG   remember   who
    'Ali spoke with someone, but I don't remember who.'

  c. Ali berbicara   dengan seseorang,   tapi   saya   tidak   ingat   **dengan siapa.**
    Ali INTR-speak   with   someone   but   1SG   NEG   remember with   who
    'Ali spoke with someone, but I don't remember who.'

Although the PSG is not universal, it does roughly capture the behavior of prepositions in many languages, such as Greek; LF Copying must then be able to accommodate both types of languages. I

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[7] To be fair, an analogous question arises for the LF Copying; stay tuned for a proposed resolution.

suggest that the difference in the two types of languages hinges on whether the percolation of the Q-feature to PP is free (e.g. Chomsky 1973), as in English, or required, as in Greek. I further suggest that Indonesian is an English-type language: the Q-feature has the option of remaining on the DP complement of P or percolating to PP. In the generation of (22b), the Q-feature does not percolate to PP; in the generation of (22c), it does. Agree, as noted above, is restricted by the syntactic category of the *wh*-remnant, meaning that if the [-Q] feature in (22b) had percolated to PP, Agree would fail (and vice versa for (22c)). In languages like Greek, by contrast, the Q feature must percolate to PP; in these languages, the [+/-Q] complement of P never Moves/Agrees independently of P.

The fact that P-stranding is prohibited in non-elliptical *wh*-questions in Indonesian, as illustrated in (22a), seems to initially suggest that Q must percolate to PP in Indonesian, as it does in Greek. However, once we consider the behavior of focusing particles (Merchant 2000) (23), clitic pronouns (Abels 2003), and comparatives (Chomsky 1977, Abels 2003), it is clear that this suggestion is disputable. All three of these appear PP-internally in Indonesian, and, according to standard theorizing, all require (covert) P-stranding movement. PSG-compliant languages, such as Greek and German, on the other hand, regularly prohibit the all of above within PPs (Abels 2003).

(23) Tetapi kisah film ini bukan **tentang hanya** mereka.
but story film this NEG about only them
'But this film's story is not about only them.'

I leave the question of why Q-to-PP percolation is required in the case of overt *wh*-movement in Indonesian for future research.

6. A few (of the) still-open questions about LF Copying
6.1. Contrast sluices

LF Copying – both CLM's original, and the version proposed here – predicts that correlates are always indefinite, a prediction which appears to be falsified by 'contrast sluices' (Merchant 2001) (24).

(24)   <u>Six students</u> came to the party, but I don't know **how many teachers**.

Contrast sluices are, however, ungrammatical in Indonesian (Fortin 2007) (25). This raises the possibility that these are a fundamentally different construction than regular sluices (as van Craenenbroeck 2007 notes). Further exploration of this will be taken up in future research.

(25) *<u>Enam orang pelajar</u> pergi ke pesta, tapi saya tidak tahu **berapa orang guru**.
six CLASS student go to party, but 1SG NEG know how.many CLASS teacher
'Six students went to the party, but I don't know how many teachers.'

6.2. Island sensitivity of 'sprouted' wh-remnants

CLM observe that sluicing in the absence of an explicit correlate is sensitive to islands (26), a contrast which is accounted for in their LF Copying analysis through appeal to the unique mechanism involved in its derivation: although CLM-Merger is insensitive to islands, Sprouting is not.

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(26)a.   Chris is wondering how Alex ate <u>something</u>, but we don't know what.
  b.   * Chris is wondering how Alex ate, but we don't know what.

This contrast is less straightforwardly accounted for under the analysis argued for here, where *wh*-remnants always possess a correlate. I assume (with Merchant 2000) that implicit correlates must take narrow scope, but a more principled explanation of this distinction awaits future research.

7. Conclusion

In this brief paper, I've argued that the PF Deletion approach to sluicing, under which sluices are derived in a manner identical to non-elliptical *wh*-questions, crucially relies on a representational view of islandhood, which is incompatible with a standard Minimalist framework. Although the standard LF Copying approach (CLM 1995) is known to face many difficulties, the need for an improved LF Copying approach is evident. I've proposed that LF Copying can be implemented within Minimalism through the use of externally-motivated operations, such as sideward movement and Agree, only. Additionally, I've argued that where morphosyntactic connectivity effects, such as the PSG, are flouted, LF Copying has an empirical advantage over PF Deletion.

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