Ellipsis without truth

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Abstract: This paper focus on the nature of the identity condition in ellipsis. It is argued that any identity requirement stated in terms of truth conditions (or any other relevant truth-conditional aspect of meaning) has to face a strong empirical challenge, labeled as *Bias Vehicle Change*, i.e., impossible mismatches in the biased dimension of antecedents and ellipsis sites. It is shown that the strong ineffability effects that this type of mismatches produce can be better accounted for by a radical lexical/syntactic identity condition on ellipsis. The theory is formulated in terms of a formal subset identity condition. Such a theory, supplemented with a licensing ingredient that incorporates contextual restrictions for ellipsis sites, provides also a plausible answer to well-known arguments against syntactic identity (e.g., inflectional asymmetries, and tolerable vehicle change effects). Finally, I compare this syntactic approach to ellipsis with the weaker syntactic view recently proposed by Thoms (2015) and show that a syntactic theory of the identity condition that dispenses entirely with any reference to semantic notions seems to be empirically more adequate in the realm of certain particular instances of Bias Vehicle Change.

Key words: Ineffability. Bias Vehicle Change, Ellipsis, Identity Condition

1. Introduction: Weak and strong ineffability in ellipsis

The word *ineffable* or *ineffability* might be subject to different interpretations in the linguistic literature when it comes to explain different (im)possible grammatical combinations. In a strong sense, we can define *grammatical ineffability* as the impossibility of saying a sentence by the conspiracy of syntactic principles or rules. In a weaker sense, ineffability in grammar - and only under some conceptions of the syntax-PF connection - may refer, instead, to the impossibility of realizing a sentence by the conspiracy of PF principles or rules. More generally, we can say:

<u>*Strong ineffability*</u>*:* If a sentence cannot be said (more technically, the sentence cannot be derived by the principles or rules of grammar). Example: **Who are you sad [because Mary kissed t]?*

<u>*Weak ineffability*</u>: If a sentence cannot be pronounced in a given particular form. Example from Spanish verbal conjugation: *Amaba* (I love.$_{\text{IMPERF.1 CONJUGATION}}$) vs. **Amía* (I love.$_{\text{IMPERF.2/3 CONJUGATION}}$)

With reference to ellipsis phenomena, in a broad sense, we can say that strong ineffability was used in the literature as an argument against the identity condition as formulated in its more radical semantic-pragmatic versions (a crucial reference - but not the unique or even the more radical one - is, of course, Merchant 2001). According to this approach, *a constituent E can be elided if there is a salient antecedent A such that both A and E are in a mutual entailment relation*. On this account, ellipsis crucially involves the notion of *truth* or, put differently, the identity condition has as a minimum a truth conditional dimension as a necessary requirement for ellipsis successfully to apply.

The absence of some particular instances of sluicing in preposition stranding environments (Chung 2006, 2013) was used as one of the first arguments against this type of approaches (more illustrations will come later). Preliminarily, let us take Chung's paradigm:

(1) a. They're jealous, but it's unclear of who.
b. Joe was murdered, but we don't know by who.
c. Last night he was very afraid, but he couldn't tell us of what.
d. Mary was flirting, but they wouldn't say with who.
e. We're donating our car, but it's unclear to which organization.
f. U.N. is transforming itself, but into what is unclear. (*New York Times* 2/28/04)
g. She phoned home, but they weren't sure from which city.

(2) a. *They're jealous, but it's unclear who(m).
b. *Joe was murdered, but we don't know who(m).
c. *Last night he was very afraid, but he couldn't tell us what.
d. *Mary was flirting, but they wouldn't say who(m).
e. *We're donating our car, but it's unclear which organization.
f. *U.N. is transforming itself, but what is unclear.
g. *She phoned home, but they weren't sure which city.

As it should be clear, mutual entailment would not make the difference between (1) and (2), given that such a condition is satisfied in both cases. However, only the examples in (1) are legitimate ellipses. I take examples like these as *paradigmatic cases of strong ineffability*. Chung's (2006) strategy was supplementing mutual entailment with a lexical identity condition manipulating pre-syntactic numerations (The *No New Morphemes* condition), although the door was left open for a more uniform lexical/syntactic condition.

In turn, although without this particular terminology, weak ineffability was used against radical syntactic approaches to the lexical/syntactic identity condition. Consider a case like the following from Jason Merchant's dissertation ("< >" indicates E sites):

(3) Decorating for holidays is easy if you know how <to decorate for holidays>
a. … *if you know how decorating for holidays.
b. … if you know how to decorate for holidays.

(3a) cannot be the surface phonological form of the sluice in (3); the correct form has to be (3b). (3a) is then a case of weak ineffability in the aforementioned sense and, as just noticed, was taken as an argument against syntactic identity, since Merchant (2001) and much of the mainstream literature since then. This argument against syntactic identity follows only under some conceptions about the meaning-form connection (in particular, de Saussure's conception). Crucially, if the meaning-form connection of a given word or sentence is the epiphenomenal result of syntactic derivations, then the argument does not hold. This is how Distributed Morphology connects with syntactic identity to answer the weak ineffability argument (see Saab 2003, 2008, and Merchant 2015 for details) and how it does it in the present paper, as I will show in section 4.

With reference to ellipsis phenomena, then, weak and strong ineffability can be reformulated in the following way:

Strong ineffability (SI): if an elliptical sentence cannot be said (more technically, the sentence cannot be derived by the principles or rules of grammar). In this case, the relevant principle is *identity*.
Weak ineffability (WI): if an elliptical sentence does not have a non-elliptical counterpart in a given particular form.

Arguments coming from SI and WI have led to different conceptions of the identity condition on ellipsis. Here is a non-exhaustive list of the different approaches that are found in the literature[1]:

Approaches to the identity condition:

(4) a. Non-lexical / semantic approaches (Merchant 2001, 2004, Barros 2014)
b. Lexical /semantic approaches (Chung 2006, AnderBois 2011, 2014)
c. Lexical / syntactic approaches (Chomsky 1965, Lasnik 1995, Saab 2003, 2008, Merchant 2015).
d. Lexical /syntactic-semantic approaches (Merchant 2013, Chung 2013).
e. Non-lexical –syntactic approaches (Thoms 2015).

The cases I will discuss in the following sections are particular instances of SI. Concretely, I will focus on examples where the identity relation between E and A cannot be established in terms of truth conditional equivalences. These involve cases in which there are stylistic differences between particular uses of lexical items, namely, intolerable mismatches (borrowing the term from Thoms 2015) such as (i) the impossibility that A encodes past tense by using the historical present but E expresses past just *via* formal past tense, (ii) impossible name-nickname mismatches in NP-ellipsis, and (iii) different impossible mismatches with synonyms differing only in register (coarse language, baby-talk and so on). Even if stylistic differences of this sort are thought as part of the meaning of a given expression, as recently proposed by Predelli (2013) -such that the difference between say *navel* and *umbilicus* is not a matter of pragmatics but of semantics- is clear enough that SI effects in the aforementioned contexts call for an identity condition that makes reference to the lexical content of words (Chomsky 1965, and, recently, Saab 2003, 2008, 2014, Chung 2006. Merchant 2013, 2015, among others). We can of course conceive of identity in ellipsis as making reference both to truth conditional and lexical aspects of syntactic expressions. The issue is lucidly discussed in Chung (2006), where such an approach is taken (see also AnderBois 2011, 2014 and Barros 2014 for a detailed discussion of the problem). Though, this view is subject to an obvious criticism, namely, theoretical redundancy, as indeed acknowledge by Chung. In other words, mutual entailment is directly ensured by lexical identity. Assumptions on the nature of the syntax-lexicon connection and the way in which identity is calculated will be of crucial relevance when it comes to take some decisions on the redundancy issue. Ultimately, however, the issue is empirical. In what follows, then, I will focus on certain cases (labeled as *Bias Vehicle Change*, see section 2) that present an empirical challenge for any semantic theory of identity in ellipsis, in particular, for those theories according to which identity is exclusively ensured by imposing truth-conditional requirements between antecedents and E-sites (Merchant 2001 and much subsequent work; see section 3). However, the empirical problem I will introduce generalizes to almost every current semantic theory of the identity condition on ellipsis (AnderBois 2011, 2014, Barros 2014) or mixed theories

[1] The term lexical as I am using it here should be understood as making reference to the content of syntactic terminals regardless of theory of word formation you assume (lexicalist or non-lexicalist).

(Chung 2013 and Merchant 2013). In section 4, I defend a radical lexical/syntactic theory of the identity condition and show how such a theory answers arguments based on Weak Ineffability. In section 5, this theory is compared with the recent syntactic approach proposed by Thoms (2015), according to which reference to the content of syntactic heads is not required by identity considerations. I will try to show that such a theory, even though it can account for some cases of Bias Vehicle Change, is still too weak to handle the entire paradigm. Section 6 concludes.

2. The argument in the abstract: Bias Vehicle Change

Before entering into concrete illustrations, let us see the form the argument in the abstract. Given that we will explore different types of ellipses is important to set the discussion around two main problems. Obviously, the notion of *entailment* used in some mainstream approaches to the identity condition can only make reference to one type of semantic object, namely, propositions. On some accounts, this supposes to raise the semantic type of predicate ellipses (VP-ellipsis, certain TP-ellipses, which are non-propositional objects) to the relevant type under operations such as Existential Closure. In other cases, like NP-ellipsis, this move does not seem easy to take under standard assumptions on the syntax and semantics of DPs in natural languages. In principle, this is not problematic for the proponents of a semantic identity condition. We just have to assume that the identity condition makes reference to the relevant type of NPs, i.e., properties[2]. If NPs are of the <e,t> type, we can assume that an NP can be elided only if there is a salient antecedent NP in the discourse such that $[[NP_A]] = [[NP_E]]$. It is still crucial to distinguish such an approach from a lexical-syntactic one according to which NP-ellipsis is legitimate only if $[NP_A] = [NP_E]$. This second view is evidently stronger than the semantic identity condition as it does not allow for some sort of mismatches that the semantic condition does allow. This first question/problem is well-known in the literature and can be simply stated as: is identity in ellipsis semantic or syntactic? (Merchant 2008a). But as far as I know, the problem was not always taken in the proper way. As mentioned, considerations of WI have led some researchers to reject syntactic identity. However, most of the times what is rejected are particular theories of syntactic identity (say, Fiengo & May 1994) not syntactic identity in a broad sense. Moreover, the rejection is made by assuming particular conceptions of how linguistic expressions are built in the syntax. As far as I can tell, these arguments cannot be taken seriously as a challenge for syntactic identity in a broad sense. By "syntactic identity in a broad sense" I understand that the objects to which identity makes reference are syntactic objects (abstract morphemes, roots, phrases built out of morphemes and roots and so on). By the same token, we should be careful when considering different approaches to semantic identity. Here, the distinction is the same. We should be able to distinguish particular approaches to semantic identity from semantic identity in a broad sense, where by "semantic identity in a broad sense" I understand that identity makes reference to semantic objects, such as relations, properties, individuals, propositions and so on. My point here is that identity cannot be conceived in this second sense. By extension, if identity cannot be conceived in such a broad sense, then identity cannot be semantic in a narrow sense, either.

The second problem is of a more complex nature and is at the heart of truth conditional approaches to ellipsis. If identity makes only reference to the semantic type of a given expression, how are other subparts of such an expression calculated for the purposes of identity? The mutual entailment condition, as stated originally by Merchant

[2] Of course, the same strategy would apply to standard cases of VP-ellipsis (see Barros 2014 for a lucid discussion).

(2001, 2004), does not care of such subparts as long as mutual entailment is ensured between A and E. Indeed, this conclusion is forced by the way in which Merchant analyzes cases of Vehicle Change (Fiengo and May 1994):

(5) They arrested [the man]$_3$, but he$_3$ doesn't know why.

According to Merchant, mutual entailment allows for an R-expression to antecede a pronoun as long as they co-refer:

(6) They arrested **the man$_1$**, but he$_1$ doesn't know why <they arrested *the man$_1$/**him$_1$**>.

Other mismatches between indexical expressions are treated on a par with VC (see Thoms 2013, 2015). So, mutual entailment ensures indexical mismatches between E and A, like the following:

(7) A. Do you help **me**?
B. Yes, I do <help **you**>

The crucial point is that descriptive properties of indexicals or proper nouns do not alter the mutual entailment relation under some variable assignment. If this is on track, then other mismatches should be allowed beyond indexicals and proper names. Take for instance the following example where A contains a register neutral noun and the antecedent contains a synonym typical of baby-talk registers [maybe this is not the best example. Think of *laburar* and *trabajar* in my dialect]:

[Talking to your young baby]
(8) Look! Someone catch **a rabbit**, but I do not know who <catch **a bunny**>.

Mismatches in informal/coarse language should be also allowed:

(9) Someone is looking **at your breasts**, but I cannot see who <is looking **at your boobs**>.

Let us call cases like these, *Bias Vehicle Change*, cases where the change is produced in the particular bias of some lexical expression. These cases are crucial for the two problems commented here. Pairs of words like these should be regarded as equivalent from a strict semantic point of view. So, if it can be shown that ellipsis between pairs of words that only differ in their bias is not allowed then a approach in terms of lexical-syntactic identity (i.e., one imposing that [XP] = [YP]) should be superior to a semantic analysis (i.e., [[XP]] = [[YP]]). As I will show, NP-ellipsis of biased words is impossible in languages like Spanish, where the lexical identity requirement seems to be unavoidable. I will argue then that *a fortiori* (8) and (9) should be illegitimate elliptical derivations.

3. Strong ineffability: Illustrations from biased expressions

In this section, I will illustrate cases of Strong Ineffability which arise in the bias of functional and lexical categories. For the purposes of the ongoing discussion, I will assume the most charitable analysis for a semantic approach to the identity condition on ellipsis. Concretely, I will assume, with Predelli (2013), that the bias of a given expression is part of meaning of such an expression. In strict sense, then, the meaning of

any expression contains two dimensions: (a) a truth-conditional/referential dimension and (b) a non-truth conditional/non-referential dimension, its bias. Thus, for any expression E, where *char* is the kaplanian character of E:

(10) Meaning(E) = <char(E), bias(E)>

Notice that this move cannot lead us to locate the bias of E into the LF of a complex expression, given that the bias has no relevance for the compositional aspects of meaning. In other words, even encoding register and related aspects of words into the meaning (and not, say, in the use of E) the bias of E would not affect truth conditions. In terms of some views in the framework of Distributed Morphology, we can say that the bias of a word or expression is part of the Encyclopedia, a component capable to access to information present both in LF and PF.

As is well-known, biased expressions can be detected in different domains through well-known *salva veritate* substitutions. Yet, the cases to be explored here crucially differ from other strong ineffability arguments based on substitution operations, such as Chung's paradigm in (1)/(2) or other strong ineffability effects attested in the realm of argument structure and ellipsis (Merchant 2013), for in all these patterns syntactic structures are manipulated in ways that allow for alternative explanations in terms of parallelism in the position of variables (see, for instance, Thoms 2015). In the pattern to be discussed in what follows, instead, the syntactic structures underlying antecedents an ellipsis sites remain unaltered in the relevant sense; i.e., antecedents and ellipsis sites are not distinguished by argument structure, variable binding (although see section 5 for an alternative for the historical present) and other relevant structural properties. Concretely, I will present three main patterns, namely: (i) historical present –past mismatches in TP-ellipsis (Saab 20108, 2014), (ii) (nick)names mismatches, and (iii) mismatches in coarse language. This choice is not arbitrary. Other putative cases of purely based expressions are left out of the ongoing discussion, because their truth-conditional contribution is controversial. Thus, derogative slurs, which are potentially good candidates to evaluate the theories of identity under competence, are not considered in this paper. Even though arguments have been provided in favor of their purely biased contribution (see Predelli 2013 for an analysis along these lines, and Hom 2008 for a detailed overview and a proposal). With this in mind, we can enter into the relevant patterns.

3.1. An impossible tense mismatch

As in many languages, a narrative can be expressed in the present form of tense or in the formal past tense. See the following paradigm from Saab (2014):

(11) ¡Adiviná qué me pasó ayer!
guess what me happened yesterday
Estoy tomando una cervecita en el bar y
am.I drinking a beer in the bar and
entonces **veo** a mi mujer besándose
then see.I ACC my wife kissing
con mi mejor amigo.
with my best friend
'Guess what happened to me yesterday! I am drinking a beer in the bar and then I see my wife kissing my best friend.'

(12) ¡Adiviná qué me pasó ayer!

guess what me happened yesterday
Estabatomando una cervecita en el bar y
was.I drinking a beer in the bar and
entonces **vi** a mi mujer besándose
then saw.I ACC my wife kissing
con mi mejor amigo.
with my best friend
'Guess what happened to me yesterday! I was drinking a beer in the bar and then I saw my wife kissing my best friend.'

I will assume here that the difference in meaning is not based on the character but in the bias of the historical present and the past tense. As already discussed in Saab (2014), this follows from the substitutability assumption regarding the historical present. In Wolfson's (1979: 172)) words: "HP [historical present] contrasts with other uses of the present in narrative by virtue of substitutability with the past tense." Put differently, whatever the difference in meaning between the past and the historical present (assuming that is indeed a semantic difference and not a pragmatic difference), it is not a truth-conditional oriented difference.

An important property of these uses of the present is that the hearer cannot interrupt the speaker's discourse with a marginal observation (one that is out of the plotline of the narrative) using the historical present (see Saab 2008, 2014 for details and references):

(13) A: ¡Adiviná qué me pasó ayer!
guess what me happened yesterday
Estoy **tomando** una cervecita en el bar...
am.1 drinking a beer in the bar
'Guess what happened to me yesterday. I am drinking a beer in the bar…'
B: ¡Qué casualidad! ayer yo también **estaba**
what coincidence yesterday I also was
tomando una cervecita en el bar
drinking a beer in the bar
'What a coincidence! Yesterday, I was also drinking a beer in the bar.'
B'¡Qué casualidad! #Ayer yo también **estoy**
what coincidence yesterday I also am
tomando una cervecita en el bar…
drinking a beer in the bar
'#What a coincidence! Yesterday, I am also drinking a beer in the bar...'

Crucially, B cannot use TP-ellipsis to interrupt A's discourse:

(14) A: ¡Adiviná qué me pasó ayer!
guess what me happened yesterday
Estoy **tomando** una cervecita en el bar
am.I drinking a beer in the bar
'Guess what happened to me yesterday. I am drinking a beer in the bar…'
B: ¡Qué casualidad! *Yo también < **estaba tomando**
what coincidence I also was drinking
una cervecita en el bar... >
a beer in the bar

'What a coincidence! *Me too.'

Mutual entailment cannot derive the badness of (14B), no matter how you conceive of the bias of the historical present, whether semantically or pragmatically. Both A and E entails each other under existential closure. As noticed in Saab (2014) (14B) presents an important challenge for mixed approaches like Chung's (2013) theory (see 4d), according to which syntactic identity is mostly limited to argument structure properties. Evidently, this claim cannot be on the right track once the pattern of the historical present is taken into account, where the antecedent and the ellipsis site are identical as far as their argument structures are concerned. As we will in section (5), the situation is different when it comes to evaluate non-lexical/syntactic approaches (4e), which seem to be in a better position to account for this pattern if some assumptions on the structure of the historical present are properly modified. In turn, for a lexical-syntactic approach (regardless of particular implementations, see 4c), this is exactly what is predicted, i.e., [present] ≠ [past].

3.2. Nickname ellipsis

As is well-known, proper names can be modified by determiners under some particular circumstances.

(15)	el	Perón	del	45	y	el	Perón	del	73…
	the.masc.sg	P.	of.the	45	and	the.masc.sg	P.	of.the	73
	Lit. 'the Perón of the 45 and the Perón of the 73…'								

Following Burge (1973), a.o., Elbourne (2005) proposes analyzing proper names as full DPs[3]. For languages that do not use the definite article in ordinary uses, Elbourne proposes an abstract determiner, namely:

(16) [[THE *i*] NP]

The index in (16) functions as a free individual variable and is needed to pick up the correct name bearer, so that when we say *John is eating*, the abstract representation for this particular use of the proper name contains an index (say, 7) which will return the actual entity we call *John* in this particular instance of use. An important prediction of this analysis is that NPE of proper names should be allowed in languages that have the construction independently, like Spanish. This is indeed borne out (<> = ellipsis sites):

(17)	el	Perón	del	45	y	el	**<Perón>**
	the.masc.sg	P.	of.the	45	and	the.masc.sg	P.
	del 73…						
	of.the 73…						

More importantly, once we acknowledge the very basic fact that proper names can be elided, we can construct relevant examples to evaluate different approaches to the identity condition. Under Elbourne's approach, different proper names should bear the same index when they refer to the same individual, in a way such that the entity that

[3] Elbourne's position is more radical than stated in the main text, as for him, proper names are definite descriptions in strict semantic terms. I do not agree with this conclusion (see also Predelli 2015). My position is more inoffensive: proper names just share part of the syntax of DPs (Longobardi 1994).

we call *Muhammad Ali* co-refers with the entity that we call *Cassius Clay* and vice versa, a type of equivalence that seems to be rather indisputable. Consider, now, the case of nicknames. Any soccer fan, for instance, would know that *Alfredo Di Stéfano* is *La Saeta Rubia* 'The Blonde Arrow', the great player of the most important Real Madrid team ever. We would agree then that the entity that we call *Alfredo Di Stéfano* and the entity that we call *La Saeta Rubia* are co-referential. As for NPE, both the proper name and the nickname are eligible for ellipsis:

(18) El Alfredo Di Stéfano que jugó en River Plate y
the.masc A.S that played in R.P. and
el <Alfredo Di Stéfano> que jugó en el Madrid…
the.masc that played in the Madrid
'the Alfredo Di Stéfano that played in RP and the one that played in the Real Madrid…'

(19) La Saeta Rubia que brilló en el Madrid no fue
the.fem Blonde Arrow that dazzled in the Madrid not was
la <Saeta Rubia> que yo conocí en sus últimos días.
the.fem that I met in his last days
'The Blonde Arrow that dazzled in the Real Madrid was not the same as the one that I met in his last days.'

What is impossible, however, is a grammatical instance of NPE in which the proper name antecedes the nickname or vice versa.

(20) *El Di Stéfano de River Plate fue incluso superior a
the Di Stéfano of R. P. was even superior to
la <Saeta Rubia> que deslumbró en el Madrid.
the S. R. that dazzled in the M.

(21) *La Saeta Rubia que deslumbró en el Madrid
the S. R. that dazzled in the M.
fue incluso superior al <Alfredo Di Stéfano> de River Plate.
was even superior to.the A.D of R. P.

This pattern is extremely robust: eliding a nickname taking as antecedent the relevant proper name or vice versa is strongly ungrammatical under any circumstance (e.g., even if the context is strongly accommodated to make the entailments easier to obtain). This pattern, of course, is directly accounted for under any theory of lexical/syntactic identity. Notice, however, that at first sight the pattern does not seem very pressing for semantic theories of NP-ellipsis, because depending on some assumptions of the theory of names such a semantic theory would account for the data at hand. In principle, it is worth noticing that NP-ellipsis does not require referential identity. Quite the opposite, under normal circumstances, nominal ellipsis introduces disjoint reference:

(22) El auto de Juan y el <auto> de María…
the car of J. and the car of M.
'John's car and Mary's….'

Under a semantic theory of NPE, this follows under two basic assumptions that seem to be well motivated empirically. First, ellipsis is ellipsis of a NP, which is semantically a property. Second, if Elbourne is correct, the index is out of the NP domain, therefore, it is not calculated for NPE.

(23) [[Det *i*] **<[NP]>**]

Then, a semantic theory of NP ellipsis would claim that at least in its predicative use [[Alfredo Distéfano]] ≠ [[Saeta Rubia]], [[Mohamed Ali]] ≠ [[Cassius Clay]] and so on. Whether such a conclusion is justified from a philosophical point of view is something that we cannot decide here. However, the pattern illustrated above could in principle be used as an argument against those approaches imposing mutual entailment/referential equivalences between antecedent and elided constituents as the unique identity requirement. At the very least, it forces us to revise some well-known arguments in favor of such an approach. In effect, one of the alleged triumphs of mutual-entailment approaches is that they explain vehicle change phenomena (Fiengo & May 1994). Recall the example in (24):

(24) They arrested [the man]$_3$, but he$_3$ doesn't know why.

According to Merchant (2001), (24) is resolved by postulating a pronoun in the E-site. Identity under this analysis is ensured if the entity returned under some variable assignment for both the antecedent and the pronoun in the E-site is the same:

(25) They arrested the man$_1$, but he$_1$ doesn't know why <they arrested *the man$_1$/him$_1$>.

Notice that the difference cannot be established in terms of identity of descriptive content (i.e., *identity of sense* in Fregean terms): *the man* ≠ *him* as far as their descriptive content is concerned. This was indeed one of the main reasons to abandon syntactic identity in favor of the mutual entailment approach. Arguably, on this account, Bias Vehicle Change of proper names/nicknames (or monikers) should be allowed in cases like the following[4]:

(26) Someone saw Cassius Clay, but I do not know who <saw Mohammed Ali>

(27) Alguien le pidió un autógrafo **a** **Messi**,
Someone CL.DAT asked an autograph ACC M.
pero no sé quién <le pidió un autógrafo a
but not know who CL.dat asked an autograph ACC
la **pulga** **(Messi)**>
the flea (M.)
'Someone asked an autograph Messi, but I do not who <asked an autograph The Flea (Messi)>'

This is because identity in sluicing, unlike NP-ellipsis, does not take into consideration descriptive properties of R-expression as long as the denotation returned under some variable assignment is the correct one. For this approach, then, the conclusion would be that the descriptive content of heads is irrelevant for ellipsis of the

[4] These cases are also seem to respect the requirement that A and E share the same inquisitive content (see Andrebois 2011, 2014, and Barros 2014 for an alternative).

sluicing type, but not for nominal ellipsis and, of course, not -for the reasons adduced in the previous section- for other types of TP-ellipsis. Uniformity reasons tend to favor lexical-syntactic theories of identity in ellipsis, but, arguably, the argument could be still weak for those which do not feel uncomfortable postulating different semantic conditions for every type of ellipsis. Indeed, as Hartman has pointed out, VP-ellipsis cannot be constrained by mutual entailment, otherwise (28) should be regarded as grammatical given that if someone will beat someone at chess, then someone will lose to someone at chess, and vice versa.

(28) *John will beat someone at chess, and then Mary will <lose to someone at chess>.

For this reason, Hartman proposes the following semantic condition for VP-ellipsis:

(29) VP α can be deleted only if α has a salient antecedent α_A, and for some assignment g, $[[\alpha]]^g = [[\alpha_A]]^g$

Notice that even though Hartman resolves the problem of cases like (28) (relational opposites) it cannot resolve the case of the historical present in TP-ellipsis contexts discussed in the previous section, unless register differences be regarded as part of compositional meaning. As a minimum, additional assumptions have to supplement (29) for the relevant paradigm to be correctly ruled out.

By the same token, such a proposal should be committed with the acceptance of Bias VC involving name-nickname mismatches in VP-ellipsis contexts (although not, of course, in NP-ellipsis ones, where names are used in a predicative way).

(30) Juan saw Cassius Clay and I did <see Mohammed Ali> too.

The difference with NP-ellipsis is that here indexes are computed for identity and, consequently, both VPs should be regarded as identical under some variable assignment. Of course, this move is not forced under this account if the descriptive content of the subparts of VPs are computed in VP-ellipsis. Yet, this would lead Hartman to lose any principled account of VC in cases like (24)/(25). Even though, I do not think that this argument is fatal in any relevant way for semantic identity, if descriptive features of indexical expressions were not part of the semantic content (Kaplan 1989), in other words, if indexicals and proper nouns could be distinguished by content. Such a strategy could be at odd with direct reference theories, but the debate around the difference between proper nouns and indexicals is far from being resolved by direct reference approaches. Therefore, we can concede that proper nouns and indexicals can be differentiated in terms of content in a way such that VC involving R-expression-pronoun mismatches are allowed, but R-expression mismatches are not. The argument would be stronger if, for instance, the semantic theory of NP/VP ellipsis that I sketched here were falsified by other type of data. If, put differently, the identity condition *has to be* formulated in lexical-syntactic terms (i.e., [XP] = [YP]).

3.3. Coarse language

Coarse language is a case at point. Consider Spanish NP-ellipsis again. In this language, words like *culo* 'ass' and *cola* 'tail' when applied to humans refer to the same body part, the difference being, once again, in the biased dimension of each word. Thus, *culo* is coarse language and *cola* is the polite form at least in some dialects (Argentine Spanish, for instance). Interestingly, both nouns differ in gender: *culo* is masculine, but *cola* is feminine. This allows us to test their behavior in NPE contexts. As shown below, mismatches are fully ungrammatical:[5]

(31)	a.	El	**culo**	de	Juan	es más grande		
		the.masc.sg	ass.masc.sg	of	J.	is more big		
		que	el	<**culo**>		de	María.	
		that	the.masc.sg	ass.masc.sg		of	M.	
	b.	La	**cola**	de	Juan	es más grande		
		the.fem.sg	tail.fem.sg	of	J.	is more big		
		que	la	<**cola**>		de	María.	
		that	the.fem.sg	tail.masc.sg		of	M.	
	c.	*El	**culo**	de	Juan	es más grande		
		the.masc.sg	ass.masc.sg	of	J.	is more big		
		que	la	<**cola**>		de	María.	
		that	the.fem.sg	<tail.fem.sg>		of	M.	
	f.	*La	**cola**	de	Juan	es	más	grande
		the.fem.sg	tail.fem.sg	of	J.	is	more	big
		que	el	<**culo**>		de	María.	
		that	the.masc.sg	<ass-masc.sg>		of	M.	

The same is attested with, for instance, the polite *busto* 'breast', which is masculine and singular, and *tetas* 'boobs', which is feminine plural. Again, ellipsis is impossible:

(32)	a.	*El	**busto**	de	María	es	más	prominente
		the	breast	of	M.	is	more	prominent
		que	las	<**tetas**>		de	Ana.	
		that	the	boobs		of	A.	
		Intended 'Mary´s breast is more prominent than Ana´s boobs'						
	b. *las		**tetas**	de	María	son	más	prominentes
		the	boobs	of	M.	are	more	prominent
		que	el	<**busto**>		de	Ana.	
		that	the	breast		of	A.	
		Intended 'Mary´s boobs are more prominent than Ana´s breast'						

[5] The fact that there are gender differences does not have be confused with the general fact that gender differences are not allowed in NPE for human nouns:

(i)	*el	tío	de	Juan	y	la	<tía>	de	Pedro…
	the.$_{masc}$	uncle	of	J.	and	the.$_{fem}$	aunt	of	P.
	*la	tía	de	Juan	y	el	<tío>	de	Pedro…
	The.$_{fem}$	aunt	of	J.	and	the.$_{masc}$	uncle	of	P.

Here, gender mismatches correlate with a semantic difference (a sexual one). In (31), instead, gender is purely grammatical so it should not interfere with semantic identity.

A note of caution should be made, though. Some strong coarse expressions like *pija* 'dick', which is a feminine noun, seem to tolerate bias mismatches.

(33) El pene de Juan no es tan grande como la
the.$_{masc}$ penis of J. not is so big like the.$_{fem}$
<pija> mía.
dick.fem mine.$_{fem}$
Intended: 'Juan's penis is not as big as my dick.'

However, this is illusory. It turns out that many coarse words are expressed through fixed elliptical expressions as way to mitigate coarse language. These cases may be well analyzed as cases of empty nouns (see Panagiotidis 2002 and Saab to appear for an overview) and not as true instances of surface anaphora in Hankamer & Sag's (1976) sense. So, a possible analysis for (33) can be modeled along the lines in (34a) and not (34b):

(34) a. El pene de Juan no es tan grande como
the.$_{masc}$ penis of J. not is so big like
[$_{NP}$ la N_{fem} mía].
the.$_{fem}$ mine.$_{fem}$
b. * El pene de Juan no es tan grande como
the.$_{masc}$ penis of J. not is so big like
[$_{NP}$ la **<pija>** mía].
the.$_{fem}$ dick.$_{fem}$ mine.$_{fem}$

Evidence in favor of this claim is that reversing the order in (34) is out:

(35) *Mi pija no es tan grande como el
my dick.$_{fem}$ not is so big as the.$_{masc}$
<pene> de Juan.
penis.masc of J.
Intended: 'My dick is not as big as John's penis.'

This shows that the possibility of expressing (34a) is not given by accommodation, an option that, if possible in some of its many implementations, would weaken my argument here. If accommodation were the mechanism lying behind the sentence in (34a), then (35) would also be licensed. Importantly, gender differences are allowed with empty nouns in general. Thus, the sentence in (36) is ambiguous, as it can be interpreted as exclusively referring to dogs or to the dogs next door and the people upstairs.

(36) a. Los perros inteligentes y los tontos son indistinguibles.
the.masc dogs smart.pl and the.pl fool.pl are undistingishable.pl
NPE reading: 'Smart dogs and fool dogs are undistinguishable.'
EN reading: 'Smart dogs and foolish people are undistinguishable.'
b. Los perros de enfrente y los de al lado son ruidosos.
the.pl dogs of in.front and the.pl of to.the side are noisy
NPE reading: 'The dogs living in front and the dogs living next door are noisy.'

EN reading: 'The dogs living in front and the people living next door are noisy.'

Changing the gender of the second conjoined DP eliminates the first reading and leaves us only with the interpretation that we are talking about the dogs living next door and the female people living upstairs:

(37) Los perros de al lado y las de
the.masc.pl dogs of to.the side and the.fem.pl of
arriba…
upstairs
'Dogs living next door and the (female) people living upstairs…'

Having clarified this point, it seems that we have enough evidence for the main argument to stand. I do not think that any purely semantically analysis based on LF considerations (i.e., compositional aspects of meaning derived from syntax) can easily account for cases like these. Adding the bias into meaning would not resolve the problem, because the bias is a property of lexical items irrelevant for semantic composition. But let's make a try.

3.4. Interim discussion

So far, I have discussed three cases that taken together give us an argument against truth conditional identity in general. The historical present-past mismatches show that TP-ellipses of certain kind cannot be derived under mutual entailment and the NP-ellipsis data show, in turn, two things; (i) that as a minimum a semantic theory of NP-ellipsis cannot be based on co-reference, but in property equivalences, and (ii) that probably even such a theory of NP ellipsis is on the wrong track and that lexical identity is, after all, unavoidable. If this is correct, then the proponent of the semantic theory of sluicing is forced to conclude not only that identity makes reference to different semantic objects (propositions, properties, relations and so on), but that for some ellipses identity is also defined over lexical-syntactic structures. A theory of this type seems to lose some of its initial elegance and I preliminarily conclude that a theory that uses lexical-syntactic identity all the way is preferable because of uniformity reasons. As a consequence of this, a sentence like (38) should be regarded as impossible.

(38) *Someone is looking **at your breasts**, but I cannot see who <is looking **at your boobs**>.

It is important to note that, as far as I know, there is no theory of semantic identity in ellipsis in the market that introduces ellipsis-specific conditions based on the bias of lexical expressions. A theory of this sort is conceivable, although probably indistinguishable from lexical/syntactic or lexical/semantic approaches to the identity condition. As proposed by Predelli, there are other aspects of use and meaning that guarantees true beyond character. For instance, it is part of the meaning of the expression *fuck* that it guarantees the true of the proposition (Predelli 2013: 83):

(39) I sometimes speak coarsely.

This is because *fuck*, in virtue of its bias, imposes a contextual condition, such that for some context *c*, *fuck* means that the agent of c is using a coarse register:

(40) $c \in$ CU(fuck) only if c_a is a participant in register coarse in c.
[where CU is the class of the context of use]

Let us suppose then that in addition to mutual entailment or other character-oriented semantic conditions ellipsis also imposes the following condition:

The Settlement Condition (SC):

(41) A constituent E can be elided only if there is a salient antecedent A such that both A and E settle the same set of propositions.

Strictly speaking, we can think of the SC as an inclusive condition that allows for the bias (and the use) to trigger entailment relations among propositions (or individuals and propositions) in addition to the truth-conditional aspects of meaning. Put differently, the SC is just an enriched mutual entailment condition. We can see now that a simple case of sluicing like *John saw someone but I do not who* respects the SC by virtue of mutual settlement given that both A and E settle the proposition that there is someone that John saw (or, more properly, the set of alternatives of the form 'that John saw *x*', see AnderBois 2011, 2014 and Barros 2013, 2014).

A theory of this type correctly rules out (38) as violation of the SC, given that E settles (b) but A does not. The same with (32) given that *busto* 'breast' does not settle (39) but *tetas* 'boobs' does. And assuming that the historical present-past substitution includes a register dimension based on their respective bias, then the SC also correctly rules out the impossible tense mismatch discussed in 3.1. One could wonder what the conceptual and empirical cost of replacing mutual entailment for the SC is, if any[6].

Although at first sight this theory seems to be undistinguishable from a lexical/syntactic theory, one can distinguish both on the basis, for instance, of Vehicle Change effects, if the lexical/syntactic theory is understood as Fiengo & May (1994) did (see the next section). As for the lexical/semantic theory (Chung 2006), both theories are extensionally equivalent as far as these patterns are concerned, but it seems that Chung's approach is superior when it comes to account for the preposition-stranding paradigm mentioned in the introduction, unless preposition stranding and non-preposition stranding constructions settle different set of propositions [is Chung paradigm distinguished by register?]. Either way, the main problem of the SC is empirical, as now the theory is too strong in connection with the empirical domain relevant to this study. The problem with the SC can be easily detected in cases like the following (Potts et al 2009: 364):

(42) A: I saw your fucking dog in the park.
B: No, you didn't—you couldn't have. The poor thing passed away last week.

As noticed by Potts et al (2009), the elliptical answer given by B does not commit B to endorse A's evaluation with respect to the dog at hand. In Predelli's terms, this means that B does not settle that the agent of B is a participant of a coarse language.

[6] Of course, we know there is empirical cost in other domains. Relational opposites are still not accounted with SC alone, but, as already discussed, this can be amended by imposing different semantic conditions depending on different semantic objects at hand in each case. The theory is still a semantic theory of ellipsis.

Thus, (B) violates the SC. Other cases of differences in register point towards the same direction. Consider the following scenario:

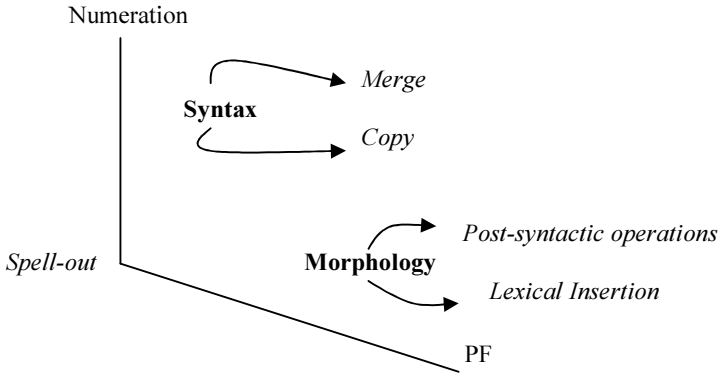
(43) Boss: Me ayudás?
me help.pres.2p.sg
'Do you help me?' (informal *you*)
Employee: Con qué <***lo/te*** ayudo>
with what **him/you** help.pres.1p.sg

Here, the boss is using an informal second singular form of the verb *ayudar*. We can say then that the boss settles the proposition that the participant of c is in an informal register. But we cannot conclude the same in the elliptical sentence in (43); indeed, we do not know whether the pronoun in the elliptical site is *lo* (=*usted* 'you', the honorific form of the second person) or *te* (the informal form). So, we cannot know on the basis of the information in the E site whether the relevant proposition is settled (probably not, if the employee is not allowed to use informal register with her boss). So, the SC has to be on the wrong track.

4. Weak ineffability in a radical syntactic approach to identity

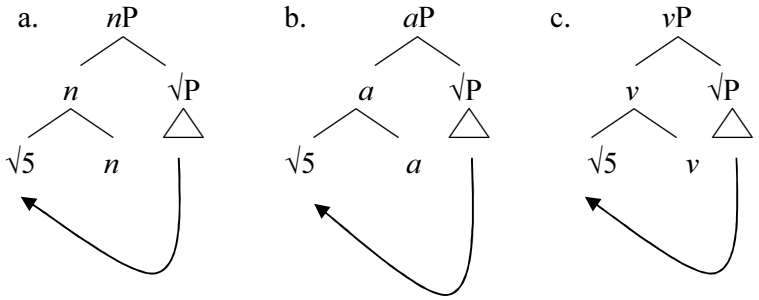
In this section, I discuss how a radical syntactic approach to the identity condition on ellipsis can handle the putative cases of Weak Ineffability that seem to challenge such an approach. I will assume the Distributed Morphology framework (cf. Halle & Marantz 1993, 1994 and, in particular, Embick & Noyer 2001 and Embick 2000, 2007. Arregi & Nevins 2012, Bobaljik 2012, among many others). The general architecture is the following:

(44)



A crucial property of this conception of the grammar is separationism, i.e., the fact that meaning-form connections are determined by the syntax in an all-the-way-fashion (Halle & Marantz 1994). Syntax manipulates abstract objects that are supplied with a given phonological form after syntax and through a set of lexical insertion rules. The primitives that syntax manipulates are Roots and abstract morphemes. Abstract morphemes are features drawn from a Universal Inventory and encode things like [past], [plural] and so on. Roots are represented by an index that is replaced at PF by a phonetic matrix (cf. Chomsky 1995 and Embick 2000). I also assume that Roots are categorized at syntax via the combination with functional heads: the little *x*s:

(45)



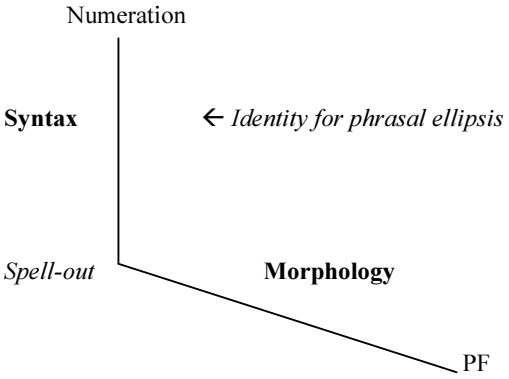
The post-syntactic component is not defined only by the lexical insertion rules; otherwise, we would expect a perfect meaning-form connection. As is well-known, the connection is far from perfect; the objects built in the narrow syntax can be altered by a set of post-syntactic operations that move morphemes, delete features, add features and so on. Importantly, features that are purely morphological are not present in the syntax and syntactico-semantic features cannot be inserted after syntax. This working hypothesis is called Feature Disjointness:

Feature Disjointness:

(46) Features that are phonological, or purely morphological, or arbitrary properties of vocabulary items, are not present in the syntax; syntacticosemantic features are not inserted in morphology. (Embick 2000: 188)

Under this account, one way of conceive of identity in ellipsis is defining identity in narrow syntax:

(47)



An identity condition formulated in this way immediately predicts weak ineffability effects, as we will see in the next subsection. However, as argued in several previous works about identity in syntax, the theory should permit some mismatches that are not the consequence of the meaning-form separationism. For instance, Vehicle Change between R-expressions and pronouns cannot be directly accounted for in terms of full syntactic identity. This is one of the main claims in Merchant's (2001), as already discussed.

(48) They arrested **the man$_1$**, but he$_1$ doesn't know why <they arrested *the man$_1$/**him$_1$**>.

The argument against syntactic identity, though, cannot be dismissed by facts like this. After all, what distinguishes syntactic identity I a broad sense from semantic identity is the type of object referred by the theories under dispute. The main claim of syntactic identity is that these objects are syntactic primitives (morphemes and objects built out of morphemes). Instead, the main claim behind semantic identity is that such objects are properties, relations, individuals, i.e., semantic objects. Therefore, Vehicle Change cannot decide between these two broad approaches to identity. At any rate, what Vehicle Change shows is that any principled account of such phenomenon must be taken into account by making explicit how is that [the man] = [him] in cases like (48). A way to formulate this is by defining identity in terms of subset relations (Oku 1998, Murguia 2004, Aoun & Nunes 2007, Saab 2008, among others)[7].

Syntactic identity:

(49) A syntactic constituent A can be elided if there is salient antecedent A in the syntax such that [E] ⊆ [A].

As I will show in the next sections, this is all what we need as far as the identity condition is concerned. In unproblematic cases of full identity, of course, you just replace ⊆ by =. In any case, it is evident that the identity condition in ellipsis as formulated in (49) is a necessary but not a sufficient condition for ellipsis to apply. There is nothing new in this claim. A crucial aspect of any theory of ellipsis is what is the mechanism that gives E an antecedent. Another crucial aspect of the theory of ellipsis is what type of constituents can be deleted in a given language. This is the well-known licensing problem (Lobeck 1995). Thus, whereas some languages allows for VP-ellipsis, like English, others do not (Zagona 1988):

(50) a. John had seen Mary and I had too.

b.	*Juan	había	visto	a	María	y	yo	había	también.
	J.	had	seen	ACC	M.	and	I	had	too

Merchant (2001) has proposed a purely mechanical way to deal with the licensing problem. The gist of his proposal is that the constituent to be deleted must be licensed by a syntactic feature, the so-called [E] feature. So, we can say that English licenses VP-ellipsis because, for whatever deep reason of the English syntax, T can have the relevant licensing feature. The Spanish syntax simply does not have this property.

(51) $[_{TP}\ T_{[E]} <_{VP} \ldots V \ldots>]$

Recent work by Elbourne (2008), Bentzen et al (2013) and Messick et al (2015) have shown that the [E] feature does not determine only the size of the E-site but also has the crucial property of determining the antecedent for A, by providing a specific type of contextual restriction. In other words, E looks for an antecedent in the linguistic environment and gives the appropriate contextual restriction to the E site. This process is semantic and pragmatic in nature, but it is independent of the identity condition as formulated in (49). Nevertheless, the interactions between the semantic-pragmatic

[7] However, Merchant (2008b) and Johnson (2012) have tried to show that Vehicle Change does not force a subset condition as the proposed here, if ellipsis allows for full R-expressions in the E-sites. I think however that the subset condition is empirically forced.

contribution of E, understood as a contextual restrictor, and the ellipsis site is crucial, as we will see in the next sections.

Before entering in how this theory of identity in ellipsis would resolve the weak ineffability arguments, let's see how the theory deals with the relevant cases of strong ineffability discussed in the previous section. As the reader can infer, all the cases are ruled out straightforwardly by the identity condition without any reference to semantic properties of any type (i.e., character-based or not). Consider first the case of the historical present-past mismatch:

(52) A: ¡Adiviná qué me pasó ayer!
guess what me happened yesterday
Estoy **tomando** una cervecita en el bar
am.I drinking a beer in the bar
'Guess what happened to me yesterday. I am drinking a beer in the bar…'
B: ¡Qué casualidad! *Yo también < **estaba tomando** una cervecita en el bar... >
what coincidence I also was drinking a beer in the bar
'What a coincidence! *Me too.'

Here, the abstract content of the functional nodes T in A and E are different (i.e., [present] ≠ [past]) and then a violation of the identity condition is obtained, even though A and E are semantically equivalent in the relevant sense.

Name-nickname mismatches and register-coarse mismatches are ruled out in a similar way, but in these cases what fails is the identity of Roots (plus functional morphemes in the cases discussed so far). Let me illustrate this point with the case of name-nickname mismatches:

(53) *El Di Stéfano de River Plate fue incluso superior a
the Di Stéfano of R. P. was even superior to
la <Saeta Rubia> que deslumbró en el Madrid.
the S. R. that dazzled in the M.

(54) *La Saeta Rubia que deslumbró en el Madrid
the S. R. that dazzled in the M.
fue incluso superior al <Alfredo Di Stéfano>
was even superior to.the A.D
de River Plate.
of R. P.

The strong ungrammaticality of examples of this type are directly captured by the condition in (49) regardless of any general theory of proper names, because obviously [Alfredo Di Stéfano] ≠ [Saeta Rubia]. The fact that this analysis does not require any semantic or philosophical commitment with the theory of names should be taken as a non-trivial virtue of syntactic identity. As for the impossibility of register or coarse language mismatches we are led to exactly the same conclusion. Simplicity reasons clearly favor syntactic identity. Notice that the theory is lexical-syntactic in the broad sense, given that the information syntactically encoded on abstract morphemes and Roots is the only relevant one when it comes to calculate identity. Under this account however, we do not need to make any reference to the bias dimension of Roots

or any other additional semantic property: Index identity is all what we need to obtain the right results.

Other cases of Strong Ineffability as Chung's paradigm of preposition stranding, repeated below, also follows without any further ado:

(55) a. They're jealous, but it's unclear of who.
b. Joe was murdered, but we don't know by who.
c. Last night he was very afraid, but he couldn't tell us of what.
d. Mary was flirting, but they wouldn't say with who.
e. We're donating our car, but it's unclear to which organization.
f. U.N. is transforming itself, but into what is unclear. (*New York Times* 2/28/04)
g. She phoned home, but they weren't sure from which city.

(56) a. *They're jealous, but it's unclear who(m).
b. *Joe was murdered, but we don't know who(m).
c. *Last night he was very afraid, but he couldn't tell us what.
d. *Mary was flirting, but they wouldn't say who(m).
e. *We're donating our car, but it's unclear which organization.
f. *U.N. is transforming itself, but what is unclear.
g. *She phoned home, but they weren't sure which city.

Notice that in cases like these the E site is a super set of A and, as a consequence, the identity condition is violated. Similar considerations extend to voice mismatches under ellipsis (see Merchant 2013 for recent discussion). COMPLETE

4.1. Inflectional asymmetries

As shown in section 3, the problem of strong ineffability with biased expressions possesses a novel challenge for the mutual entailment approach to the identity condition on ellipsis. This of course leaves open the issue of accounting for the adduced cases of undergeneration that the syntactic lexical/identity condition on ellipsis seems to produce. Several strategies have been proposed in the recent literature (see Saab 2003, 2008, Tanaka 2011, Chung 2013, Merchant 2013, 2015, and Thoms 2015, among others) to deal with alleged cases of Weak Ineffability (what Thoms 2015 calls *tolerable mismatches*). Well-known examples of such mismatches are the following (see Merchant 2001 for these and more examples of tolerable mismatches):

(57) a. I remember meeting him, but I don't remember when <[$_{TP}$ I met him]>.
b. Decorating for holidays is easy, if you know how <[$_{TP}$ to decorate for holidays]>.

Through a previous study on tolerable mismatches in Spanish (see Saab 2003, 2008), I have tried to demonstrate that they are illusory, namely, the result of two factors: (i) the syntactic licensing of ellipsis, which determines different elliptical sizes (TP-ellipsis vs. *v*P-ellipsis or *n*P-ellipsis vs. NumP-ellipsis; see Merchant 2013), and (ii) the lack of isomorphism between syntax and morphology. The first factor accounts for well-known cases of tense mismatches in English *v*P-ellipsis (e.g., *John works here and Mary will <work here> too*) and the lack of them in TP-ellipsis examples of the sort discussed in this paper (although see below). As argued in the aforementioned work, the second factor, much less explored in the literature, is at the heart of most cases of Weak

Ineffability. The general idea, framed in some version of Distributed Morphology (see, in particular, Embick and Noyer 2001), is that the conditions that regulate the identity between a given antecedent and an elliptical phrase is entirely calculated in the narrow syntax, before lexical insertion rules and other morphological operations - whose surface effect obscures the form of abstract syntax - apply. Therefore, it has to be the case that the antecedents and the elliptical phrases involved in the examples in (58) have an identical syntax but a different surface realization. In other words, these have to be seen as cases of allomorphy in a general sense. Let me illustrate this point with a case of tolerable mismatch in the realm of grammatical mood in Spanish. As shown in detail in Saab (2003, 2008), Spanish stripping can tolerate differences between imperative and subjunctive mood (Buenos Aires Spanish data):[8]

(58) a. **Ahorrá** plata, no palabras <[$_{TP}$ **ahorres** *t*]>.
save.IMP money not words **save.SUBJ**
'Save money, not words.'
(from an Argentine commercial)

b. No **ahorres** plata, pero sí palabras <[$_{TP}$ **ahorrá** *t*]>.
not **save.SUBJ** money but yes words **save.IMP**
'Don't save money. Save words!'

As is well-known, Spanish, like other Romance languages, has a special form of the imperative mood in affirmative sentences, but only for the morphological second person (see Harris 1998 for extensive discussion). Thus when the pronoun involved is *usted* 'you', which conjugates as a third person - even when it refers to the hearer -, the verbal form occurs always in the subjunctive, regardless of the polarity of the sentence (e.g., *venga* 'come' vs. *no venga* 'don't come'). As shown in (59), identity under ellipsis is trivially satisfied in this case:

(59) Ahorre plata, pero no palabras **<[$_{TP}$ ahorre *t*]>.**
save.SUBJ money but not words **save.SUBJ**
'Save money, but not words.'

On the basis of this particular behavior of the imperative mood, Harris (1998) has convincingly argued in favor of a purely morphological analysis for the imperative. Concretely, he proposes that the form of the imperative is the result of an impoverishment rule that deletes the subjunctive feature on the verb under the presence of a morphological second person:

(60) [+subjuntive] → Ø / ___ [2pers]]$_C$
(Harris 1998: 40)

This rule only applies under a structural condition that requires that the feature affected by deletion is located on C, which is precisely what happens in affirmative imperatives. In effect, clitic position in affirmative imperative sentences (i.e., V-CL ordering, *hacé-lo* 'do it' vs. *no lo-hagas* 'don't do it'), among other facts (see Laka 1990), shows that there is V-to-C movement in such environments. As discussed at length in Saab (2008), Harris' morphological analysis plus a strict identity condition on ellipsis applying in the narrow syntax leads to the conclusion that the tolerable

[8] I am assuming that stripping is TP-ellipsis with movement of the remnant out of the elliptical site (see Depiante 2000 for an analysis of Spanish stripping).

mismatches in (58) are illusions: as far as syntax is concerned the verbal form in the antecedent and the elided verb is strictly identical (i.e., the condition in (49) is respected)[9]:

(61) [√AHORR+subjuntive plata], no palabras <[√AHORR+subjuntive *t*]>

Even though in most cases there are clear basis to decide if a given tolerable mismatch should be derived as matter of elliptical size or as syntax-morphology mismatch, there are however situations where both possibilities might overlap. Indeed, the case in (57) seems to be, in principle, amenable to both solutions. Tanaka (2011), for instance, has proposed that the alternation between nonfinite *–ing* forms and *to* infinitives in cases like (57) are explained by the fact that sluicing here deletes a VP and not a TP and, in consequence, the tense node is simply not evaluated for the purposes of the identity condition on ellipsis. A similar analysis has been suggested by Saab (2003) for cases in which a finite form in Spanish can be a suitable antecedent for a nonfinite form or vice versa:

(62) Recuerdo [$_{FinP}$ [$_{TP}$ haber arreglado el auto]], pero no
remember.I to.have fixed the car but not
recuerdo [$_{FinP}$ cuándo **<[$_{TP}$ arreglé el auto]>**]
remember.I when fixed.I the car
'I remember having fixed the car, but I do not remember when.'

(63) [$_{FinP}$ Juan finalmente [$_{TP}$ arregló el auto]] aunque
J. finally fixed the car although
parecía no saber [$_{FinP}$ cómo **<[$_{TP}$ arreglarlo]>**]
seemed not to.know how to.fix-it
'John finally fixed the car, although he seemed not to know how.'

In cases like these, we can assume that the syntactic difference between the antecedent and the elided phrase is in the finiteness property that, under reasonable assumptions, is not a property of the tense node by itself but of another higher functional category (labeled FinP in Rizzi 1997, for instance). If this is on track, the tolerable mismatches in (62) and (63) are derived from the licensing of ellipsis, in the sense that the feature triggering the difference is not part of the elided phrase and, consequently, not computed for identity. The fact that finite and nonfinite forms are also distinguished by the analytical-synthetic distinction is a surface effect that arises because of the way in which PF realizes the abstract syntactic nodes. Both the English mismatches in (57), on the one hand, and the Spanish ones in (62) and (63), on the other, are amenable to an analysis under which this kind of tolerable mismatches follows from the syntax-morphology connection, as well. For instance, it is perfectly conceivable an analysis for Spanish in which the non-finite form arises, not as the result of a syntactically relevant feature, but as the PF reflex of particular syntactic configuration. Abstractly, this should be thought as a case of allomorphy conditioned by syntax. Given that my point here is just to illustrate how a radical syntactic approach to tolerable mismatches should proceed, I will try no specific analysis for these cases here.

[9] Although the sentences are not structurally isomorphic because of the effects that head movement produces in the affirmative form.

The interested reader is referred to Saab (2008) for a detailed study of weak ineffability in Spanish.

4.2. Vehicle change and indexicals

Remember that Vehicle Change was taken by Merchant as one of the main arguments in favor of the mutual entailment theory.

(64) They arrested [the man]$_3$, but he$_3$ doesn't know why <the arrested **him**>.

As already seen, this solution does not have desirable consequences for the theory of identity in general as it crucially depends on the notion of truth conditional/referential meaning. Various strategies are available for syntactic identity. Indeed, one solution was already proposed by Merchant (2008b), who makes a crucial reconsideration of his previous view on vehicle change mainly motivated by the need to reconcile some aspects of the mutual entailment approach with syntactic identity. Following Elbourne (2005), he proposes that *him* in (64) can be derived as an instance of nominal ellipsis. Crucially, for an example like (64) containing a proper name in the antecedent, the pronoun in the elliptical site contains indeed an instance of the name *Alex* which is deleted by NP-ellipsis (see also Johnson 2012 for a similar account):

(65) They arrested [Alex]$_3$, though he$_3$ thought they wouldn't <arrest [$_{DP}$[$_D$ the *i*]<[$_{NP}$Alex] >]>

Notice now that this analysis does not only correctly resolve this well-known instance of VC but also correctly rules out the nickname ellipsis cases, where the descriptive content of the antecedent and the elided (nick)mane are crucially different.

(66)	*El	Di Stéfano	de	River	Plate	fue	incluso	superior a
	the	Di Stéfano	of	R.	P.	was	even	superior to
	la	<Saeta Rubia>	que	deslumbró		en	el	Madrid.
	the	S. R.	that	dazzled		in	the	M.

(67)	*La	Saeta	Rubia	que	deslumbró	en	el	Madrid
	the	S.	R.	that	dazzled	in	the	M.
	fue	incluso		superior	al	<Alfredo Di Stéfano>		
	was	even		superior	to.the	A.D		
	de	River	Plate.					
	of	R.	P.					

Another approach compatible with the patterns discussed here would claim that some elliptical constituents contain proper subsets of their antecedents (for different implementations, Oku 1998, Aoun & Nunes 2004, Saab 2008). This is our identity condition in (49), repeated below:

Syntactic identity:

(68) A syntactic constituent A can be elided if there is salient antecedent A in the syntax such that [E] ⊆ [A].

Thus, the (nick)name mismatches are ruled out as a strong violation of the identity condition since the sets denoted in the antecedent and the elided constituents

intersect with each other. Instead, set-theoretically speaking, the relation between an R-expression in the antecedent and an elliptical pronoun in (64) is a (proper) subset one, where the inflectional and referential specification of such pronouns are identical to a proper subset of the features included in the R-expressions working as antecedents. At first sight, this analysis has two obvious advantages with respect to the analysis in (65). First, the naturalness of subset relations in several anaphoric domains (including, for instance, chain and binding relations, see Thoms 2011 and Muñoz Pérez 2015) nicely converges with this proposal about the identity condition. Second, while the analysis in (65) must stipulate that Principle-C of binding theory is sensible to deletion (Freidin & Vergnaud 2001), the subset analysis does not require any amendment of binding theory (although see Johnson 2012 for a plausible explanation). Finally, the subset approach has an empirical bonus as it would account for cases like (69) repeated below:

(69) A. Do you help **me**?
B. Yes, I do <help **you**>

If, as argued by Nunberg (1993) and recently by Elbourne (2005) pronouns are represented by a D node containing an index, (69) could be represented like (70), where the pronoun in the E site, again, is a proper subset of the pronoun in the antecedent.

(70) A. Do you help **me**$_7$?
B. Yes, I do <help **D**$_7$>

The obvious question is how is that a minimal pronoun of this type is allowed in the E site but not in the non-elliptical counterpart. Again, several options could be explored. Structural accommodation of the E-site, for instance, would delete the person features in the elliptical pronoun leaving the referential index alone. If deictic features are not part of the content of the sentence (Kaplan 1989) then such deletion operation would not have any consequence at the LF interface. It would not have any consequence at the PF interface either, where such features, which are relevant for Case and agreement, are not pronounced. Another option should be generating the deictic features on probes and leave the pronouns only with their index. Under this account, (70B) would be the "regular" syntax of a pronoun and no accommodation would be necessary. The difference between E sites and their non-elliptical counterparts would be that E sites would allow for unvalued probes. Again, this would carry out no consequences for any interface. In non-elliptical sentences, instead, a probe without valued features would produce an illegitimate output at PF.

At any rate, it seems that E sites only contain indexes in pronoun position. Consider again the following situation, in which a boss asks for help to his wife/friend and to his employee (cf. 43).

(71) Boss: Me ayudan?
me help.PL
'Do you guys help me?'
Wife/friend: Yo sí **<te** ayudo>
I yes CL.you.INFORMAL help.1SG
Employee: Yo también **<lo/te** ayudo>
I too CL.him/CL.you help.1SG

As mentioned in section 3.3, second singular person in Spanish has the honorific form *usted* (which inflects as third singular person) to indicate formal distance and the colloquial *vos/tú*. Normally, this later form is used in familiar environments. But what is the underlying form in each of the E sites? The question makes no sense. The boss cannot answer to his employee in the following ways:

(72) a. Boss to the employee: #No me tutée. Sea respetuoso!
'Do not say 'you'. Be respectful!'
b. Boss to the employee: #Me gusta cuando sos respetuoso y me tratás de usted!
'I like when you are respectful and use *usted*.'

In this case, the register is absolutely irrelevant as the index is the only aspect computed for the identity condition.

4.3. Avoiding overgeneration

As stated, the identity condition formulated in (68), and repeated below, would seem to lead to some obvious overgeneration problems:

Syntactic identity:

(73) A syntactic constituent A can be elided if there is salient antecedent A in the syntax such that [E] ⊆ [A].

To understand the problem, consider the following simple example:

(74) John works hard and Peter does too.

This sentence can only be interpreted under the reading that Peter works hard and not only that Peter just works. However, the condition in (73) seems to allow for this reading, under the (maybe standard) assumption that adverb modification does not introduce any modification in argument structure[10]. As is shown in (75), the elided VP is a proper subset of its antecedent and then (73) is satisfied:

(75) #John [$_{VP}$ works hard] and Peter does <[$_{VP}$ work]> too.

I would like to claim that (75) is indeed a legitimate output as far as the identity condition is concerned. More explicitly, I contend that the right reading in (74) is resolved as a matter of licensing in ellipsis. Recall that in the introduction to this section I have assumed that ellipsis sites are selected by a special type of syntactic feature, the so-called [E] feature (Merchant 2001):

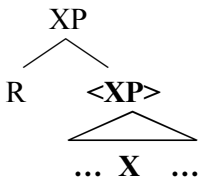
(76) [$_{TP}$ T$_{[E]}$ <$_{VP}$ …V…>]

As also mentioned, I have assumed, following Elbourne (2008), Bentzen et al (2013) and Messick et al (2015), that this feature does not determine only the size of the E-site but has also the crucial property of determine the antecedent for A, by providing a specific type of contextual restriction. In the specific implementation proposed by Messick et al (2015), E is a contextual restrictor (labeled R; see Heim & Kratzer 1998 and Elbourne 2008) that looks for an antecedent of the relevant syntactic and semantic

[10] Otherwise, the representation in (74) would be ruled out as a mismatch in "argument structure".

category in the (non)-linguistic environment and, if the searching is successful, then the sister of R is elided under the condition in (73)[11]. The syntax of ellipsis then looks like as sketched in (77):

(77)



According to Messick et al, R and XP are combined by Predicate Modification, as formulated in (78) (adapted from Heim and Kratzer 1998:65).

Predicate Modification (PM):

(78) For any type $\tau \in \{<e>, <s>, <st>, \ldots\}$, if α is a branching node with daughters $\beta_{<\tau,t>}$, and $\gamma_{<\tau,t>}$, then $[[\alpha]]^g = \lambda f_{<\tau>}$ $[[\beta]]^g(f) = 1$ & $[[\gamma]]^g(f) = 1$

Given an example like (74), where VPs are assumed to denote in the <e,t> for the sake of the exposition, the underlying syntax for the elliptical sentence should be as in (79):

(79) John [$_{VP}$ works hard] and Peter does **[$_{VP}$ R <[$_{VP}$ work]>]** too.

The value of R will be that of the VP previously asserted in the discourse:

(80) $[[R]] = \lambda x_{<e>}$. *x* works hard

And the elliptical VP will have, in turn, the following denotation:

(81) $[[VP]] = \lambda x_{<e>}$. *x* works

By PM, then, we will obtain the meaning in (82):

(82) $[[R\ VP]] = \lambda x_{<e>}$.[[works hard]](*x*) = [[works]](*x*) = 1

The denotation in (82) can be paraphrased as that *x* works and *x* works hard, which gives us the right meaning for (74) once the external argument saturates the individual variable. In this way, we obtain the correct semantic reading by the contribution of the licensor feature and not from the identity condition.

As shown in the aforementioned works (Elbourne 2008 and, especially, in Messick et al 2015) this view on ellipsis correctly accounts for a set of intricate semantic effects in different domains, which have been resistant to previous conceptions of the identity condition (whether semantic or syntactic). Just to give an example from Messick et al, Barros' (2012) discovery that sluicing (83a) repairs the semantic incongruence observed in (83b) follows directly from this account:

[11] Strictly speaking, the nature of the identity condition is not discussed in Messick et al, who remain agnostic on the matter. Here, I am just supplementing their theory of contextual restriction on ellipsis with the identity condition proposed in Saab (2008).

(83)	Juan	besó	a	María	y	besó	a	alguien	más también,
	Juan	kissed	ACC	María	and	kissed	ACC	someone	else too
	a.	pero	no	sé		a	quién.		
		but	not	know.I		ACC	who		
	b.	#pero	no	sé		a	quién	besó.	
		but	not	know.I		ACC	who	kissed	

'Juan kissed María and he kissed someone else too, but I don't know who (#he kissed).'

The problem with (83b) is that asserting that Juan kissed María counts as a partial answer to the question denoted in the second conjunct (see Barros 2012 and Saab 2015). Simplifying somewhat, one cannot ask for a partial answer to the question *Who did Juan kissed*? while asserting at the same time that (one knows) Juan kissed María (Romero 1998). This incongruence vanishes in the elliptical sentence in (83a). The puzzle is explained by the presence/absence of contextual restriction. The presence of R in (83a) restricts the set of possible answers denoted by the question expressed by the sluice sentence to the set of individuals *x* such that $x \neq$ María. This restriction, of course, comes from the *else* modifier in the antecedent CP that R takes as its value. In turn, absence of R in (83b) implies that the set of propositions denoted by the embedded question is unrestricted to the set of individuals including María, which is inconsistent with asserting that the speaker knows that Juan kissed María. I refer to the reader to Messick et al (2015) for the specific details of this analysis. My point here is just to show that (75) can be understood as a special case of contextual restriction under ellipsis. Interestingly, this view does not affect the subset condition as formulated in (73)[12].

Put differently, the subset condition, supplemented with an independent theory of ellipsis licensing, is able to account for what has been taken as paradigmatic cases of weak ineffability in ellipsis and, by extension, as a crucial empirical problem for any syntactic conception of the identity condition. I have tried to show that the identity condition, formulated as a formal subset relation between syntactic objects, can deal with this putative problem in a reasonable way at the time that it captures all cases of Bias VC that remain unresolved for any non-lexical/semantic account to identity in ellipsis. In the last section, I will discuss whether a weaker version of the identity condition, one that makes no reference to the specific content of syntactic nodes is extensionally equivalent to my lexical/syntactic approach. As we will see, while such a theory would capture some cases of strong ineffability it would run into problems with some other instances of Bias VC.

5. A weaker syntactic approach

Weak ineffability can also be addressed by a weaker version of the syntactic identity condition on ellipsis, one that does not refer to the feature content of the abstract nodes

[12] What is more, the contribution of R to the theory of ellipsis allows for broader set of possible antecedents. For instance, (74) can also be modeled as in (i), among other options, as follows:

(i) John [$_{VP}$ works hard] and Peter does [$_{VP}$ R <[$_{VP}$ do it]>] too.

Thanks to Matt Barros for extensive discussion on this point. It remains as an open issue whether the subset condition could also be extended to account for well-known cases of pseudo-sluicing or not (e.g., *John married a rich woman, but I do not know how rich <she is>*). See Barros (2014) for detailed discussion on pseudo-sluicing.

provided by the syntactic derivation, but to some LF structural condition requiring that antecedents and elided phrases respect some sort of parallelism condition at LF (for different implementations and references, see, among many others, Tancredi 1992, Fox 2000, Fox and Lasnik 2003, Griffiths and Lipták to appear, and, especially, Thoms 2015). In addition to that, such theories also allow for certain deviations of strict syntactic identity as a last resort under well-defined conditions (see Fox 2000, van Craenenbroeck 2013 and Thoms 2015 for recent proposals). Depending on particular versions of such an approach, these conditions are determined by some type of syntactic/semantic interactions or, under more liberal assumptions, under pragmatics conditions. Given the current understanding on the issue, it is not clear that parallelism and feature identity are mutually exclusive or just different dimensions of the theory of ellipsis. I will not address this problem here, because my point is just to make some remarks on the second aspect of this type of approach, namely, on the theory of accommodation and its implications for the theory identity in ellipsis.

A recent version of the approach just sketched is defended in Thoms (2015), whose main purpose is to put forward a syntactic theory of identity in ellipsis capable to solve both the putative cases of weak ineffability for the radical syntactic identity condition and the strong ineffability problem for the radical semantic approach (see Section 1). Following the gist of Fox (2000), his main hypothesis is that identity is syntactic in nature and requires some sort of structural parallelism at LF. However, the theory is constructed in a way such that alternative antecedents are allowed under well-defined semantic and syntactic conditions. Concretely, Thoms proposes to formulate the identity condition on ellipsis in the following way:

(84) Syntactic identity in ellipsis: an ellipsis constituent E must be identical (at LF) to an antecedent constituent A or an accommodated additional antecedent A'.
[Thoms 2015: 20]

The need of accommodated antecedents seems to be empirically forced, as noticed by Fox (2000) and others, although the nature of accommodation, as mentioned above, is a matter of current debate. A crucial problem is that once accommodation is permitted in the theory, we have to avoid the reintroduction of the overgeneration problem. Following the structural approach to alternatives in Katzir (2007) and Fox and Katzir (2011), Thoms claims that this can be done if a given accommodated antecedent is structurally defined. In other words, alternative antecedents can be obtained by a set of structural operations such as deletion, contraction and substitution applying to the original antecedent. A crucial assumption is that the new antecedent can be at most complex as the original one, where complexity is formally defined. I will not enter into the details of Katzir's theory and the adaptations made by Thoms; for us, it will be enough to be clear with respect to two assumptions: (i) addition of material is prohibited because it produces an increase of complexity, and (ii) the operation of substitution is also constrained by complexity. The first assumption prevents the adding of new structure to the original one. The second assumption says that substitution is possible only if the substitution of an element E for another element E' does not introduce a complexity increase. As noticed by Thoms, this second assumption is crucial when it comes to possible substitutions of the feature content of a given head. By assumption, changing a specified feature for another specified feature is allowed; for instance, one can change [past] for [present] and vice versa (the same for a binary representation of features), although additional semantic conditions will restrict such an option. At any rate, such a substitution operation does not affect complexity. What Thoms' system

does prevent is substitution of an unspecified syntactic node for a specified one because in this case complexity is clearly affected. At the heart of his theory, it is the fact that a syntactic node interpreted as a variable (i.e., a sort of unspecified head in the syntax) cannot be replaced by a nonvariable under any circumstance. This is formulated by Thoms as a strong empirical generalization:[13]

(85) A variable cannot provide an antecedent for ellipsis of a nonvariable.
[Thoms 2015: 16]

The theory derives such a generalization, then, as a matter of complexity in the generation of alternative antecedents. That (85) is on track is indicated by several empirical domains. An important set of facts that, according to Thoms, corroborates (85) in particular is provided by well-known contrasts in the possibilities of VP ellipses involving auxiliaries in English. As noticed by Warner (1993), Lasnik (1995) and, especially, Postdam (1997), English auxiliaries, like *be*, can be part of an elliptical VP under stricter identity dependencies than the ones observed for main verbs (e.g., *John went to the cinema and I will too*), so, for instance, the sentence in (86) is perfect because there is strict identity. In turn, as stressed by Postdam (1997), (87) is acceptable, but somewhat deviant when compared with (86) (all data quoted from Thoms 2015).

(86) John has been fired, and Mary has <been fired>, too.
A: [$_{TP}$ John T+has$_i$ [$_{PerfP}$ t_i [$_{VoiceP}$ been [$_{VP}$ fired]]]
E: [$_{TP}$ Mary T+has$_j$ [$_{PerfP}$ t_j **<[$_{VoiceP}$ been [$_{VP}$ fired]]>**]
(87) John is being examined, but Jack really should <be examined>, also.
A: [$_{TP}$ John T+be$_i$ [$_{AspP}$ t_i [$_{VoiceP}$ being [$_{VP}$ examined]]]]
E: [$_{TP}$ Jack T+should **<[$_{VoiceP}$ be [$_{VP}$ examined]]>**]

According to Thoms' analysis, this contrast derives from the assumptions made above. The first point to note is that only (87) requires accommodation: (86) satisfy syntactic identity in a straightforward fashion and, consequently, accommodation is not triggered. Accommodation in (87) requires an application of substitution, which changes the form *being* for the bare form *be*. This operation does not produce any additional complexity and the new antecedent is then created. The fact that the sentence is not perfectly natural follows because accommodation requires some sort of costly procedure (i.e., computing alternatives), one that would not arise if ellipsis targeted the smaller VP containing the participle but excluding the *being* form.

Compare now (87) with (88), which is fully ungrammatical:

(88) *John was fired, and Mary will <be fired>, too.
A: [$_{TP}$ John T+be$_i$ [$_{VoiceP}$ t_i [$_{VP}$ fired]]]

[13] A similar observation is made in Oku's (1998) approach to vehicle change. According to Oku, what some subtypes of vehicle change phenomena show is that a given elliptical constituent can contain proper subsets of the features present in a given antecedent, but not vice versa: elided phrases cannot be superset of their corresponding antecedents. In Oku's system this subset condition is accounted for in terms of LF reconstruction. Concretely, LF copy can take an entire syntactic object as a target or just a proper subset of it under different conditions. The fact that supersets cannot be obtained by LF-copy follows straightforwardly in this system. A refined analysis is proposed in Aoun and Nunes (2007), in which the subset principle is an epiphenomenon derived from the covert operation of Formal Feature Movement at LF (see Chomsky 1995). My impression is that the subset condition proposed in this paper leads to the same empirical results in these domains without the complications introduced by the LF-copy operation.

E: [$_{TP}$ Mary T+will <[$_{VoiceP}$ **be** [$_{VP}$ **fired**]]>]

Here head movement from V to T in the antecedent leaves a chain of traces which are interpreted as variables at LF (see Hartman 2011). The elliptical phrase, in turn, contains a bare form of *be*. Syntactic identity is then violated. Accommodation should be semantically possible (see Thoms 2015 for details) but it is prevented because it would imply changing the variable in the head of VoiceP for *be*. By hypothesis, this would suppose an increase of complexity, as already explained. The English examples briefly discussed here nicely illustrate how Thoms' theory addresses (in)tolerable mismatches under ellipsis. I refer to his work for detailed discussion of this and other cases of (in)tolerable mismatches.

Interestingly, at least with reference to the set of contrasts in (86) and (88), the subset condition in (68) gives us exactly the same results without the need of invoking accommodation. Assuming that all the ellipsis sites are as proposed by Thoms, we see that in (86) [A] = [B] and in (87) [E] ⊂ [A]; therefore, both respect the subset condition. In (88), instead, [E] ⊃ [A] (assuming that head traces are variables) and the subset condition is blatantly violated. Of course, there are well-known complex interactions between head movement and ellipsis that I cannot address here (see Saab 2008 for extensive discussion), but arguably such interactions would lead to important reconsiderations of Warner's effects in English and other languages. Either way, the suggestion I have just sketched to account for the patterns in (86) and (88) illustrates one of the possible directions to take for explaining the generalization in (85) under the umbrella of the subset condition. Let's now how Thoms' analysis would handle the different instances of Bias Vehicle Change we have discussed in section 3.

At first sight, it seems that the historical present-past mismatch discussed in section 3.1 is not easily derived under Thoms' approach. To see why this is the case, consider the basic pattern again:

(89) A: ¡Adiviná qué me pasó ayer!
guess what me happened yesterday
Estoy tomando una cervecita en el bar
am.I drinking a beer in the bar
'Guess what happened to me yesterday. I am drinking a beer in the bar…'
B: ¡Qué casualidad! *Yo también < **estaba tomando**
what coincidence I also was drinking
una cervecita en el bar... >
a beer in the bar
'What a coincidence! *Me too.'

Here, given such an evident failure of syntactic identity, accommodation should be activated. The question is, then, why the antecedent is not able to generate an alternative antecedent by substituting the historical present by the formal past (assuming, of course, that there is an entailment relation between both). A possible answer is assuming that the historical present is represented as a variable bound by an operator in the left periphery of the clause, but formal past is represented by a specified tense node, whose interpretation is determined at LF by mechanisms similar to those applying to referential pronouns in general. In other words, simple tenses, like past or present, are not logical operators (Partee 1973). If this correct, a simplified syntactic representation for (78) should be as follows:

(90) A: $\boldsymbol{OP_x}$ [$_{TP}$ $\mathbf{T_x}$ tomando una cervecita en el bar…
E: *<[$_{TP}$ $\mathbf{T_{[past]}}$ tomando una cervecita en el bar…>

Now, because of the complexity reasons already discussed, $T_{[past]}$ cannot replace T_x for creating an accommodated antecedent and, therefore, the elliptical sentence is correctly ruled out.[14] Under the representation of (90), the ungrammaticality of (89B) should be seen as another concrete instance of the generalization in (85). More importantly, it seems that our basic case forms a natural class with other types of similar mismatches in the realm of pronominal binding. Let us explore this in more detail.

So far, we can safely conclude that Thoms' analysis predicts that a tense node represented by a bound variable only can serve as antecedent of another tense node which is also a bound variable, in consonance with (85). This cannot be tested in the domain of the historical present for the pragmatic restriction already discussed in 3.1, but relevant examples can be constructed in other empirical domains. In this respect, habitual/generics readings seem to be an excellent domain to evaluate the set of predictions under consideration. In general, tense differences are not allowed in Spanish TP ellipsis. Let us to illustrate this point with the following example:

(91)	Juan	fue	al	cine	ayer,
	J.	went	to.the	cinema	yesterday
	pero	hoy	no.		
	but	today	not		

'Juan went to the cinema yesterday but not today.'

This sentence can only be read as that *today* Juan did not go to the cinema and not that he won't go to the cinema in the future or that he is not going to the cinema in the near future and so on, even when these are possible continuations in non-elliptical sentences.

(92)	a.	pero	hoy	no	fue	al	cine.
		but	today	not	went	to.the	cinema
	b.	pero	hoy	no	va	al	cine.
		but	today	not	goes	to.the	cinema
	c.	pero	hoy	no	va	a	ir
		but	today	not	goes	to	to.go
		al	cine.				
		to.the	cinema				

The fact that only (92a) can be the underlying structure for the elliptical TP in (91) clearly indicates that the feature content of the tense node is calculated for the identity condition on ellipsis. Yet, tense asymmetries are found in the domain of tense when it comes to habitual or generic readings. Consider the following examples from Saab (2014):

(93)	a. ¡Qué	feliz	coincidencia!	Antes	mi	padre	trabajaba	
	what	happy	coincidence	before	my	father	worked.IMP	
	acá y	ahora	yo	también	**<[$_{TP}$**	**trabajo**	**acá]>**	
	here and	now	I	also		work.PRES.I	here	

[14] The inverse situation, in which formal past precedes the historical present, should be available, but this is hard to evaluate.

'What a nice coincidence! My father worked here before and now I do, too.'

b. ¡Qué	feliz	coincidencia!	Hoy en día		yo	trabajo
what	happy	coincidence	nowadays		I	work.PRES.I
acá	y	antes	mi	padre	también	
here	and	before	my	father	also	
<[$_{TP}$		**trabajaba**		**acá**]>.		
		worked		here		

'What a nice coincidence! Nowadays, I work here and before my father used to, as well.'

As is well-known, most analyses of generic/habitual sentences postulate the presence of some sort of habitual operator (see Krifka et al. 1995 for a detailed overview and a proposal, and Boneh and Doron 2008, 2010 for a recent analysis and references). The proper implementation of this approach is a matter of current debate and, of course, the consequences of such a debate for the theory of identity in ellipsis are crucial. For the radical syntactic approach defended in the previous section, it has to be the case that the tense node in habitual and generic sentences is represented as a syntactic variable without feature content (a minimal tense node in Kratzer's 1998 sense; see also Saab & Vicente in progress). Under this view, the forms realizing the imperfect and the present in these sentences are dissociated forms (in Embick & Noyer's 2001 sense) occurring only at morphology. This would amount to derive these cases in a similar way to well-known cases of agreement mismatches in pronominal binding environments:

(94) I turned in **my** assignment, but most of the other students didn't <[turn in **their** assignment]>.
(Fiengo and May 1994: 218)

Following previous ideas by Murguia (2004) and Bobaljik (2008), in Saab (2008), I elaborated this hypothesis in detail and show that most cases of agreement mismatches in variable binding scenarios can be accounted for if such features are not present in the syntax, but added post-syntactically. The reasoning also extends to some other asymmetries, in particular, indicative-subjunctive mismatches in Spanish TP-ellipsis contexts. With reference to the cases at hand in (93) the proper syntactic representation of T should be an unspecified T node whose temporal value is obtained by PF agreement with a controller, namely, the adverbs *antes* and *ahora* or some other syntactic source (maybe, a covert operator).

(95) A: Antes mi padre [$_{TP}$ $\mathbf{T}_x$ trabajaba acá …
E: Ahora yo <[$_{TP}$ $\mathbf{T}_y$ trabajo acá …>

A weaker version of the identity condition, one that allows for certain types of feature mismatches in the syntax, would also derive the cases in (93) by adopting some version of the parallelism condition. Nevertheless, it is not obvious to me whether, for instance, Thoms' approach is forced or not to adopt the assumption that the tense nodes in the antecedent and the elliptical phrase have to be syntactically unspecified. If this is the case, the sentences at hand satisfy syntactic identity without the need of resorting to accommodation. Otherwise, accommodation should be triggered and the system would ensure that substitution of the tense node in the antecedent does not introduce more complexity into the original structure. I think that, in both analyses of the tense node,

Thoms would predict the correct result. Replacing [past] for a variable in the examples in (93) does not introduce complexity and the accommodated antecedent would satisfy the identity condition on ellipsis, under the assumption that the [present] tense node in the elided phrase is also interpreted as a variable at LF.

Regardless of the specific analysis of these tense asymmetries in habitual environments, a bound variable analysis seems to be unavoidable if we want to capture why habitual sentences allow for tense mismatches, but episodic ones do not. This is a welcome conclusion, in consonance with the most accepted view on habitual and generic readings in general. By the same token, as we have already seen, a bound variable analysis seems to be unavoidable for the historical present, as well. As noticed, Thoms' analysis can indeed accounts for our basic contrast, but only under the assumption that the tense node of the historical present is represented as a bound variable[15].

So, in principle, my lexical/syntactic radical approach to ellipsis and Thoms' analysis seem to be extensionally equivalent in this domain of tense mismatches under ellipsis. However, I think that Thoms' analysis would have to face problems to account for other patterns we have discussed. For instance, Thoms' system should allow for (96) and other cases of biased VC:

[Talking to your young baby]
(96) *Look! Someone catch **a rabbit**, but I do not who <catch **a bunny**>

Under his system, *rabbit* should be replaced by a property variable, which under some assignment, would coincide with the E-site. If this is correct, then he also should

[15] At any rate, it seems that this assumption is also needed for the radical syntactic approach proposed in section 4 if we want to capture the entire paradigm discussed here. In effect, for the radical syntactic approach to work the present tense has to be distinguished from the historical present. Postulating an [historical present] feature is a mere stipulation; a bound variable analysis, instead, seems to be a more promising alternative. Some empirical evidence for such a claim is, in fact, provided by the interaction between habitual readings and the historical present. Concretely, there seems to be a generalization that prevents for a habitual reading to occur in a discourse constructed with the historical present. Put differently, as is well-known, the historical present is restricted to episodic situations. Thus, the following sentence is very unnatural, if not entirely ungrammatical:

(i) *En el pasado, yo suelo fumar un cigarrillo
in the past I use to.smoke a cigarette
después de la cena…
after of the dinner
'*In the past, I smoke a cigarette after dinner…'

A formal past tense with a habitual reading is, of course, perfectly natural in the same context:

(ii) En el pasado, yo solía fumar un
in the past I used to.smoke a
cigarrillo después de la cena.
cigarette after of the dinner
'In the past, I used to smoke a cigarette after dinner.'

The ungrammaticality of (i) is directly explained under the bound variable analysis of the historical present: the fact that this use of the present seems to be restricted to episodic readings follows as a problem of overlapping among operators, namely, the same variable cannot be bound by two operators at the same time. This amounts to saying that both the habitual and the historical present operators are probably of the same type and, consequently, their distribution is fully complementary.

predict that mismatches in register in contexts of NP-ellipsis would be grammatical (cf. 31):

(88) a. El **culo** de Juan es más grande
the.masc.sg ass.masc.sg of J. is more big
que el <**culo**> de María.
that the.masc.sg ass.masc.sg of M.

b. La **cola** de Juan es más grande
the.fem.sg tail.fem.sg of J. is more big
que la <**cola**> de María.
that the.fem.sg tail.masc.sg of M.

c. *El **culo** de Juan es más grande
the.masc.sg ass.masc.sg of J. is more big
que la <**cola**> de María.
that the.fem.sg <tail.fem.sg> of M.

f. *La **cola** de Juan es más grande
the.fem.sg tail.fem.sg of J. is more big
que el <**culo**> de María.
that the.masc.sg <ass-masc.sg> of M.

Again, given that *culo* and *cola* denote the same property, an alternative antecedent like *la cola de Juan* should be generated that would be fully isomorphic and license NP-ellipsis. It seems then that the radical lexical/syntactic approach is superior in this particular domain, although further assumptions could show that the weak syntactic approach proposed by Thoms would derive the patterns of Bias VC. If this were the case, other considerations, both empirical and conceptual, should enter into the picture to decide between the theories under comparison.

6. Conclusions

In this essay, I have tried to show that identity in ellipsis would not make reference to truth-conditional requirements between A and E for most cases of ellipsis. The argument against such an approach in sluicing was rather indirect (*a fortiori*?) but leaves the burden of the proof on the shoulders of the proponents of such theories. My argument was based on considerations of Strong Ineffability regarding biased expressions, a domain that has been proven as useful for testing alternatives theories of identity. On the other hand, well-known arguments against syntactic identity (e.g., weak ineffability arguments) do not seem capable to defeat syntactic identity: they only forces to refine our syntax in ways that are indeed being already polished in other domains of the syntax-morphology connection. In other words, I think of weak ineffability arguments not as arguments against the syntactic identity condition on ellipsis, but as direct arguments in favor of the syntax-phonology separationism advocated in the Distributed Morphology framework. I have tried to show that under this umbrella we can push syntactic identity more than what is conceivable in other syntactic approaches to the identity condition (such as Thoms') and abandon truth-conditional requirements of any sort when it comes to ellipsis phenomena.

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