Syntactic Identity in Ellipsis, and Deviations Therefrom The case of copular sources in sluicing

Matthew Barros

Received: date / Accepted: date

Abstract In much recent literature, it is proposed that sluicing may not always hide a regular embedded question, but instead, a copular Wh-question (often a cleft). Such claims raise questions about the degree to which identity conditions on ellipsis are sensitive to syntax. This paper reviews the literature on non-isomorphic sluices, presents new evidence for such cases, and concludes that identity conditions in sluicing must, at least, be blind to syntactic differences between copular Wh-questions and their noncopular antecedents. An important challenge to such a view comes from case-matching effects in sluicing (Ross 1969). Copular Wh-arguments in sluices, in many languages and contexts, differ in case from their antecedent correlates. Given case-matching, we expect such sluices to be unacceptable. I show that an empirically motivated characterization of case-matching is compatible with a view that allows (non-isomorphic) sluiced copular clauses. In short, abstract Case is irrelevant in sluicing, and instead, morphological case is what matters. In languages that mark case on remnants, case must match with the correlate (e.g., German, Russian, Greek), but in languages that do not (e.g. Brazilian Portuguese, English, Spanish), abstract Case need not match. One consequence, is that ellipsis of copular clauses is available in many instances, and not others, with cross-linguistic consequences about when and where we expect non-isomorphic copular sluices to be available.

Keywords sluicing \cdot copula \cdot isomorphism \cdot case \cdot ellipsis

1 Introduction

In this paper, we focus on evidence for syntactic mismatches between elided structures and their antecedents, paying particular attention to *sluicing* constructions, where an entire constituent question goes missing, save for one or more Wh-phrases, as in (1). In (1b), we see a standard analysis for the elided structure underlying (1a) (strike-through represents elided structure):

- (1) a. Jack saw someone, I wonder who.
 - b. Jack saw someone, I wonder $[_{CP}$ who_i $[_{C'} C^0_{[+WH]} [_{TP} Jack saw t_i]]].$

Some important terminology (following Merchant 2001 et. seq.): in sluicing, the "sluice" is the interrogative CP containing ellipsis, the Wh-phrase that survives ellipsis is called the sluicing *remnant*, and remnants in sluices typically correspond to some (typically indefinite) XP in the antecedent, called the remnant's *correlate*. In (1), the correlate for the remnant *who* is *someone*.

The claims I defend here are (a) examples like (1a) are structurally ambiguous between the proffered parse in (1b), and that in (2) (at least, in languages like English), and (b) whatever identity (ID) condition is active in constraining the space of ellidable structure in sluices is insensitive to the structural differences between sluiced copular clauses (henceforth SCCs) and their non-copular antecedents.

(2) Jack saw someone, I wonder $[_{CP} \text{ who}_i [_{C'} C^0_{[+WH]} [_{TP} \text{ it was } t_i]]]$

An important challenge to this hypothesis comes from case-matching effects, first noted in Ross 1969. Ross 1969 notes that sluicing remnants must match in case with their correlates. This is detectible in languages that overly mark case. Consider Russian, for instance. The verb *podaril*, 'gave,' assigns dative to *someone*, and the remnant must bear the same case.

(3) Ivan podaril komu-to podarok, no ja ne znaju {komu/*kto }. Ivan gave someone.DAT present, but I not know {who.DAT/*who.NOM }
'Ivan gave someone a present, but I don't know who.' [Grebenyova 2007, example (4), pg. 52]

This is what is expected under a syntactic ID condition that requires the sluice to be a Wh-question version of the antecedent, as in (4):

(4) ... no ja ne znaju komu_i Ivan podaril t_i podarok.
... but I not know who.DAT_i Ivan gave t_i present
'... but I don't know who Ivan gave a present to.'

Positing an SCC in (3) would incorrectly predict that the remnant should bear nominative, since Russian copular clauses assign nominative to their arguments:

(5) ...no ja ne znaju {kto / *komu} eto byl.
...but I not know {who.NOM / *who.DAT} it was
'...but I don't know who it was.'
[Grebenyova 2007, example (7), pg. 53]

Merchant 2001 notes the crosslinguistic robustness of this pattern, and gives the following generalization (here called the "Case Matching Generalization" or "CMG" for short):

 (6) Form Identity Generalization I; Case-matching [CMG - author] The sluiced wh-phrase [remnant -author] must bear the case that its correlate bears.
 [Merchant 2001, (20), pg. 91]

Importantly, the CMG is standardly taken to *follow from* a syntactic ID condition. If the remnant and correlate share syntactic contexts (as in (4)), we expect them to have the same case morphology (call this *the derivational view* of the CMG).

We will see much evidence in support of a different view of the CMG (the *non-derivational view*), building on various empirical observations in Jeroen van Craenenbroeck's work (University of Leuven) about the distribution of SCCs (Specific references to this body of work in what follows). In languages that do not mark case on remnants, abstract Case mismatches are readily available in sluicing (see Thoms 2015 who independently arrives at the same conclusion). Such a state of affairs is mysterious under the derivational view of the CMG. If syntactic ID assumptions were on the right track, then (lower-case) case mismatches should be detectible in sluices, contrary to fact. One result of abandoning the derivational view of the CMG is that the CMG no longer poses an empirical challenge to hypotheses that appeal to SCCs in various instances.

The languages in which SCCs have been appealed to are precisely languages that do not mark morphological case on remnants and correlates. In short, I concede that in sluices like those in (3) in Russian, no copular source is available, and, furthermore, that in sluices like those in (1a) in English, copular sources are, indeed, available. We will review evidence from van Craenenbroeck 2008, 2009, 2010 in support of this view, and see new evidence in support from other under-explored domains that shed light on the issue.

One result of these claims is that the CMG is necessarily divorced in an important way from the ID condition on ellipsis, insofar as the ID condition is concerned with the content of the elided material. In sluicing, remnants are outside the ellipsis site (henceforth E-site for short), so that we may see the CMG as an independent constraint on $\langle \text{remnant,correlate} \rangle$ pairs, concerned only with overt case morphology on $\langle \text{remnant,correlate} \rangle$ pairs.

As such, the CMG is *not* derivable from a syntactic ID condition, as is standardly assumed. Instead, there is evidence that the CMG is an independent constraint concerned only with overt case, so that it is essentially inactive in languages with rampant case syncretism, such as English, Spanish, Brazilian Portuguese, among others, though active in languages like Russian and German. We will carefully consider evidence in support of this conclusion in what follows.

Given such claims, and factoring out the CMG along the lines sketched above, I conclude that the ID conditions on ellipsis are blind to whatever syntactic differences obtain between copular and non-copular clauses. In short, I assume that SCCs, non-syntactically-isomorphic to their antecedents, count as identical for the purposes of ellipsis licensing (modulo the CMG). Let us assume the CMG, once again, only concerned with surface-detectible case mismatches between correlates and remnants, is active in all languages. Morphological facts about remnants and correlates, then, in any given language, will tell us whether we expect the CMG to be relevant in diagnosing the nature of the silent structure.

In section 2, I review existing evidence in the literature for SCCs, and provide new evidence and argumentation in support in the same vein. In section 3, I tackle the challenges the CMG poses to the view where SCCs may underlie *some* sluices, providing a new formulation of the CMG that is empirically motivated, and consistent with existing proposals, before concluding in section 4.

2 The Evidence for SCCs

2.1 Adjectival Sluices and Predicational SCCs

2.1.1 Island repair and SCCs

An important domain in which SCCs have been appealed to concerns "island repair" phenomena in sluicing. Ross 1969 first noted that sluicing seems to fix island violations. To illustrate, consider the sluice in (7), below. Under the assumption that sluiced clauses must be syntactically identical to their antecedents (indeed, this was Ross's 1969 assumption), it would appear that the sluice in (7) involves Wh-movement violating a relative clause island (a complex noun phrase constraint (CNPC) violation, following Ross 1967). The sluiced version is acceptable, but, as usual, the "pre-sluice," (adopting the terminology in Dayal and Schwarzschild 2010 for an overt version of the putatively elided structure) is not. It would appear, under the assumption that the sluiced structure must be syntactically identical to its antecedent, then, that sluicing can "repair" island violations.

(7) They want to hire someone who speaks a Balkan language, but I don't remember which (*they want to hire someone who speaks).[Merchant 1999, examples (4a-4b), pg. 5]

This apparent repair effect under deletion poses a puzzle for the view where sluices simply involve regular Wh-movement followed by phonetic/phonological deletion of the elided structure under strict syntactic identity. We would expect constraints on movement to be just as relevant in ellipsis constructions as in non-elliptical/overt alternants. The ellipsis facts in this regard have been widely taken as a pointer to the nature of islands. Following, in particular, Merchant 2001, islands are a Phonetic Form (PF) phenomenon. Ellipsis, involving phonetic deletion, essentially "hides" island violations in the syntactic derivation from the PF interface, allowing the derivation to converge (Merchant 2001, Lasnik 2001, Fox and Lasnik 2003, and many others following).¹

Other authors have suggested an alternative view. If we abandon the assumption that sluices necessarily delete syntactically identical material, non-island-violating parses for E-sites become available (Erteschik-Shir 1977, Merchant 2001, Fukaya 2007, van Craenenbroeck 2008, 2009, 2010, 2012, Barros 2012, Barros et al. 2013, 2014, among others). To illustrate, for examples like (7), the sluiced structure is instead, as indicated in (8):

(8) They hired a guy who speaks a Balkan language, but I don't remember which Balkan language (he speaks).

Similar claims have been made for adjectival sluices such as those in (9):

(9) She married a tall man, but I don't know how tall.

¹ Others have taken repair effects such as this as an indication that there is no regular Whmovement in sluicing (Chung et al. 1995, Ginzburg and Sag 2000, Barker 2013 a.o.), a view we will not explore in depth here (see, in particular, Merchant 2001 for extensive argumentation that Wh-movement under ellipsis is indeed "regular").

Merchant 2001 analyzes such sluices as involving a Left Branch Condition (LBC) violation (Ross 1967), as shown in (10):²

(10) ... but I don't know how $tall_i$ she married a t_i man.

Following Barros et al. 2013, 2014, an alternative, non-island violating parse for the E-site is available for sluices like (9):

(11) ... but I don't know how $tall_i$ he is t_i . (where he in the E-site = the man she married)

Such analyses essentially explain the *appearance* of island repair (without *actual* island repair under deletion) by appeal to SCCs like that in (11). In what follows, I review recent morphosyntactic and interpretive evidence in the literature in favor of sources like (11) for sluices like those in (9).

2.1.2 Morphosyntactic evidence

Elliott 2013 notes that in Hungarian, predicative adjectives agree with subjects in number (12b), but attributive adjectives do not agree in number with the nominal they modify (12a).³ In adjectival sluices, remnants agree in number with their correlates, in support of a predicational analysis of adjectival sluices, as in (12c).

- (12) a. John ismer néhány magas(*ak) lányt.
 John knows some tall(.PL) girls
 'John knows some tall girls.'
 - b. A lányok magasak. The girls tall.PL
 'The girls are tall.'
 - c. John ismer néhány magas lányt, de nem tudom milyem { magasak / John knows some tall girls, but not know.I how { tall.PL / *magas }.
 *tall }
 'John knows some tall girls, but I don't know how tall.'
 [Elliott 2013, examples (24-25), pg. 7]

In German, Barros et al. 2013, 2014 report that attributive adjectives agree in case with the nominal they modify (13b), but predicative adjectives do not (13a). In

- (i) a. She married a tall man, but I don't know how tall a man $\frac{1}{2}$ she married.
 - b. She married a tall man, but I don't know how tall a man she married.

Such an analysis involves two independent applications of ellipsis: one to the sluiced TP, and one to the pied piped DP. This latter ellipsis process is otherwise unavailable in English, casting doubt on such an analysis:

(ii) *She married a tall man, but I don't know how tall *(a man) she married.

 $^3\,$ Elliott 2013 cites a personal communication with Zoltan Galsi, a native speaker of Hungarian (University of Edinburgh), as the source of this data.

 $^{^2}$ Merchant 2001 notes that we cannot analyze adjectival sluices as stemming from an elliptical variant of (i) below, where the pied DP *a man* is elided:

sluicing, we see the predicative pattern, in support of a predicational SCC analysis for the sluiced structure (13c).⁴

a. Der Mann ist groß. (13)The man is tall 'The man is tall.' b. Lena hat einen groß*(en) Mann geheiratet. tall*(.ACC) man married Lena has a 'Lena married a tall man.' c. Lena hat einen großen Mann geheiratet, aber ich weiß nicht wie tall.ACC man married, but I know not how Lena has a groß(*en). tall(*.ACC) 'Lena married a tall man, but I don't know how tall.' [Barros et al. 2014, examples (70-71), (74), pg 16]

Merchant 2001 discusses adjectival sluicing facts in Dutch, where, once again, adjectival sluices show an agreement pattern consistent with an SCC source (14a) as opposed to what would be expected from a repaired left branch violation. Predicative adjectives resist gender agreement with the subject, as in (14a), whereas attributive adjectives appear in the agreeing form (see the antecedent in (14b)). In sluicing, the predicative pattern surfaces on the remnant, which is unexpected if the remnant is truly exceptionally extracted from a left branch (14b).

- (14) a. De man is lang(*e). The man is tall(.AGR) 'The man is tall.'
 - b. Zij hebben een lange man aangesteld, maar ik weet niet hoe They have a tall-AGR man hired but I know not how lang(*e). tall(*.AGR)
 'They have hired a tall man, but I don't know how tall.' [Merchant 2001, examples (26) and (27), pgs. 171-172]

Merchant (2001) resists the conclusion that adjectival sluices stem from predicational sources in Dutch, offering (15) as the relevant candidate, arguing that it is not clear how such clauses would satisfy his focus-semantic condition on ellipsis, given a non-copular antecedent.

(15) Hoe lang is de man (die zij hebben aangesteld)? How tall is the man who they have hired
'How tall is the man who they hired?' [Merchant 2001, example (28), pg. 172]

⁴ Merchant 2001 actually reports different judgements for the German paradigm given above, where attributive adjectival sluices are reported as degraded in general (Merchant 2001, pg. 173, example (30)). I have no account of the interspeaker variation in this regard, though the preference for lack of case agreement on remnants in some speakers is consistent with an SCC analysis (at least for those speakers). Barros et al. 2014 attribute (p.c.) the German judgements in (13) to Timo Klein. I leave an investigation of the grammars of speakers who reject adjectival sluices more generally in German for future work.

The source of the trouble, according to Merchant 2001, is the contribution of the definite in (15), which, being absent in the antecedent (14b), interrupts his proposed focus condition on deletion. Merchant's 2001 theory requires mutual entailment between focus-theoretic meanings associated with the antecedent XP and the elided XP (see Merchant 2001, chapter 1, for details). To account for the pattern, Merchant 2001 proposes, instead, that ellipsis somehow bleeds agreement between the adjectival remnant and its nominal, and we do, in fact, have an ameliorated LBC violation.

I find this conclusion to be premature. First, because the nature of the ID condition was at issue in Merchant 2001, and data such as that in (14) supports the opposite conclusion on empirical morphosyntactic grounds. As Merchant (2001) points out, the morphology on the remnant is unexpected under a left-branch extraction analysis. The nature of the ID condition on ellipsis remains mysterious to this day, so that making conclusions about which structures may or may not be elided given an antecedent on the basis of an ID condition seems unwarranted at this juncture (see the recent survey in Lipták 2015 and references for discussion of this point and review of a variety of proposed ID conditions in the literature). Given this much, it is also worth noting that Barros 2014 provides a novel and independently motivated semantic ID condition, and illustrates that predicational SCCs are straightforwardly predicted to be available in adjectival sluices under his theory (see Barros 2014, section 3.3.2.2., pgs. 87-90).

There is indirect evidence from elliptical fragments in support of the availability of SCCs in clausal ellipsis more generally. Fragments are non-sententials that nonetheless receive sentential interpretations, and have been analyzed as being derived in the same manner, and subject to the same ID condition(s) as sluices. Merchant's 2004 influential account assumes fragments, like sluices, are derived via A'-movement of the fragment to the left periphery followed by TP ellipsis. Ott and de Vries 2015 analyze Germanic right-dislocation constructions as involving the juxtaposition of two clauses. The apparent right-dislocated XP is, under their analysis, actually a clausal ellipsis remnant (a fragment in Merchant's 2004 sense).

In (16), the alleged clausal ellipsis remnant is referential, and must be in the accusative case, matching its correlate's case in the antecedent. This is expected under standard assumptions about ellipsis and remnant/correlate case matching.

(16) Ich habe einen Star getroffen: den John Travolta habe ich t_i getroffen.
I have a.ACC star met the.ACC John Travolta have I t_i met
'I have met a star: (I have met) John Travolta.'
[Ott and de Vries 2015, example (19), pg. 9]

Relevantly, predicative remnants are also possible. In these cases, case on the remnant is obligatorily nominative (17). Ott and de Vries 2015 analyze these cases as involving the ellipsis of a predicational SCC, since this would account for the right case morphology on the remnant (18).

- (17) Ich habe den John Travolta getroffen, Ein Berühmter Star!
 I have the ACC John Travolta met a.NOM famous.NOM star
 'I have met John Travolta, a famous star!'
 [Ott and de Vries 2015, example (115), pg. 42]
- (18) Er ist ein berümter Star. he is a.NOM famous.NOM star 'He is a famous star.'

[Ott and de Vries 2015, example (116), pg. 42]

To summarize, the above discussion focuses on morphosyntactic evidence for the availability of SCCs in adjectival sluices. In the following section we shift gears and discuss interpretive evidence in support of the SCC hypothesis.

2.1.3 Interpretive evidence

Elliott 2013, Barros et al. 2013, 2014 discuss a class of gradable adjectives that acquire an idiomatic meaning as attributive modifiers. These are adjectives like *old*, in *old friend*, for instance, which does not convey information about the friend's age, but rather information about how long the friendship has persisted (19c). In (19d), we see that this reading is unavailable when *old* is used predicatively (only the "elderly" interpretation is available). Similarly (19a) predicates likely alcoholism of the subject, whereas when *heavy* is used predicatively, it predicates of the subject something about his weight. Likewise, the *diligent* sense of *hard* in *hard worker* is only available when *hard* is used attributively (19e), (19f).⁵

- (19) a. He is a heavy drinker.
 - b. # The drinker is heavy.
 - c. He is an old friend.
 - d. # My friend is old.
 - e. He is a hard worker.
 - f. # That worker is hard.

Interestingly, the idiomatic interpretation is, at best, degraded in adjectival sluices involving such adjectives. 6

- (20) a. ?? She married a heavy drinker. I wonder how heavy.
 - b. ?? She married an old friend. I wonder how old.
 - c. * She fired a hard worker. I wonder how hard.

This is what we would expect if neither a predicational SCC nor an LBC violating structure are available in such cases. In (21a), we see what the putative pre-sluice would be for (20a). Here, there is a clear interpretive difference between the antecedent and embedded question; the antecedent mentions nothing about weight, whereas the embedded predicational question is about weight. This is sufficient to rule out sluicing on the basis of lack of semantic parallelism under various ID conditions on the market (e.g., Sag 1976, Merchant 2001, Anderbois 2011, Barros 2014, Thoms 2015, among others). As expected, if we change the antecedent so that it lacks the idiomatic reading, sluicing becomes fine (21b).

 $^{^{5}}$ # in the examples indicates the unavailability of the idiomatic reading.

⁶ This data has been tested informally amongst colleagues. While there is broad agreement on the unacceptability of (20c), there does seem to be some interspeaker variation regarding the status of (20a) and (20b). The disagreement amongst consultants, however, is in the expected direction, with disagreement over severity of *un*acceptability. One potential explanation, which I leave exploring in detail aside here, concerns the observation that other imaginable copular paraphrases of the E-site are available with remnant adjectives like *heavy* and *old*. In (20a), for instance, the pre-sluice might be *how heavy his drinking is*, and likewise for (20b), *how old their friendship is*. On the other hand, no such alternative seems to be available with *hard*: **how hard his working is*.

- (21) a. She married a heavy drinker, I wonder how heavy *(he is)."She married an alcoholic, I wonder how much he weighs."
 - b. The drinker she married is heavy, I wonder how heavy (he is)."The drinker she married weighs a lot, I wonder how much he weighs."

The same reasoning goes for (20b-20c), as in each case the idiomatic meaning in the antecedent would be missing in the sluice. If anti-repair proponents are correct, we do not expect a left branch violation to be available in such cases either.

Interestingly, in Czech, unlike English, the LBC appears to be inactive in nonelliptical degree questions (22a). We would expect adjectival sluices like those in (20a-20c) to be acceptable in Czech, preserving the idiomatic reading. This prediction is borne out.⁷ In (22a), we have a degree question where DegP has been extracted from a left branch, modifying *přítele, friend*. The same idiomatic reading as English is available here, where (22a) asks about the length of the friendship, and not the friend's age. In (22b) we have a Czech sluice counterpart to (20b), fully acceptable in Czech with the relevant idiomatic meaning.⁸

- (22) a. Jak starého Marie včera potkala přítele? How old.ACC Mary.NOM yesterday met friend 'How old a friend did Mary meet yesterday?'
 - b. Marie včera potkala starého přítele, ale nepamatuji Mary.NOM yesterday met old.ACC friend.ACC, but not-remember si jak starého.
 REFL.CL how old.ACC
 'Mary met an old friend yesterday, I don't remember how old a friend.'
 [Barros et al. 2014, examples (55-58), pg. 14]

In (23a-23), we have further evidence for a non-SCC source for Czech adjectival sluices from case agreement on attributive adjectives vs. predicative adjectives. As we see in (22b), the case on the remnant is consistent with a left branch extraction from a source like that in (23b).⁹

(23) a. Marie včera potkala starého přítele. Mary yesterday met old.ACC friend.ACC 'Yesterday, Mary met an old friend.'

 $^{^7\,}$ Judgements attributed to Jiri Kaspar (UCL) (via Patrick Elliott, p.c.), and Věra Dvořák (Rutgers).

 $^{^8\,}$ Patrick Elliott (p.c.) informs me that Serbo-Croatian, another language where the LBC appears to be inactive, behaves differently from Czech in this regard, with the idiomatic reading not surviving under left branch extraction.

⁹ A relevant question is whether a nominative/accusative mismatch is available in sluices like (22b). The accusative pattern we see in (22b) implies an isomorphic source with a left branch extraction. Given (23b), we would expect nominative to imply a predicational source. One could imagine that in Czech, both the SCC (with a nominative remnant) and isomorphic strategies (with an accusative remnant as in (22b) are available. Věra Dvořák (p.c.) informs me that accusative agreement is obligatory in (22b), raising the question of why it is that an SCC with nominative agreement on the remnant is impossible (and hence, why an SCC source for a sluice in (22b) is impossible). A simple explanation is that nominative case entails an elided predicational SCC, and predicative DegPs (unlike attributive) lack the idiomatic reading. In tandem with the fact that, at least in Czech, the correlate starého přítele (old friend) unambiguously denotes the idiomatic reading, we can rule out an SCC in Czech (22b) on the same grounds as we ruled them out in (20) in English (a violation of the semantic component of the ID condition).

b. Mari-in přítele je starý. Mary-POSS.NOM friend.NOM is old.NOM
'Mary's friend is old.' [Barros et al. 2014, examples (55-58), pg. 14]

Additional evidence comes from Spanish. Spanish is especially useful to examine because the availability of the idiomatic interpretation in attributive modification corresponds to a word order distinction in nominals. In Spanish, when *viejo*, *old*, precedes the noun it modifies, the idiomatic reading is available (long-time friend). When *viejo* follows the noun, only the predicative reading is available.^{10,11}

- (24) a. Juan ha contratado a un amigo viejo. Juan has hired to an old friend.
 'Juan hired an elderly friend.'
 - b. Juan ha contratado a un viejo amigo. Juan has hired to a friend old.

'Juan hired a long-time friend.'

As Barros shows, sluicing is unavailable with $como \ de \ viejo \ (how \ old)$ when viejo precedes the noun in the correlate (paralleling the data in (20)):

- (25) a. Juan ha contratado a un amigo viejo, no sé cómo de viejo. Juan has hired to a friend old not know.I how of old 'Juan hired an elderly friend, but I don't know how old.'
 - b. $\,$ * Juan ha contratado a un viejo amigo, no sé cómo de viejo.

old friend

'Juan hired a long-time friend, but I don't know how old.'

Additionally, only the non-idiomatic (age of the friend) reading is available in a predicational SCC, which is consistent with the hypothesis that the source for sluicing in (25a) is a predicational clause like (26).¹²

(26) Cómo de viejo es el amigo que Juan ha contratado? How of old is the friend that Juan has hired 'How old is the friend that Juan hired?'

2.1.4 Summary

There is straightforward morphosyntactic and interpretive support for the hypothesis that predicational SCCs may underlie adjectival sluices, which otherwise would appear

 * Cómo de viejo ha contratado a un amigo Juan? How of old has hired to a friend Juan 'How old a friend has Juan hired?'

 $^{^{10}\,}$ Thanks to Luis Vicente and Andrés Saab (p.c.) for judgements and discussion.

¹¹ "to" glosses a differential object marker.

 $^{^{12}}$ Luis Vicente (p.c.) notes that an isomorphic source, as in (i), for (25a), has the feel of a left branch violation. If non-repair proponents are correct, this state of affairs supports an SCC analysis for the sluice in (25a).

to involve the repair of LBC violations under ellipsis in languages like English, Dutch, German, and Hungarian (as in Merchant 2001). This conclusion is supported by data from Czech, where the LBC appears to be inactive, and the morphology on degree phrase remnants patterns, as expected, with attributive modification in non-elliptical sentences. The interpretive evidence from English, Czech and Spanish also supports the point in the same way: the idiomatic reading of adjectives like *old* is preserved in adjectival sluices in Czech, where we expect it to be since a left branch extraction is available in that language, but not preserved in languages where LBC violations are unavailable.

In the next section, we examine evidence for other sorts of SCCs which have been appealed to in the literature, namely clefts and specificational copular clauses. The motivation for an appeal to SCCs recalls the motivation for the appeal to predicational sources, namely, as an explanation for what otherwise appears to be the repair of constraints on A' movement in non-elliptical sentences under ellipsis.

2.2 P(reposition)-stranding and SCCs

In most of the world's languages, prepositions may not be stranded under A'-movement of their complements. Merchant 2001 provides data from 24 languages in support of Merchant's Generalization (MG for short):

(27) Merchant's Generalization:

A language L will allow preposition stranding under sluicing iff L allows preposition stranding under regular Wh-movement. [Merchant 2001, (21), pg. 92]

To exemplify MG at work, English is a language that largely adheres to MG. Consider (28). Presumably, we can tell if a preposition has been stranded in the E-site based on the form of the remnant. If the remnant is a PP, and its correlate is a PP, as in (28a), no P-stranding in the E-site has occurred. On the other hand, if the remnant is a DP, and its correlate DP is contained in a PP, as in (28b), we may conclude that a preposition has been stranded in the E-site.

- (28) a. Jack watched a movie with someone. Guess [PP] with whom $]_i$ Jack watched a movie t_i .
 - b. Jack watched a movie with someone. Guess [DP] who $]_i$ Jack watched a movie with t_i .

The English example in (28) is consistent with MG, since P-stranding is also available under non-elliptical (regular) Wh-movement:

(29) ... Guess who_i Jack watched a movie with t_i .

In short, if P-stranding is available in overt movement, then a sluice is possible where the remnant may be a DP, and its correlate the object of a preposition.

Unlike English, Russian is a language where P-stranding is unavailable in overt movement (30b). In keeping with MG, a DP remnant is disallowed when its correlate is the object of a preposition in the antecedent (30a).

(30) a. Anja govorila s kem-to, no ja ne znaju *(s) kem.
Anja spoke with someone, but I not know *(with) who.
'Anja spoke with someone, but I don't know who.'

b. * Kem ona govorila s? Who she spoke with
'Who did she speak with?' [Merchant 2001, examples (32), pg. 96]

This is expected under a view of sluicing where sluicing involves "regular" Wh-movement followed by TP ellipsis. Nothing else being said, we assume the same constraints on Wh-movement active in non-elliptical sentences should be active in elliptical sentences. However, if we deviate from the assumption that the E-site hides a TP in some sense syntactically identical to the antecedent TP, it is not clear that we should expect MG to hold so robustly.

In fact, over the last decade or so, several counterexamples to MG have been uncovered in many languages: Hartman 2005 for Finnish, Fortin 2007 for Bahasa Indonesian, Almeida and Yoshida 2007 for Brazilian Portuguese, Szczegielniak 2008 for Polish, Vicente 2008 for Spanish, Bulgarian, French, Italian, and Brazilian Portuguese, Rodrigues et al. 2009 for Spanish, and Brazilian Portuguese, van Craenenbroeck 2008, 2009, 2010, 2012 for a variety of languages, including German, Russian, and Greek, languages which were, in fact, brought to bear on MG in Merchant's original 2001 survey.

This state of affairs raises an important question. How is it that Merchant's original survey was so empirically successful in supporting MG, given that so many counterexamples are available, many of which have been uncovered in the very languages surveyed in Merchant's original proposal? Following many authors, I assume, here, that MG, as stated, is correct; apparent counterexamples to it stem from elided copular clauses where no P-stranding actually obtains in ellipsis (Rodrigues et al. 2009, Vicente 2008 and others following). To give a brief preview in English, consider the sluice in (28b), repeated below, but with a different parse for the E-site than given in (28b):

(31) Jack watced a movie with someone, but I don't know who_i it was t_i .

In (31), we have the same surface (pronounced) string as in (28b), but no preposition stranding actually occurs in the E-site, since the remnant is a cleft argument.¹³

Importantly, the distribution of copular clauses in discourse is more restricted than that of canonical non-copular clauses, which will allow us to control for the availability of copular clauses in many contexts. This is true independently of ellipsis contexts. Additionally, following Jeroen van Craenenbroeck's work in this domain, we will also see that there are additional constraints on the availability of SCCs in sluicing stemming from case requirements on remnants. First, we will examine the facts in a sample of "MG-deviant" languages, languages in which apparent counterexamples to MG have been uncovered, then, we will examine facts in "MG-compliant" languages, such as Russian. As we will see, the picture is not so clean as this terminology suggests. We will see counterexamples to MG in MG compliant languages (e.g., Russian, German, English), and we will see MG compliant sluices in MG deviant languages (Spanish).

¹³ Merchant 2001 gives 10 empirical arguments against reducing all sluicing as stemming from sources like that in (31) (Merchant 2001 pgs. 120-127). It is important to keep in mind the fact that Merchant's arguments are not arguments against the existence of SCCs, but rather, serve as useful diagnostics in ruling out SCC sources in certain cases (see van Craenenbroeck 2010 in particular for thorough discussion on this matter).

2.2.1 MG-deviant Languages

English is a fairly robustly MG-compliant language. P-stranding is available in overt Wh-movement, and sluicing remnants may be DPs when their correlates are the object of a preposition. However, even in English, as Rodrigues et al. 2009 point out, counterexamples to MG may be found. There are certain prepositions which, idiosyncratically, cannot be stranded:

- (32) a. Against whose wishes will Claire marry Joachim?
 - b. * Whose wishes_i will Claire marry Joachim against t_i
 - c. Claire will marry Joachim [*PP* against [*DP* someone's wishes]], but I don't know [*DP* whose (wishes)].
 [Rodrigues et al. 2009, footnote 15, example (i)]

Rodrigues et al. 2009 take such cases to instantiate an SCC source for the sluice (a cleft), with no actual P-stranding:

(33) Claire will marry Joachim against someone's wishes, but I don't know whose (wishes) it is.

[Rodrigues et al. 2009, footnote 15, example (i)]

Rodrigues et al. focus primarily on facts in Brazilian Portuguese (henceforth BP) and Spanish. Merchant 2001 originally marked Spanish cases of apparent P-stranding under sluicing with two question marks, though Rodrigues et al. 2009 contends that such examples are, in fact, perfect or "near perfect." Rodrigues et al.'s 2009 data have held up in my own informal investigations.¹⁴

The relevant sluicing data for Spanish and BP, respectively, are given below.

- (34) a. Juan habló con alguien, pero no sé (con) quién.
 Juan spoke with someone, but not know (with) who
 'Juan spoke with someone, but I don't know who.'
 - b. * Quién habló Juan con?
 Who spoke Juan with
 'Who did Juan speak to?'
- (35) a. João falou com alguem, mas não sei quem. John spoke with someone, but not know who 'John spoke with someone, but I don't know who.'
 - b. * Quem que João falou com?
 Who that John spoke with
 'Who did John speak with?'

Rodrigues et al. 2009 propose that the appearance of P-stranding in examples like (34a) and (35a) stems from an underlying specificational copular clause,¹⁵ as illustrated below. No P-stranding actually obtains:

 $^{^{14}\,}$ Almeida and Yoshida 2007 are the first to note that P-stranding is available in BP sluicing, contra MG expectations, though they assume P-stranding is actually instantiated under sluicing in such cases, with repair at work, instead of adopting an SCC source.

¹⁵ See Higgins 1979 for a taxonomy of copula clause types.

- (36) a. Juan habló con alguien, pero no sé quién Juan spoke with someone, but not know who es la persona con la que habló Juan. is the person with the that spoke Juan.
 'Juan spoke with someone, but I don't know who was the person with whom Juan spoke.'
 b. João falou com alguem, mas não sei quem
 - John spoke with someone, but not know who é a pessoa com quem ele falou. is the person with whom he spoke 'John spoke with someone, but I don't know who was the person with whom he spoke.'

This analysis gives us a simple diagnostic for the availability of SCCs in Spanish and BP. Specifically, P-stranding indicates an SCC. Interestingly, P-stranding is unavailable in BP and Spanish in *multiple sluicing* (sluicing with more than one remnant). We may conclude that SCCs are unavailable in multiple sluicing. The explanation for this state of affairs follows straightforwardly from the interaction of properties of rightward movement, and copular clause structure.

English multiple sluices allow apparent P-stranding on the first remnant, not subsequent remnants (Lasnik 2014):

(37) Jack talked to someone about something, but I can't recall (to) who(m) *(about) what.

English is, of course, a P-stranding language, so it is, at first pass, mysterious why P-stranding should be banned at all in multiple sluices. However, Lasnik 2014 analyzes multiple sluicing as a combination of regular leftward A' movement of the first remnant, and rightward movement of all following remnants.¹⁶ Rightward movement disallows P-stranding, so we would not expect to see P-stranding in non-initial remnants in multiple sluices.

(38) * Peter talked [$_{PP}$ about t_i] yesterday [a paper on sluicing] $_i$. [Rodrigues et al. 2009, example (15), pg. 180]

The fact that P-stranding is available on the first remnant follows automatically since leftward A' movement allows P-stranding in English. Conversely, we expect no P-stranding on any remnants in Spanish (39a) or BP (39b) multiple sluices, provided we can independently rule out SCC sources for multiple sluicing as well:

(39) a. Ella habló con alguien sobre algo, pero no sé *(con) quién She spoke with someone about something, but not know with who *(sobre) qué. about what
'She spoke with someone about something, but I don't know with whom about what.'

¹⁶ Lasnik's 2014 analysis is only intended to explain the properties of multiple sluicing in non-multiple Wh-movement languages. In multiple Wh-fronting languages like Bulgarian and Serbo-Croatian, multiple sluicing behaves unexceptionally under the assumption that regular (leftward) Wh-movement is at work followed by TP deletion (Lasnik 2014, pg. 3).

b. Ela falou sobre alguma coisa para alguem, mas eu não sei *(sobre) She spoke about some thing to someone, but I not know about o que *(para) quem. the what to who
'She spoke about something to someone, but I don't know about what to whom.' [Rodrigues et al. 2009, examples (11), pg. 179]

The unavailability of SCCs in multiple sluicing follows from another property of multiple sluicing, correlated with conditions on rightward movement. Multiple sluicing remnants must be clause-mates in English (40a).¹⁷ The same is true for Spanish (40b) and BP (40c):

(40) a. * Some students said that Mary will speak to some professors, but I can't remember [which students]_j [*IP t_j* said [*CP* that Mary will speak t_i]] [to which professors]_i.

[Rodrigues et al. 2009, example (16), pg. 181]

- b. * Unos estudiantes dijeron que Juan va hablar con un profesor, pero Some students said that Juan will speak with a professor but no recuerdo qué estudiantes con qué profesor. not remember what students with what professor
- c. * Uns alunos disseram que a Jú vai falar com um professor, mas Some students said that the Jú will talk with a professor but eu não me lembro quais alunos com qual professor I not CL remember which students with what professor [Rodrigues et al. 2009, examples (21a,b), pg. 182]

This follows from Lasnik's 2014 analysis, since rightward movement is subject to Ross's 1967 Right Roof Constraint (RRC). In the sluices in (40), the remnants are separated by a clause boundary. In order for the rightmost remnant to survive the matrix TP deletion, it must cross an embedded clause boundary in violation of the RRC.

Importantly, SCC sources for the sluices in (39) imply a violation of the RRC, as the second remnant must be extracted across a relative clause boundary:

- (41) a. * quién $[_{TP} \text{ es la persona } [_{Rel} \text{ con la que habló } t_i]]$ [sobre algo]_i who is the person with the that spoke about what
 - b. * quem $[TP \text{ foi a pessoa } [Rel \text{ com quem ela falou } t_i]]$ [sobre o que]_i who was the person with whom she spoke about the what 'who was the person with whom she spoke about what.'

The hypothesis that SCCs are behind apparent MG violations in Spanish and BP explains why such violations are not available with multiple sluicing. On the other hand, an alternative repair view, where prepositions may be stranded exceptionally in Spanish and BP A' movement under sluicing, would predict the multiple sluicing paradigms in English, Spanish, and BP to be identical, with, at least, P-stranding available on the first remnant (as sluicing mysteriously additionally fails to repair right roof constraint violations in all three languages).

 $^{^{17}\,}$ Though as Lasnik 2014 notes, in arguing against an alternative linearization based analysis in Fox and Pesetsky 2003, this is not sufficient to render multiple sluicing acceptable.

Another source of evidence for SCCs as the source of apparent exceptional P-stranding in Spanish and BP comes from exceptive modification of remnants. Merchant 2001 observes that English short clefts resist *else* modification on Wh-pivots. As such, a sluice with an *else* modified remnant, like that in (42a) cannot stem from a short cleft (presumably, no SCC source is available for (42a) (*italics* indicates prosodic prominence associated with contrastive focus):^{18,19}

- (42) a. Jack talked to *Sally*, but I don't know who *else*.
 - b. *...but I don't know who else it was.
 - c. ... but I don't know who else he talked to.

In Spanish, $m \dot{a}s$ serves the same function as *else*, and is likewise incompatible with Wh-phrases in specificational clauses or clefts. As we can see from the translation in (43a), the same facts hold for English specificational clauses as they do for short clefts like (42b).²⁰ As such, we would expect that such sources as (43a) should be unavailable in sluices with $m \dot{a}s$ -modified remnants, predicting, under the SCC analysis of apparent P-stranding sluices in Spanish that P-stranding should be unavailable. This prediction is borne out, as illustrated in (43b):

- (43) a. * Juan habló con *Elena*, pero no sé quién más es la persona con Juan spoke with Elena but not know who else is the person with la que habló Juan.
 the that spoke Juan
 'Juan spoke with *Elena*, but I don't know who else the person that Juan spoke to was.'
 - b. Juan habló con *Elena*, pero no sé *(con) quién más.
 Juan spoke with Elena but not know with who else
 'Juan spoke with Elena, but I don't know who else.'

This is unexpected from a P-stranding-as-repair approach, as it is unclear why *más* modification of the remnant (which makes an interpretive contribution) should block what would otherwise be taken to be a syntactic or PF repair.

(i) Jack talked to Sally, but I don't know who else it was that he talked to.

 $^{^{18}}$ Presumably, *else* modification on Wh-terms in clefts is out because clefts contribute an exhaustive interpretation, missing from the non-cleft alternant. In short, the cleft pivot (the Wh-phrase in (42b)) names all and only those entities that satisfy the cleft predicate, implicit in short clefts (see Halvorsen 1978; Atlas and Levinson 1981; Horn 1981; Merchant 1998; É Kiss 1998; Büring 2010, 2013; Velleman et al. 2012 among many others). The cleft question in (42b) incoherently asks for additional individuals aside from Sally that Jack talked to, such that those individuals constitute the exhaustive set of entities that Jack talked to.

 $^{^{19}}$ As Merchant 2001 notes, the facts surrounding "full" clefts are distinct from those surrounding short clefts. In short, many English speakers report that examples like (i) are fully acceptable, in contrast to (42b) with a short cleft:

This means, at least, that a full cleft may nonetheless underlie the sluice in (42a). Importantly, most accounts of full clefts also recognize exhaustivity properties, so it is mysterious why, if exhaustivity is behind the unacceptability of *else* modification in short clefts, *else* should be acceptable in full clefts. One potential solution to this problem is to posit reconstruction of the exceptive modification into the cleft relative clause predicate in a full cleft, so that (i) would be paraphrasable as "I don't know the exhaustive set of non-Sally individuals that he talked to," a possibility I leave exploring aside here.

 $^{^{20}\,}$ In fact, Mikkelsen 2004, 2005 analyzes short clefts as a species of specificational clause.

Interestingly, as Rodrigues et al. point out, in BP, apparent P-stranding under sluicing with *mais*-modified remnants (the BP equivalent of $m\acute{as}/else$) is available:

(44) Mateus falou com *Maria*, mais eu não sei (com) quem *mais*. Mateus spoke with Maria, but I not know with who else

This is challenging for the SCC hypothesis since BP specificational clauses are just as resistant to *mais* modification of the Wh-term as in English and Spanish:

(45) * João falou com Maria, mas eu não sei quem mais foi a pessoa com John spoke with Maria, but I not know who else was the person with quem ele falou.
whom he spoke
'John spoke with Maria, but I don't know who else the person he spoke with was.'

In defense of the SCC hypothesis, Rodrigues et al. appeal to the observation that in BP, clefts are compatible with *mais* modification of the pivot:

(46) Me fala quem mais é que você quer convidar para sua festa. CL tell who else is that you want invite to your party 'Tell me who else it is that you want to invite to your party.' [Rodrigues et al. 2009, example (26), pg. 184]

Thus, the source for the sluice in (44) would be as in (47):

(47) Mateus falou com Maria, mais eu não sei (com) quem mais Mateus spoke with Maria, but I not know with who else foi (com quem ela falou).
was (with whom she spoke)

Of course, here, we must be careful. Spanish, like BP, also has clefts alongside specificational clauses. We want to make sure that $m \dot{a}s$ modification of cleft pivots in Spanish cannot be sources for apparent P-stranding sluices, otherwise we predict that examples like (43b) should be acceptable with P-omission, contrary to fact.

In Spanish, in contrastive sluicing contexts, cleft pivots must be PPs when the correlate is, itself, contained in a $\rm PP:^{21}$

- (48) a. J. habló con M., pero no sé con quién más fue que habló.
 J spoke with M, but not know with who else was that spoke
 'Juan spoke with Maria, but I don't know with whom else it was that he spoke.'
 - b. *...pero no sé quién mas fue con la que habló. ...but not know who else was with which that spoke

Given this much, there is no expectation that Spanish clefts should give rise to P-stranding illusions with $m \acute{as}$ -modified remnants, a result which is consistent with the SCC hypothesis.

The above discussion shows us, not only that there is much evidence in support of the existence of SCCs, but also gives us a pointer on how to investigate their distribution

 $^{^{21}\,}$ Thanks to Luis Vicente and Carlo Linares (p.c.) for judgements.

in sluices crosslinguistically. We must be careful in any given language to examine the properties and distribution of copular clauses that are possible sources for sluices before we can begin to develop language-specific diagnostics for ruling them out. The distribution of copular clauses in discourses, along with their syntactic and semantic properties will tell us whether any given sluice may hide an SCC or a more standard syntactically isomorphic structure. We must also be careful to check various types of copular clauses, an admittedly non-trivial task, given the multiplicity of copular clause types posited in the literature.²²

Next, we examine MG-compliant languages, as well as attested counterexamples to MG in those languages. The difference between MG-compliant languages and MGdeviant languages seems to rest on whether the language in question has rich case morphology on nominals and Wh-phrases; those languages that do not, such as English, Spanish, and BP as discussed in this section, seem to allow apparent P-stranding under sluicing much more productively than languages which do (such as Russian, German, Greek). The crosslinguistic distribution of the availability of exceptional P-stranding, under the SCC hypothesis, can be seen as an indicator as well of the crosslinguistic distribution of the availability of SCCs.

The role of case morphology I defend here, building on Jeroen van Craenenbroeck's work in this domain (University of Leuven), in brief, is as follows: there is a constraint on <remnant,correlate> pairs in sluicing, which requires matching of morphological case on remnants and correlates (provided they are both case-morphology bearing categories). Remnant arguments of copular clauses often receive a distinct abstract Case from their correlates in non-copular antecedents. When this Case corresponds to a distinct morphological case, case matching is violated and unacceptability results, ruling out SCCs in these instances. On the other hand, when the language in question's morphology obscures Case distinctions between remnants and correlates, the case matching condition is (vacuously) satisfied with either SCCs or isomorphic sources, and SCCs become available.

2.2.2 MG-compliant Languages

Some languages robustly (for the most part) support MG in almost never allowing apparent P-stranding under sluicing. Russian and German are examples of such languages. Here, I build on the observations in Jeroen van Craenenbroeck's work (van Craenenbroeck 2008, 2009, 2010, 2012 and references) where what seems to make a language MG-compliant is whether it has rich case (lower-case case) morphology, in particular on (Wh-)DPs (including of course sluicing remnants). Languages with overt case on DPs strongly support MG (let us call them "remnant-case" languages), in contrast to languages like BP, English, and Spanish.

A strong argument for syntactic isomorphism comes from the case-matching requirement in sluicing, first discussed in Ross 1969. Languages that overtly mark case on Wh-phrases must have case-matching <remnant,correlate> pairs. In Russian, for

 $^{^{22}\,}$ Higgins 1979 posits 4 types: predicational, specificational, equative, and identificational, with much literature since attempting to collapse his taxonomy by lumping one or another type as a subtype of another (see Mikkelsen 2008, in particular, for a nice survey and discussion of this ongoing debate). To my knowledge, there is no reason a priori to rule out any particular taxon as a potential SCC in sluicing generally, though much further crosslinguistic investigation is needed in this regard.

instance, the verb *podaril*, 'gave,' assigns dative to its object. In a sluice with such an object as a correlate, the remnant must also bear dative case:

(49) Ivan podaril komu-to podarok, no ja ne znaju Ivan gave someone.DAT present, but I not know komu / *kto }.
who.DAT / *who.NOM }
'Ivan gave someone a present, but I don't know who.' [Grebenyova 2007, example (4), pg. 52]

Of course, if sluiced TPs must be syntactically identical to their antecedents (here, read as "a Wh-question version/paraphrase of the antecedent"), we expect remnants and correlates to generally match in case morphology, since they share syntactic contexts and, therefore, case-assigners.

(50) ... no ja ne znaju komu_i [<u>TP Ivan podaril t_i podarok]</u>.
... but I not know who.DAT [<u>TP Ivan gave</u> present]
'... but I don't know who Ivan gave a present.'

In (51), below, we see that an SCC makes the wrong prediction about what case the remnant bears, as Russian copular clauses assign nominative, not dative.

(51) ... no ja ne znaju { kto/*komu } eto byl.
... but I not know { who.NOM/*who.DAT } it was 'But I don't know who it was.'
[Grebenyova 2007, example (7), pg. 53]

German, like Russian, has rich case. German clefts also mark cleft arguments in the nominative. Sluicing seems to require case matching in German as well, so that SCCs may be ruled out in many sluices with non-nominative correlates.

- (52) a. Er will jemanden loben, aber ich weiß nicht, { wen / He wants someone.ACC praise but I know not { who.ACC / *wer }.
 *who.NOM }
 'He wants to praise someone, but I don't know who.' [Ross 1969, example (5), pg. 254]
 - b. Er will jemanden loben, aber ich weiß nicht, wen er loben He wants someone.ACC praise but I know not, who.ACC he praise will.
 wants

'He wants to praise someone, but I don't know who he wants to praise.' [Merchant 2001, example (17), pgs. 89-90]

c. ...aber ich weiß nicht, wer es ist.
...but I know not who.NOM it is
'...but I don't know who it is.'

Merchant 2001's CMG, repeated below, in an effort to account for the pattern, runs the risk of ruling out SCCs in sluices altogether, if we assume that morphological (lowercase) case matching implies that abstract Case must also match:

{

(53) Form Identity Generalization I; Case-matching [CMG - author] The sluiced wh-phrase [remnant -author] must bear the case that its correlate bears.
[Merchant 2001, (20), pg. 91]

In BP, for instance, cleft pivots receive nominative abstract Case. In one corner of BP, however, this abstract Case has a morphological reflex, namely, with first person pronouns. 1st person cleft pivots are nominative (54a), though objects of prepositions receive prepositional case (54b):

- (54) a. Fui eu que fiz. Was I that did 'It was me that did it.'
 - b. Ela riu de mim.
 She laughed of me.PREP
 'She laughed at me'

In an instance of apparent P-stranding in BP sluicing, we necessarily have an abstract Case mismatch in examples like (55):

(55) João falou com Maria, mais não sei [quem mais] John spoke with Maria.PREP, but not know [who else].NOM foi com quem ele falou. was with whom he spoke

How might this challenge be met by the SCC hypothesis? van Craenenbroeck 2008, 2009, 2010, 2012 assumes sluicing, and ellipsis in general, is subject to strict syntactic isomorphism, but also assumes that when strict isomorphism entails an elided structure that is ungrammatical (e.g., when isomorphism entails an exceptional a P-stranding ban violation), an accommodation mechanism may step in, allowing non-isomorphic SCCs to be elided in lieu of an isomorphic structure. In van Craenenbroeck 2012, this mechanism essentially accommodates a cleft antecedent for the sluice, in lieu of its actual antecedent, so that syntactic isomorphism is, in fact, respected, with respect to the accommodated antecedent. Importantly, in his system, the accommodation mechanism is sensitive to properties of the remnant and correlate, in particular, overt case (lowercase) morphology (more generally, when the remnant and correlate are morphologically non-distinct).²³

van Craenenbroeck 2012 provides evidence from a variety of (morphologically rich) MG-compliant languages (Zurich and Standard German, Russian, and Greek), showing that MG counterexamples can be dug up, even in these, provided that the case on the remnant is syncretic with the correlate's case. Additionally, syncretism alone is not sufficient, rather, the remnant and correlate cases must be syncretic between *nominative* and some other case. This is important because it is nominative case that is assigned to SCC arguments in the languages in question. This is a strong empirical argument in favor of the SCC hypothesis for exceptional P-stranding. In short, if the distribution of SCCs is sensitive to the case matching requirement, we would expect MG violations to become available under case syncretism with nominative, even in otherwise robustly MG-compliant languages.

 $^{^{23}\,}$ See Johnson 2012 for a proposal along these lines.

In (56a), we see that P-stranding is unavailable in overt questions. In (56b), we see that Greek clefts assign nominative case to their Wh-pivots. In (56c), we see that P-stranding is unavailable, even when the case matching requirement is met (both remnant and correlate bear accusative case). In (56d), we see that syncretism on nominative between remnant and correlate renders P-stranding much improved.

- (56) a. * Pjon milise me? who she.spoke with
 'Who did she speak with?' [Merchant 2001, example (28b), pg. 94]
 - b. I astinomia anekrine enan apo tous Kiprious prota, ala the police interrogated one.ACC from the Cypriots first but dhen ksero { pjos / *pjon } itan. not I.know { who.NOM / *who.ACC } it.was
 'The cops interrogated one of the Cypriots first, but I don't know who it was.'
 [van Craenenbroeck 2008, example (17), pg. 2]
 - c. I Anna milise me kapjon, alla dhe ksero *(me) pjon. the Anna spoke with someone.ACC but not I.know with who.acc
 'Anna spoke with someone, but I don't know who.' [Merchant 2001, example (28b), pg. 94]
 - d. I Anna milise me kapja kopela, alla dhen ksero ?(me) The Anna spoke with a girl but not I.know with pja. which.nom/acc
 'Anna spoke with a girl, but I don't know which.' [van Craenenbroeck 2012, example (53), pg. 13]

Data from German and Russian pattern in the same way. That is, <remnant,correlate> pairs syncretic on nominative case significantly improve apparent P-stranding sluices in German and Russian. In German, *welche* (*which*) is syncretic for nominative and accusative, but not genitive (*welcher*). P-stranding is improved with *welche* as a remnant given an accusative correlate, as illustrated in (57).

(57) a. Rudolf wartet auf einige Freunde, aber ich weiß nicht ?(auf) Rudolf waits on some friends but I know not ?(on) welche. which.nom/acc
'Rudolf is waiting on some friends, but I don't know which.'
b. Rudolf ist statt einiger Freunde aufgetreten, aber ich weiß nicht Rudolf is instead.of some friends performed, but I know not *(statt) welcher. instead.of which.gen
'Rudolf has performed instead of some friends, but I don't know which.'

[van Craenenbroeck 2009, examples (51) and (52), pg. 13]

Below, we see the Russian paradigm:

- (58) a. On vystrelil vo čto-to, no ja ne znaju ??(vo) čto. He shot at something.nom/acc but I not know at what.nom/acc 'He shot at something, but I don't know what.'
 - b. On vystrelil vo kogo-to, no ja ne znaju ?*(vo) kovo. He shot at someone.acc but I not know at who.acc
 'He shot at someone, but I don't know who.' [van Craenenbroeck 2012, examples (54-55), pg. 13]

Such data are strong support for the hypothesis that SCCs underlie P-stranding sluices in non-P-stranding languages (i.e., that P-stranding is illusory, and stems instead from an elided copular clause where no P-stranding actually obtains).

So far, MG-compliant behavior in MG-deviant languages (e.g., Spanish contrastive sluices, Spanish multiple sluices), and we've seen MG-deviant behavior in MG-compliant languages (P-stranding in Russian, German, and Greek). There is another domain in which Spanish is, in fact, MG-compliant, and this involves correlates which have undergone differential object marking (DOM, for short). Animate/specific direct objects in Spanish are marked with a preposition-like element 'a' before the direct object (see Linares-Scarcerieau 2008, Fabregas 2013 for a recent survey on DOM).²⁴ In (59a), we see that the direct object *alguien, someone* must be differentially object marked. In (59b-59c), we see that cleft arguments strongly resist differential object marking.

- (59) a. Juan está besando *(a) alguien. Juan is kissing to someone 'Juan is kissing someone.'
 - b. Fue (*a) Maria que besó.
 Was to Maria that kissed
 'It was Maria that s/he kissed.'
 - c. (*a) quién fue que besó?to who was that kissed'Who was it that s/he kissed?'

If the object marker counts as case morphology (a fairly standard assumption), we expect differentially case marked correlates to require differentially case marked remnants. Interestingly, sluicing in these cases with a non-differentially case marked remnant is only degraded, given a differentially case marked object.

(60) Juan está besando a alguien, pero no sé ?(a) quién.
Juan is kissing to someone, but I don't know ?(to) who
'Juan is kissing someone, but I don't know who.'

Importantly, dropping the differential case marker, 'a,' in an isomorphic continuation for the sluice results in a much stronger sort of ungrammaticality than we see in the sluice (61a). In support of the SCC hypothesis, however, this is precisely the same sort of ungrammaticality we see with a cleft follow-up for such an antecedent as that in (60), as illustrated in (61b):

 $^{^{24}\,}$ Thanks to Luis Vicente (p.c.) for judgements.

- (61) a. * Juan está besando a alguien, pero no sé *(a) quién está besando Juan is kissing to someone but not know to who is kissing Juan. Juan
 - 'Juan is kissing someone, but I don't know who he's kissing.'
 - b. ? Juan está besando a alguien, pero no sé quién (es).
 Juan is kissing to someone but not know who (is)
 'Juan is kissing someone, but I don't know who (it is).'

With DOM, then, Spanish behaves like Russian, Greek, and German, whereas otherwise, when case morphology is lacking on correlates, it behaves like a MG-deviant language (like BP). In short, it is not a foregone conclusion that any given language will be entirely MG-compliant or deviant, and case morphology seems to be relevant in the determination of when or if the language is expected to behave one way or another. In terms of the correlation between P-stranding and the availability of SCCs, such evidence counts as further support for van Craenenbroeck's proposed analysis.

van Craenenbroeck's 2012 analysis is couched in terms of accommodation. That is to say, SCCs are a "special case," only available when an isomorphic source would run afoul of the ban on P-stranding in a given language. In short, there is an extra step involved. We must suspend the assumed ID condition between the (actual) antecedent, and the elided TP, via accommodation of an alternative copular antecedent, with which the SCC can be seen as identical. I will argue against such an approach below, in favor of a view where SCCs are freely available, even when the antecedent is not itself a copular clause. We deviate from the assumption that the ID conditions on deletion care about strict syntactic matching between the elided XP and its antecedent. Before further justifying such a move (let us call it the "unconstrained" version of the SCC hypothesis), I discuss another source of evidence for SCCs, involving disjunction correlates.

2.3 P-or-q Sluices and Clausal Disjunction Antecedents

P-or-q sluices are sluices where the remnant's correlate is a disjunction, in particular, when the correlate is a disjunction of clauses. Anderbois 2011 argues convincingly that disjunctions may serve as correlates, and, in particular, disjunctions of TPs may, on occasion serve as a correlate for a remnant *which* phrase. Consider the examples in (62), in each case, the remnant seems, intuitively, to ask about which element in the bracketed antecedent disjunction counts as the answer to the sluiced question:

- (62) a. Jack talked to [Sally or Christine], I can't recall which.
 - b. Jack is either [on the roof or in the garage], don't know which.
 - c. Jack is either [stupid or drunk], don't know which.
 - d. Jack [went to work or called in sick], not sure which.
 - e. [Something's on fire, or Sally's baking a cake again], not sure which.

Importantly, in each case in (62), the intuitive correlate for the remnant, *which*, is the entire disjunction. In sluicing, correlates are, in the most basic cases, indefinites, and there is a close semantic relationship between indefinites and disjunctions. The semantics of disjunctions is typically cast in terms of the semantics of indefinites (and vice versa, see, e.g., Alonso-Ovalle 2006, Anderbois 2011, Ivlieva 2012, Nicolae 2013), so that it is not surprising that disjunctions, like indefinites, may serve as correlates in sluices. 25

Especially troubling are p-or-q sluices proper, which involve disjunctions of clauses, as in (62e). Here, as pointed out in Anderbois 2011, there appears to be no imaginable isomorphic continuation for the sluice, though copular clause paraphrases are available:

(63) [Either something's burning, or Sally's baking a cake again], but I don't know which.

Possible continuations: { it is / is true / is the case / is happening / etc. }

With such antecedents, it is difficult to see how syntactic isomorphism in sluicing could ever be achieved. It is additionally unclear how a repair mechanism can apply, since it is unclear what sort of structure it must apply to.

Importantly, it is additionally difficult to see the relevance of case matching requirements in such instances, since, if we follow Anderbois 2011 in assuming the correlate is a disjunction of TPs, the correlate has no case (morphological or otherwise) with which the remnant can/must match. Of course, if SCCs are available continuations for sluices, we have a foothold in understanding p-or-q sluices if we assume such sluices involve the ellipsis of a copular clause.

Interestingly, p-or-q sluices are not available in all languages. German, BP, Spanish, and English all allow p-or-q sluices. Conversely, Russian and Polish do not. More interestingly, and in support of the SCC hypothesis, only in the former group of languages are cleft continuations for the sluices available. In the latter set, clefts are unlicensed. We've already seen an example in English in (62e), below we see examples in German, BP, and Spanish ((64), (64a), (64b), respectively).²⁶

- (64) Entweder etwas brennt oder Marie backt einen kuchen, aber ich Either something burns or Mary bakes a cake, but I weißnicht, welches von beiden (es ist).
 know not which of the two it is
 'Either something is burning or Mary is baking a cake, but I don't know which of the two (it is).'
 - a. Ou alguma coisa pegou fogo, ou então a Maria esta tentando fazer Or some thing caught fire, or then the Maria is trying to.make um bolo de novo, não sei qual dos dois (é).
 a cake of new, not know which of.the two is
 - b. O bien algo está ardiendo o (bien) Susana está cocinando una Or good something is burning or good Susana is baking a tarta otra vez, pero no sé cuál de las dos cosas (es la que cake another time but not know which of the two things is the that está passando)

is occuring

 $^{^{25}}$ Worth noting is that data like that in (62) argues straightforwardly against approaches that require category matching between remnants and correlates (e.g., Sag and Nykiel 2011). In, at least, (62b-62e), the category of the bracketed disjunction is distinct from that of the correlate, a DP. In (62c), for instance, we have a predicative adjectival disjunction, whereas the remnant remains constant as a DP across all cases in (62).

 $^{^{26}\,}$ Thanks to Patrick Grosz for German judgements; Karen Duek for BP judgements, and Luis Vicente for Spanish Judgements.

In Russian and Polish, however, TP disjunctions may not serve as the antecedent (or correlate) for a sluice. In support of the SCC analysis for p-or-q sluices, a cleft continuation is unavailable as well.²⁷ Native speakers of Russian consulted had trouble settling on any particular choice of case or gender inflection on the remnant, 'which,' as none of them seemed to work.²⁸ Example (65) shows the nominative paradigm, which is the case that would be assigned in a cleft:²⁹

(65) * Ili Sally opjat' pechet tort, ili chto-to gorit, no ja ne znaju
Or Sally again bake cake, or something on fire but I not know kakaja / kakoj / kakoje.
which.fem / which.masc / which.neut
'Sally's baking a cake again, or something's on fire, don't know which.'

Importantly, an SCC analysis for p-or-q sluices predicts straightforwardly a correlation between the availability of a cleft paraphrase for the E-site, and the availability of sluicing; the prediction for Russian would be that replacing the sluices in (65) with cleft continuations would be just as unacceptable as the sluices themselves, and this is, in fact, the case.³⁰

(66) * Ili Sally opjat' pechet tort, ili chto-to gorit, no ja ne znaju Or Sally again bake cake or something on fire but I not know kakaja / kakoj / kakoje eto. which.fem / which.masc / which.neut it
'Either Sally is baking a cake again, or something is on fire, but I don't know which it is.'

Worth noting, is that the unacceptability of the cleft continuation in (66) is not due to a general ban on Which-phrases in clefts; when the correlate for the Wh-phrase is not a TP disjunction, but a regula rindefinite DP, a cleft "which" question is possible:

(67) Ona chitala knigu, no ja ne znaju kakaja knigo She reading.past book.ACC but I not know which.NOM.neut book.neut eto byla. it was.neut

'She was reading a book, but I don't know which book it was.'

Additionally, disjunction sluices are not categorically unavailable in Russian. Provided that the correlate is not a TP disjunction, sluicing is available. The availability of disjunction correlates seems to rest on the availability of a non-cleft sluice:

(68) Dzhek to li begal, to li plaval, no ja ne znaju, chto Jack either/or ran either/or swam but I not know what exactly immeno.

'Jack either ran or swam, but I don't know which.'

 $^{^{27}\,}$ Thanks to Inna Goldberg, Vera Gor, and Yuliya Manyakina for Russian judgements (p.c.), and Adam Szczscegielniak (p.c.) for Polish judgements.

 $^{^{28}}$ Based on these elicitation sessions, Russian seems to lack a property type anaphor analogous to "one" in English, so that "which one" could not be tested as a remnant.

 $^{^{29}\,}$ Alternative choices of Wh-phrase, e.g., chto (immeno), 'what (exactly),' or kakoj iz dvuh, 'which of the two,' were also rejected as remnants.

 $^{^{30}\,}$ The copula is phonetically null in Russian in the present tense.

With a VP disjunction correlate, there is an available non-cleft continuation:

(69) ... no ja ne znaju, chto imenno on delal.
... but I not know what exactly he did
... but I don't know which he did.'

These data support a clefting analysis for p-or-q sluices; it is only when a cleft is forced in Russian, which it seems to be with a TP-disjunction correlate, that SCCs are out, and this is, presumably, because clefting is out independently.

Polish is like Russian; neither a sluice nor a cleft follow-up are acceptable.

- (70) a. * Albo coś się pali albo Sally pieczę znowu Either something.ACC/NOM refl burns or Sally bakes again ciasto, ale nie mogę powiedzieć które cake but not can say which.ACC
 'Something is burning or Sally's baking a cake again, can't say which.'
 b. * Ale nie wiem które to jest/było.
 - but not know which it is/was

'but I don't know which it is/was.'

The behavior of German and Russian in particular is interesting, as we see that the case matching requirement seems to be inactive (or is perhaps vacuously satisfied) when the correlate is not a case-bearing category. Here, the remnant is nominative.³¹ In German, with TP-disjunction correlates/antecedents, this is consistent with an SCC parse for the E-site. Clefts in Russian, and Polish, on the other hand, have a more limited distribution independently of the case matching requirement, so that SCCs are correspondingly unavailable in TP-disjunction p-or-q sluices. The generalization would seem to be that if a language allows a cleft question continuation for a p-or-q antecedent (a disjunction of TPs), the language will also allow a corresponding sluice.³²

2.4 Taking Stock

In this section, we discussed three sorts of evidence for SCCs: adjectival sluices, MGviolations in MG-compliant and -deviant languages, and p-or-q sluices. van Craenenbroeck's theory of SCCs in sluicing discussed above, as mentioned, involves an accommodation process. SCCs are only available in sluices in his theory as a "last resort" phenomenon, available only when an isomorphic presluice is independently ruled out.

 $^{^{31}\,}$ Technically, syncretic with nominative and accusative in both languages.

³² Adrian Brasoveanu (UCSC), and Melissa Fusco (UC Berkeley) inform me that this generalization does not seem to hold in Romanian or Italian. In both, a p-or-q sluice is available, but not a cleft presluice. I withhold the data, here, for now, as my investigation into the Italian and Romanian facts are still at early stages, and the data tentative. One possibility I aim to explore, is whether other sorts of SCCs may underlie p-or-q sluices in these languages aside from clefts. It remains an open question why it would be that Romanian and Italian clefts pattern differently from, e.g., German clefts, in being acceptable follow-ups to p-or-q antecedents. If other copular sources are, indeed available in Romanian and Italian clefts, this would also allow us to understand why p-or-q sluices are available in those languages, if we were to assume such sources underlie those sluices. That clefts across languages have different properties, at least, is well known, so it is not surprising to find that where clefts are available in one language, they are not available in another.

There are many reasons to doubt that SCCs are only available as a last resort. First, it is worth highlighting that the opposite assumption (i.e., that SCCs are freely available, modulo case matching and independent constraints on the distribution of copular clauses in the languages in question) is in keeping with native speaker intuitions about plausible continuations for sluices. Consider a simple sluice like that in (71):

(71) Someone left, but I don't know who.

Aside from the isomorphic continuation, who *left*, an intuitively synonymous paraphrase for the sluice is the cleft, who *it was*.

Aside from basic intuitions like this, an additional reason to doubt that SCCs are special comes from the idea in Merchant 2001 that we should analyze sluiced Wh-questions as "regular questions" as much as possible, the only difference being non-pronunciation of the elided TP. In many languages, clefting is the productive questioning strategy (e.g., French, BP), so that we might well expect sluices in those languages to be clefts as well. In fact, Potsdam 2007 makes the claim for Malagasy that sluicing in Malagasy necessarily involves SCCs, in keeping with the question formation rules of Malagasy. It would be strange to assume that successful sluicing in Malagasy always proceeds by way of a last resort mechanism.³³

As mentioned above, a serious challenge to the SCC hypothesis defended here is the CMG, which is standardly assumed to follow from the assumption that the E-site is an isomorphic Wh-question version of the antecedent. Importantly, under such a view, morphological case on remnants and correlates correlates with abstract Case. Let us call this view of the case matching requirement "derived case matching."

(72) Derived case matching:

The case matching generalization follows from the ID condition. If we believe the presluice must be a Wh-question version of the antecedent, then it follows that the remnant and correlate will match in case/Case.

One consequence of derived case matching, is that we lose SCCs as an explanation for P-stranding in languages which mark copular clause arguments in the nominative (even if only abstractly). van Craenenbroeck's last resort view allows us to maintain the SCC explanation in a way that also captures the P-stranding paradigm in MGcompliant languages like German; in his theory, provided nominative case on the remnant is syncretic with the case assigned to the correlate by the preposition, a copular clause antecedent may be accommodated, giving rise to the illusion of P-stranding.

I defend an alternative view of the case matching requirement here, however, which is consistent with van Craenenbroeck's empirical motivations, as well as the claim that SCCs are not "special," "last resort," mechanisms. We will see evidence in the next section that the CMG should be seen as an independent grammatical constraint on <remnant,correlate> pairs, and, furthermore, that it is only concerned with morphological case, not abstract Case. Let us call this "Divorced case Matching," in that case matching is divorced from the ID condition on E-sites:

(73) Divorced case Matching:

The case matching generalization is a constraint independent of the ID condition, whose only function is to ensure that morphological case on remnants and correlates match.

³³ An indirect argument comes from Wolof fragment answers, analyzed as stemming from pseudoclefts in Martinović 2012. Merchant 2004 analyzes fragment answers as involving TP ellipsis, subject to the same conditions on deletion as sluicing.

Under such a view, Case mismatches are available without having to appeal to any accommodation or last-resort process, provided such Case mismatches do not correspond to morphological case mismatches. This will be possible with case syncretism. Divorced case Matching will then have the same empirical coverage as van Craenenbroeck's last resort hypothesis; SCCs, along with apparent P-stranding, will be blocked in MG-compliant languages like German (in the absence of syncretism), and will be available in MG-deviant languages like BP.

We will see there is more evidence independent of P-stranding that case matching is only "active" when morphological case (not abstract) is at issue, specifically, whenever the correlate and remnant are case-bearing categories and at least one of them has morphological case. We have already seen one context where case matching is inactive, namely, p-or-q sluices in German and Russian, where the correlate, a VP or TP disjunction, lacks morphological case.

Finally, I underscore that the data supporting the last resort view of SCCs is also consistent with the approach defended here. If SCCs are freely available (modulo the CMG), a sluice like that in (74) is ambiguous with respect to the form of the E-site; it may either be an isomorphic structure or a copular clause (at least).

It follows that disambiguating contexts, where isomorphic sluices are ruled out independently as non-repairable, would comprise those contexts where SCCs are unambiguously detectible. Importantly, this is the same empirical state of affairs motivating researchers like van Craenenbroeck to assume, instead, that SCCs are only available as a "last resort" or "repair" strategy.

3 A Divorced case Condition

If sluices were to be Wh-question versions of their antecedents, then it would follow that correlates and remnants would, for the most part anyways, match in case, simply because of their shared syntactic contexts. However, there is evidence that the CMG should not be understood this way. That is, that it does not *follow from* isomoprhism, so much as impose it, in its satisfaction. In this sense, the case condition is "divorced" from the ID condition, in that it acquires the character of a grammatical constraint on <remnant,correlate> pairs in sluices, instead of just being a consequence of isomorphism.

If this much can be shown, a more nuanced, SCC-compatible view of the isomorphism condition becomes necessary, and will allow for a CMG that lets in SCCs in MG-deviant languages (with impoverished case marking on remnants and correlates), while ruling it out in MG-compliant languages (with rich case marking). I elucidate such a view in what follows. Here, I focus on independent empirical evidence in support of the conclusion that the CMG is not derived from a syntactic ID condition.

3.1 Independent Evidence

The assumption that sluices must be, in some sense, syntactically identical to their antecedents leads us to assume that structural/abstract Case on remnants must match that of their correlates in typical cases of sluicing, though, perhaps surprisingly, it is possible to construct non-SCC examples where the correlation between case matching and isomorphism leads to a different prediction.

It is standardly assumed that tense/finiteness mismatches may obtain between the E-site and its antecedent in sluicing (Merchant 2001, 2005; Depiante and Hankamer; Thoms 2015, among others), so the isomorphism condition, whatever it is, must at least allow for such mismatches. This assumption gives us a way of understanding (75):

(75) I remember meeting him, but I don't remember when I met him. [Merchant 2001, example (33), pg. 23]

This set of assumptions also gives us the ingredients needed to break the isomorphism/case correlation that putatively derives the CMG.

Consider, for instance, the sluices and presluices below:

- (76) a. She remembers someone meeting him, but she doesn't remember who.
 - b. She remembers someone leaving, but she doesn't remember who left.
 - c. I saw someone leave, but I didn't see who.
 - d. I saw someone leave, but I didn't see who left.

Such sluices involve an ecceptional case marking (ECM) verb, assigning accusative to the correlate, the subject of an embedded non-finite clause. The paraphrase for the sluice, however, is a finite embedded question (as it must be, since the embedding predicates do not take non-finite embedded questions), where the sluicing remnant receives nominative Case from the embedded $T^{0.34}$

Importantly, the finite presluices in (76) count as isomorphic structures, only deviating from the antecedent (the embedded non-finite clause) in tense and finiteness. If one wanted to adhere to a stronger version of isomorphism where this mismatch did not obtain, there are two conceivable structures for the sluices available, given in (77). These structures avoid the abstract Case mismatch associated with the structures in (76b-76d), along with the tense/finiteness mismatches. Both sorts of parses for the sluices in (76) given in (77) are entirely isomorphic. For instance, the sluices in (77c) and (77a) take the matrix clause in the left conjunct as their antecedents, whereas (77d) and (77b) take the embedded non-finite clauses. This much ensures the remnant and correlate's Cases will also match. However, (77c) and (77a) seem to run into an interpretive problem, while (77d) and (77b) are simply ungrammatical, presumably because of *see* and *remember*'s selectional restrictions.³⁵ Native English speakers react negatively to (77c) and (77a), reporting a sense of inconsistency, as (77c) implies that the speaker did not see something they saw, or that the subject in (77a) does not remember something they remember.

- (77) a. # She remembers someone. ACC meeting him, but she doesn't remember who. ACC_i she remembers t_i meeting him.
 - b. * She remembers some one.ACC meeting him, but she doesn't remember who.ACC_i t_i meeting him.

 $^{^{34}}$ Thoms 2015 independently comes to the same conclusion on the basis of similar data, namely, that sluicing cannot be sensitive to abstract Case matching given such examples, contra Chung 2013.

 $^{^{35}}$ It would be strange to assume ellipsis could repair interpretive and selectional restriction violations alongside island violations, so appealing to repair in defense of such structures seems unwarranted. Sluicing surely cannot repair *any* old thing.

- c. # I saw someone. ACC leave, but I didn't see who_i. ACC I saw t_i leave.
- d. * I saw someone. ACC leave, but I didn't see who
i. ACC t_i leave.

This is good evidence for abandoning the assumption that abstract Case must match. Under derived case matching, we only ever expected the case matching generalization to be as robust as the isomorphism condition led us to expect it to be. If we loosen the identity condition to allow for tense and finiteness mismatches (which is not only an uncontroversial move, but perhaps so because of the empirical facts), we expect mismatches in case/Case precisely like those in (76-77).

Derived case matching predicts, then, that if such examples could be constructed in a remnant-case language, we should be able to "tease-out" a counterexample to the CMG (i.e., we should be able to see case mismatches in sluices like those in (76) and (77) in languages where case morphology expones Case assignment). This is what we expect under derived case matching, but not divorced case matching. Divorced case matching predicts such examples should be possible in English with an abstract Case mismatch, but impossible in German, since in German there would be a corresponding case mismatch, which is what divorced case matching is sensitive to.

The predictions of divorced case matching are borne out. German *sehen*, like English *see*, assigns accusative to the subject of its complement, and like English, *sehen* can take finite interrogative complements, but not non-finite interrogative complements.³⁶

- (78) a. Klaus hat jemanden weglaufen sehen. Klaus has someone.ACC leave seen 'Klaus saw someone leave.'
 - b. Klaus hat jemanden weglaufen sehen, aber er weiß nicht, Klaus has someone.ACC leave seen but he knows not wer weggelaufen ist. who.NOM left is
 - 'Klaus saw someone leave, but he doesn't know who left.'
 - c. * Klaus hat jemanden weglaufen sehen, aber er weiß nicht, Klaus has someone.ACC leave seen but he knows not wer / wen weglaufen. who.NOM / who.ACC leave 'Klaus saw someone leave, but he doesn't know who leave.'

Additionally, as in English, German (77c) sounds inconsistent/infelicitous:

(79) # Klaus hat jemanden weglaufen sehen, aber er hat nicht gesehen, Klaus has someone.ACC leave seen but he has not seen wen er weglaufen gesehen hat. who.ACC he leave seen has 'Klaus saw someone leave, but he didn't see who he saw leave.'

Counter to the predictions of derived case matching, a detectible case mismatch is not possible in German:

 $^{^{36}}$ Thanks to Marta Wierzba, Patrick Grosz, and Mira Grubic for judgements, and Luis Vicente and Jason Merchant (p.c.) for help in constructing these examples.

(80) * Klaus hat jemanden weglaufen sehen, aber er hat nicht gesehen Klaus has someone.ACC leave seen but he has not seen wer.
who.NOM
'Klaus saw someone leave, but he didn't see who.'

Additionally, case-matching doesn't help matters much, as speakers indicate (81) is just as infelicitous as the overt counterpart in (79):

(81) # Klaus hat jemanden weglaufen sehen, aber er hat nicht gesehen Klaus has someone.ACC leave seen, but he has not seen wen.
who.ACC
'Klaus saw someone leave, but he didn't see who.'

These facts make sense if we assume that only a finite presluice, as in (76d), is a felicitous and grammatical presluice for the sluice in (76c). This entails an abstract Case mismatch in English. This implies an overt case mismatch in German. Divorced case matching then rules out the sluice in (80), corresponding to the German finite presluice. I conclude that the case matching requirement is, indeed, divorced from the ID condition. The CMG only concerns overt case, and does not follow from isomorphism.

An additional consequence of divorced case matching is that whenever it is met, the hypothesis space for E-sites the remnant may have been extracted from is narrowed to those in which the remnant's morphological case is licensed. In German examples where the remnant bears accusative, this has the result of imposing a degree of isomorphism in the E-site, since the remnant's case is licensed by the same head that licenses case on its correlate. This, in turn, explains why (81), which respects the divorced case condition, persists in being infelicitous in German, since case matching here forces a parse for the E-site like that in (79), as that parse satisfies the divorced CMG.^{37,38}

3.2 Characterizing Divorced case-Matching

Here, I give a formulation for divorced case matching that captures the empirical character of the CMG as we have uncovered it thus far. Unfortunately, I do not attempt to derive the condition, however, as this constitutes (an important!) but separate project outside the scope of this article. Deriving divorced case matching is certainly an important task, though this paper's contribution should be seen primarily as empirical in nature (in short, how should we understand the case matching *facts* in sluicing,

 $^{^{37}}$ Native German speaking consultants reported that the sluice in (81) seemed infelicitous for the same reason (79) did. In short, they have the same incoherent interpretation (he didn't see someone he saw).

³⁸ Divorced case matching actually comes very close to making the same predictions as Chung's 2013 ID condition. In Chung 2013, remnants and correlates must share identical case/Case licensing heads in their respective surrounding structures, forcing the E-site to contain the same case/Case licensor present in the antecedent. This enforces a sort of "local" isomorphism (or "limited syntactic identity," as Chung (2013) puts it). Chung 2013, however, intends for her ID condition to apply also to abstract Case, which the English facts, alone, discussed here, argue straightforwardly against (i.e. abstract Case mismatches must be available in sluicing, given the fact that finiteness mismatches are allowed). However, in remnant-case languages like German, our predictions appear to be the same.

and how should they inform our theory?). It is unfortunate that we have lost the standard isomorphism-based explanation for the case matching generalization (derived case matching), but the empirical facts seem to force us into this position.

We have already seen many contexts where the case matching generalization seems to be irrelevant. Namely, p-or-q sluices (or sluices with disjunction correlates that are not DPs, more generally), ECM-correlate sluices in English, and adjectival sluices. If we assume the case matching generalization is simply inactive in non-remnant-case languages (or active in fewer contexts), we end up capturing the crosslinguistic differences between remnant-case (MG-compliant) and non-remnant-case (MG-deviant) languages. Already implicit in the case matching generalization's formulation is reference to morphological case, so that a reformulation in terms of a case matching *condition* that requires (only) morphological case matching would automatically explain the "inactivity" of case matching in non-remnant-case languages.

One way of formulating divorced case matching in such a way as to be "active" whenever we need it to be, is as in (82):

(82) Divorced case matching:

In sluicing, given a correlate, C, and a remnant, R, if C and R are case-bearing categories, R and C must have the same case morphology.

The antecedent of the conditional clause in (82) lets in p-or-q sluices, as well as adjectival sluices. The "inactivity" of the condition in non-remnant-case languages like English, Spanish, and BP, is also captured, allowing for SCCs, capturing the distribution of P-stranding. The formulation also captures van Craenenbroeck's observed correlation between syncretism in MG-compliant languages and the availability of Pstranding/SCCs.

There remains an empirical puzzle to be captured. As van Craenenbroeck 2012 notes, the acceptability of P-stranding/SCCs in MG-compliant languages is subject to interspeaker and crosslinguistic variation, and if his reported judgements are any indication, the trend is best described as one of "amelioration" under syncretism:

"A general caveat is in order concerning the syncretism facts discussed here. As pointed out by Pullum and Zwicky (1985, 759) and Ingria (1990, 203), judgments about syncretism and morphological case are notoriously subtle and subject to interspeaker variation. As I have tried to make clear through the use of grammaticality diacritics, this was also the case for my data. That said, however, the general trend is clear: syncretic sluiced wh-phrases can be prepositionless more easily than their non-syncretic counterparts." [van Craenenbroeck 2012, footnote 12]

This statement only holds for MG-compliant languages, which contrasts with data in English, Spanish, and BP, within which, following Rodrigues et al. 2009, P-stranding is judged as "perfect," or "near perfect." I do not have a full account for the difference in judgements between MG-compliant languages like German, Russian, Greek, on the one hand, and BP, Spanish, and English, on the other. However, I appeal to van Craenenbroeck's 2012 observation that judgements regarding syncretism are "notoriously subtle." Syncretism is commonly modeled in the morphological literature as the underspecification of case features by "impoverishment rules" in certain morphosyntactic contexts (Bierwisch 1967; Halle and Marantz 1993; Noyer 1998 inter multi alia). One possibility worth exploring, which I leave aside here as it would take us too far afield, is that perhaps when "judgements are subtle," as is the case in MG-compliant languages, impoverishment is insufficient to *completely* satisfy divorced case matching, giving rise to weaker violations of the CMG than those which would obtain in the absence of any impoverishment. We might then view MG-deviant languages like Spanish, BP (and sometimes English), which are radically impoverished with respect to case morphology, as entirely satisfying divorced case matching in the usual case.³⁹

It is worth recalling the situation in Spanish here, which, as we saw, behaves more like a MG-compliant language when the correlate is differentially case marked. Such a context can be seen as one where impoverishment is less radical; the deviance stemming from the lack of identity of case featural content between remnant and correlate.^{40,41}

(83) Juan besó a alguien, pero no sé ?(a) quién. Juan kissed to someone but not know to who 'Juan kissed someone, but I don't know who.'

To summarize, I assume that even syncretism is not necessarily sufficient to (fully) satisfy divorced case-matching in some contexts, so that crosslinguistic patterns might be captured if divorced case matching ultimately receives a treatment as a gradiently violable constraint. Our main empirical observations can be summarized as (a) case matching in sluicing is not sensitive to abstract Case, and (b) syncretism helps matters, moreso in languages with radically impoverished case on arguments than in languages with richer case systems. I leave aside a more thorough exploration of the exact nature of divorced case matching here, as what has been established is sufficient to defend the idea that SCCs may underlie sluices. Where divorced case matching is violated given an SCC source for the sluice, SCCs are unavailable. In other cases, as discussed in section 2, however, SCCs are available. Divorced case matching lets in SCCs without any appeal to accommodation in MG-deviant languages, captures the differences between MG-deviant and -compliant languages with respect to the availability of P-stranding, and also straightforwardly allows for mixed patterns, such as that in Spanish.⁴²

³⁹ Jason Merchant (p.c.) suggests an alternative possibility, namely, that in MG-compliant langauges where judgements are "subtle," and varied, the impoverishment required by the case matching condition is somehow more costly than in MG-deviant languages (which have more pervasive and radical case impoverishment). It is unclear to me at present how to distinguish between these possibilities, but it should be clear that explanations for the crosslinguistic facts that do not jeopardize the spirit of divorced case matching are readily available.

 $^{^{40}}$ See Linares-Scarcerieau 2008 for an analysis of the object marker in Spanish as the phonological exponent of K^0 , the head of KP (a 'case-phrase'), and see Fabregas 2013 for a recent survey on differential object marking.

⁴¹ Insofar as we are to take van Craenenbroeck's 2012 syncretism data as an indication that SCCs are available in MG-compliant languages under syncretism, it does not seem we can conclude form the deviance resulting from "stranding" the differential object marker in Spanish that SCCs are unavailable here in Spanish.

⁴² There is one counterexample to the CMG I am aware of. Ince 2012 notes that in Turkish, subject remnants for embedded sluices must bear nominative case, despite the fact that their embedded subject correlates must bear genitive. Ince provides an account of this pattern in terms of derived case matching; ellipsis bleeds the syntactic constellation required to assign genitive case to the subject remnant. The account nicely captures the fact that, otherwise, non-subject remnants in Turkish must match case with their correlates. I have nothing substantial to say about this counterexample to derived case matching. In the face of such evidence, one possibility worth exploring is the notion that embedded subject remnants in Turkish are not actually extracted from the E-site, and do not count as remnants, freeing embedded subject Wh-phrases in Turkish sluices from the requirement that they must match in case with their correlates. Alternatively, a more fine grained investigation of the Turkish case system, perhaps in tandem with a deeper understanding of divorced case matching than that offered here,

4 Conclusions and Prospects

There is much evidence in support of SCCs in sluicing, morphosyntactic, and interpretive. One issue I have ignored on purpose in this paper is the nature of the identity condition on ellipsis. I have done this for the simple reasons that (a) the nature of this condition remains at issue in the literature, and (b) the empirical facts should determine what the identity condition should look like (i.e., which sorts of elided structures such an ID condition should allow, given an antecedent). The contribution of this paper, then, should be seen as primarily empirical in nature. In terms of the ID condition, I have contributed little. Though, by virtue of the divorced case condition defended here, we do end up with an empirically motivated method of ruling out SCCs in any given language: if the language in question is a remnant-case language, and the case of the correlate is not a case assignable in a copular clause in the language, then no copular source for a corresponding sluice is available.

We also end up with a novel view of the case matching requirement under sluicing. In particular, case matching does not *follow from* a syntactic identity condition, as standardly assumed. Believing such is only motivated by the historical assumption that ellipsis requires syntactic structure isomorphism between E-site and antecedent. Since Merchant 2001, however, we have good empirical reasons to believe that strict syntactic matching is too strong. In addition, we have presented empirical arguments in support of the notion that the case matching requirement is "surfacey," in only being concerned with whether (overt) case morphology matches between remnants and correlates. This is a state of affairs that is compatible with the observation that remnant-case languages resist MG-violations, in contrast to non-remnant-case languages, which productively counterexemplify MG. Going forward, we should aim to derive the divorced case condition on sluicing. It remains entirely mysterious to me, why it is that morphological case on remnants and correlates should be so important in ellipsis resolution in sluicing.

Acknowledgements To be added after reviews.

References

- Almeida, Diogo, and Masaya Yoshida. 2007. A problem for the preposition stranding generalization. *Linguistic Inquiry* 38: 349–362.
- Alonso-Ovalle, Luis. 2006. Disjunction in alternative semantics. PhD diss, University of Massachusetts Ahmerst.
- Anderbois, Scott. 2011. Issues and alternatives. PhD diss, UC Santa Cruz.
- Atlas, Jay, and Stephen Levinson. 1981. It-clefts, informativeness, and logical form: radical pragmatics. In *Radical pragmatics*, ed. Peter Cole. Academic Press.
- Barker, Chris. 2013. Scopability and sluicing. Linguistics and Philosophy 36: 187-223.
- Barros, Matthew. 2012. A non-repair approach to island sensitivity in contrastive tp ellipsis. In Proceedings of the 48^{th} meeting of the Chicago Linguistic Society, 61–75.
- Barros, Matthew. 2014. Sluicing and identity in ellipsis. PhD diss, Rutgers University.
- Barros, Matthew, Patrick Elliott, and Gary Thoms. 2013. More variation in island repair: clausal vs. non-clausal islands. In Proceedings of the 49th meeting of the chicago linguistic society, 331–345.
- Barros, Matthew, Patrick Elliott, and Gary Thoms. 2014. There is no island repair. Ms University College London, University of Edinburgh, Rutgers University.

may shed some light on the issue in a way that does not jeopardize the non-derivational characterization of case matching here defended. A project I leave for future work.

- Bierwisch, Manfred. 1967. Syntactic features in morphology: general problems of so-called pronominal inflection in German. In *To honor Roman Jakobson*. Mouton.
- Büring, Daniel. 2010. Conditional exhaustivity presuppositions in clefts (and definites). Ms. UCLA.
- Büring, Daniel. 2013. It's that, and that's it! Semantics and Pragmatics 6: 1-29.
- Chung, Sandra. 2013. Syntactic identity in sluicing: How much and why. *Linguistic Inquiry* 44: 1–44.
- Chung, Sandra, William Ladusaw, and Jim McCloskey. 1995. Sluicing and logical form. Natural Language Semantics 3: 239–282.
- Dayal, Veneeta, and Roger Schwarzschild. 2010. Definite inner antecedents and wh-correlates in sluicing. In *Rutgers working papers in linguistics*, eds. Peter Staroverov, Aaron Braver, Daniel Altshuler, Carlos Fasola, and Sarah Murray, Vol. 3, 92–114. New Brunswick, NJ: LGSA.
- Depiante, Marcela, and Jorge Hankamer. La condición de identidad en la elipsis: el caso del truncamiento. Ms. Universidad Nacional del Comahue and University of California, Santa Cruz.
- É Kiss, Katalin. 1998. Identificational focus versus information focus. Language 74 (2): 245–273.
- Elliott, Patrick. 2013. Towards a theory of radical island evasion under ellipsis. Paper presented at LEL postgraduate conference, University if Edinburgh.
- Erteschik-Shir, Nomi. 1977. On the nature of island constraints. Bloomington: IN: Indiana University Linguistics Club.
- Fabregas, Antonio. 2013. Differential object marking in the theory of case. An international journal of hispanic linguistics 2: 1–80.
- Fortin, Catherine Rose. 2007. Indonesian sluicing and Verb Phrase Ellipsis: Description and explanation in the Minimalist framework. PhD diss, The University of Michigan.
- Fox, Danny, and Howard Lasnik. 2003. Successive cyclic movement and island repair: the difference between sluicing and VP-ellipsis. *Linguistic Inquiry* 34: 143–154.
- Fox, Danny, and David Pesetsky. 2003. Cyclic linearization and the typology of movement. Ms. MIT.
- Fukaya, Teruhiko. 2007. Sluicing and stripping in japanese and some implications. PhD diss, University of Southern California.
- Ginzburg, Jonathan, and Ivan Sag. 2000. Interrogative investigations: The form, meaning and use of english interrogatives. CSLI Publications.
- Grebenyova, Lydia. 2007. Sluicing in Slavic. Journal of Slavic Linguistics 15: 49-80.
- Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In *The view from building 20*, eds. Stephen J. Keyser and Kenneth Hale. MIT Press.
- Halvorsen, Per-Christian. 1978. The syntax and semantics of cleft constructions. PhD diss, University of Texas at Austin, Austin, Texas.
- Hartman, Jeremy. 2005. Sluicing in Finnish. MS, Harvard University.
- Higgins, Roger Francis. 1979. The pseudo-cleft construction in English. New York: Garland. Horn, Laurence. 1981. Enxhaustiveness and the semantics of clefts. In Proceedings of NELS
- 11, eds. V. Burke and J. Pustejovsky, 125–142. Amherst, MA: GSLA.
- Ince, Atakan. 2012. Fragment answers and islands. Syntax 15: 181-214.
- Ivlieva, Natalia. 2012. Obligatory implicatures and grammaticality. In Amsterdam Colloquium 2011, ed. Maria Aloni, 381–390. Spring-Verlag.
- Johnson, Kyle. 2012. Surface anaphora. Ms. Leiden University.
- Lasnik, Howard. 2001. When can you save a structure by destroying it? In *Proceedings of the* north eastern linguistic society 31, eds. M. Kim and U. Strauss, Vol. 2, 301–320. GLSA. GLSA.
- Lasnik, Howard. 2014. Multiple sluicing in english. Syntax 17 (1): 1–20.
- Linares-Scarcerieau, Carlo. 2008. Differential object marking in the theory of case. Ms. Rutgers University.
- Lipták, Anikó. 2015. Identity in ellipsis: An introduction. Lingua 166.
- Martinović, Martina. 2012. Pseudoclefts as the source of fragment answers in Wolof. Handout presented at LSA.
- Merchant, Jason. 1998. Pseudosluicing: Elliptical clefts in Japanese and English. In Zas working papers in linguistics, eds. Artemis Alexiadou, Nanna Fuhrhop, Paul Law, and Ursula Kleinhenz, Vol. 10, 88–112. Berlin: ZAS.
- Merchant, Jason. 1999. The syntax of silence: Sluicing, islands, and the theory of ellipsis. PhD

diss, UC Santa Cruz.

- Merchant, Jason. 2001. The syntax of silence. Oxford University Press.
- Merchant, Jason. 2004. Fragments and ellipsis. Linguistics and Philosophy 27: 661-738.
- Merchant, Jason. 2005. Revisiting syntactic identity conditions. Handout, Workshop on ellipsis, University of California, Berkeley.
- Mikkelsen, Line. 2004. Specifying who: On the structure, meaning, and use of specificational copular clauses. PhD diss, University of California, Santa Cruz, Santa Cruz, CA.

Mikkelsen, Line. 2005. Copular clauses. John Benjamins.

- Mikkelsen, Line. 2008. Nominal sentences. In Semantics: An International Handbook of Natural Language Meaning, eds. Klaus von Heusinger, Claudia Maienborn, and Paul Portner. Berlin: Mouton de Gruyter.
- Nicolae, Andrea. 2013. Any questions? polarity as a window into the structure of questions. PhD diss, Harvard University.
- Noyer, Rolf. 1998. Impoverishment theory and morphosyntactic markedness. In *Morphology* and its relation to phonology and syntax, eds. Stephen G. Lapointe, Diane Brentari, and Patrick M. Farrell, 264–285. CSLI Publications.
- Ott, Dennis, and Mark de Vries. 2015. Right dislocation as deletion. Natural Language and Linguistic Theory (online).
- Potsdam, Eric. 2007. Malagasy sluicing and its consequences for the identity requirement on ellipsis. Natural Language and Linguistic Theory 25: 577–613.
- Rodrigues, Cilene, Andrew Nevins, and Luis Vicente. 2009. Cleaving the interactions between sluicing and preposition stranding. In *Romance languages and linguistic theory 2006*, eds. L Wetzels and J. van der Weijer, 175–198. John Benjamins.
- Ross, John. 1969. Guess who? In Papers from the 5th regional meeting of the Chicago Linguistic Society, eds. R. Binnick, A. Davison, G. Green, and J. Morgan, 252–286. Chicago: Chicago Linguistic Society.
- Ross, John Robert. 1967. Constraints on variables in syntax. PhD diss, MIT.
- Sag, Ivan. 1976. Deletion and logical form. PhD diss, MIT.
- Sag, Ivan, and Joanna Nykiel. 2011. Remarks on sluicing. In Proceedings of HPSG11 conference, ed. Stefan Müller. University of Washington: CSLI Publications.
- Szczegielniak, Adam. 2008. Islands and Sluicing in Polish. In Proceedings of the 27th west coast conference on formal linguistics, eds. Natasha Abner and Jason Bishop, 404–412. Somerville, MA: Cascadilla Proceedings Project.
- Thoms, Gary. 2015. Syntactic identity, parallelism and accommodated antecedents. *Lingua* 166: 172–198.
- van Craenenbroeck, Jeoren. 2009. When even repair fails: The case of sluicing. In *DGfS*, workshop on repairs. University of Osnabruck.
- van Craenenbroeck, Jeroen. 2008. Invisible optionality: On the recoverability and licensing requirements of sluicing. Handout from talk at Yale Linguistics Department, Yale University.
- van Craenenbroeck, Jeroen. 2010. Invisible last resort: A note on clefts as the underlying source for sluicing. *Lingua* 120: 1714–1726.
- van Craenenbroeck, Jeroen. 2012. Ellipsis, identity, and accommodation. Ms. KU Leuven HU Brussel.
- Velleman, Dan, David Beaver, Emilie Destruel, Dylan Bumford, Edgar Onea, and Liz Coppock. 2012. It-clefts are IT (inquiry terminating) constructions. In Semantics and linguistics theory (salt) XXII, ed. Anca Chereches, 441–460.
- Vicente, Luis. 2008. Syntactic isomorphism and non-isomorphism under ellipsis. under review for publication in Lingua.