

NOTES ON SLUICING AND SWIPING IN (CANADIAN) FRENCH*

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1. Introduction

This paper presents an overview of sluicing and swiping in French, with a special focus on an Ontario variety. Since first being discussed and named by Ross (1969), sluicing has been studied in a wide variety of languages (Merchant and Simpson, 2012; Vicente, 2019), but remains largely understudied in French. The term *sluicing* denotes clausal ellipsis in constituent questions so that only the *wh*-phrase is pronounced, as in the following:

- (1) Jean a vu quelqu'un, mais qui?
Jean has seen someone but who
'Jean saw someone, but who?'

Following standard conventions in the literature (Merchant, 2001; Abels, 2019), we will refer to the sluiced *wh*-phrase as the *remnant* and to the omitted but understood material as the *ellipsis site*; remnant and ellipsis site jointly constitute the *sluice*. The elliptical material is recovered against a salient *antecedent* (the first sentence in (1) above), which may contain an overt 'counterpart' or *correlate* of the remnant (*quelqu'un* in (1)).

A central theoretical question is whether or not the ellipsis site in sluicing constructions contains unpronounced syntactic structure. While most current approaches answer this question affirmatively, Dagnac (2019) has recently suggested that certain properties of sluicing in French suggest that the ellipsis site has little or no abstract internal structure. In this paper, we consider her arguments and show, drawing in part on data from a variety of Canadian French, that such a non-deletion approach is untenable. We suggest ways of handling the seemingly problematic facts in terms of deletion.

2. Background on sluicing

Building on Ross (1969), Merchant (2001) presents extensive arguments that the ellipsis site in sluicing contains regular syntactic structure, which undergoes deletion at PF. He specifically proposes that sluicing is derived by TP-deletion fed by \bar{A} -movement of the *wh*-remnant to the left periphery, as shown below for (1):

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(2) [CP qui_i C_E [TP ~~il a vu t_i~~]]

On Merchant's approach, deletion of TP is licensed by an E(llipsis)-feature on the interrogative C-head; this E-feature further marks its TP-complement as discourse-given, i.e. anaphoric to a salient antecedent (see Merchant 2001 for details).

Whereas the Ross–Merchant analysis posits full-fledged syntactic structure in the ellipsis site that undergoes deletion, an alternative approach (Lobeck, 1995; Chung et al., 1995) assumes that the ellipsis site is a null pro-TP, which is enriched by a process of LF-copying that ‘recycles’ the internal structure of the antecedent. This derivational process is shown below in simplified form for (1), with copied material in boldface:

- (3) Jean a vu quelqu'un, mais qui?
- a. overt syntax:
[CP qui C [TP e]]
 - b. mapping to LF:
[CP qui^x C [TP **Jean a vu quelqu'un**^x]]

The approach requires a *merger* algorithm that effectively leads to the indefinite correlate being treated as a *wh*-trace at LF (as indicated above by co-superscripting); see Chung et al. 1995 for details, and Fortin 2011 for an updated implementation.¹

The main motivation of such LF-copying approaches derives from the observation that sluicing seems to obviate locality violations (Ross, 1969; Chung et al., 1995; Merchant, 2001). For instance, *wh*-movement out of a relative-clause island (4a) apparently becomes felicitous under sluicing (4b) (examples from Merchant, 2001):

- (4) a. *Which Balkan language_i does Abby want to hire someone who speaks t_i?
b. Abby wants to hire someone who speaks a Balkan language, but I can't remember which Balkan language (*Abby wants to hire someone who speaks).

Deletion approaches are forced to treat such island-amelioration effects as either the result of repair (Ross, 1969) or else evasion by means of some non-island-containing paraphrase (Merchant, 2001). By contrast, null-TP analyses straightforwardly predict island-insensitivity, since there is no structure, hence no *wh*-movement internal to the ellipsis site. Despite this apparent advantage, these approaches struggle to capture case-matching between correlate and remnant (Ross, 1969) and interactions of P-stranding and sluicing (more on the latter below); as argued by Merchant (2001, ch. 3), these effects are accounted for straightforwardly on a deletion approach. What is more, it has turned out that general island-insensitivity of sluicing is too strong a prediction, as locality effects can in fact be observed in various kinds of sluicing constructions (Abels, 2019).

¹ We set aside radically non-structural approaches here (e.g. Ginzburg and Sag, 2001; Culicover and Jackendoff, 2005), which we believe to not be viable for reasons discussed in Merchant 2019.

3. Sluicing in (Canadian) French

In this section, we present some basic properties of sluicing in European and Canadian varieties of French, using as an exponent of the latter the variety spoken in the francophone community of Lafontaine, Ontario (Lafontaine French, LFF). Unsurprisingly, French permits sluicing in both root (5a) and embedded clauses (5b); the antecedent may or may not contain an overt correlate of the remnant, giving rise to what Chung et al. (1995) dub *merger*-type and *sprouting*-type sluicing, respectively.

- (5) a. A: Je dois parler avec quelqu'un. – B: Avec qui?
 I must talk with someone with who
 A: 'I have to talk with someone.' – B: 'With who?' *merger, root*
- b. Paul a reconnu quelqu'un mais j'ai oublié *qui*.
 Paul has recognized someone but I have forgotten who
 'Paul recognized someone but I forget who.' *merger, embedded*
- c. Elle a rencontré Paul hier, mais j'ai oublié *où*.
 she has met Paul yesterday but I have forgotten where
 'She met Paul yesterday, but I forget where.' *sprouting*

In *contrast sluicing*, the correlate is definite and contrasts in some way with the remnant:

- (6) Elle a cinq chats, mais je ne sais pas combien de chiens.
 she has five cats but I NEG know not how many of dogs
 'She has five cats, but I don't know how many dogs.' *contrast sluicing*

Finally, in *multiple sluicing*, more than one *wh*-remnant survives ellipsis:

- (7) Elle a acheté quelque chose, mais je ne sais pas quoi pour qui.
 she has bought something but I NEG know not what for who
 'She bought something, but I don't know what for whom.' *multiple sluicing*

In addition to these familiar sluicing constructions², there are a number of less straightforward instances of sluicing in European French and LFF, which Dagnac (2019) argues are problematic for a Ross–Merchant-style deletion analysis.

The first such case is that of (what Dagnac calls) *bare sluices*. Merchant (2001) shows that languages that permit P-stranding under regular *wh*-movement permit DP-remnants in sluicing when the correlate is a PP; by contrast, languages that do not generally permit P-stranding will require a PP correlate in the antecedent to be matched by a PP (rather than DP) remnant in the sluice. Merchant takes this P-stranding Generalization to be explained by a movement-*cum*-deletion analysis, since general constraints on *wh*-fronting in a given language should apply regardless of whether or not TP is deleted post-syntactically. Dagnac (2019, 792f.) notes that European French appears to be an exception

²Related constructions, such as stripping with *wh*-remnants (Yoshida et al., 2015) and non-*wh* fragments (Merchant, 2004), which are likewise available in LFF, will not be considered here for reasons of space.

to the P-stranding Generalization, since it does not permit P-stranding in general, yet does permit PP correlates to be matched by a ‘bare’ (DP) sluicing remnant:

- (8) a. *Je dois parler à quelqu’un, mais qui je dois parler à?
 I must talk to someone but who I must talk to
 ‘I have to talk to someone, but who do I have to talk to?’
 b. Je dois parler à quelqu’un, mais qui?
 I must talk to someone but who
 ‘I must talk to someone, but who?’ (European French)

She concludes that (8b) cannot be derived from (8a) via deletion of TP.

This problem does not fully extend to LFF and other varieties of Canadian French with productive P-stranding (King and Roberge, 1990; Roberge and Rosen, 1999; Ott and Therrien, in press), where consequently (8a) is available as a sluicing source. However, the correlation between the availability of a sluice and P-stranding in the non-elliptical case is still not perfect even in these varieties. Some prepositions, such as *pendant* and *durant* ‘during,’ resist stranding but can be dropped from the remnant in sluicing:

- (9) a. L’assassinat a eu lieu pendant/durant un événement télévisé,
 the.assassination has taken place during an event televised
 mais lequel?
 but which.one
 ‘The assassination happened during a televised event, but which one?’
 b. *Quel événement télévisé l’assassinat a-t-il eu lieu
 which event televised the.assassination has.it taken place
 pendant/durant?
 during
 ‘During which televised event did the assassination take place?’ (LFF)

The problem of bare sluices thus remains, albeit in weaker form, in LFF.

Related to the above, Dagnac (2019) notes that European French, unlike e.g. English, does not permit *swiping*, a subtype of sluicing construction in which the remnant is a PP, and the preposition and its *wh*-complement appear in inverted order:

- (10) *Il a rendez-vous avec quelqu’un, mais j’ai oublié qui avec.
 he has appointment with someone but I-have forgotten who with
 ‘He has an appointment with someone, but I forgot who with.’ (European French)

The absence of swiping in European French is unsurprising, given that it presupposes the availability of P-stranding (Merchant, 2002). By contrast, LFF, where P-stranding is productive, permits swiping with certain *wh*-P combinations (see Ott and Therrien, in press):

- (11) Jean a acheté un cadeau, mais je ne sais pas *qui pour*.
 Jean has bought a gift but I NEG know not who for
 ‘Jean bought a gift, but I don’t know who for.’ (LFF)

The availability of swiping in LFF is the most striking difference between this variety and European French with regard to sluicing. We will see in section 4 that LFF swiping offers a crucial tool to probe the structure of sluicing. For now, we merely note that swiping is another problematic case for the TP-deletion approach: if the entire PP must be extracted from TP prior to deletion, how do the preposition and its *wh*-complement wind up inverted?

Dagnac (2019) notes a further class of sluices in French that appear to defy an approach that requires deletion to be fed by movement. While *wh*-fronting in European French and LFF alike is generally optional, certain *wh*-phrases robustly resist fronting, yet can appear in sluicing. One case in point is tonic *quoi* ‘what,’ which only appears *in situ*, whereas its clitic counterpart *que* appears in *ex situ* questions:³

- (12) a. Que/*Quoi faut-il faire?
 what must-it do
 b. Il faut faire quoi/*que?
 it must do what
 ‘What must be done?’

As observed by Dagnac, *quoi* but not *que* can be a sluicing remnant:

- (13) Il faut faire quelque chose. Mais quoi/*que?
 it must do something but what
 ‘Something must be done. But what?’

This constellation of facts—which is exactly analogous in LFF—is *prima facie* unexpected on a TP-deletion analysis, on which only *ex situ* questions can be the input to deletion.

Equally unexpected from the point of view of a TP-deletion analysis, emphatic *wh+ça* phrases are generally immobile, yet—like *quoi*—can be sluicing remnants:

- (14) a. *Qui ça as-tu vu?
 who that have-you seen
 ‘Who did you see?’
 b. A: J’ai parlé à un journaliste. – B: Qui ça?
 I.have talked to a journalist who that
 A: ‘I talked to a journalist.’ – B: ‘Which one?’

Dagnac notes that such *wh+ça* sluices resemble the *spading* construction in dialectal Dutch, discussed in van Craenenbroeck 2004, 2010, where a *wh*-remnant is likewise followed by what van Craenenbroeck analyzes as a demonstrative pronoun:

- (15) Jef eid iemand gezien, mo ik weet nie wou da.
 Jeff has someone seen but I know not who that
 ‘Jeff saw someone, but I don’t know who.’ (Wambeek Dutch)

³See Bouchard and Hirschbühler 1987 for general discussion.

Van Craenenbroeck notes a number of similarities and differences between French and Dutch spading, and it remains unclear to what extent the two constructions should receive the same treatment (see his work for details). Furthermore, we note that the immobility of *wh+ça*-phrases appears to be somewhat less categorical for LFF than reported by Dagnac for European French, although we suspect that there is a preference for them to occur *in situ* in this variety, too. The matter requires further empirical investigation.⁴

4. Theoretical considerations

Dagnac (2019, 792) notes that bare sluices, *quoi*-sluices, and spading “all share one property: no grammatical full question exists where what corresponds to the remnant would be fronted, which appears to challenge analyses of sluicing relying on the deletion of a TP-constituent after *wh*-movement of the remnant.” In what follows, we will consider the following potential responses to this challenge:

1. Ellipsis sites in French sluicing do not contain syntactic structure, but are null anaphors.
2. French sluices (can) derive from sources that are non-isomorphic to the antecedent, such as copula clauses or clefts.
3. French sluicing involves *exceptional movement* of otherwise immobile *wh*-phrases that is licensed only under ellipsis.
4. French sluices can derive from *wh-in situ* constructions, i.e. sluicing need not be fed by *wh*-movement.

Option 1 is the solution advocated by Dagnac, who suggests that “[n]on-deletion approaches [à la Chung et al. 1995] account straightforwardly for most of [the problematic] cases” of French sluicing, in that such approaches sidestep entirely the problem of having to postulate an otherwise illicit source for these sluices (since there is no structure in the first place). Bare sluices in European French, for instance, would not involve any otherwise illicit P-stranding, but simply base-generation of the bare *wh*-phrase in CP. With regard to *quoi* sluices as in (13), Dagnac argues that these are likewise handled straightforwardly by a null-proform approach, which deprives the *wh*-remnant of a verbal host to cliticize onto, resulting in selection of the strong form. While this is one possible explanation, it appears that a deletion approach can handle this fact equally well, given that remnants of ellipsis are focal and stressed: this alone accounts for the choice of the tonic form over the weak/clitic one (compare the obligatory choice of strong pronouns in fragment answers).

We already mentioned above that non-deletion approaches are inherently ill-equipped to deal with the fact that, in languages with morphological case-marking, there is a robust requirement for the sluicing remnant to match its correlate in case.⁵ As already pointed out

⁴A third case of immobile sluicing remnants discussed by Dagnac is that of degree APs (such as *comment beau* ‘how handsome’), which resist fronting but can appear as swiping remnants. Since the immobility of these elements does not seem to extend to LFF, we set this case aside here.

⁵For extensive discussion of this “stubborn case-matching requirement” and relevant data, see Barros 2014.

by Ross (1969), it is unclear how this basic fact can be accommodated in the absence of an analogous case-assigner in the ellipsis site.⁶ A related problem is that null-TP approaches do not naturally account for connectivity effects in sluicing that show that the remnant is (partially) interpreted in its base position, simply because on these approaches no such base position exists in the ellipsis site.⁷ For instance, remnants can contain reflexives that must be interpreted low in the structure for Condition A to be satisfied (elided material is enclosed in angled brackets for ease of readability):⁸

- (16) Le comité_i a publié des articles sur lui-même_i, mais je ne sais
 the committee has published some articles about itself but I NEG know
pas combien d'articles sur lui-même_i < qu'il_i a publié t >.
 not how.many of.articles about itself that.it has published
 'The committee published some articles about itself, but I don't know how many
 articles about itself.'
- (17) Cette auberge_i a ses propres_i chambres spacieuses, mais je ne sais pas
 this hotel has its own rooms spacious, but I NEG know not
combien de ses propres_i chambres spacieuses < qu'elle_i a t >.
 how.many of its own rooms spacious that.it has
 'This hotel has its own spacious rooms, but I don't know how many of its own
 spacious rooms.'

Similarly, pronouns contained in the *wh*-remnant can be interpreted in the scope of a quantifier that c-commands the remnant's base position (cf. Lasnik, 2001):

- (18) Chaque linguiste_i aime certains de ses_i travaux, mais je ne sais pas *combien*
 every linguist likes some of his work, but I NEG know not how.much
de ses_i travaux < que chaque linguiste_i aime t >.
 of his work that every linguist likes
 'Every linguist likes some of his work, but I don't know how much of his own
 work.'

While null-TP approaches can be supplemented with stipulations to capture reconstruction effects such as those above, LF-copying in and of itself does not give rise to a movement dependency that would naturally support reconstruction; by contrast, a deletion approach automatically yields the required structures (cf. van Craenenbroeck and Merchant, 2013).

⁶This point does not directly apply to French; one could thus argue that French uses a null-proform in sluicing whereas other languages use deletion. Such a suggestion strikes us as not only theoretically inelegant, but also as hopelessly implausible, if only because it is inconceivable that the learner could decide on one of these radically different strategies on the basis of what little evidence is in fact available to them.

⁷Recall from (3) above that after LF-copying, what occupies the 'base position' of the *wh*-phrase is the indefinite correlate; since there is no identity between *wh*-phrase and this indefinite, reconstruction effects are not predicted to occur.

⁸The inanimate reflexives *lui-même* and *son propre* do not permit logophoric construals; see Sportiche 2013.

The same holds for locality effects in sluicing. Relying on English data, Chung et al. (1995) already noted that the island-insensitivity of merger-type sluicing discovered by Ross (1969) does not extend to the sprouting type (with no overt correlate; recall (5)). This contrast holds analogously in French, as illustrated in (19): the expected violation of the relative clause island obtains only when the remnant is sprouted.

- (19) a. Elle a vu un dragon qui mangeait quelqu'un, mais qui?
 she has seen a dragon that was.eating someone but who
 'She saw a dragon that was eating someone, but who?' *merger*
- b. ??Elle pensait avoir connu un homme qui parlait, mais à qui?
 she thought had known a man who was.talking but to who
 'She thought she had known a man who was talking, but to who?' *sprouting*

In response to this observation, Chung et al. (1995) introduce certain provisions into their analysis that allow them to treat sprouting as a kind of movement construction in the absence of any actual movement, but the approach remains highly stipulative. It also does not extend to cases where merger-type sluices show sensitivity to islands, as has been found for contrast sluicing and multiple sluicing (Merchant, 2001). This is true for French as well:

- (20) a. *Elle pensait connaître un homme qui parlait à quelqu'un, mais qui
 she thought knew a man that was.talking to someone, but who
 d'autre?
 of.else
 'She thought she knew a man who was talking to someone, but who else?'
- b. *Chaque linguiste sera insulté si nous attribuons le prix à un
 each linguist will.be insulted if we award the prize to a
 philosophe particulier, mais je ne me souviens pas quel linguiste
 philosopher particular but I NEG myself remember not which linguist
 à quel philosophe.
 to which philosopher
 '*Each linguist will get offended if we award the prize to a particular philoso-
 pher, but I can't remember which linguist to which philosopher.'

We take the above facts to conclusively show that the ellipsis site in French sluices is not a null TP-anaphor, but contains full clausal structure deleted at PF. We conclude that Option 1 is not viable; this leaves Options 2—4, which are compatible with a deletion analysis.

Option 2 has been advocated by a number of works on sluicing in *wh-in situ* and other languages (e.g. Rodrigues et al., 2009; Adams and Tomioka, 2012). Approaches of this kind assume that the ellipsis site in a sluice need not be isomorphic to the antecedent, but can contain a 'short' paraphrase, typically assumed to be a cleft or simple copular clause.⁹ Rodrigues et al. (2009) argue that Brazilian Portuguese appears to violate the P-stranding

⁹See Vicente 2019 for a survey and Abels 2019 for discussion of the "too-many paraphrases problem" engendered by this hypothesis.

Generalization precisely because it permits such short cleft sources, so that the remnant is in fact a cleft pivot; since such pivots can appear ‘bare’ in the language, cleft sluicing gives rise to the illusion of exceptional P-stranding (see their paper for details). However, Dagnac shows that such a solution is not available for bare sluices in European French, since an interrogative cleft corresponding to (21a) requires pied-piping of the preposition, as shown in (21b) vs. (21c):¹⁰

- (21) a. Paul a parlé avec quelqu’un, mais qui?
 Paul has talked with someone but who
 b. *... mais qui c’est avec qui il a parlé?
 but who it.is with who he has talked
 ‘... but who is it he talked to?’
 c. ... mais avec qui c’est qu’il a parlé?
 but with who it.is that.he has talked
 ‘... but who is it he talked to?’

For the same reason, the bare remnant in LFF (21a) could not be parsed as a cleft pivot, since cleft formation would again require pied-piping. Dagnac additionally shows that a short cleft such as (22) is not semantically equivalent to the sluice in (21a), in that it presupposes knowledge of the identity of the person in question on the speaker’s part.

- (22) ... mais (qui) c’est (qui)?
 but who it.is
 ‘... but who is it?’

Finally, drawing on observations in Merchant 2001 for English sluicing, Dagnac (2019) notes that *else*-modification, which is infelicitous with cleft pivots, is natural in sluicing:

- (23) A: On peut le remplir avec de l’eau, de l’huile... – B: Et quoi d’autre?
 one can it fill with of the.water of the.oil and what else
 A: ‘One can fill it with water, with oil...’ – B: ‘And what else?’

Both observations hold equally in LFF.

With regard to immobile *wh*-phrases that can be sluicing remnants, Dagnac (2019) notes that these elements resist being clefted. Cleft or copular sources thus provide no remedy to the problems of bare sluices and immobile remnants, and French sluicing cannot generally be assumed to be sluicing over cleft sources. Thus, we can discard Option 2.¹¹

Option 3—the availability of exceptional movement—has been exploited in a number of works in an attempt to reconcile the existence of immobile remnants with the analysis of clausal ellipsis, including sluicing, as TP-deletion (e.g. Toosarvandani, 2008; Manetta,

¹⁰Dagnac further notes that more elaborate specificational constructions (which would allow the pivot to remain bare) would be difficult to reconcile with a suitably strict identity condition for sluicing.

¹¹Strictly speaking, we can only conclude that French sluicing does not *generally* derive from cleft/copular sources, not that these are never possible.

2013). Option 4 entails that sluicing is not TP-deletion but deletion of a non-constituent sparing foci and other non-given material (Bruening, 2015; Ott and Struckmeier, 2018). These two options are in direct competition with one another, as both offer ways of dealing with immobile categories that can be sluicing remnants while maintaining a PF-deletion analysis of sluicing. To illustrate, consider the case of *quoi* sluices (13). If we adopted Option 3, such sluices would be analyzed as involving movement of *quoi* to the left periphery, followed by deletion (24a); if, on the other hand, we adopted Option 4, no such movement would be taking place (24b) (*mutatis mutandis* for *wh+ça* sluices as in (14b)).

- (24) a. ... mais [*quoi*_i ~~faut-il faire~~ *t*_i]?
 b. ... mais [~~il faut faire~~ *quoi*]?

Movement of *quoi* in (24a) is exceptional in that it is not licensed in the absence of ellipsis. Such exceptional movement is not only conceptually dubious (van Craenenbroeck and Merchant, 2013, 721), but also hard if not impossible to constrain appropriately (Ott and Struckmeier, 2018). On the other hand, the approach exemplified in (24b) jettisons the widely-held assumption that clausal ellipsis is deletion of a single syntactic constituent (such as TP). While the impossibility of such “non-constituent deletion” is often rejected without any argument, there is no clear independent motivation for this assumption,¹² and a minority of proposals have assumed or argued for the existence of *in situ* remnants of deletion (e.g. Bruening, 2015; Ott and Struckmeier, 2018; Griffiths, 2019).

The issue of restrictiveness arises in a particularly severe form if we postulate exceptional movement as a means to resolve the issue of bare sluices. The required assumption that exceptional movement not only lifts immobile categories out of TP but can even derive P-stranding configurations in a non-P-stranding language jeopardizes any existing attempt at deriving the P-stranding Generalization, since exceptional P-stranding would need to be restricted to European French (and other languages permitting unexpected bare sluices), so as not to extend to non-P-stranding languages generally. It is unlikely that such a distinction could be made on principled grounds (but see Leung 2014 for a relevant proposal). No such problems arise if we instead take the remnants in bare sluices to be *in situ*, and their prepositions to be deleted along with the clausal structure, an option not available in *wh-ex situ*, non-P-stranding languages. We believe that this general idea could be fruitfully related to Griffiths’s (2019) derivation of the P-stranding generalization from non-movement-related factors, but we are forced to leave the details to another occasion.

In order to decide which of Options 3 and 4 is more likely to be correct, we need to find cases that clearly establish the existence of either exceptional movement or *in situ* remnants. The availability of swiping in LFF turns out to furnish a tool that allows us to distinguish the two approaches empirically. Recall that LFF, unlike European French, permits swiping; (11) is repeated below:

¹²A theory-internal motivation is the assumption of an ellipsis licensing (E-)feature, but this approach to licensing has been criticized on independent grounds (Ott and Struckmeier, 2018).

- (25) Jean a acheté un cadeau, mais je ne sais pas qui pour.
 Jean has bought a gift but I NEG know not who for
 ‘Jean bought a gift, but I don’t know who for.’

Swiping represents a vexing problem for TP-deletion approaches, since it is unclear how the observed head–complement inversion can be achieved while simultaneously evacuating both *wh*-complement and P-head from TP. To achieve the desired outcome, most existing proposals assume that extraction of PP is followed by some exceptional inversion mechanism that raises the *wh*-complement to either its selecting preposition (Merchant, 2002) or some higher phrasal position (e.g. Hartman and Ai, 2009; van Craenenbroeck, 2010):¹³

- (26) a. [CP [PP pour qui]_i [TP il a acheté un cadeau t_i]] → inversion
 b. [CP qui_k [PP pour t_k]_i [TP il a acheté un cadeau t_i]]

Note that (26b) constitutes an instance of exceptional P-stranding licensed (in some way) by ellipsis, since prepositions cannot generally be stranded in the clausal periphery (Postal, 1972). With this in mind, we return to *quoi* and its behavior in swiping.

Although generally immobile in European French and LFF when appearing on its own (recall (12)), *quoi* can be fronted as part of a PP:

- (27) a. L’homme a été tué avec quoi/*que?
 the.man has been killed with what
 ‘What was the man killed with?’
 b. Avec quoi/*que a-t-il été tué?
 with what has-T-he been killed
 ‘With what was he killed?’
 c. *Quoi a-t-il été tué avec?

As shown above, only strong *quoi* but not clitic *que* can appear in this context, including under sluicing:

- (28) A: Il parlait. – B: De quoi/*que?
 he talked about what
 A: ‘He talked.’ – B: ‘What about?’

Outside of sluicing, *quoi* can never invert with its preposition, whether *in situ* or *ex situ*:

- (29) a. *Quoi de parlait-il?
 what about talked-he
 ‘What did he talk about?’
 b. *Il parlait quoi de?
 he talked what about
 ‘What did he talk about?’

¹³For a more detailed review of the existing approaches, see Ott and Therrien in press.

Since a PP containing *quoi* can be moved out of TP, there is no reason why the exceptional inversion mechanism illustrated in (26b), whatever its precise implementation, should not optionally apply to this PP. The TP-deletion analysis of swiping thus predicts there to be felicitous ‘swiped’ sluicing variants of (27b) and (28), but this prediction is not borne out:

- (30) a. A: Il parlait. – B: *Quoi de?
 he talked. what about
 A: ‘He talked.’ – B: ‘What about?’
 b. *Il a été tué, mais quoi par?
 he has been killed but what by
 ‘He was killed, but by what?’

By contrast, an analysis permitting *in situ* sluicing remnants can simply assume that swiping is the result of P-stranding and non-constituent ellipsis, as shown below for (25):¹⁴

- (31) [CP qui_i a-t-il acheté un cadeau [PP pour t_i]]

Unlike TP-deletion approaches that necessarily rely on some exceptional mechanism for P-complement inversion, this approach ties the availability of swiping directly to the availability of (genuine) P-stranding. This means, in turn, that we correctly predict *quoi* to never appear in swiping, simply because it cannot strand its associated preposition in general:

- (32) a. *Quoi a-t-il parlé de?
 b. *[CP quoi_i a-t-il parlé [PP de t_i]]

Thus, while the mobility of PP-embedded *quoi* leads TP-deletion approaches to expect it to appear in swiping, the fact that it does not strongly suggests that swiping is the result of P-stranding and non-constituent ellipsis, showing that TP-internal *in situ* remnants are possible under sluicing (as argued in Ott and Struckmeier 2018 on independent grounds).

If prepositions can remain *in situ* under sluicing, there is no reason to assume that other categories could not, provided they are focused or excluded from the discourse-given clausal background in some other way. As indicated above, this may open the door to a principled treatment of bare sluices, provided that prepositions can delete when their associated *wh*-phrase remains *in situ* but not when it moves (as in German, Basque, etc.).

Once *in situ* sluicing remnants are permitted, the problem seemingly posed by *quoi* sluices, *wh+ça* sluices, and other instances of immobile remnants disappears, in that these can simply be taken to be derived by sluicing over *in situ* questions, as illustrated in (24b) above for a *quoi* sluice. Unlike what is suggested by Dagnac (2019), these cases are problematic under the specific assumptions of a Ross–Merchant-style TP-deletion approach, but are perfectly compatible with a deletion approach that does not require deletion to target only TP. We can thus retain all advantages of the PF-deletion approach to sluicing and

¹⁴Such an analysis of swiping was hinted at in Ross 1969 and is explicitly proposed in Ott and Therrien in press. See the latter paper for an additional empirical argument for this treatment of swiping.

assume there to be full clausal structure in the ellipsis site in French sluicing.¹⁵

We end by noting that at least one potential stumbling block remains for Option 4. In French, *wh*-movement is obligatory in embedded interrogatives (Cheng and Rooryck, 2000);¹⁶ consequently, immobile *wh*-phrases such as *quoi* or *qui ça* cannot appear in such contexts. Nevertheless, as observed in Dagnac 2019, these immobile *wh*-phrases *can* appear as remnants of embedded sluicing.¹⁷

- (33) a. *Il faut faire qqc, mais je ne sais pas (quoi) il faut faire (quoi).
 it must do something but I NEG know not what it must do
 ‘We must do something, but I don’t know what we must do.’
- b. Il faut faire quelque chose, mais je ne sais pas quoi.
 it must do something but I NEG know not what
 ‘We must do something, but I don’t know what.’
- (34) a. *Je me demande (qui ça) tu as vu (qui ça).
 I REFL ask who that you have seen
 ‘I wonder who you saw.’
- b. Tu as vu quelqu’un, et je me demande qui ça.
 you have seen someone and I REFL ask who that
 ‘You saw someone, and I wonder who.’

Such cases could be taken to show that exceptional movement is available under sluicing when movement is required by independent factors, hence perhaps more generally by the need to evacuate remnants from the TP to be deleted. Note, however, that the case of *quoi* in embedded sluices does not furnish a strong argument in this direction if the *quel/quoi* alternation reduces to stress-conditioned allomorphy (as suggested above); but the case of embedded *wh+ça* sluices remains as a problem.

There are two possible solutions we can see that eschew the postulation of exceptional movement in such cases. One is to argue, along the lines of Kimura (2010), that the adjacency of selecting verb and *wh*-phrase brought about by deletion of the ‘in-between material’ obviates the need for syntactic *wh*-movement. A second possible solution is to assume that cases such as (34b) do not involve true embedding, but rather force a paratactic construal (*Je me demande: qui ça?* ‘I wonder: who?’), so that the sluice in (34b) would in fact be a concealed matrix sluice. This second solution makes a variety of predictions (e.g., that the remnant’s intonational profile should be that of a matrix question) that we cannot explore here. We thus leave further exploration of these issues to future research.

¹⁵Furthermore, giving up on the equation of sluicing and TP-deletion creates no obstacles for a theory of identity in sluicing and clausal ellipsis generally; all it entails is that identity cannot be stated over TPs. See Griffiths 2019 for one recent approach that explicitly countenances non-constituent deletion.

¹⁶While this is the general consensus in the literature, some authors (e.g., Starke, 2001; Adli, 2006) argue that *wh-in situ* is in fact available in embedded questions in colloquial French.

¹⁷Licit variants of (33a) and (34a) would be obtained by replacing the *ex situ wh*-phrases with *ce que* ‘that what’ and *qui* ‘who,’ respectively.

5. Conclusions

In this short paper, we have outlined some basic facts about sluicing and swiping in French. We concluded, with Dagnac (2019), that these cases pose significant challenges for TP-deletion analyses of sluicing, and, against Dagnac, that a non-deletion approach to French sluicing is untenable. The overall most promising approach appears to be a deletion analysis that permits *in situ* remnants, the details of which remain to be worked out.

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