

Syntactic isomorphism and non-isomorphism under ellipsis*

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Abstract

Rooth (1992) and Fiengo and May (1994) argued that, on top of a semantic parallelism requirement, elliptical structures are also subject to a syntactic isomorphism requirement between the elided constituent and its antecedent. This conclusion cannot be maintained in the face of the phenomenon of pseudo-sludging (Merchant 1998 *et seq*), where an elliptical copular clause is not isomorphic to its non-copular antecedent. This article shows that, in Spanish, non-isomorphism is a marked case, whereas isomorphism is the default (elsewhere) case –specifically, a non-isomorphic elliptical clause is licensed only if it leads to a stronger (more informative) statement *vis-à-vis* the antecedent clause. It is also argued that this generalization cannot be derived from independently needed restrictions on either ellipsis or copular clauses, and must therefore be encoded as an independent constraint. Finally, it is shown that while some languages behave in the same way as Spanish (French, Italian, Bulgarian), others don't (Brazilian Portuguese), revealing the need for further research in this domain.

1 Introduction

At least since Chomsky (1965), it has been known that the parallelism conditions on ellipsis must be formulated in semantic terms –roughly, ellipsis is licit if the elided constituent is truth-conditionally equivalent to a similar constituent in the antecedent clause. This much seems unavoidable in order to account for a range of form mismatches between the antecedent and the elliptical clause –e.g., verbal morphology, pronouns...

- (1) a. These men are more clever than Mary [___].
b. These men **are** more clever than Mary **is** clever.
- (2) a. Gabriel said he would swim across the English Channel, and, indeed, he has [___].
b. Gabriel said he would **swim** across the English Channel, and, indeed, he has **swum** across the English Channel.

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- (3) A: Has Mike already sent **you** his thesis?
 B: Yes, he has [___].
 B': Yes, he has sent **me** his thesis.

Once we accept that the elided constituent and its antecedent can differ in form, it becomes reasonable to ask how large this difference can be. The answer in Rooth (1992), Fiengo and May (1994), Chung et al. (1995) and subsequent work is that the wiggle room is actually quite small: the elided constituent and its antecedent are allowed to differ only in the realization of inflectional morphology. Other than that, both constituents have to be syntactically and lexically isomorphic. Specifically, Rooth (1992, 18) claimed that some phrase in the antecedent clause must be “syntactically reconstructed” into the ellipsis site –a claim that the LF copying analysis in Chung et al. (1995) is explicitly designed to capture. Rooth originally designed this analysis to account for certain patterns of sloppy and strict pronominal reference under ellipsis. Later on, Chung et al. (1995), Chung (2006), and Merchant (2005, 2007) have extended Rooth’s syntactic isomorphism condition in order to account for examples with voice mismatches between the antecedent and the elided constituent, on the assumption that, in certain cases, the ellipsis site can include the functional head that encodes voice.¹ Example (4a) involves an active-passive mismatch under sluicing, and (5a) a middle-active one under VP ellipsis. As shown in the (b) versions of this examples, the non-elliptical counterparts are grammatical. This contrast shows that we are indeed dealing a restriction on elliptical structures.

- (4) a. * Somebody cracked my PGP key, but I don’t know who by [___].
 b. Somebody cracked my PGP key, but I don’t know who it was cracked by.
- (5) a. * This book reads easily, but nobody has [___].
 b. This book reads easily, but nobody has read it.

The same analysis applies to the impossibility of mismatches in the inchoative-causative alternation (Merchant 2005, observation credited to Beth Levin). As in the previous case, note that the non-elliptical versions are fully grammatical.

- (6) a. They embroidered a table cloth with peace signs.
 b. They embroidered peace signs on a table cloth.
- (7) a. * They embroidered something with peace signs, but I don’t know what on [___].
 b. They embroidered something with peace signs, but I don’t know what they embroidered peace signs on.
- (8) a. * They embroidered something on a table cloth, but I don’t know what with [___].
 b. They embroidered somethig on a table cloth, but I don’t know that they embroidered it with.

There is, however, one type of ellipsis in which the antecedent and the elliptical clauses, while being semantically equivalent, can have a radically different syntax –i.e., the cases of pseudo-sluicing discussed in Merchant (1998), Ishihara and Hiraiwa (2002), van Craenenbroeck (2004), Fortin (2007), Potsdam (2008), Sato (2008), Toosarvandani (2008), and Rodrigues et al. (to app.), amongst others. In all these cases, the elliptical clause is a cleft (or a copula, depending on the language) whereas the

¹Obviously, the underlying assumption here is that the functional head encoding active voice is effectively a different head from the one encoding passive voice. Otherwise, there would be no grounds to claim that the two clauses have different subconstituents.

antecedent is a regular (non-cleft/non-copular) clause. The fact that the syntax of the two clauses differs to this extent suggests that they are subject to a different set of licensing conditions from what we might call “regular” sluicing. The goal of this paper is to determine what exactly these conditions are. The line of argumentation will be an extension of Rodrigues et al. (to app.). As they do, I start from the following crosslinguistic generalization from Merchant (2001).

(9) *Preposition Stranding Generalization*

For any language L , L will allow preposition stranding under sluicing only if it also allows preposition stranding in non-elliptical environments

Although Merchant provides data from over 20 languages in support of (9), various counterexamples have been reported in the literature –i.e., cases of non-P-stranding languages that nonetheless appear to license P-stranding under sluicing.² For instance, Merchant (2001, 100) provides the following paradigm for Spanish, with judgements as quoted.

- (10) a. * ¿Quién ha hablado Mauricio con?
 who has talked Mauricio with
- b. ?? Mauricio ha hablado con alguien, pero no sé (con) quién.
 Mauricio has talked with someone but not know with who

The ungrammaticality of (10a) is undisputable. However, Rodrigues et al. (to app.) argue that it is factually incorrect to mark (10b) as deviant. Their data show that several Spanish speakers find (10b) fully or nearly fully acceptable.³ Crucially, they do not use these data to argue against (9): rather, they show that the P-stranding effect is an illusion arising from the fact that the sluiced clause in (10b) stems from a copular clause (11), and not from an interrogative clause –i.e., (10b) is a case of pseudosluicing.⁴ Although I will recap some of their arguments in section 2, the reader is referred to their paper for a full justification of this conjecture.

- (11) ... pero no sé quién [es la persona con la que ha hablado Mauricio].
 but not know who is the person with which has talked Mauricio

²One can find exceptions to this generalization even within English. For instance, Fortin (2007, 215ff) observes that various environments, amongst them the collocation *against x's wishes*, do not allow P-stranding (ia). However, when used as the input for sluicing, P-stranding appears to be licensed (ib). Fortin proposes that this is because (ib) stems from an underlying cleft (ic).

- (i) a. * Whose wishes will Claire marry Joachim against?
 b. ✓ Claire will marry Joachim against somebody's wishes, but I can't remember whose (wishes).
 c. ✓ Claire will marry Joachim against somebody's wishes, but I can't remember whose wishes it is.

³Other languages that counterexemplify (9) are Finnish (Hartman 2005), Serbo-Croatian (Stjepanović 2008), Brazilian Portuguese (Rodrigues et al. to app.), Indonesian (Fortin 2007; Sato 2008), or Czech (Jakub Dotlačil, p.c.). See section 6 for more concrete data. Presumably, a more exhaustive crosslinguistic investigation would add more languages to this list.

⁴I am aware of the fact that *pseudo-sluicing* is a term originally applied to a slightly different type of ellipsis than the one described here and in Rodrigues et al. (to app.). I will nonetheless stick to it, given (a) the lack of a better term and (b) the unlikelihood of confusion, since I will not discuss any of the languages that exhibit “real” pseudo-sluicing.

Let us assume, therefore, that P-stranding effects are a reliable test for copular sources of ellipsis in Spanish.⁵ In particular, let us follow Rodrigues et al in assuming the following correlations.⁶

- (12) *Pseudosluicing and P-stranding*
- a. P-stranding effect \iff Copular source for ellipsis.
 - b. No P-stranding effect \iff Non-copular source for ellipsis.

One reasonable question that arises at this juncture is whether copular clauses are also possible sources for non-interrogative cases of TP deletion –i.e., stripping/fragment answers. Interestingly, the literature already contains relevant data: Depiante (2000, 106) claims that stripping doesn't license P-stranding effects (a claim later repeated by Merchant 2004).⁷ Let us refer to this type of ellipsis as *pseudo-stripping*, by analogy with the sluicing/pseudo-sluicing distinction. The fact that (13) is ungrammatical, even for speakers who accept (10b), appears to suggest that pseudo-stripping does not exist in Spanish.

- (13) Mauricio escribe artículos para *La Nación*, pero *(para) *Clarín* no.
Mauricio writes articles for *La Nación* but for *Clarín* not

Importantly, note that the corresponding non-elliptical copula is grammatical (14). This shows that the ungrammaticality of (13) is not due to a generalized impossibility to create the relevant copulas, but rather to a ban on using them in this particular environment.

- (14) *Clarín* no es [el periódico para el que Mauricio escribe artículos].
Clarín too is the newspaper for which Mauricio writes articles

The same restriction holds in corrective adversative coordination, which is shown in Vicente (to app.) to require the same type of clausal ellipsis discussed by Depiante.

- (15) Mauricio no escribe artículos para *La Nación* sino *(para) *Clarín*.
Mauricio not writes articles for *La Nación* but for *Clarín*

At this point, it would be tempting to conclude that this is simply a difference between sluicing and stripping, whatever its underpinnings. Nonetheless, reality is more complicated: as shown below, there also exist grammatical examples of P-stranding under stripping. If we follow the assumptions spelled out above, we are forced to conclude that the examples in the following set all stem from underlying copular clauses (this will be shown in more detail in section 2).⁸

⁵The question remains whether this hypothesis can be extended to all languages that violate the Preposition Stranding Generalization. For instance, Sato (2008) has argued that Indonesian is a true counterexample, on the grounds that P-stranding effects arise also under VP ellipsis, where a cleft source is excluded. Similarly, Jakub Dotlačil (p.c.) has pointed out that Czech could be another counterexample, given that under P-stranding sluicing, remnant wh- phrases surface with the case associated to the omitted preposition (genitive, dative...), rather than the nominative characteristic of cleft pivots. I won't have anything to say about this possibility: given that this paper focuses exclusively in Spanish, it will be enough to assume that all cases of P-stranding under sluicing in this language are reducible to pseudo-sluicing. This much, I believe, is shown beyond reasonable doubt in Rodrigues et al. (to app.).

⁶Note that (12b) logically follows from (12a). I have included both correlations simply for explicitness.

⁷Note that neither Depiante nor Merchant are trying to argue either for or against a copular source. They bring up these and related data in order to show that the derivation of stripping requires (a) hidden structure and (b) movement.

⁸It must be noted that these judgements exhibit some variability: while some speakers accept (16)-(18) without trouble, others report a small deviance (a "??" judgement). I have decided to gloss over this variation and mark the relevant examples as fully grammatical, since the important point is that all speakers find a very clear contrast between (16)-(18) on the one hand and (13)/(15) on the other. Thus, while the judgements are partially idealized, this will not affect the conclusions of the paper.

- (16) A: He oído que Mauricio ha hablado sobre un tema interesante.
have heard that Mauricio has talked about a topic interesting
B: En efecto, (sobre) astronomía.
that's right about astronomy
B': En efecto, el tema sobre el que ha hablado Mauricio es astronomía
that's right the topic about which has talked Mauricio is astronomy
- (17) A: Me pregunto para qué periódico escribe Mauricio
me wonder for which newspaper writes Mauricio
B: (Para) *El Correo*
for El Correo
B': El periódico para el que escribe Mauricio es *El Correo*
the newspaper for which writes Mauricio is El Correo
- (18) a. Arguiñano recomienda servir la carne con un buen tinto, por ejemplo, (con) un
Arguiñano advises serve the meat with a good red wine for example with a
Rioja.
Rioja
b. El tinto con el que Arguiñano recomienda servir la carne es un Rioja
the red wine with which Arguiñano advises serve the meat is a Rioja

The obvious question to ask at this juncture is “what is the exact distribution of elliptical copulas?”. I think, though, that this question can be subsumed under a more interesting one, namely “under which conditions is it possible to violate the syntactic isomorphism requirement on ellipsis?” In this article, I will show that the following generalization constitutes a correct answer.

- (19) *Syntactic isomorphism under ellipsis*
An elided constituent must be syntactically isomorphic to an equivalent constituent in the antecedent clause, *unless* a violation of the syntactic isomorphism requirement contributes to strengthening the proposition expressed by the antecedent clause.

Clearly, for (19) to make any sense, we have to be precise about what “strengthening the proposition expressed by the antecedent clause” means. We will see throughout section 4 that the grammatical cases of P-stranding consistently exhibit a specific pattern: the antecedent clause contains an indefinite expression, and the remnant of ellipsis picks out one of the members of the set denoted by the indefinite. Attentive readers might have noticed that this pattern is tantalizingly close to the alternative semantics mechanism for focus (Rooth 1985, 1992 and related work): the indefinite in the antecedent clause defines a set of alternatives, and then the remnant of ellipsis selects one out of them. Thus, “strengthening” can be equated with “creating a well-formed focus structure”.

Beyond this “focalization” property of grammatical P-stranding ellipses, it is also necessary to discuss the difference between copular and non-copular clauses. As we will see in more detail in section 2 below, the type of copular clauses underlying P-stranding ellipses are *specificational* copular clauses. These copulas are like English *it*-clefts in that they trigger an exhaustive reading (cf. Mikkelsen 2004). Given that regular (non-copular) clauses lack the obligatory exhaustive reading, their truth conditions are also laxer. Consequently, we can say that, all other things being equal, a copular clause counts as stronger (more informative) than its non-copular counterpart.

I construct the discussion in the two previous paragraphs as a conjunctive condition –i.e., in order for syntactic isomorphism to be violated, the elliptical clause must (a) match or surpass the exhaustivity status of the antecedent clause; and (b) pick a member out of the set defined by the correlate of

the remnant of ellipsis. Meeting only one of these conditions alone will not be enough, and will force us to revert to an isomorphic elliptical clause. This much leads to the following predictions:

- If we have a specificational copular antecedent, then we will not be able to violate the syntactic isomorphism requirement. The antecedent itself, being a copula, comes with an exhaustive reading. If isomorphism is to be violated, then the elliptical clause must be non-copular –i.e., *without* an exhaustive reading, and thus unable to match the exhaustivity status of the antecedent. This leads to a weaker statement independently of whether the elliptical clause picks a member out of the set defined by the correlate.
- If we have a non-copular antecedent, then a copular elliptical clause is stronger in terms of exhaustivity. In order for isomorphism to be violated, the backtracking condition must also be satisfied –i.e., the elliptical clause must pick a member out of the set defined by the correlate. If this is not the case, then we revert to a non-copular ellipse, which satisfies isomorphism.

Combining the above predictions with the correlations in (12), we arrive at the following data distribution.

(20) *Patterns of (non-)isomorphism under ellipsis*

- a. Given a copular antecedent, syntactic isomorphism is *obligatory* (i.e., the elliptical clause must be a copula too), and P-stranding effects are obligatory.
- b. Given a non-copular antecedent, syntactic isomorphism is
 - i. *not obligatory* if the elliptical clause strengthens the antecedent clause (i.e., the elliptical clause can be either a copula or not) and P-stranding effects are optional.
 - ii. *obligatory* otherwise (i.e., the elliptical clause must be non-copular), and P-stranding effects are forbidden.

A large part of the paper will be devoted to laying the empirical basis that justifies (20): in section 2, we will see that the bidirectional correlation between P-stranding effects and underlying copulas (Rodrigues et al. to app.) holds for stripping as well as for sluicing; in sections 3 and 4, we will see how the distribution of underlying copulas (and the consequent P-stranding effects) can be derived from the conditions above. In section 5, I will offer a rationalization of (20) and I will explore what its consequences are for the general theory of ellipsis. Finally, in section 6, I offer the results of a preliminary crosslinguistic survey, which show that the condition in (19) must be subject to parametric variation.

2 P-stranding effects require copulas

I will assume that all cases of stripping involve (in the same way as sluicing) a full clause, most of which is elided at PF. The reader is referred to Merchant (2004) and Depiante (2000) for justification of this assumption. What I attempt to do in this section is to go a bit further and suggest that some of the elided structures are copular clauses. This will allow us to establish the same conclusion as Rodrigues et al. (to app.) –namely, that the possibility of P-stranding effects under ellipsis is crucially linked to the availability of an underlying copula. Moreover, we will also see that there are some tight restrictions on what types of copular clauses are possible sources for ellipsis.⁹

⁹Note that, unfortunately, not all of the tests devised in Rodrigues et al. (to app.) for P-stranding sluicing can be applied to P-stranding stripping. For example, their test based on aggressively non-D-linked *wh*-phrases works (by definition) only for sluicing. Similarly, the test based on remnant complementizers applies only to Brazilian Portuguese (the other language examined in their paper) and not to Spanish. Nonetheless, I believe that the arguments developed here are sufficient to establish that P-stranding cases of stripping do indeed stem from underlying copulas.

2.1 Multiple stripping

A rather straightforward argument for an underlying copula comes from cases where more than one constituent survives ellipsis. Rodrigues et al. (to app.) point out that P-stranding is disallowed under multiple sluicing. Note that this example is grammatical if the prepositions are present, which shows that the ungrammaticality is not due to a generalized ban on multiple sluicing in Spanish.

- (21) Mauricio ha hablado con un estudiante sobre un tema de sintaxis, pero no sé *(con)
 Mauricio has talked with a student about a topic of syntax but not know with
 qué estudiante *(sobre) qué tema
 what student about what topic

Rodrigues et al. (to app.) show that the ungrammaticality of (21) is due to the impossibility of creating the necessary structures. More specifically, they adopt the proposal in Lasnik (2006) that multiple sluicing involves rightward extraposition of the second wh- phrase. Therefore, P-stranding on the second wh- phrase is disallowed, simply because rightward movement disallows P-stranding universally, even in otherwise P-stranding languages (cf. Ross 1967). The impossibility of P-stranding on the first wh- phrase is related to the fact that rightward movement is clause-bound (the Right Roof Constraint, Ross 1967). Given that the relevant copulas are biclausal structures (i.e., the predicate of the copula contains a relative clause), movement of the second wh- to a position outside the ellipsis site necessarily crosses a clause boundary, violating the RRC and rendering the whole sentence ungrammatical. This prevents the use of a copular clause altogether and, by extension, the possibility of P-stranding on the first wh- phrase. The only possibility, therefore, is to use a non-copular source, which doesn't allow P-stranding on either wh- phrase.

As we can see below, multiple stripping is also incompatible with P-stranding. By the same logic as in the previous paragraph, this restriction suggests that P-stranding effects under stripping also require a copular base. Again, note that multiple remnants are licit if the prepositions are not omitted, which shows that the ungrammaticality of (22B) cannot be reduced to a generalized impossibility of multiple remnants.

- (22) A: He oído que Mauricio ha hablado con un estudiante sobre un tema interesante
 have heard that Mauricio has talked with a student about a topic interesting
 B: En efecto, *(con) Ernesto *(sobre) astronomía
 that's right with Ernesto about astronomy

These facts are very suggestive, as they follow directly if there is a correlation between P-stranding effects and underlying copulas. Alternative proposals where P-stranding effects are due to the rescuing abilities of ellipsis (as argued by Almeida and Yoshida 2007), or to there not being an elided structure at all (Culicover and Jackendoff 2005) are at a loss to explain why such effects are suspended under multiple stripping.¹⁰

2.2 Copular remnants

Rodrigues et al. (to app.) also observe that, in cases of P-stranding sluicing, it is possible for the remnant wh- phrase to be accompanied by an appropriately inflected form of the verb *ser* 'to be' (23).¹¹ Assuming that this verb marks the presence of an underlying copula, Rodrigues et al. conclude that P-stranding sluicing is actually pseudosluicing.

¹⁰It is reasonable to wonder whether (21) and (22) can be analyzed as cases of gapping, rather than multiple sluicing/stripping. This is very unlikely: one of the defining properties of gapping is that it can only apply inside coordinate structures (cf. Johnson 1996 and references). It cannot apply across utterances, as is the case in these examples. Thanks to Judith Aissen (p.c.) for pointing this out to me.

¹¹See also Sáez (2006).

- (23) Mauricio está hablando con una chica, pero no sé qué chica es.
Mauricio is talking with a girl but not know what girl is

As shown in the examples below, a copular remnant is also possible under stripping.¹²

- (24) A: Me pregunto para qué periódico escribe Mauricio
me wonder for which newspaper writes Mauricio
B: Creo que es *El Correo*
think.1SG that is El Correo
- (25) A: ¿Sabes sobre qué tema de sintaxis va a hablar Mauricio?
know.2SG about what topic of syntax is.going to talk Mauricio
B: Estoy seguro de que va a ser el ligamiento
I.am sure of that is.going to be the binding

Admittedly, one could argue that (24B) and (25B) do not involve ellipsis, but are rather cases of a copular clause whose subject has been *pro*-dropped. In fact, if assume this much, we can account for the different ordering of the copular verb and the remnant of ellipsis in (23) vs. (24)/(25). The difference would be that sluicing forces *wh*-movement of the remnant (26), thus enforcing it to appear in a pre-copular position, whereas this is not the case in stripping (27).

- (26) ... $\boxed{\text{wh-}}$ [_{IP} SUBJ BE \boxed{t}]
-

- (27) ... [_{IP} *pro* BE DP]

Thus, it might indeed be the case that (24) and (25) do not exhibit any ellipsis at all, but I don't think it poses any particular problem for the hypothesis I am defending. For one, these examples support the point of this section –namely, that it is possible to have a copular clause as a reply to a *wh*-question or as an addition to a previous utterance. If this much is possible, then it is also possible for this copular clause to subsequently be the input to deletion.

2.3 Narrowing the hypothesis space

It is also possible to determine a few extra properties of the type of copulas that form the base of P-stranding ellipses. The argumentation in this section will be based on the types of remnants that are banned and allowed. Before discussing the relevant data, let me reproduce, for ease of reference, the typology of copular clauses developed by Mikkelsen (2004), who proposes the tripartite classification in Table 1. In the subsections below, I will follow this classification, assuming it to be essentially correct (interested readers are referred to Mikkelsen's ch. 4 for detailed discussion).

TYPE	SUBJECT	COPULA	COMPLEMENT
Predicational	Referential DP ⟨e⟩	be	Adjective ⟨et⟩
Specificational	Predicative DP ⟨et⟩	be	Name ⟨e⟩
Equative	Pronoun ⟨e⟩	be	Name ⟨e⟩

Table 1: Mikkelsen's typology of copular clauses

¹²These examples sound mildly degraded to my ear (a "??" judgement) if the copular clause is not embedded under a matrix verb. I haven't got anything interesting to say about this.

2.3.1 Equative copulas cannot be sources for ellipsis

We can begin by eliminating equative copulas as a possible source.¹³ As illustrated in Table 1, the defining property of these copulas is that both of their arguments are referential. It is nonetheless easy to construct examples of P-stranding ellipsis where the elided argument cannot be interpreted referentially. These are cases where the antecedent clause contains a quantifier (28), which has the effect that the ellipsis site cannot be paraphrased with a pronoun (29a), but can with a predicative element such as a partitive noun phrase (29b).

- (28) A: Mauricio ha hablado con muchas chicas
Mauricio has talked with many girls
B: Sí, entre otras, Clara
yes, among others, Clara
- (29) a. Ella es Clara
she is Clara
[≠(28B)]
b. Una de las chicas con las que ha hablado Mauricio es Clara
one of the girls with which has talked Mauricio is Clara
[=(28B)]

Note that this argument does not entail that equative copulas can never be sources for ellipsis. One scenario compatible with the paradigm in (28) and (29) is that both equative and specificational copulas are possible sources for ellipsis. Under this hypothesis, many ellipses are ambiguous between these two sources, and the only thing that the inclusion of a quantifier does is disambiguate the source in favour of specificational copulas. In order to exclude equative copular sources, we would have to first identify a context in which an equative (but not specificational) copula could be plausibly postulated, and then show that such examples are ungrammatical. Constructing this class of examples, however, proves to be exceedingly difficult, if possible at all: given a copular clause, it is easy to replace either argument with a relative clause (which cannot appear in equative copulas, see Mikkelsen 2004) that refers back to the relevant part of the antecedent clause. If this conjecture is correct, then we won't be able to construct the relevant examples.

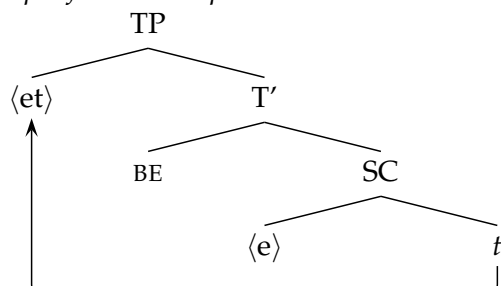
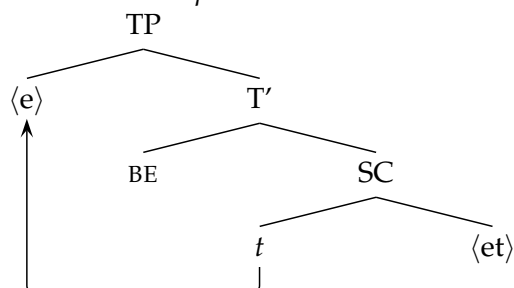
However, if every equative copula has a plausible non-equative paraphrase, but not vice versa (as evidenced by (28) and (29)), then all the cases where an equative source is possible form a proper subset of all the cases where a specificational source is possible. Therefore, by appealing to parsimony, we may stipulate that only specificational copulas are possible sources for P-stranding ellipsis. This hypothesis accounts for the data equally well, but in an arguably simpler way (i.e., without recurring to an ambiguous source). I will adopt this conclusion without additional discussion: although I am aware that there might not be direct evidence against equative sources, I also believe that this conceptual argument is reasonable enough.

2.3.2 Predicational arguments cannot be remnants of ellipsis

If P-stranding ellipses do not stem from equative copulas, then they must stem from either specificational or predicational copulas. It is not easy to differentiate these two options, though. As Table 1 reveals, both predicational and specificational copular clauses have a predicative and a referential argument, the only difference being their alignment with the subject position. Moro (1997) and

¹³I'd like to point out that, when asked to create the non-elliptical variants of the relevant examples, my informants have never spontaneously produced an equative copula. Although this is only anecdotal evidence, it might be seen as a preliminary indication that equative copulas cannot be sources for P-stranding ellipsis.

Mikkelsen (2004) propose that both types of copular clauses stem from a small clause complement to the copular verb. In predicational copulas, it is the referential argument (small clause subject) that is promoted to SpecTP, whereas in specificational copulas, it is the predicative argument (small clause predicate). That is, specificational copulas are cases of inverse predication.

(30) *Specificational copula*(31) *Predicational copula*

In fact, Mikkelsen (2004, 241-242) explicitly argues that, besides word order, the only difference between specificational and predicational copulas lies in their topic-focus articulation. The fact that both types of copulas are so similar makes it exceedingly difficult to determine which one is used in P-stranding ellipsis, and I must admit that I don't have any piece of evidence that points convincingly in either direction. Nonetheless, I would still like to argue that, on conceptual grounds, it is preferable to have specificational copular clauses as the sole source of P-stranding ellipsis. The reason to do so is Mikkelsen's (2004, 194ff) observation (citing Halliday 1967 as her source) that, while predicational copulas allow focalization of either argument, specificational copulas only allow focalization of the referential argument.

(32) Who is the winner

- a. The winner is JOHN [specificational]
 b. JOHN is the winner [predicational]

(33) What is John?

- a. # The WINNER is John [specificational]
 b. John is the WINNER [predicational]

As Mikkelsen remarkst, the contrast between (32) and (33) implies that specificational copulas arise in a very specific discourse configuration –namely, when the predicative argument qualifies as a topic and the referential argument as a focus. This configuration meets the requirements for ellipsis. To begin with, the fact that the predicative argument is a topic (discourse-old) makes it qualify as GIVEN with respect to the antecedent clause (in the sense of Schwarzschild 1999) –therefore, this argument satisfies some of the conditions to be elided. On the other hand, the referential argument, being a

focus, contrasts with the focused constituent in the antecedent, and thus makes a good ellipsis remnant. Note that, if this reasoning is correct, then the prediction is that predicative arguments will never be remnants of P-stranding ellipsis. Interestingly, this seems to be correct. Consider first sluicing: although one can imagine a rather reasonable interpretation for (34a), speakers are unanimous in judging it ungrammatical.

- (34) a. * Mauricio ha hablado con una chica, pero no sé qué []
 Mauricio has talked with a girl, but not know what
 [intended: I don't know what that girl is (i.e., an actress, an scuba-diving instructor...)]
- b. ... pero no sé qué es esa chica
 but not know what is that girl

The same holds for stripping: in the following example, only a referential reading of *una actriz* 'an actress' is possible.

- (35) A: Mauricio ha hablado con una chica
 Mauricio has talked with a girl
- B: En efecto, una actriz
 that's right, an actress
- * "The specific girl he has talked to works as an actress"
- ✓ "An actress is the type of girl that he has talked to"

These data are not really expected if predicational copulas could be sources for P-stranding ellipsis. If predicational copulas allow one to focalize either argument, it is not clear why predicative arguments cannot be remnants of P-stranding ellipsis. In contrast, this restriction follows without further stipulation if specificational copulas are the only possible sources for P-stranding ellipsis, since this subtype of copulas don't allow focalization of their predicative argument. Let us summarize this conclusion as follows:

- (36) *Generalization I: sources for P-stranding ellipsis*
 Only specificational copular clauses can be sources for P-stranding sluicing and stripping.
 COROLLARY: because of their focus structure, only the referential argument can be the remnant of ellipsis.

Note that it would also be possible to account for (34a) and (35) by simply saying that predicative arguments cannot be remnants of ellipsis. This alternative formulation would predict the ungrammaticality of these two examples without excluding predicational copulas as sources of P-stranding ellipsis. Nonetheless, it seems to me that it is preferable to keep Generalization I as it stands now, since it defines which types of copulas can be sources for ellipsis on the basis of whether they generate the topic/focus articulation needed for ellipsis. This formulation sounds more natural than stating that one class of arguments cannot be remnants of ellipsis, independently of focus structure. I believe that this conceptual argument against predicational copulas as sources of P-stranding ellipsis is good enough, especially given the lack (to the best of my knowledge) of direct empirical arguments to this effect.

2.4 Interim summary

The data covered in this section have shown that there are well-defined restrictions on what types of constituents can be remnants of P-stranding ellipsis. This restrictions can be captured if only specificational copular clauses can be sources for P-stranding ellipsis, in accordance with the major conclusion of Rodrigues et al. (to app.). This conclusion will underlie the discussion in the remainder of this paper.

3 Distribution of underlying copulas with copular antecedents

Let us begin the descriptive part of the paper by justifying condition (20a), repeated here for convenience.

- (20) a. Given a copular antecedent, syntactic isomorphism is *obligatory* (i.e., the elliptical clause must be a copula too, and P-stranding effects are obligatory).

Assuming a correlation between copular sources for ellipsis and P-stranding effects, (20a) predicts that P-stranding effects become obligatory whenever the antecedent clause is a copula. The data below confirm this generalization, both for sluicing (37)/(38) and stripping (39)/(40).

- (37) El periódico para el que escribe Mauricio es alguno de estos, pero no recuerdo (*para) the newspaper for which writes Mauricio is one of these but not remember for cuál which
- (38) La chica con la que ha hablado Mauricio es una de estas, pero no sé (*con) cuál the girl with which has talked Mauricio is one of these but not know with which
- (39) A: Uno de los periódicos para los que escribe Mauricio es *El Correo* one of the newspapers for which writes Mauricio is El Correo
B: (*Para) *El Mundo* también for El Mundo also
- (40) La persona con la que ha hablado Mauricio es una chica rubia, pero no (*con) Clara the person with which has talked Mauricio is a girl blonde but not with Clara

4 Distribution of underlying copulas with non-copular antecedents

4.1 Basic data

After examining the empirical basis behind condition (20a), let us turn now to condition (20b), repeated below.

- (20) b. Given a non-copular antecedent, syntactic isomorphism is
- i. *not obligatory* if the elliptical clause strengthens the antecedent clause (i.e., the elliptical clause can be either a copula or not, and P-stranding effects are optional).
 - ii. *obligatory* otherwise (i.e., the elliptical clause must be non-copular, and P-stranding effects are forbidden).

Let us begin by considering the examples in (16) through (18) –repeated below for convenience–, where P-stranding effects (and, by extension, a copular source) are grammatical.

- (41) A: He oído que Mauricio ha hablado sobre un tema interesante. have heard that Mauricio has talked about a topic interesting
B: En efecto, (sobre) astronomía. that's right about astronomy
B': En efecto, el tema sobre el que ha hablado Mauricio es astronomía that's right the topic about which has talked Mauricio is astronomy

- (42) A: Me pregunto para qué periódico escribe Mauricio
me wonder for which newspaper writes Mauricio
B: (Para) *El Correo*
for El Correo
B': El periódico para el que escribe Mauricio es *El Correo*
the newspaper for which writes Mauricio is El Correo
- (43) a. Arguiñano recomienda servir la carne con un buen tinto, por ejemplo, (con) un
Arguiñano advises serve the meat with a good red wine for example with a
Rioja.
Rioja
b. El tinto con el que Arguiñano recomienda servir la carne es un Rioja
the red wine with which Arguiñano advises serve the meat is a Rioja

We can see that all these examples satisfy (20b-ii). In (41), the antecedent clause (41A) asserts that Mauricio talked about an interesting topic. The elliptical continuation (41B) asserts that out of the set of interesting topics, the specific one that he talked about is astronomy. Since this continuation results in a stronger informational state with respect to the proposition expressed in the antecedent clause, both a copular source and a P-stranding effect are licensed. Similarly for (42B), where *El Correo* belongs to the set of newspapers alluded to in the antecedent clause (42A), and in (43), where Rioja belongs to the set of good wines in the antecedent clause.

Sluicing behaves in an identical way. Note that prototypical cases of sluicing feature an indefinite in the antecedent clause, and then the sluiced *wh*- word attempts to pick out a specific member out of the set denoted by the antecedent (44). Therefore, we predict that sluicing examples of this form will generally allow P-stranding effects. As far as I have been able to test, this is correct.

- (44) Mauricio ha hablado con una chica, pero no sé (con) cuál
Mauricio has talked with a girl but not know with which

Nonetheless, if we create examples where the sluiced *wh*- word does not question its correlate in the antecedent, P-stranding becomes ungrammatical. This restriction is exemplified in (45).

- (45) Mauricio ha hablado sobre una novela de Neal Stephenson, pero no sé *(sobre) qué
Mauricio has talked about a novel by Neal Stephenson but not know about which
obra de Mamet
play by Mamet

4.2 Further evidence

The formulation of syntactic isomorphism in (19) helps us explain why ellipsis forces certain readings in some examples. Consider, to begin with, the minimal pair in (46).

- (46) a. Mauricio ha hablado con un Rolling Stone, pero no [] Mick Jagger
Mauricio has talked with a Rolling Stone, but not Mick Jagger
b. Mauricio ha hablado con un Rolling Stone, pero no [] Mark Knopfler
Mauricio has talked with a Rolling Stone, but not Mark Knopfler

Example (46a) is unremarkable given the discussion in the previous section: the antecedent clause consists of the proposition that Mauricio talked to a Rolling Stone, and the elliptical clause strengthens it by asserting that the specific Rolling Stone that Mauricio talked to is Mick Jagger. Since this

configuration satisfies (20b-ii), a P-stranding effect is correctly predicted to be possible. On the other hand, example (46b) is more intriguing: since Mark Knopfler is not a member of the Rolling Stones, the elliptical clause cannot strengthen its antecedent in the same way as in (46a). This predicts that a P-stranding effect should not be possible here, and speakers agree with this. However, if forced to omit the preposition, speakers also point out that a grammatical reading emerges –namely, one in which it is implicitly counterfactually asserted that Mark Knopfler is a member of the Rolling Stones. This contrast is, I believe, a very strong indication that (19) is the correct characterization of the distribution of P-stranding effects in Spanish.

Consider next a different set of examples, which at first sight appear to counterexemplify (19).

- (47) a. * Mauricio ha hablado con una chica, pero no sé [] qué estudiante
 Mauricio has talked with a girl but not know which student
- b. * Mauricio ha escrito un artículo sobre un número natural, pero no sé [] qué
 Mauricio has written an article about a number natural but not know what
 número primo
 number prime

In (47a), a P-stranding effect is ungrammatical even if we take students to be a subset of girls. Example (47b) is even more puzzling: since prime numbers are by definition a proper subset of natural numbers, there is a very clear sense in which the elliptical clause could be taken to strengthen its antecedent. In order to understand why these two examples are ungrammatical, consider their counterparts *without* P-stranding. While (48a) and (48b) are grammatical, they are so only in the indicated reading, where the sluiced *wh-* phrase necessarily refers to an individual distinct from the one referred to by the indefinite in the antecedent clause.

- (48) a. ✓ Mauricio ha hablado con una chica, pero no sé con qué estudiante
 Mauricio has talked with a girl but not know with which student
 “Mauricio has talked with a girl x , but I don’t know which student y he has talked to, such that $x \neq y$ ”
- b. ✓ Mauricio ha escrito un artículo sobre un número natural, pero no sé sobre qué
 Mauricio has written an article about a number natural but not know about what
 número primo
 number prime
 “Mauricio has written an article about a natural number x , but I don’t know which
 prime number y he has written an article about, such that $x \neq y$ ”

In fact, the same restriction is observed in cases where no ellipsis has happened.

- (49) a. ✓ Mauricio ha hablado con una chica, pero no sé con qué estudiante ha
 Mauricio has talked with a girl but not know with which student has
 hablado *pro*
 talked
 “Mauricio has talked with a girl x , but I don’t know which student y he has talked to, such that $x \neq y$ ”
- b. ✓ Mauricio ha escrito un artículo sobre un número natural, pero no sé sobre qué
 Mauricio has written an article about a number natural but not know about what
 número primo ha escrito *pro* un artículo
 number prime has written an article
 “Mauricio has written an article about a natural number x , but I don’t know which
 prime number y he has written an article about, such that $x \neq y$ ”

Arguably, the restrictions illustrated in (48) and (49) are the consequence of a pragmatic constraint –specifically, a subcase of Grice’s Maxim of Manner (avoid ambiguity/obscurity of expression). If the antecedent clause a girl and the continuing sluice about a student, there are no grounds to assume that both clauses refer to the same set of individuals, unless this relation is explicitly mentioned. If we accept this constraint, then the ungrammaticality of P-stranding effects in (47a) and (47b) follows: the only reading available for these examples is one in which the elliptical clause is a completely independent statement from the antecedent clause, thus making it impossible to satisfy (19).

4.3 Environments that bar P-stranding effects

The condition in (19) predicts that P-stranding effects will be invariably impossible in environments where the elliptical clause does not refer back to its antecedent, but rather expresses an independent proposition. This is the case in the three environments detailed below and, as far as I have been able to test, the prediction holds without exception.

4.3.1 Definite correlates

Consider first cases where the correlate of the remnant of ellipsis is a proper name or a definite description with a unique referent. As predicted above, P-stranding is impossible in these cases.

- (50) a. Mauricio ha hablado con Clara, pero no *(con) Elena
Mauricio has talked with Clara, but not with Elena
- b. En la mitología griega, Atenea luchó contra el dios de los mares, pero no
in the Greek mythology, Athena fought against the god of the sea but not
*(contra) la diosa de la agricultura
against the goddess of the agriculture

The fact that proper names and definite descriptions have unique referents means that the elliptical clause cannot strengthen the meaning of its antecedent in a manner parallel to what we have seen in the examples in the previous subsections. As a consequence, (19) is not met and P-stranding effects are disallowed.

4.3.2 Corrective coordination

A second environment where P-stranding effects are predicted to be impossible is corrective coordination (cf. Vicente to app. for extensive evidence that this type of coordination requires ellipsis). Consider the following examples:

- (51) a. Mauricio no ha hablado con una chica rubia, sino *(con) Clara
Mauricio not has talked with a girl blonde but with Clara
- b. No he preguntado con qué chica rubia ha hablado Mauricio, sino *(con) qué
not have asked with which girl blonde has talked Mauricio but with which
chica pelirroja
girl red-haired

Horn (1989) shows that the corrective reading of *but* (translated as *sino* in Spanish) entails the denial of the proposition expressed by the first conjunct, followed by the assertion of the proposition expressed by the second conjunct. This means that the second conjunct will never refer back to the first one, and therefore will never strengthen the proposition expressed in the latter. As a consequence, it will be impossible to satisfy condition (20b-ii), and the impossibility of P-stranding effects is accounted for.

4.3.3 *Also modification*

Finally, P-stranding is also impossible whenever the remnant of ellipsis is modified by *también* 'also'.

- (52) Mauricio ha hablado con una chica rubia, y *(con) una chica pelirroja también [____]
 Mauricio has talked with a girl blonde and with a girl red-haired also

Modifying the remnant of ellipsis with *también* entails that whatever the elliptical clause expresses is not a part of what is expressed in the antecedent clause. Consequently, since the elliptical clause cannot refer back to its antecedent, the condition in (19) cannot be met and P-stranding is disallowed.

4.4 Interim conclusion

We have seen in this section that the predictions of (19) hold over a wide range of cases. These data, in combination with those in section 3 confirm the hypotheses that (i) violations of syntactic isomorphism are the marked case, whereas obeying isomorphism is the elsewhere case; and (ii) the possibility of violating isomorphism is directly related to semantic strength *vis-à-vis* the antecedent clause.

5 Additional theoretical issues

We have seen that the data support generalization (19). The next question is why such a distribution should hold. In an ideal world, (19) would follow from some independently needed condition, as that would allow us to maintain the relative simplicity of the current theory of ellipsis. In this section, however, I will show that our world is not ideal in this sense: the condition in (19) cannot be derived from either (a) existing conditions on the licensing on ellipsis, or (b) existing conditions on the distribution of copular clauses. Rather, we will be forced to view (19) as an independent condition on ellipsis –and, as we shall see in section 6 below, arguably subject to crosslinguistic variation.

5.1 Conditions on the licensing of ellipsis

Let us begin by considering whether the distribution of copular clauses under ellipsis can be predicted from existing conditions on the licensing of ellipsis –especially, parallelism conditions. From the outset, we can discard syntactic parallelism as having any relevance at all, as the whole point of this paper is that the relevant examples violate any conceivable formulation of syntactic parallelism. Let us turn, therefore, to semantic parallelism, which (as mentioned at the outset of this paper) is generally taken to require truth-conditional equivalency between the elided constituent and its antecedent. I will adopt the following generalization, based on Merchant (2001) and related work.

- (53) *Semantic identity under ellipsis*
 The elided IP (IP_E) is semantically identical to its antecedent (IP_A) if, after replacing traces and focalized constituents with \exists -bound variables, each IP entails the other.

With this much in place, let us consider the calculation of semantic parallelism for a grammatical case of P-stranding.

- (54) ✓ Mauricio ha hablado con una chica, pero no [____] Elena
 Mauricio has talked with a girl but not Elena

We know that the remnant of ellipsis and its correlate are focused, therefore these two constituents will have to be replaced with \exists -bound variables. This results in the following formulas.

- (55) a. $IP_A = \exists x.\text{talk-to}(M, x)$
 b. $IP_E = \exists x.[\lambda y.\text{talk-to}(M, y)](x)$

We can see that IP_A entails IP_E –if Mauricio talked to someone, then there is someone that Mauricio talked to. The reverse relation also holds, and therefore the grammaticality of (54) is correctly predicted. Let us consider now an ungrammatical minimal variation of (54)

- (56) * Mauricio ha hablado con Clara, pero no [] Elena
 Mauricio has talked with Clara but not Elena

In the same way as before, we replace the remnant of ellipsis and its correlate (*qua* focused constituents) with \exists -bound variables. The result is as follows:

- (57) a. $IP_A = \exists x.\text{talk-to}(M, x)$
 b. $IP_E = \exists x.[\lambda y.\text{talk-to}(M, y)](x)$

We can see that (57) is identical to (55), and hence we predict that (56) also ought to be grammatical, contrary to fact. The elliptical clause is identical in both cases, hence it is uncontroversial to give the same denotation for (55b) and (57b). The antecedent clause is not identical, but this is irrelevant for the calculation of semantic parallelism in this particular case: the two clauses only vary in the correlate of the remnant of ellipsis, *una chica* in (54) vs. *Clara* in (56). Since these two subconstituents are in focus, they are replaced by variables, thus rendering (55a) and (57a) identical. The overall conclusion, therefore, is that the grammaticality difference between (54) and (56) cannot be attributed to semantic parallelism conditions on ellipsis.¹⁴

5.2 Conditions on the distribution of copulas

If not from conditions on parallelism, maybe (19) might be derived from conditions on the distribution of copular clauses. This is an appealing hypothesis, as some of the ungrammatical cases of P-stranding do not have a well-formed non-elliptical counterpart either.

- (58) * Mauricio ha hablado con Elena, y [] Clara también
 Mauricio has talked with Elena and Clara also
- (59) * Mauricio ha hablado con Elena, y la chica con la que *pro* ha hablado también es
 Mauricio has talked with Elena and the girl with which has talked also is
 Clara
 Clara

While this hypothesis does cover some cases, it cannot be correct. As shown below, there are some ungrammatical cases of P-stranding ellipsis whose non-elliptical counterparts are perfectly well-formed. The following pairs of examples show that the constraint regulating the distribution of copular sources for ellipsis must be constructed as a constraint on ellipsis, rather than as a constraint on copular clauses.

- (60) a. * Mauricio no escribe para *La Nación*, sino [] *Clarín*
 Mauricio not writes for *La Nación* but *Clarín*

¹⁴Bear in mind that one cannot get around this problem by enriching the representation of the \exists -bound variables in (57) to the extent that the entailment relations fail. While this would certainly derive the ungrammaticality of (54), a similar change would have to be effected in (55) –since, by hypothesis, we would be modifying the licensing conditions on all cases of ellipsis. The result would be that (54) would also be ungrammatical, contrary to fact.

- b. ✓ Mauricio no escribe para *La Nación*, sino que el periódico para el que *pro* escribe es Mauricio not writes for *La Nación* but that the newspaper for which writes is *Clarín*
Clarín

6 Crosslinguistic variation

In this final section, I provide a preliminary survey of P-stranding effects under stripping in four additional languages, namely French, Italian, Bulgarian, and Brazilian Portuguese. We'll see that the first three show the same P-stranding patterns in Spanish, which appears to confirm that (19) is not a quirk of Spanish. Although the data are suggestive, it should be noted that research on these languages has been less thorough and exhaustive than in the Spanish case. More work is needed before this conclusion can be stated with full certainty.

The most intriguing data, however, come from Brazilian Portuguese. As we shall see presently, the judgements for this language are different from the judgement for the others. This difference shows that the conditions regulating the distribution of P-stranding effects are *not* universal. Determining what the source of variation is, however, goes beyond the scope of this article.

6.1 French

French behaves in the same way as Spanish (judgements from Johan Rooryck, Mélanie Jouitteau, and Myriam Tillie). Examples (61) through (65) show that, given a non-copular antecedent, a copular elliptical clause is possible if the remnant of ellipsis denotes a subset of its correlate.

- (61) Jean a parlé avec Marie, et *(avec) Hélène aussi
Jean has talked with Marie and with Hélène also
- (62) Jean n'a pas parlé avec Marie, mais *(avec) Hélène
Jean NEG.has NEG talked with Marie but with Hélène
- (63) Jean a parlé avec un membre des Rolling Stones, mais pas (avec) Mick Jagger
Jean has talked with a member of.the Rolling Stones but NEG with Mick Jagger
- (64) Jean a parlé avec un membre des Rolling Stones, mais pas *(avec) Mark Knopfler
Jean has talked with a member of.the Rolling Stones but NEG with Mark Knopfler
- (65) Jean a parlé du premier roman de Capote, mais je ne sais pas *(de) quelle pièce de théâtre de Mamet
Jean has talked of.the first novel of Capote but I NEG know NEG of which piece of playwriting of Mamet

Examples (66) and (67) probe examples with copular antecedents. Example (66) is inconclusive, as my informants find it degraded irrespective of whether the preposition is present. However, the sluicing example (67) shows the same ungrammatical status as a comparable Spanish example.

- (66) A: Un des journaux pour lesquels Jean écrit est *Le Courrier*
one of.the newspapers for which Jean writes is *Le Courrier*
B: * Et (pour) *Le Monde* aussi
and for *Le Monde* also

- (67) Le journal pour lequel Jean travaille est un de ceux-là, mais je ne sais pas (*pour)
 the newspaper for which Jean works is one of these but I NEG know NEG for
 lequel
 which

6.2 Italian

Italian also patterns with Spanish (judgements due to Roberta D'Alessandro). The following five examples show the status of ellipses with a non-copular antecedent.

- (68) Gianni ha parlato con Maria, e ??(con) Elena anche
 Gianni has talked with Maria and with Elena also
- (69) Gianni non ha parlato con Maria, ma *(con) Elena
 Gianni not has talked with Maria but with Elena
- (70) Gianni ha parlato con un Rolling Stone, ma non ?(con) Mick Jagger
 Gianni has talked with a Rolling Stone but not with Mick Jagger
- (71) Gianni ha parlato con un Rolling Stone, ma non *(con) Mark Knopfler
 Gianni has talked with a Rolling Stone but not with Mark Knopfler
- (72) Gianni ha parlato del primo romanzo di Capote, ma non so *(su) quale lavoro di
 Gianni has talked of.the first novel of Capote but not know about which play of
 Mamet
 Mamet

The final two examples test ellipses with a copular antecedent: example (74), featuring sluicing, is ungrammatical in the same way as its Spanish and French counterparts. Example (73), however, is inconclusive, given that my informant marks it as deviant regardless of whether the preposition is omitted or not.

- (73) A: Uno dei giornali per cui scrive Gianni è *Corriere della Sera*
 one of.the newspapers for which writes Gianni is *Corriere della Sera*
 B: ?? E anche (per) *La Gazzetta dello Sport*
 and also for *La Gazzetta dello Sport*
- (74) Il giornale per cui scrive Gianni è uno di questi, ma non so (*per) quale
 the newspaper for which writes Gianni is one of these but not know for which

6.3 Bulgarian

Bulgarian is another language that patterns with Spanish (judgements from Boris Harizanov, p.c.). The following five examples show the status of examples with a non-copular antecedent.

- (75) Ivan e govoril s Marija i *(s) Elena sǎsto
 Ivan has talked with Marija and with Elena also
- (76) Ivan ne e govoril s Marija, a *(s) Elena
 Ivan NEG has talked with Marija but with Elena
- (77) Ivan e govoril s edin ot členovete na Rolling Stones, no ne ?(s) Mick Jagger
 Ivan has talked with one of members of Rolling Stones but NEG with Mick Jagger

- (78) Ivan e govoril s edin ot členovete na Rolling Stones, no ne *(s) Mark Knopfler
Ivan has talked with one of members of Rolling Stones but NEG with Mark Knopfler
- (79) Ivan e govoril za pərvija roman na Kapote, no ne znam *(za) koja piesa na Mamet
Ivan has talked of.the first novel of Capote but NEG know of which play of Mamet

The final two examples illustrate cases with copular antecedent. As with French, (79B) is ungrammatical irrespective of whether the preposition is dropped or not, making it inconclusive. Nonetheless, the impossibility of including a preposition in (80) confirms that Bulgarian should be included in the same group as Spanish, French, and Italian.

- (80) A: Edin ot vestinicite, za koito Ivan piše e *Standart*
one of.the newspapers for which Ivan writes is Standart
B: * I (za) *Dnevnik* səšto
and for Dnevnik also
- (81) Vestnikə, za koito Ivan piše e edin ot tezi, no ne znam (*za) koi.
the newspaper for which Ivan works is one of these but NEG know for which

6.4 Brazilian Portuguese

Brazilian Portuguese is an odd language in that it presents a different P-stranding paradigm from the other languages discussed so far (judgements due to Matt Barros and Cilene Rodrigues). While (83) and (85) pattern in the same way as Spanish, French, and Italian, the contrast is not as strong in (84) and (86). Surprisingly, both of my informants accept a P-stranding effect in (82).

- (82) João ja falou com a Maria, e (com) a Elena também.
João already talked with the Maria and with the Elena also
- (83) João não falou com a Maria, mas *(com) a Elena
João not talked with the Maria but with the Elena
- (84) João ja falou com um Rolling Stone, mas não ??(com) o Mick Jagger
João already talked with a Rolling Stone but not with the Mick Jagger
- (85) João ja falou com um Rolling Stone, mas não *(com) o Mark Knopfler
João already talked with a Rolling Stone but not with the Mark Knopfler
- (86) João ja falou sobre a primeira novela de Capote, mas eu não sei ??(sobre) que
João already talked about the first novel of Capote but I not know about what
obra de Mamet
play of Mamet

The judgements are also different in examples with a copular antecedent. Both of my informants accept P-stranding in (87). As for (88), while one of the accepted P-stranding, the other found it strongly ungrammatical –hence the % sign.

- (87) A: Um dos jornais pra o qual o João escreve é *Fohla de São Paulo*
one of.the newspapers for which the João writes is Fohla de São Paulo
B: E (pra) o *Jornal do Brasil* também
and for the Jornal do Brasil also

- (88) O jornal pro qual o João escreve é um desses aqui, mas eu não sei % (pra)
 the newspaper for which the João writes is one of these here but I not know for
 qual
 which

7 Conclusions and prospects

This paper has shown that the distribution of P-stranding effects under ellipsis in Spanish (and, by extension, copular sources for ellipsis) is not erratic. Rather, it follows from a well-defined condition on which environments allow a violation of the syntactic isomorphism requirement between the elliptical and the antecedent clauses. The consequence of this conclusion for the theory of ellipsis is that, while both semantic parallelism and syntactic isomorphism play a role in the licensing of ellipsis, their relative importance is different. Semantic parallelism appears to be a truly inviolable condition; on the other hand syntactic isomorphism can be violated under certain specific conditions. The fact that these two conditions have different rules of application entails that they constitute separate conditions, neither one being reducible to the other.

Moreover, it has been shown that the requirement that controls whether syntactic isomorphism can be violated must be stated as an independent condition on ellipsis, not reducible to existing conditions on either the licensing of ellipsis or the distribution of copular clauses. Finally, a quick crosslinguistic survey has shown that the data discussed here can be replicated in French and Italian, thus showing that this is not a quirk of Spanish. Nonetheless, the fact that other languages exhibit a slightly different data distribution entails that the availability of copular clauses for ellipsis is subject to parametric variation. At present, though, I cannot offer any hypotheses as to which factors control this type of variation. This will remain a question for future research.

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