Deep properties of a surface anaphor: on the contextual restriction of sluicing sites

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Abstract

We argue that three apparently disparate aspects of sluicing (i.e., the possibility of taking split antecedents, the possibility of taking *else*-modified antecedents, and inheritance of content effects) can be given a unified analysis if sluicing sites are uniformly treated as contextually restricted definite descriptions. We implement this analysis with a straightforward extension of the machinery developed in Elbourne (2008), which requires embedding ellipsis sites under a series of functional heads that provide the adequate contextual restriction.

1 Introduction

In its strongest form, the deletion analysis of sluicing (Ross 1969, Merchant 2001) posits that a sluice and the corresponding unsluiced question have exactly the same syntax. By extension, this also means that sluices and unsluiced questions also have the same compositional semantics. In this paper, we discuss a number of configurations that suggest that the latter conclusion is incorrect. Specifically, a successful analysis of these configurations requires assuming that the semantics of sluicing sites is contextually restricted in a way that the semantics of the corresponding unsluiced questions is not. The idea that ellipsis sites are semantically more complex than the corresponding unelided constituents is not new: Elbourne (2008) already makes the same claim for VP and NP ellipsis in order to account for a number of examples involving multiple antecedents. For illustration, we provide two of his examples, along with their observed readings.

(1) Whenever Max is using the fax or Oscar is using the Xerox, I can't.
     [= if Max is using the fax, I can't use the fax, and if Oscar is using the Xerox, I can't use the Xerox (originally from Fiengo and May 1994)]

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(2) John needs a hammer. Mary needs a mallet. They are going to borrow Bill's.
     [= John is going to borrow Bill's hammer and Mary is going to borrow Bill's mallet]

The interest of these examples lies on the fact that the ellipsis site cannot be modelled as containing a disjunction or conjunction parallel to the one we find in the antecedent, as that would predict certain incorrect meanings to arise. For example, the following parse of (1) predicts a reading where, if Max is using the fax, I can use neither the fax nor the Xerox (as customary in the literature, elided material appears striked out). In reality, the only available reading of (1) is the one where I can't use the fax only when Max is using it, and I can't use the Xerox only when Oscar is using it.

(3) Whenever Max is using the fax or Oscar is using the Xerox, I can't [~~use the fax or use the Xerox~~].

Elbourne proposes to account for these examples by contextually restricting VP and NP ellipsis sites in a way that we will discuss in more detail in section 2 below. This allows (1) to receive a meaning paraphraseable as "I can't use whichever device (out of the printer and the Xerox) is being used". Similarly, contextual restriction allows (2) to receive a meaning paraphraseable as "they are going to borrow the relevant tool (out of a hammer and a mallet) from Bill".

As (4) shows, sluicing allows for comparable examples (Elbourne 2008 already acknowledges this possibility in his footnote 18, but he doesn't pursue the issue any further). In the same way as above, the parse (5) of (4) incorrectly predicts the availability of a reading where, if Jack wants to interview an athlete, the editor might ask either which athlete he wants to interview or which politician Sally wants to profile. In reality, and as already indicated in (4), the only available reading of this example is one where, if Jack wants to interview an athlete, the editor only asks which athlete he wants to interview, and if Sally wants to profile a politician, the editor only asks which politician she wants to profile. We will show in section 3 below that Elbourne's analysis of VP and NP ellipsis can be extended to (4): if we require sluicing sites to be contextually restricted, then the sluice in (4) can be paraphrased as "the editor asks who the relevant person is".

(4) Whenever Jack wants to interview an athlete or Sally wants to profile a politician, the editor asks which.
     [= if Jack wants to interview an athlete, the editor asks which athlete he wants to interview, and if Sally wants to profile a politician, the editor asks which politician she wants to profile]

(5) Whenever Jack wants to interview an athlete or Sally wants to profile a politician, the editor asks which [~~Jack wants to interview or Sally wants to profile~~].

The idea that ellipsis sites are necessarily contextually restricted can in principle be implemented in various ways. Here we choose to extend the implementation developed by Elbourne, which relies on embedding ellipsis sites under the functional heads R, THE, and

AND. We provide no sluicing-internal empirical motivation for the actual existence of these heads, the reason being that our primary interest here lies on establishing that sluicing sites (and ellipsis sites at large) are necessarily contextually restricted. We refer interested readers to, among others Elbourne (2001, 2005), Heim and Kratzer (1998) and von Fintel (1994), who argue at length that the functional heads in question are independently needed in other domains (e.g., the analysis of donkey anaphora). Readers who disagree with our particular implementation are welcome to develop their own.

We begin in section 2 by summarizing Elbourne's (2008) machinery and briefly illustrating how it applies to run-of-the-mill sluices. Section 3 constitutes the core of this paper. We begin in section 3.1 by examining sluices with split antecedents like (4) above, in order to establish a direct link with Elbourne (2008). We then provide further support for this analysis by showing that it allows us to account for two apparently unrelated aspects of sluicing. The first one (section 3.2) involves *else*-modified antecedents, which were first discussed by Barros (2012). Consider first (6a). This example is incongruent, and the source of the incongruence is easy to pinpoint. If I say that I don't know who Jack kissed, I am asserting that I don't know the identity of any of the people that Jack kissed (cf. Romero 1998 and references); but then, given that I have already said Jack kissed Sally (which entails that I know the identity of at least one of the people that Jack kissed), a contradiction arises. Barros' key empirical observation is that sluicing, surprisingly, repairs this incongruence (6b). For ease of reference, we will refer to the asymmetry between (6a) and (6b) as the *Barros effect*.

(6) Jack kissed Sally, and he also kissed someone else...

     a. # ...but I don't know who he kissed.

     b.   ...but I don't know who.

Barros takes the felicity of (6b) as an indication that this sluice doesn't stem from deletion of (6a), but rather from deletion of the cleft-based question (7), which is congruent. The reason why (7) is congruent is that it is possible to write a lexical semantics for it roughly paraphraseable as "the person other than Sally that Jack kissed" (see Barros 2012 and references for details).

(7) Jack kissed Sally, and he also kissed someone else, but I don't know who it is.

Barros' solution, however, lacks generality. As Lipták (2013) and Saab (in press) have shown, paradigms analogous to (6) can be constructed in environments where a cleft source like (7) is not available, simply because the sluicing remnant is not a licit cleft pivot. Consider Saab's paradigm for Spanish, which involves objects bearing the differential case marker *a* (which we gloss DOM). Examples (8a) and (8b) are analogous to (6a) and (6b) and need no additional comment. The interesting example here is (8c), which shows that differentially case-marked objects are not licit cleft pivots. This suggests that (8b) cannot stem from deletion of an underlying cleft, like Barros suggests for (6b). Rather, we will argue that it stems from deletion of the non-cleft interrogative (8a), with sluicing (specifically, its associated contextual restrictor) offering a means to repair the observed incongruence.

(8) Juan besó a María, y también besó a alguien más…
Juan kissed DOM María and also kissed DOM someone else

    a. # … pero no sé a quién besó.
          but not know.1SG DOM who kissed

    b. … pero no sé a quién.
          but not know.1SG DOM who

    c. * … pero no sé a quién es.
          but not know.1SG DOM who is

Subsuming (8b) and comparable examples under our analysis of split-antecedent sluices is straightforward. Barros (2012) already points out that, in order for the pronoun in the cleft in (7) to have the meaning it does, it has to be contextually restricted. Once we accept that the congruence of (6b) is due to contextual restriction, it is easy to account for (8b) by dissociating contextual restriction from the presence of an underlying cleft. As with (4), we accomplish this much by embedding the sluicing site under Elbourne's set of functional heads. This effectively gives us a cleft-like meaning without having to resort to an actual cleft.

    The third, and final configuration we discuss (section 3.3) involves the phenomenon usually referred to as *inheritance of content* —i.e., the fact that the remnants of sluicing inherit the restriction of their correlates in the antecedent clause, even when the corresponding unsluiced wh- phrases don't. As an illustration, compare the following two examples.

(9)   a. Some students left the party early, but Jack didn't see who left the party early.
      b. Some students left the party early, but Jack didn't see who.

A possible reading of (9a) is that Jack didn't see any of the people who left the party early, whether they were students or not. The sluice in (9b), in contrast, lacks this reading. Its only available one is that Jack didn't see any of the students that left early, without any assertion as to whether he saw any of the non-student early-leavers. We will show that examples like (9b) are closely related to the Barros paradigm above. Specifically, the same type of contextual restriction that ensures the acceptability of (8b) also ensures that (9b) is a question exclusively about students.

2 Elbourne's contextual restriction in ellipsis

As mentioned above, Elbourne's analysis of VP and NP ellipsis revolves around the contextual variable R (which takes a *pro* complement) and the functional heads THE and AND. To illustrate how these elements work, let's run through following sluice, the hypothesized tree structure for which we give in (11).

(10) Sally is dating someone, but I don't know who.

(11)
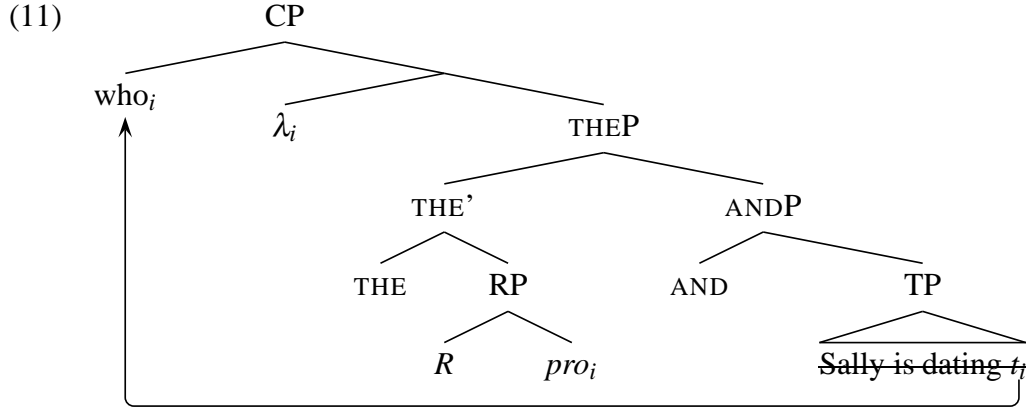
Here we are assuming that Elbourne's set of functional heads (R, THE, and AND) are located outside the sluicing site proper. This choice has various advantages. For one, it liberates us from having to consider the contribution of R, THE, and AND from the calculation of identity. Additionally, there are certain types of ellipsis (e.g., *one*-anaphora in various languages) that display a combination of overt deep anaphoric elements and surface anaphoric properties (e.g., extraction out of the ellipsis site). The deep anaphoric elements in these ellipses could arguably be treated as overt realizations of Elbourne's functional heads. To the extent that such an analysis is feasible, it requires that these heads be outside the ellipsis site.

We start with AND^n, for which we adopt the following lexical entry.

(12)　For all $n > 0$, $[\![\text{AND}^n]\!]^g = \lambda f_{1\langle st\rangle} \ldots f_{n\langle st\rangle}.\lambda h_{\langle st\rangle}. \leq_i f_1 \oplus \ldots \oplus f_n$

In prose, AND^n "takes n arguments of type $\langle st\rangle$ and maps them to the characteristic function of the set of $\langle st\rangle$ functions that are part of the plural individual that has all and only the n arguments as atomic parts" (Elbourne 2008:200). Given that AND in (11) takes a single argument, we use AND^1, which gives us the entry in (13). This version of AND maps its single argument to a function that returns the argument in question, and so its contribution is trivial in this particular example (it will become non trivial in the split-antecedent examples we discuss in section 3). Note the change from $\leq$ to $=$, which reflects both the fact that we have a singleton set here, and the intuition that we cannot refer to proper subparts of the unique member of singleton sets.

(13)　$[\![\text{AND}^1]\!]^g = \lambda f_{\langle st\rangle}.\lambda h_{\langle st\rangle}.h = f$

Applied to (11), this entry gives us the following semantics for ANDP, where we represent the trace of wh- movement as an existentially bound variable.[1] Note that ANDP denotes in $\langle st, t\rangle$, which is necessary for later composition with THE.

(14)　$[\![\text{ANDP}]\!]^g = \lambda h_{\langle st\rangle}.h = \exists x_{\langle e\rangle}[\text{date}(x, \text{Sally})]$

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[1]Properly, it should be a variable over choice functions (Hagstrom 1998, Cable 2010), but our goals in this paper do not require this level of analytical depth.

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Moving on up the tree, THE receives the following entry.

(15) $[\![\text{THE}]\!]^g = \lambda F_{\langle stt \rangle}.\lambda G_{\langle stt \rangle}.\sigma f(F(f) = 1 \wedge G(f) = 1)$
where $\sigma x P x := \iota x(*Px \wedge \forall y(*Py \rightarrow y \leq_i x))$

The first argument of THE is its RP sister (properly, R is of type $\langle e \langle st,t \rangle \rangle$, and the type $\langle st,t \rangle$ obtains when it composes with *pro*; more about this in the next paragraph), and its second argument is the set formed by the conjunction of the sets of propositions brought together by AND (in this particular case, just one such set). The meaning of THEP is that, whatever property RP contributes, it holds of all the members of the set outputted by ANDP. Given that, in this particular case, ANDP is a singleton set containing only propositions of the form $\exists x[\text{date}(x, \text{Sally})]$, we mostly need to worry about the contribution of RP. Elbourne models this projection in essentially the same way Heim and Kratzer (1998) do. The complement *pro* is bound by a λ-abstractor somewhere higher in the tree (in the cases we consider in this paper, the λ-abstractor that enables movement of the wh- phrase to SpecCP), and it composes with R, which is a discourse-anaphoric element. Therefore, the meaning of RP is going to be some salient property applied to the set of individuals denoted by *who*. For the sake of exposition, we assume without discussion that dating someone is salient enough to serve as the discourse antecedent of R, but this is an issue that we will come back to in more detail in the following sections. With this assumption in place, the lexical entry of R in (11) is as follows.

(16) $[\![R]\!]^g = \lambda x_e.\lambda f_{\langle st \rangle}.\exists s[f(s) = 1 \ \& \ \text{Theme}(s,x)]$

Putting everything up to this point together, we derive the following semantics for THEP.

(17) $[\![\text{THEP}]\!]^g = \sigma f \left(\exists s \left(\begin{array}{ll} & f(s) = 1 \\ \& & \text{Theme}(s,x) \\ \& & f = \exists x_{\langle e \rangle}[\text{date}(x, \text{Sally})] \end{array} \right) \right)$

In short, we end up with the unique set of propositions of the form $\exists x[\text{date}(x, \text{Sally})]$. The functional material above THEP (i.e., outside the sluicing site) can turn this into a question about the identity of the individual that Sally is dating, which intuitively matches the meaning of the sluice in (10).

3 Contextual restriction in sluicing

3.1 Split antecedents in sluicing

Since the machinery presented in the previous section was created in part to account for VP and NP ellipses with split antecedents, it is natural to begin our extension of this system to sluicing by looking also to split-antecedent cases. For reference, we repeat example (4) here.

(4) Whenever Jack wants to interview an athlete or Sally wants to profile a politician, the editor asks which.

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As already mentioned above, Elbourne (2008:218, fn 18) briefly acknowledeges this option, but does not pursue an analysis. In fact, none of the previous literature on split antecedents in ellipsis attempts to account for split antecedents in sluicing. In this section, we present such an analysis using the machinery introduced in the previous section. We show that not only does our analysis deliver the correct interpretation of such constructions, but also accounts for a number of syntactic connectivity effects found in split antecedent sluicing.

3.1.1 The data and possible explanations

We have already noted above that (4) cannot be analyzed as an ATB extraction out of a disjunction contained in the ellipsis site. The reason is that this approach predicts a reading of (4) different from the one that obtains in reality. This argument generalizes easily to other instances of split-antecedent sluices. Consider the following minimal pair, for example.

(18) a. John joined the army. Peter joined the navy. Neither remembers why.
      b. John joined the army. Peter joined the navy. Neither remembers why John joined the army and Peter joined the navy.

These two examples have a different range readings. To begin with, (18a) is ambiguous between a reading where John's reasons to join the army are different from Peter's reasons to join the navy (the "different reason" reading) and one where both men have the same reason to join their respective branch of the armed forces (the "same reason" reading). Notably, (18b) only has the "same reasons" reading. The question, then, is why sluicing allows the "different reasons" reading. It is tempting to treat split-antecedent sluices as cases of pseudosluicing, where the elided material is a short cleft, on the grounds that clefts also allows the "different reason" reading. This amounts to extending Barros's (2012) analysis of the eponymous effect to split-antecedent sluices.

(19) John joined the army. Peter joined the navy. Neither remembers why it was.

We can try and generalize this analysis so that (4) stems from deletion of (19).

(20) Whenever Jack wants to interview a footballer or Sally wants to profile a politician, the magazine editor asks which it is.

The obvious question now is whether it is plausible to say that all split-antecedent sluices stem from deletion of an underlying cleft. Note that the issue is not whether cleft-based sluicing is licit in the general case (the ellipsis literature has accumulated a substantial amount of evidence in favor of this possibility, see Vicente to appear for an overview and references). The issue is that the distribution of cleft-based sluices is restricted in specific ways (cf. Merchant 2001, Barros 2014, and references), and there are ways to test whether a given sluice stems from a cleft or not. In what follows, we deploy some of these tests on the split antecedent data.

Sprouting   The examples in (21) shows that clefts are not compatible with implicit arguments and modifiers. Despite this, sluicing is still acceptable in such situations (22).

(21) a. * John was eating, but I don't know what it was.

　　 b. * John left, but I don't know why it was.

(22) a. 　John was eating, but I don't know what.

　　 b. 　John left, but I don't know why.

If the source of the sluice for the split antecedent data was a cleft, we would predict it to pattern with (21) and also be unacceptable since sprouted wh-phrases are illicit cleft pivots. This prediction is incorrect. As (23) shows, split-antecedent sluices with sprouted remnants are grammatical.

(23) a. John joined the army and Peter joined the navy, but neither remembers why.

　　 b. Molly was terrified and Ben was petrified, but neither would say what of.

We complete this argument by noting that the cleft counterparts of (23) are, in fact, ungrammatical.

(24) a. * John joined the army and Peter joined the navy, but neither remembers why it is.

　　 b. * Molly was terrified and Ben was petrified, but neither would say of what it is.

***Else*-modification**   As (25) shows, while *else*-modified wh-phrases cannot act as pivots of clefts, they can be remnants of sluicing.

(25) a. 　Harry was there, but I don't know who else.

　　 b. * Harry was there, but I don't know who else it was.

Example (26) shows that remnants of sluicing with split antecedents allow *else*-modification, which we take as an indication that they do not stem from an underlying cleft.

(26) a. 　Peter ate a cheeseburger, and Molly drank a milkshake, but neither would say what else.

　　 b. * Peter ate a cheeseburger, and Molly drank a milkshake, but neither would say what else it was.

Languages without short clefts   One such language is Romanian: as shown in (27), the general unavailability of clefts doesn't preclude sluicing.

(27) a. * E Maria (că) vreau　　 să　　 întîlnescă.
　　　　　 is Maria that want.1SG SUBJ meet.1SG
　　　　　 "It is Maria that I want to meet"

  b. Vera să întîlnescă pe cine-va, dar nu ştiu pe cine.
    want.3SG SUBJ meet.3SG ACC someone but not know.1SG ACC who
    "She wants to meet someone, but I don't know who"

If split antecedent sluicing were derived via the cleft structure we would expect it not to exist in Romanian. As (28) shows, sluicing with split antecedents is possible in Romanian.

(28) Maria a scris cineva şi Ivan a spus lui cineva, dar niciunu nu spune
   Maria has written someone and Ivan has told CL someone but no.one not said
   cui.
   who

Differential object marking Our final test comes from Spanish, where remnants of sluicing with split-antecedents can carry the differential object marker *a*.

(29) Juan besó a alguien. Pedro abrazó a alguien. Pero ninguno de ellos
   Juan kissed DOM someone Pedro hugged DOM someone but none of them
   quiere decir a quién.
   wants say.INF DOM who

This example cannot be a case of pseudosluicing because *a*-marked phrases (including wh-phrases) are not licit cleft pivots.

(30) * ... pero ninguno de ellos quiere decir a quién era.
    but none of them wants say.INF DOM who was

One may wonder if the underlying source is not a short cleft, but rather a full cleft structure. While a full cleft in the underlying form would not be ungrammatical, it is not clear how the silent material would have to be manipulated in order the right meaning to obtain. A clausal coordination plus ATB-extraction would reintroduce the problems already mentioned in connection with such an analysis, given that the meaning of (31) is not equivalent to (29).

(31) ... pero ninguno de ellos quiere decir a quién besó y abrazó.
    but none of them wants say.INF DOM who kissed and hugged

In light of the above discussion, we conclude that sluicing with split antecedents cannot be analyzed as a case of cleft-based sluicing. It exhibits all the same behaviors that are found with regular sluicing. Two plausible explanations for split antecedents have been ruled out. In the next section, we explore what the structure of sluicing with split antecedents is. We show that sluicing with split antecedents show a number of syntactic connectivity effects suggesting that sluicing with split antecedents has the same amount of syntactic structure that is found in sluicing with a single antecedent.

3.1.2 Syntactic connectivity in sluicing with split antecedents

We have shown that split-antecedent sluices cannot be analyzed in terms of an underlying cleft, at least in the general case. Bear in mind, however, that we contemplated a cleft-based analysis largely because a non-cleft-based analysis (i.e., one where the sluice stems from deletion of a non-cleft interrogative) couldn't capture the observed readings of split-antecedent sluices. This much might be seen by some as an indication that we need to appeal to non-structural analysis of ellipsis along the lines of Culicover and Jackendoff (2005) and related literature —i.e., an analysis where the sluicing site is radically empty and the correct reading arises from an indirect syntax-semantics mapping rule. The goal of this section is to show that this particular line of analysis is untenable. Specifically, we show that split-antecedent sluices exhibit a number of connectivity effects that suggest that the sluicing site contains the syntax of a non-cleft wh- question. The issue of deriving the observed readings of these sluices is something that we defer to section 3.1.3 below.

Case connectivity   Ross (1969) notes that the case of the remnant in sluicing must be the same as the case of its correlate. We demonstrate this pattern with German (32).

(32)   Er will   jemandem   schmeicheln, aber sie   wissen nicht { wem   / ∗
       He wants someone.DAT flatter,   but they know   not   who.DAT
       wen   }.
       who.ACC

The verb *schmeicheln* 'to flatter' assigns dative case to its object, and the remnant in sluicing must also bear the dative case. This follows from the PF deletion view of ellipsis because what occurs is regular wh-movement followed by deletion of the IP. Case would be assigned in the same manner that assigns it in regular wh-movement. Although, case marking is very impoverished in English, Merchant (2001:133) notes that the remnant must bear genitive marking if the correlate is also genitive, as in (33). Again this follows if structure is internal to the ellipsis site and assigns genitive to the remnant just as it would in a regular wh-question.

(33)   The police said that finding someone's car took all morning, but I can't remember
       { whose / ∗who }.

The same reasoning explains why the remnant in Bosnian/Serbian/Croatian (BSC) must occur in the instrumental —i.e., because the verb in the antecedent clause assigns instrumental to its object.

(34)   Ivan upravlja fabrikom   ali ne znam   kojom.
       Ivan manages factory.INSTR but not know.1SG.PRES which.INSTR
       "Ivan manages a factory, but I don't know which"

If split-antecedent sluices have the internal syntax of non-cleft wh- questions, similar case connectivity effects are expected to hold. That is precisely what we find in all of German, English, and BSC.

(35) Klaus will jemandem schmeicheln und Thomas will jemandem hilfen,
Klaus wants someone.DAT flatter and Thomas wants someone.DAT help
aber sie haben nicht gesagt { wem / * wen }.
but they have not said who.DAT who.ACC

(36) The police were searching for someone's car and the FBI was searching for some-
one's computer, but neither would divulge { whose / * who }.

(37) Ivan upravlja fabrikom, a Marija upravlja firmom ali nijedno
Ivan manages factory.INSTR and Maria manages company.INSTR but noone
nije reklo kojom.
not.is said which.INSTR
"Ivan managaes a factory and Maria manages a company, but neither said which"

Connectivity effects are not restricted to morphological case. The following examples show that split-antecedent sluices are ungrammatical if the correlates differ in animacy.[2]

(38) * Jack smuggled someone into the country, and Sally legally imported something,
but neither one wants to reveal { who / what }.

Preposition stranding Merchant (2001) notes that whether or not the remnant must occur with preposition in sluicing is dependent on whether or not the language allows P-stranding under regular wh-movement. For example, English allows for P-stranding and also allows for the remnant to occur without a preposition.

(39) a. Who was Bill speaking with?
b. Bill was speaking with someone, but I don't know who.

Greek, on the other hand, does not allow P-stranding under regular wh-movement and the remnant must co-occur with the preposition in sluicing, as shown in (40).[3]

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[2]Potentially, one could test for gender connectivity effects as well. One language that could exhibit such effects is French, which has a contrast between *quel* 'which.MASC' and *quelle* 'which.FEM'. The results are unfortunately inconclusive. A feminine remnant is ungrammatical, as expected, but a masculine one is only mildly degraded. Johan Rooryck (p.c.) suggests that the relative acceptability of *lequel* reflects the status of the French masculine as a default/unmarked gender.

(i) Chaque fois Jean veut interviewer un footballer ou Marie veut photographier une actrice, l'editeur
each time Jean goes interview a footballer o Marie goes photograph an actress the.editor
de la revue demande { * laquelle / ? lequel }.
of the magazine asks which.FEM which.MASC

[3]Some language appear to violate the PSG, in the sense that they allow for P-stranding effects under sluicing despite disallowing P-stranding in unsluiced questions. However, a number of authors (Stjepanović 2008, Rodrigues et al. 2009, van Craenenbroeck 2010, among others) have argued that these violations are only apparent, on the grounds that the P-stranding effect requires a cleft source for the sluice, which doesn't involve P-stranding in the first place. We accept the arguments in these papers and assume that the PSG is an empirically valid constraint.

(40) a. * Pjon milise   me?
          who she.spoke with

      b. I   Anna milise me   kapjon,   alla dhe kseto   *(me) pjon.
          the Anna spoke with someone but not know.1SG   with who.

As Merchant argues, this again follows from positing structure in the ellipsis site: since wh-movement feeds sluicing, the same constraints that are active on regular wh-movement will also be active under sluicing. Let us now test the PSG in sluicing with split antecedents. We begin by noting that English does allow P-stranding under both regular sluicing and under split-antecedent sluices, just as predicted by the PSG.

(41) a. Molly received a package from someone, but she doesn't know who.
      b. Molly received a package from someone and Ben received a letter from some-
          one, but neither knows who.

To test the other half of the PSG, let us examine Romanian, which patterns with Greek in not allowing for P-stranding under regular sluicing.

(42) Ivan a   primit un pachet de   la cineva, dar, nu ştie *(de   la) cine.
      Ivan has received a   package from of someone but, not know   from of who

Again, we find that sluicing with split antecedents patterns the same way. Romanian sluicing allows split antecedents, but P-stranding is still not allowed in this construction. This suggests that split-antecedents sluices are derived through deletion of non-cleft wh- questions.

(43) Ivy a   primit   o scrisoare de   la cineva, şi Ivan a   primit   un pachet
      Ivy has received a letter   from of someone and Ivan has received a   package
      de   la cineva, dar nici unu   nu ştie   *(de   la) cine.
      from of someone but no   one.masc not knows   from of who

No preposition stranding under sprouting Chung (2006) observes that, while English (and other P-stranding languages) tolerate P-stranding under sluicing with an overt correlate, P-stranding in sprouting is ungrammatical.

(44) a. They're jealous, but it is unclear *(of) who.
      b. Joe was murdered, but I don't know *(by) who.
      c. Last night he was very afraid, but he could not tell us *(of) what.

Compare these examples to their counterparts with an overt correlate.

(45) a. They're jealous of someone, but it is unclear (of) who.
      b. Joe was murdered by someone, but I don't know (by) who.
      c. Last night he was very afraid of something, but he could not tell us (of) what.

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Since we are only interesting in using this restriction to establish a parallel between split-antecedent and regular sluices, we will not discuss why it holds (interested readers are referred to Chung 2006 and subsequent literature). We simply note that split-antecedent sluices also disallow P-stranding if the correlates are implicit arguments or modifiers.

(46) a. Molly received a package and Ben received a letter but neither knew *(from) who.

b. Molly was terrified and Ben was petrified, but neither would say what *(of).

Voice mismatches Merchant 2006, 2013 notes that, while sluicing doesn't support voice mismatches between the antecedent and the elliptical clause, VP ellipsis does (see also Hardt 1999, Frazier and Clifton Jr. 2006, Kim et al. 2011, Merchant 2013), provided that certain discourse and information-structural relations hold (Kehler 2002, Kertz 2010). Consider the asymmetry between (47) and (48)/(49).

(47) a. * Someone assassinated JFK, but I don't know who by [he was assassinated].

b. * JFK was assassinated, but I don't know who [assassinated him].

(48) a. The janitor must remove the trash whenever it is apparent that it should be.

b. It engaged them in a way that I did not think that they could be that early in the morning.

(49) a. The system can be used by anyone who wants to.

b. A: Has this ever been tested?
B: There's never been a reason to.   [Merchant 2013]

Importantly, the ungrammaticality of the examples in (47) is demonstrably an ellipsis effect, since their unelided versions are well-formed.

(50) a. Someone assassinated JFK, but I don't know who he was assassinated by.

b. JFK was assassinated, but I don't know who assassinated him.

Merchant points out that this uneven distribution of voice mismatches is difficult to account for with inference-based theories of ellipsis resolution (e.g., Hardt 1999, Culicover and Jackendoff 2005) since the relevant inferences should be allowed for all ellipsis regardless of size. The distribution could be accounted for if the identity of ellipsis is computed over syntactic phrase markers and for VPE the head that controls voice is outside of the ellipsis site, and for sluicing, it is contained with in the ellipsis site. Merchant follows Kratzer (1996) and Collins (2005) in expanding the functional VP structure to include a Voice head separated from *v*. Crucially, Voice is located outside the VP ellipsis site and therefore doesn't enter the calculation of identity; as a consequence, voice mismatches under VP ellipsis are tolerated. In contrast, if the ellipsis site contains Voice (as is the case in sluicing), voice mismatches become impossible.

We can use this effect to test whether split-antecedent sluices contain the internal syntax of a wh- question. Once again, split-antecedent sluicing patterns with regular sluicing in not tolerating voice mismatches.

(51)   a.   * Al's TV was stolen and Mary's car was stolen and neither of them knows who.

     b.   Al's TV was stolen and Mary's car was stolen and neither of them knows by who.

(52)   a.   * During the scrum, someone punched Al and someone kicked Ed; both wish they knew who by.

     b.   During the scrum, someone punched Al and someone kicked Ed; both wish they knew who.

Locality effects   Our final test comes from Nakao and Yoshida's (2007) and Nakao's (2009) observation (credited to Howard Lasnik) that sluicing fails to repair locality violations of adverbial wh- phrases. Specifically, the following examples only allow the high reading of *why* and *how*. Nakao and Yoshida argue that the low reading is absent because it would entail an irreparable ECP violation (i.e., movement of *why*/*how* across a relative clause boundary, see Chung et al. 1995:274). Note that, as discussed above, the fact that we are dealing with adverbial remnants precludes a pseudosluicing analysis.

(53)   John wants to hire someone who fixes cars for a certain reason, but I don't know why.
= I don't know why John wants to hire this person.
≠ I don't know why this person fixes cars.

(54)   John wants to hire someone who fixes cars in a certain way, but I don't know how.
= I don't know how John wants to hire this person.
≠ I don't know how this person fixes cars.

If split-antecedent sluices have the same internal syntax as regular sluices, they should exhibit the same effect. As the following examples show, this prediction is correct.
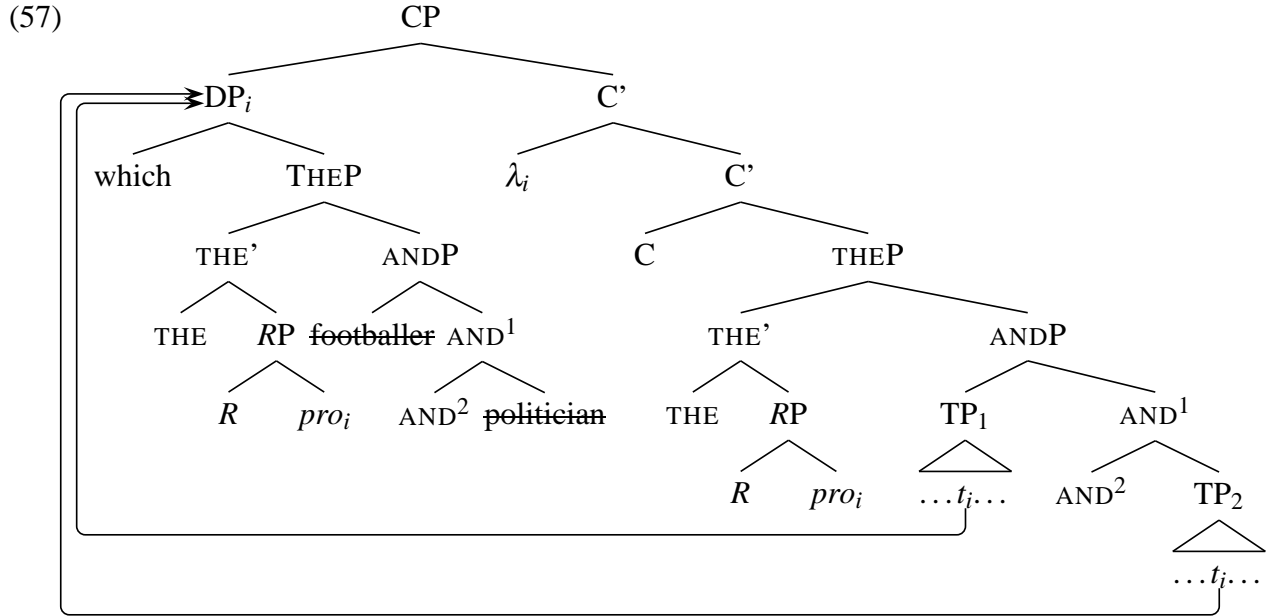
(55)   John wants to hire someone who fixes cars for a certain reason and Sally wants to hire someone who fixes bikes for a certain reason, but I don't know why.
= I don't know why John and Sally want to hire these people.
≠ I don't know why these people fix cars and bikes

(56)   John wants to hire someone who fixes cars in a certain way and Sally wants to hire someone who fixes bikes in a certain way, but I don't know how.
= I don't know how John and Sally want to hire these people.
≠ I don't know how these people fix cars and bikes.

We can safely conclude that split-antecedent sluices have the internal syntax of a noncleft wh- question, just like those single-antecedent sluices that fall outside the domain of pseudosluicing.

3.1.3 An analysis of split antecedents in sluicing

The system developed in Elbourne (2008) can account for sluicing with split antecedents with very minor modifications. First, we assume the syntax in (57) for the ellipsis site in (4). Note that this is the same syntax we proposed for (10), the only difference being that AND^2 takes two arguments.

(4)   Whenever Jack wants to interview a footballer or Sally wants to profile a politician, the editor asks which.

(57)

```
                              CP
                    _____
                 DP_i                      C'
              _____            _____
          which      THEP         λ_i          C'
                 _____              _____
              THE'      ANDP            C        THEP
             _____    _____                 _____
          THE   RP  footballer AND¹        THE'        ANDP
               _____        _____      _____    _____
              R  pro_i  AND² politician  THE  RP   TP₁      AND¹
                                             _____  △     _____
                                            R pro_i …t_j… AND²   TP₂
                                                                  △
                                                                …t_j…
```

Here we need to make a small detour to comment on the fact that (4) contains not one, but two split-antecedent ellipses: on top of the sluice, there is also NP ellipsis inside the sluicing remnant (here, we are assuming that the *pro* inside the NP ellipsis can be bound by the λ-abstractor in the C layer upon reconstruction). The resolution of each ellipsis in isolation is straightforward; the difficulty lies on ensuring that the resolution of the NP ellipsis "lines up" with the resolution of the sluice, so that we only generate the observed reading of (4). We begin by pointing out that this issue is not exclusive to our analysis of sluicing. Rather, it is inherent to the fact that certain elements are contextually restricted, and contextual restriction needs to be made consistent over stretches of discourse. Consider the following example for illustration. The first sentence shows that donkey anaphora can also have split antecedents. The second sentence shows that an additional donkey pronoun must track the resolution of the first.

(58) Whenever Jack wants to interview an athlete or Sally wants to profile a politician, the magazine editor contacts his P.R. people first. Nothing happens until he says "yes"

[= if Jack wants to interview an athlete, the editor contacts that athlete's P.R. people, and nothing happens until that athlete says "yes"; and if Sally wants to profile a politician, the editor contacts that politician's P.R. people, and nothing happens until that politician says "yes"]

There are a number of ways to ensure that (58) has exactly the meaning it does. For example, one can take Elbourne's syntax seriously and treat AND as a regular conjunction; given that conjunctions are externally dynamic (Groenendijk and Stokhof 1991), whatever variable assignments are established inside the conjuncts can be passed on to free variables in the upcoming discourse. Here we deliberately choose to avoid specifics and simply assume that whatever account one can formulate for (58) extends to (4).

With this much, we return to the analysis of the split antecedent sluice. The semantics of (57) up to the THEP node is given below.

(59) a. $[\![\text{ANDP}]\!]^g = \lambda h_{\langle s,t \rangle}.h \leq_i$ Jack wants to interview $x \oplus$ Sally wants to profile y

b. $[\![R]\!]^g = \lambda x.\lambda f.\exists s[f(s) = 1 \ \& \ \text{Theme}(s,x)]$

c. $[\![\text{THE'}]\!]^g = \lambda G_{\langle st,t \rangle}.\sigma f(\exists s(f(s) \ \& \ \text{Theme}(s,x) = 1 \ \& \ G(f))$

d. $[\![\text{THEP}]\!]^g = \sigma f(\exists s(f(s) \ \& \ \text{Theme}(s,x) = 1 \ \& \ f \leq_i$ Jack wants to interview $x \oplus$ Sally wants to profile $y)$

In prose, THEP gives us the unique set sets of situations where Jack interviews some footballer x and Sally profiles some politician y, and the functional material above THEP turns this meaning into a question about the identity of the relevant individuals. This seems like the correct denotation for the sluiced clause. This machinery allows us to overcome the problems that the other possible analyses faced. The contextual restriction introduced by the R variable above the sluicing site would be absent from the unsliced counterpart, accounting for the differences in the interpretation. Additionally, since this analysis does not require that there be an overt coordinator in the antecedent clause, it accounts for the data (repeated here from above) where there was no coordination in the antecedent material.

(18) John joined the army. Peter joined the navy. Neither one remembers why.

At this juncture, it is important to note that not all examples that could potentially have a split antecedent reading actually do. In both (60) and (61), the sluice has a single-antecedent reading determined by the second conjunct of the preceding conjunction. Note that (61) features a differentially case-marked remnant which, as discussed above, precludes a cleft-based analysis.

(60) Sally dated an MIT student, and then she dated a Harvard student, but right now I can't remember which one.

[= I can't remember which Harvard student she dated]

(61) María besó   a   un jugador de Boca Juniors, y   luego besó   a   un jugador
      María kissed DOM a   player of Boca Juniors and then kissed DOM a   player
      de River Plate, pero ahora mismo no recuerdo a   cuál.
      of River Plate but now   right   not know   DOM which
      [= I can't remember which River Plate player María kissed]

We submit that these readings are expected under the analysis we propose, where *R* picks
up the most salient property in the surrounding discourse. We will assume that, in these
two examples, the second conjunct is salient enough to bleed the split-antecedent reading.
Importantly, this is not a property exclusive to sluicing: Elbourne (2008:207ff) also notes
that such readings exist for VP ellipsis, citing the minimal pair in (62), from Prüst et al.
(1994). While (62a) supports a split antecedent reading, (62b) does not. We follow El-
bourne (who in turn follow Fiengo and May 1994) in assuming that the availability (or not)
of a split-antecedent reading depends on the structure of the preceding discourse: of (62b),
he says that "if one asserts that one person does two things and then, with ellipsis, asserts
that a second does too, one will be interpreted as asserting that the second person does the
two things", adding later on that "no such factors obtain in [(62b)]".

(62)   a. Maaike dances. She sings. Saskia does too.
          [= Saskia dances and sings]
       b. Maaike dances. Brigitte sings. Saskia does too.
          [= Saskia sings]

Elbourne supports his contention by noting that single-antecedent readings can be coun-
terbled. All it takes is furnishing (62b) with some extra context that prompts a split an-
tecedent reading.

(63)   Saskia, being the competitive type, has managed to acquire all the skills that Saskia
       and Brigitte possess. Saskia dances. Brigitte sings. Saskia does too.
       [= Saskia dances and sings]

Similar manipulations are possible with (60) and (61). Perhaps the easiest way to bring out
the split antecedent readings is by using a plural correlate, which forces us to consider the
plurality of people dated (or kissed) across situations.

(64)   Sally dated an MIT student, and then she dated a Harvard student, but right now I
       can't remember which ones.
       [= I can't remember which MIT student or which Harvard student she dated]

(65)   María besó   a   un jugador de Boca Juniors, y   luego besó   a   un jugador
       María kissed DOM a   player of Boca Juniors and then kissed DOM a   player
       de River Plate, pero ahora mismo no recuerdo a   cuáles.
       of River Plate but now   right   not know   DOM which.pl
       [= I can't remember which Boca Juniors or River Plate players María kissed]

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In a similar vein, preposing the clause containing the sluice yields a single-antecedent reading, but one that, unlike those in (60) and (61), takes the first conjunct as its antecedent.

(66) Although I can't remember which one, I know that Sally dated an MIT student after she dated a Harvard student.
[= I can't remember which MIT student she dated]

(67) Aunque no recuerdo a   cuál, sé   que María besó a   un jugador de
      although not remember DOM which know that María kissed DOM a   player   of
      Boca Juniors despues de besar   a   uno de River Plate.
      Boca Juniors after   of kiss.inf DOM one of River Plate
      [= I can't remember which Boca Juniors player María kissed]

These data suggest to us that our account is on the right track: if sluicing sites are contextually restricted (irrespective of whether contextual restriction is implemented with Elbourne's machinery or in a different way), we should be able to effect manipulations that favor either a single- or split-antecedent resolution of the sluice.

3.2 Barros' puzzle: *else*-modified antecedents

3.2.1 The problem and some previous solutions

As we already pointed out in section 1, Barros (2012) makes the important empirical observation that sluicing repairs the incongruence of certain unsluiced questions. We repeat the relevant paradigm here.

(6) Jack kissed Sally, and he also kissed someone else...
     a. # ...but I don't know who he kissed.
     b.   ...but I don't know who.

Assuming that being in a not-knowing situation with respect to a question Q implies not having any partial answer to Q, (6a) is derived as a case of semantic inconsistency (Romero 1998). With this much in place, Barros takes the grammaticality of (6b) as evidence for a cleft-based analysis along the lines sketched in (68), where the elliptical site would contain a truncated cleft. Notice that an unsluiced question like (68b), in its truncated form, is congruent. This follows if the antecedent Jack likes Sally in the first conjunct does not constitute a partial answer to the question asking for the identity of the non-Sally individual that Jack saw (see Barros 2012 for details):

(68) a. Jack likes Sally, and he likes someone else too, but I don't know who [$_{TP}$ ~~it is~~].
      b. # Jack likes Sally, and he likes someone else too, but I don't know who it is that Jack likes.

As already noted above, there is already a substantial amount of independent evidence supporting the idea that clefts of various types can underlie sluicing, so the analysis in (68) just would constitute an additional piece of evidence for the availability of cleft-based sluicing across languages. While this approach provides a direct answer to the puzzle in (6a), it has to face an immediate empirical challenge. As first noticed by Lipták (2013) the asymmetry in (6a), which we refer to as a *Barros effect*, also arises with remnants that are not licit cleft pivots. Lipták illustrates this pattern with the following Hungarian paradigm, where the wh-remnant has to be marked as accusative, rather than the nominative one would expect if a cleft-based analysis was correct.

(69)   Mari meg hívta Jánost, és meg hívott még valaki de nem
       Mari PV invited János.ACC and PV invited.3SG also someone.ACC but not
       tudom. . .
       know.1SG

    a. { ∗ ki   / ✓ kit   }
         who.NOM   who.ACC

    b. { ∗ ki   / ✓ kit   } hívott meg.
         who.NOM   who.ACC invited PV

    c. { ✓ ki   / ∗ kit   } volt az.
         who.NOM   who.ACC was that

Saab (in press) shows that the same pattern can be reproduced in Spanish with differentially case marked objects. As is the case in Hungarian, Barros effects in Spanish obtain even when the wh-remnant is marked by means of the introduction of a special mark (the differential case marker *a*). Example (70b) shows again that an isomorphic unsluiced sentence is strongly infelicitous.

(70)   Juan besó a María y besó a alguien más también,
       Juan kissed DOM María and kissed DOM someone else too

    a. pero no sé a quién.
       but not know.1SG DOM who

    b. # pero no sé a quién besó.
         but not know.1SG DOM who kissed.3SG

Again as in Hungarian, the problem is that a non-isomorphic truncated cleft is simply ungrammatical, given that a-marked objects are not licit cleft pivots (71a). Once again, a full cleft strategy is not available here because, even if the result were syntactically well-formed, it would reintroduce the semantic clash already mentioned (71b).

(71)   a. * pero no sé a quién era.
         but not know.1SG DOM who was.IMPF

    b. # pero no sé a quién { era / fue } que besó.
         but not know.1SG DOM who was.IMPF was.PERF that kissed.3SG

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This line of argumentation is fully crosslinguistically generalizable to any type of sluicing where the remnant is not a licit cleft pivot. As final illustration, we offer an analogous paradigm from German: the grammatical sluice consists of the full PP *mit wem* 'with who.DAT', rather than the bare nominative wh- phrase wer that we would expect from a pseudosluicing source.

(72) Hans hat mit Maria gesprochen, und er hat auch mit jemand anderem
     Hans has with Maria talked   and he has also with someone else.DAT
     gesprochen, aber ich weiß nicht. . .
     talked   but I know not

    a.   mit wem.
         with who.DAT

    b. # mit wem   er gesprochen hat.
         with who.DAT he talked   has

    c.   { ✓ wer   / ∗ wem   } es ist.
          who.NOM   who.DAT   it is

Similarly, Romanian lacks short clefts entirely, which precludes an analysis of the observed Barros effects in terms of cleft-based sluicing.

(73) Ivan a tucat-o   pe Maria, a tucat   şi pe altcineva,
     Ivan has kissed.PART-OBJ.CL ACC Maria has kissed.PART and ACC someone-else
     dar nu ştiu...
     but not know.1SG
     "Ivan kissed Maria, and he also kissed someone else, but I don't know..."

    a.   pe cine.
         ACC who

    b. # pe cine Ivan a tucat.
         ACC who Ivan has kissed.

In view of the fact that any cleft strategy is unavailable at least for some sluice sentences, Saab (in press) claims instead that the paradigm at hand provides evidence for syntactic isomorphism. His crucial assumption is that the antecedent in (70a) is not the second conjunct of the first sentence, but rather the entire sentence coordinated by *and*. Implementing the strategy just sketched, the underlying structure for (70a) would be the one illustrated in (74); in principle, this analysis would be extensible to the German and Romanian data in (72) and (73).

(74) no sé   [a   quién]$_i$ [[~~Juan besó a   María~~] ~~y~~ [~~besó t_i también~~]]
     not know DOM who   Juan kissed DOM María and kissed   also

This analysis assumes that island repair under ellipsis is available in natural languages, whatever the right theory of island repair (Merchant 2001, 2004, 2008, Fox and Lasnik

2003, Saab 2008, 2010, among many others). Concretely, the DOM wh-remnant in (74) is extracted from the second conjunct violating the second part of the Coordinate Structure Constraint as originally formulated by Ross (1967:161).

(75) In a coordinate structure, no conjunct may be moved, *nor may any element contained in a conjunct be moved out of that conjunction.*   [our emphasis]

As Saab shows, the fact that (74) is a semantically consistent analysis follows if the antecedent is not a partial answer to the question expressed in the complement of the verb know. The reason for this is the presence of the indefinite in the second conjunct: bare indefinites in general cannot be partial answers to questions. As shown in (76) and (77), A counts as felicitous answer to Q, but A' crucially doesn't.

(76) Q: Who saw Mary?
     A: Peter saw Mary.
     A': # Someone saw Mary.

(77) Q: ¿Juan besó   a   María y   a   quién más?
           Juan kissed DOM María and DOM who   else
     A: Juan besó   a   María y   besó   a   Ana también.
           Juan kissed DOM María and kissed DOM Ana also
     A': # Juan besó   a   María y   besó   a   alguien más también.
           Juan kissed DOM María and kissed DOM someone else also

Thus, the antecedent of (70a) cannot be in the set of partial answers to the particular question expressed in the elliptical constituent and the result is a semantically consistent sluice sentence. This analysis can also be extended to account for Barros's effects in simple coordinated structures (78) and other cases involving other clausal adjunct island (79).

(78) Juan besó   a   María y   a   alguien más,
     Juan kissed DOM M.   and and someone else

     a.   pero no sé   a   quién.
           but not know.1SG DOM who
     b. # pero no sé   a   quién besó.
           but not know.1SG DOM who   kissed
     c. * pero no sé   a   quién fue.
           but not know.1SG DOM who   was
     d. # pero no sé   a   quién fue que besó.
           but not know.1SG DOM who   was that kissed

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(79) Juan quiere a María a pesar de que también quiere a alguien más
Juan loves acc María despite of that also loves DOM someone else

    a.   pero no sé a quién.
         but not know.1SG DOM who

    b. # pero no sé a quién quiere.
         but not know.1SG DOM who loves

    c. * pero no sé a quién es.
         but not know.1SG DOM who is

    d. # pero no sé a quién es que quiere.
         but not know.1SG DOM who is that loves

Here, as in (70)/(71), a short isomorphic source (78b)/(79b) and long cleft (78d)/(79d) are semantically inconsistent. Recurring to a truncated cleft as in (78c)/(79c), however, is simply ungrammatical. Instead, extracting the wh-remnant in the second conjunct in (78) and from an adjunct island in (79) give us the correct result. However, the island repair solution has also to face some problems. First, it does not apply straightforwardly to cases where there is no island involved in the first place. Consider (80) below, where the two antecedent clauses are syntactically independent.

(80) Juan besó a María. También besó a alguien más. Sin embargo, no
Juan kissed DOM María also kissed DOM someone else however not
sé [a quién]$_i$ [~~Juan besó a María y besó~~ t_i].
know.1SG DOM who Juan kissed DOM María and kissed
"John kissed Mary. He also kissed someone else. However, I do not who."

There are two solutions one could appeal to. On the one hand, one could claim that some accommodation strategy applies in (80), which would convert the two first sentences into one coordinated structure (see Saab in press for details). As Saab notices, this is, of course, not forced, as other discourse mechanisms could be available to get the right meaning. However, if we accept that a paradigm containing both (70a) and (80) requires such an eclectic approach, the initial appeal of the island repair solution weakens. The second problem is that there are a number of speakers (including one of the authors of this paper) for which the following discourse is felicitous under the indicated reading of (81B).

(81) A: Juan besó a María y también besó a alguien más.
      Juan kissed DOM María and also kissed DOM someone else

    B: Sólo a Susana.
      only DOM Susana
      [= Susana is the only person besides María that Juan kissed]

Under Saab's analysis, (81B) would be derived from deletion of (82B). Notably, this example is incongruent: one cannot assert that Juan kissed María and then follow up with an assertion that he only kissed Susana. Given that the contradiction inherent to (82B) is not

a locality problem, one would have to assume a semantic repair mechanism on top of the island repair mechanism that Saab already assumes.

(82) A: Juan besó a   María y también besó a   alguien más.
          Juan kissed DOM María and also   kissed DOM someone else

      B: # Juan besó a   María y besó sólo a   Susana.
          Juan kissed DOM María and kissed only DOM Susana

On top of the examples above, there is the conceptual issue in that Saab's analysis fails to connect what at first glance seems to constitute a natural class of phenomena. As we will see in section 3.3 below, Barros effects follow as a side effect of a striking property of sluicing, namely, inheritance of content, i.e., the fact that sluicing remnants inherit the domain restriction of their correlates (Chung et al. 1995, Romero 1998, Barros 2013, 2014, among others).[4] As shown in the following examples (repeated from section 1 above), who in (9a) is obligatory restricted to the domain of students, whereas in (9b) the prominent reading is that Jack did not know which persons left the party early.

(9) *Inheritance of content (Barros 2014:160, ex. (48))*
     a. Some students left the party early, but Jack didn't see who left the party early.
     b. Some students left the party early, but Jack didn't see who.

If Barros effects and inheritance of content are indeed connected, then a principled solution cannot be found in the putative availability of ellipsis to repair island effects (a controversial assumption in any case; see Barros et al. 2014). The solution, instead, seems to be in the very basic fact that, being anaphoric questions (Barros 2014), sluicing sites are contextually restricted in ways that their corresponding unslucied questions are not. In the remainder of this paper, we show how this idea can be implemented assuming the basic machinery in Elbourne (2008).

3.2.2 Our solution

As already advanced, Elbourne's (2008) analysis of VP and NP ellipsis can be used to achieve the same result that Barros achieves through the use of a cleft, i.e., ensuring that

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[4]Jacobson (2013) and Weir (2014) note that (English) fragment answers also inherit the presuppositions of their correlates. In the non-elliptical answer (iA), a felicitious interpretation is not restricted to student party-goers, but in (iA'), it is. Neither Jacobson nor Weir attempt to unify these facts with inheritance of content in sluicing, and their solutions do not straightforwardly account for the data presented here. Our proposal can capture the differences between (iA) and (iA') as a consequence of the fact that (iA') is contextually restricted but (iA) is not.

(i) Q: Which students came to the party?
     A: John and Bill came to the party (but I don't know if they are students).
     A': John and Bill (# but I don't know if they are students).

"he (also) likes someone else" in (6a) is the only proposition that is taken into account for the resolution of the sluice. Barros captures this by assuming that the underlying *it* in (6a) comes with a covert contextual restrictor. Our idea here is essentially the same: we want to propose that regular (i.e., non-cleft-based) sluices come with a covert contextual restrictor over situations. An initial indication that some version of this idea is correct is the fact that (6b) becomes congruent when contextual modification is overtly expressed, like in the following English example:

(83) Jack kissed Sally on Monday, and then he kissed someone else on Tuesday, but I do not know who he kissed on Tuesday.

Thus, the problem reduces to figuring out how covert contextual restriction works in sluices. Following the analysis for splits antecedents discussed in the precedent section, let us assume that a Spanish example like (70a), repeated below, has the basic underlying structure in (84):

(70) a. pero no sé   a   quién.
          but not know.1SG DOM who

(84)
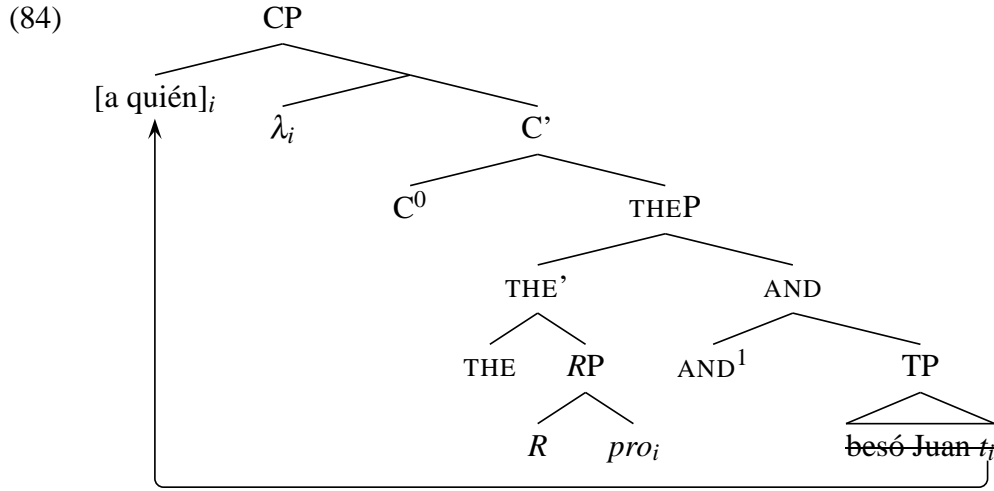
Recall first the general (*n*-place) definition of the AND operator we gave in section 2, as well as its special one-place version. Both are repeated below.

(12) For all $n > 0$, $[\![\text{AND}^n]\!]^g = \lambda f_{1\langle st \rangle} \ldots f_{n\langle st \rangle}.\lambda h_{\langle st \rangle}. \leq_i f_1 \oplus \ldots \oplus f_n$

(13) $[\![\text{AND}^1]\!]^g = \lambda f_{\langle st \rangle}.\lambda h_{\langle st \rangle}.h = f$

Applying the latter entry to (84), we get the following semantics for the AND node:

(85) $[\![\text{AND}]\!]^g = \lambda h_{\langle st \rangle}.h = \exists x[\text{kissed}(x, \text{Juan})]$

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Put differently, the operator AND applied to a single argument will return the singleton set composed by such an argument. In other words, AND does not, in and of itself, derive the Barros effect: its function is to turn the sluicing site into the kind of semantic object (a property of propositions) that can compose with THE. For reference, we also repeat the semantics of THE here.

(15) $[\![$ THE $]\!]^g = \lambda F_{\langle stt \rangle}.\lambda G_{\langle stt \rangle}.\sigma f(F(f) = 1 \wedge G(f) = 1)$
where $\sigma x P x := \iota x(\ast Px \wedge \forall y(\ast Py \rightarrow y \leq_i x))$

Clearly, the crucial ingredient is the inner argument of THE, namely, RP. As in the previous section, we assume that R is of type $\langle e \langle st, t \rangle \rangle$ with type $\langle st, t \rangle$ arising when R composes with its *pro* complement. This *pro* is going to be bound by the λ-abstractor that we use to handle movement of the wh- phrase to SpecCP. Upon composition with R, we derive a semantics for RP as some salient property applied to the set of individuals denoted by *a quién*. Let us explore the meaning of RP in more detail.

We propose that *más* 'else' in the antecedent clause of (70) allows us to select the correct contextual restriction we need to make the sluice congruent. Following Barros (2012) and references, we assume that *más* and *else* are exceptive modifiers that restrict their NP hosts by excluding some element of the set domain. Applied to (70), *más* excludes *María* from the domain of human individuals that *alguien* 'someone' introduces; as a consequence, the indefinite will end up quantifying over non-María individuals. Generally, the value of *más* (and *else*) has to be discursively supplied by means of some variable assignment. More explicitly, we adopt then the following lexical entry for *más*/*else*.[5]

(86) $[\![$ *más/else* $]\!] = \lambda P.\lambda x[P(x) \ \& \ x \neq y_j]$ [Barros 2012:6]

The indefinite DP in the antecedent of (70a) will have the syntax in (87a), with its corresponding denotation in (87b).[6]

(87) a. [$_{DP}$ alguien [$_{NP}$ $\varnothing_{human}$ más]]
b. $\lambda P \exists x[\text{human}(x) \ \& \ x \neq \text{María} \ \& \ P(x)]$

Now, we propose that R in (70a) picks up the salient proposition denoted by the second conjunct of the antecedent, namely, the proposition that Juan kissed some non-María individual:

(88) $[\![R]\!]^g = \lambda x_e.\lambda f_{\langle st \rangle}.\exists s[f(s) = 1 \ \& \ \text{Theme}(s,x) \ \& \ x \neq \text{María}]$

---

[5]Romero (1998:52) proposes a somewhat different alternative, according to which *else* can introduce a covert argument. Under this approach, it is this covert argument that is the input to some assignment function.

(i) $[\![$ else than a$_e$ $]\!] = f \in D_{\langle e, st \rangle}$ such that, for all $x \in D_e, w \in D_s, f(x)(w) = 1$ iff $/ \leq$ a in w.

[6]*Alguien* could be further segmented into its D and N subparts, just as its more transparent English counterpart *someone*. This level of granularity is not necessary for our current purposes.

Combining now the RP and AND arguments with THE' yields the following representation for the entire THEP in (84).

$$(89) \quad [\![\text{THEP}]\!]^g = \sigma f \left(\exists s \left(\begin{array}{rl} & f(s) = 1 \\ \& & \text{Theme}(s, x) \\ \& & x \neq \text{María} \\ \& & f = \exists x [\text{kissed}(x, \text{Juan})] \end{array} \right) \right)$$

In short, we end up with the unique set of propositions of the form $\exists x[\text{kissed}(x, \text{Juan})]$, such that the individual that Juan kisses is not María. As in the case of split-antecedent sluices, the functional material above THEP can turn this into a question about the identity of the non-María individual that Juan kissed, which intuitively matches the meaning of the sluice in (70a).

This analysis is superior to the pseudosluicing analysis both empirically and conceptually. Empirically, we can capture both the Barros effect (i.e., the correct reading of sluices with *else*-modified antecedents) as well as the variety of connectivity effects discussed at the beginning of this section. Conceptually, we can subsume the contextual restriction of ellipsis sites under a more restrictive view of the identity condition on ellipsis. Ultimately, this line of analysis implies comparing sluices and presluices is not a good heuristic method to determine what the silence should look like. We believe that this constitute a progress for the theory of ellipsis and corroborate Elbourne's theory with new empirical evidence.

Finally, if the presence a covert restrictor in ellipsis is what lies behind the puzzling behavior of at least some types of surface anaphora (both of the elliptical and non-elliptical kind), then this analysis is also superior to its island repair competitor to the extent it is available to capture a broad set of phenomena. In the next section, we will see that indeed in addition to split-antecedent sluices and Barros effects, our approach also derives inheritance-of-content effects.

3.3 Where is R? Further empirical and theoretical consequences

In this section, we show first how embedding the sluicing site under a contextual restrictor explains both inheritance-of-content effects and other related puzzles (i.e., the Antecedent-Correlate Harmony Condition and the Answer Ban Condition) without the need to introducing sluicing specific conditions. We close this section extending the analysis to some hitherto unnoticed asymmetries in the behavior of embedded fragments in Spanish.

3.3.1 Deriving inheritance of content from RP

In the previous section, we have proposed that Barros' puzzle vanishes if sluicing sites are embedded under a free contextual variable (i.e., R) which narrows the interpretative possibilities in a way such to make the sluice coherent with the precedent discourse. This approach effectively yields the same results as Barros's (2012) truncated cleft approach, but without invoking an actual clefting; this helps us avoid the empirical problems noted by Lipták (2013) and Saab (in press). We want to emphasize, as Elbourne (2005, 2008) already

does, that the need for contextual restriction extends to a number of phenomena beyond the realm of ellipsis (e.g., donkey sentences and other types of anaphora resolution). As such, the approach to sluicing we advocate here fits nicely into the general line of research advocated in Elbourne's work and other related literature. In this section, we look deeper into the nature of the free variable *R* by addressing inheritance-of-content effects in sluicing (Ginzburg 1992, Chung et al. 1995, Romero 1998, Dayal and Schwarzschild 2010, Barros 2013, 2014, among others). We repeat the relevant example again.

(9) *Inheritance of content (Barros 2014:160, ex. (48))*
    a. Some students left the party early, but Jack didn't see who left the party early.
    b. Some students left the party early, but Jack didn't see who.

As already mentioned in section 1, the difference is that *who* is obligatory restricted to the domain of students in the sluice (9b), but not in the unsluiced question (9a). We can state this generalization as follows:

(90) *Inheritance of content*
    The wh- remnant in sluicing inherits the restriction from its correlate.

The major theoretical claim of this section is that inheritance-of-content effects and Barros effects form a natural class of phenomena. Note that Barros' basic contrast, repeated below, fits very well with the generalization in (90).

(6) Jack kissed Sally, and he also kissed someone else...
    a. # ...but I don't know who he kissed.
    b. ...but I don't know who.

On the assumption that inheritance of content is mandatory in sluicing, (6a) is a perfectly congruent continuation in the discourse. The incongruence in (6b) shows that inheritance of content cannot take place in unsluiced questions. Therefore, the fact that *who* in the unsluiced question is restricted to students follows from another mechanism of interpretation. This state of affairs implies that Barros effects should arise beyond *else*-modification examples, as long as the antecedent of a given unsluiced question constitutes a partial answer for a given question Q. In Spanish, this effect arises in examples where the subject of the verb *know* is the first person;[7] note that the presence of a differential object marker or the remnant precludes an analysis of (91a) as stemming from an underlying cleft (cf. the discussion in section 3.2 above and Saab in press). Additionally, (91c) shows that a long cleft is ungrammatical in this environment.

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[7]Dayal and Schwarzschild (2010:108, ex. (41)) provide the following paradigm, and report no different between the sluice and the unsluiced question; however, other speakers we have consulted do report a difference. We have nothing interesting to say as to why judgments appear to be stronger among Spanish speakers.

(i) Joan was talking to a phonologist, but I don't know who (exactly) she was talking to.

(91) Juan vio a   un fonólogo,   pero no sé...
     Juan saw DOM a phonologist but   not know.1SG

    a.   a   quién.
          DOM who

    b. # a   quién vio.
          DOM who   saw

    c. * quién fue que vio.
          who   was that saw

If inheritance-of-content and Barros effects are part of the same general phenomenon, then we expect Barros effects to disappear in (92), as a consequence of the change from first to third person. The same effect holds in English (93).

(92) Juan besó a   María y   luego besó a   alguien más...
     Juan kissed DOM María and then   kissed DOM someone else

    a. pero Pedro no sabe   a   quién.
        but   Pedro not knows DOM who

    b. pero Pedro no sabe   a   quién besó.
        but   Pedro not knows DOM who   kissed

(93)   a. John kissed Mary, and then he kissed someone else, but Peter doesn't know who.

        b. John kissed Mary and then he kissed someone else, but Peter does not know who he kissed.

Examples (92a) and (93a) only admit the restricted reading according to which Peter does not know the identity of the non-Mary individual that John kissed (i.e., the restricted reading), whereas (92b) and (93b) admit the unrestricted reading that Peter does not know the identity of the persons (including María) that John kissed. This illustrates one of the crucial aspects of the workings of a contextual restrictor. As discussed in the previous section, in principle R may take as its value several salient propositions in the discourse, but this does not mean that anything goes. In (92a) and (93a), it is crucial that R picks up the salient situation of John kissing some non-Mary individual (as opposed to, e.g., John just kissing anyone). Notice that semantic consistency plays no role here, given that the fact that the speaker's assertion that John kissed Mary is in no way inconsistent with claiming absolute ignorance on Peter's part. We conclude, then, that given a set of possible salient propositions, R picks up the most informative proposition in the set as the most salient one. Formally, this constraint can be formulated as a requirement that R must entail its antecedent, if any (see Thoms 2014 for a different implementation of the same idea in other empirical domains). This is at the heart of how information flow works in discourse, as evident in well-known donkey sentences. In short, inheritance-of-content and Barros effects are simply different manifestations of the same general phenomenon. Note that the

absence of an *else*-modifier in the coordinated, non-elliptical versions of Barros' sentences makes the semantic inconsistency stronger than in examples like (91b), but this is due to the fact that the first conjunct in the antecedent makes the continuation in (91b) semantically irremeddeemable. The same strong semantic judgment indeed obtains without the need of introducing *else* (Barros 2012).

(94) a. John saw Mary, then he saw a colleague, but I do not who.

 b. # John saw Mary, then he saw a colleague, but I do not who John saw.

Barros effects are also clearly detectable for most speakers outside coordinate environments, provided that contextual restriction is independently triggered —e.g., through *exactly*-modification, see Romero (1998), Dayal and Schwarzschild (2010), Barros (2013, 2014), and references.
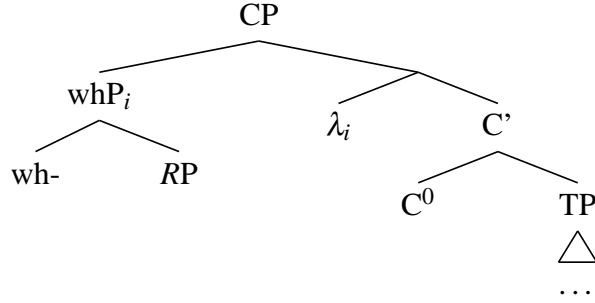
(95) Juan vio a   un fonólogo, pero no sé   a   quién vio exactamente.
      Juan saw DOM a   phonologist but not know.1SG DOM who   saw exactly.

Interestingly, *exactly*-modification does not work in an unsluiced question if one adds a coordinated antecedent as the following.
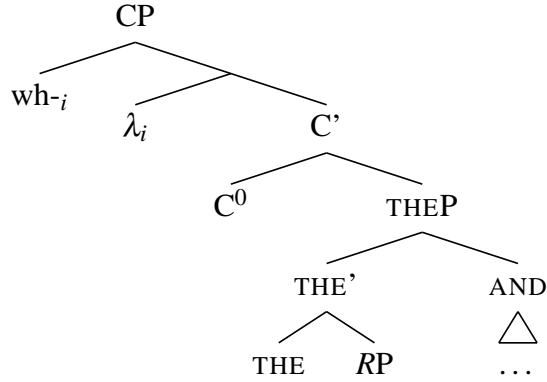
(96) Juan vio a   María, luego vio a   un colega,   pero no sé
      Juan saw DOM M.   then saw DOM a   colleague but not know.1SG
      exactamente a   quién (#vio).
      exactly   DOM who   saw

These data reinforce the idea that inheritance-of-content and Barros effects are essentially the same type of phenomena. Under our account, both effects boil down to the semantic contribution of the underlying *R*P. This contrasts with approaches introducing the restriction as a modifier of the sluicing remnant. Barros (2013), following insights from Romero (1998), explicitly advocates this latter approach. He assumes (p. 204) "a property variable *R*, i.e., $\langle e,t \rangle$, freely available as an NP modifier, which may receive its value from a salient property". The following (simplified) trees illustrate the difference between his proposal and ours, respectively (note that Barros doesn't assume either THE or AND, but these items could be included as part of the contextual restriction of the remnant in (97) without affecting our argument).

(97) *Barros (2013): RP located inside the remnant*

```
                        CP
              ┌─────────┴──────────┐
           whP_i                   
         ┌───┴───┐          λ_i        C'
       wh-      RP                  ┌───┴───┐
                                  C⁰       TP
                                            △
                                           ...
```

(98) *This paper: RP located outside the remnant*

```
                    CP
          ┌─────────┴────────┐
       wh-_i                 
              λ_i            C'
                       ┌─────┴──────┐
                      C⁰          THEP
                              ┌─────┴──────┐
                           THE'           AND
                          ┌──┴──┐          △
                        THE    RP         ...
```

Given the data discussed so far, the problem with (97) is evident: introducing the restrictor in the remnant makes inheritance-of-content and Barros effects difficult to account for. If R is freely available as property variable of wh- phrases, then we expect wh- phrases to be contextually restricted irrespective of whether sluicing happens or not (remember that R is a free variable so its recovery conditions ultimately depend on discourse salience). Thus, if (97) is correct, then one incorrectly predicts unsluiced questions to also exhibit inheritance-of-content and Barros effects. Under the approach we are pursuing here, instead, both inheritance-of-content and Barros effects can be made contingent on sluicing. For the sake of illustration, let us see how our analysis accounts for the inheritance of content effect in (91a). Applying our syntax to this example yields the semantics in (99) for the THEP node. As the reader can check, this semantics does not differ (abstracting away from lexical items) from the denotation we gave for example (70a) in section 3.2.1 above:

$$(99) \quad [\![\text{THEP}]\!]^g = \sigma f \left(\exists s \left(\begin{array}{ll} & f(s) = 1 \\ \& & \text{Theme}(s, x) \\ \& & x = \text{phonologist} \\ \& & f = \exists x [\text{saw}(x, \text{Juan})] \end{array} \right) \right)$$

In prose, this sluice asks for the identity of the human individual x, such that x is a phonologist and Juan saw x. So we get inheritance of content not from some putative property variable within the wh- remnant, but from a higher order variable introduced by the

functional structure associated to sluicing, which give us the desired restriction indirectly (i.e., without directly restricting the wh- remnant) by virtue of taking the value of a salient proposition in the discourse. The absence of the relevant pieces of functional structure in the corresponding unsluiced question (91b) inhibits this type of contextual restriction and yields an infelicitous reading —i.e., the antecedent works as a partial answer to the question posed by the sluice. The stronger contrast in (94) also follows by the same analysis.

3.3.2 Deriving Harmonic Sluicing

Our analysis finds additional support in the paradigm below. Following Dayal and Schwarzschild (2010) and Barros (2013), we refer to this effect as *Antecedent-Correlate Harmony* (ACH).

(100) a. * John ate a donut. Fred doesn't know what.
      b.   John ate something. Fred doesn't know what.
      c. * John ate something. Fred doesn't know which donut.
      d.   John ate a donut. Fred doesn't know which donut.

(101) *Antecedent-Correlate Harmony (Dayal and Schwarzschild 2010:100)*
The remnant and the correlate agree in the presence/absence of a contentful head noun.

Importantly, Barros (2013) convincingly shows that the restrictions in (100) are sluicing-specific only in cases involving bare wh- remnants. He provides the following examples as an illustration.

(102) *Bare violations*
      a. * John ate a donut. Fred doesn't know what.
      b.   John ate a donut. Fred doesn't know what he ate.

(103) *Contentful violations*
      a. * John ate something. {I don't / Fred doesn't} know which donut.
      b. * John ate something. {I don't / Fred doesn't} know which donut he ate.

The fact that the ungrammaticality of (100c) is preserved in the unsluiced question indicates that the problem resides in the nature of D-linked remnant, rather than in sluicing *per se*. This is not the case in (100a), where a felicitous unsluiced question is available. This generalization allows us to put contentful violations aside and concentrate on determining which property of sluicing is responsible for the ungrammaticality of bare violations. As in all the cases above, we assume that the sluices in (100) are contextually restricted. Assuming a tree along the lines of (98), we can derive the following semantic for the THEP node of (100c).

(104) $[\![\text{THEP}]\!]^g = \sigma f \left(\exists s \left(\begin{array}{ll} & f(s) = 1 \\ \& & \text{Theme}(s, x) \\ \& & x = \text{a donut} \\ \& & f = \exists x[\text{ate}(x, \text{John})] \end{array} \right) \right)$

31

In prose, we end up with the unique set of propositions of the form $\exists x[\mathsf{ate}(x, \mathsf{John})]$, such that x is a donut. Asking for the thing x, x a donut, that John ate is semantically inconsistent, given that the antecedent counts as a partial answer to the question raised by the sluice. Readers can check that this is the effectively the same line of analysis we have provided above for inheritance-of-content and Barros effects. This result does not follow under Dayal and Schwarzschild's analysis, which requires further qualifications in order to capture the basic contrasts (see Barros 2012, 2013 for discussion).

Now, as Dayal and Schwarzschild (2010) point out, the contrast between (102a) and (105) below connects the nature of wh-elements to specificity / individuation.

(105)   John saw a linguist, but I do not know who.

Put differently, *who* may be subjected to further individuation in a way that *what* cannot, at least with this kind of inanimate nouns (see Barros 2013 for important refinements). Therefore, asking for the identity of a linguist is semantically coherent. In contrast, R is not present in the unsluiced (102b), so the lack of contextual restriction makes the discourse perfectly coherent (of course, changing the third person for the first one would affect this result). Thus, our analysis not only derives the Harmonic Sluicing, but also explains the Answer Ban, which Barros argues is behind Harmonic Sluicing:

(106)   *Answer Ban (Barros 2013, adapted from Barker 2013)*
         The antecedent cannot be an answer to the sluiced question.

We can see now that the Answer Ban is not really a specific property of sluicing, but the side effect of the semantic contribution of RP. Further evidence to this effect comes from some hitherto unnoticed facts involving contrastive fragments in Spanish. Notice first that this language admits both embedded fragments (107) and F-marked correlates in short replies (108).

(107)   Juan comió algo.   Creo   que un dona.
         Juan ate   something. think.1SG that a   donut

(108)   A: ¿Juan comió [$_{FOC}$ un dona]?
             Juan ate   a donut

         B: No, creo   que [$_{FOC}$ una medialuna].
             no think.1SG that   a   croissant

F-marking on the correlate in (108A) makes the existentially closed proposition $\exists x[\mathsf{eat}(x, \mathsf{Juan})]$ salient, which allows RP in (108) to pick it up as its antecedent.[8] Consider, however, the following minimal pair, where the correlate is not F-marked.

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[8]This result obtains, we believe, whether one adopts the Alternative Semantics theory of focus (Rooth 1985) or Schwarzschild's (1999) theory based on GIVENness. Note, incidentally, that this is also how our analysis would account for contrast sluices (i.e., *John saw HARRY, but I don't know who ELSE*).

(109) Juan comió una dona, pero…
Juan ate   a   donut but

    a.   Pedro cree   que comió una medialuna.
          Pedro thinks.3SG that ate   a   croissant

    b. # Pedro cree   que una medialuna.
          Pedro thinks.3SG that a   croissant

Unlike the full embedded sentence in (109a), an embedded fragment is infelicitous. This surprising pattern follows directly from our general approach. Specifically, *R*P takes as its value the salient proposition *Juan ate x, (x, a donut)*, so the entire THEP receives the following semantics):

$$
(110) \quad [\![\text{THEP}]\!]^g = \sigma f \left(\exists s \left(\begin{array}{cl} & f(s) = 1 \\ \& & \text{Theme}(s,x) \\ \& & x = \text{a donut} \\ \& & f = \exists x[\text{ate}(x, \text{Juan})] \end{array} \right) \right)
$$

Under this analysis, the infelicity of (109b) arises from the fact that Pedro has the belief that Juan ate a croissant in the event/situation of eating a donut. The reader could try other paraphrases but the result would always be equally incongruent. This analysis also accounts straightforwardly the observation made by Saab (2014) with respect to the suspension of Moorean effects in embedded fragments like the following:

(111)   a.   Vino María, pero yo creo   que vino Carlos.
              came María but I   believe that came Carlos

    b. # Vino María, pero yo creo   que Carlos.
              came María but I   believe that Carlos

According to Saab, while (111a) has the flavor of an absurd statement, (111b) is strongly infelicitous (if not ungrammatical). It is clear why this is the case. Once again, *R*P will take the value of the salient closed proposition. Under these circumstances, it does not make any sense to claim that Carlos was the entity called Mara that came. The direct prediction is that switching to a third person subject in (111b) would not affect this result. This is borne out, although the counterpart for (111a) is now a perfect congruent discourse:

(112)   a.   Vino María, pero Pedro cree   que vino Carlos.
              came María but   Pedro believes that came Carlos

    b. # Vino María, pero Pedro cree   que Carlos.
              came María but   Peter believes that Carlos

Up to this point, it should be clear enough that the key to understand these patterns is not the Answer Ban, which is a condition making reference to the notion of answerhood. But answerhood is not related to embed fragments in any evident way.

4 Summary of findings and open issues

As we have discussed throughout this paper, the idea that sluicing sites (and ellipsis sites in general) are necessarily contextually restricted can provide a unified analysis of a number of apparently disparate phenomena. Barros (2012, 2014) already hints at a solution along these lines by claiming the relevant sluices as stemming from a cleft built around a contextually restricted *it* pronoun. However, as we have argued at several points, this analysis lacks generality, given that the relevant effects persist even in cases where a cleft source for sluicing can be blocked. This pattern suggests that contextual restriction needs to be dissociated from the specific syntax of a cleft. We have implemented this idea through the set of functional heads defined in Elbourne (2008), but we want to re-emphasize that our analysis doesn't rely on this particular implementation being correct. In principle, the same results can be attained with a different implementation of contextual restriction, so long as one accepts that the obligatory contextual restriction of sluices is not tied to the presence of an underlying cleft. The moral of our proposal, then, is that simply comparing the *meanings* of sluices and unsluiced questions is not a reliable heuristic to determine what the *syntax* of sluicing sites looks like.[9]

This particular approach to sluicing (and ellipsis in general) has a number of additional consequences. First, as already suggested by Elbourne (2008) and Bentzen et al. (2013), tying the obligatory contextual restriction of ellipsis sites to the presence of a specific chunk of functional structure implies that this functional structure is itself the trigger of ellipsis — i.e., THEP can be identified as the carrier of Merchant's (2001) [E] feature. Put differently, several types of surface anaphora (at a minimum, VP ellipsis, NP ellipsis, and sluicing) are legitimate only if selected by a contextually restricted definite-determiner-like functional head. This captures the anaphoric nature of ellipsis in general and at the same time gives an appropriated semantic import to the [E] feature.

Second, the data we have explored here suggests that semantic identity alone is not sufficient to license ellipsis. On top of satisfying some identity conditions, ellipsis sites also need to be licensed, i.e., associated to a contextual restrictor (this is effectively the same claim defended in Lobeck 1995 and others, although our implementation is quite different). This intuition is consistent with our earlier conjecture (see section 2) that the functional structure responsible for contextual restriction is external to the ellipsis site. This conceptual claim seems indeed be empirically corroborated by languages and constructions in which THE appears to be overtly expressed —see Bentzen et al. (2013) for an account of surface counterparts of *do it* in Norwegian and Saab (to appear) for examples and references

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[9]This is an old lesson by Saussure (Saussure 2002:98, our translation):

> "The word *ellipsis* has a sense that should make us think. A term like this seems to entail that we initially know how many terms the phrase should be composed of, and then we compare the terms which effectively compose it, to corroborate what is missing. But if a term is indefinitely extensible in its meaning, we realize that the counting that we want to establish between *n* meanings and *n* terms is absolutely childishness and, at the same time, totally arbitrary."

of surface counterparts of *one* anaphora in dialects of Dutch and Japanese.

Finally, a view of ellipsis like the one defended here has obvious implications for the surface/deep distinction. If our approach is correct, then such a distinction boils down to the syntactic-semantic properties of THE structure and nothing else. In principle, the *R*P argument will be constant in both types of anaphora, but AND will not (by assumption AND will be absent in true deep anaphors).[10] If so, it will be necessary to define THE in a different way, such that its dyadic and monadic uses can be distinguished. We will leave this as a task for future research.

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[10]Or at least some of them; Elbourne (2001, 2005) argues that donkey pronouns are actually cases of surface-anaphoric NP ellipsis, and as such can be analyzed with the same machinery that Elbourne (2008) develops (and which we have adopted here). It is not clear to us whether such a reductionist move can be generalized to other cases of deep anaphora.

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