

Polarity items under ellipsis

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Abstract

Polarity items (PIs) license the ellipsis of their non-polarity counterparts and vice versa: if ellipsis is subject to a syntactic identity constraint, then we must conclude that pairs like *some any* are syntactically identical in the relevant sense. One technical way of cashing this out is given, and further consequences are discussed.

1 Overview and analysis in brief

The nature of polarity items has long been a topic of interest, because of the conditions on their limited distribution. This long note attempts to bring some conclusions from recent work on ellipsis to bear on the question of the nature of polarity items, concluding that polarity items in some instances should be analyzed as particular structure-dependent realizations of their non-polarity sensitive brethren. The argument is structured around a conditional: if the identity condition on ellipsis is defined (at least partially) over syntactic structures, then polarity items must be syntactically identical (in the relevant representation) to certain indefinites. In other words, a syntactic view of elliptical identity seems to require

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that we posit that some polarity items appear as such merely by virtue of their position and relations to licensors.

I begin by reviewing some of the evidence in the recent literature bearing on the nature of the relation between the elided material—which is argued to be syntactically present though unpronounced—and its antecedent; if some recent proposals are correct, then at least part of this relation is one of syntactic identity. This proposition forms the protasis of the conditional of this paper. Whether or not the protasis is actually true is a separate question, one addressed in the literature I cite, but it is not a question I will take up here.

The remainder of the paper explores the consequences of this conclusion in the domain of polarity items such as (1) and (2) (from Sag 1976:157f., also discussed in Bresnan 1971, Ladusaw 1979, Hardt 1993, Fiengo and May 1994, Giannakidou 1998, and Johnson 2001).

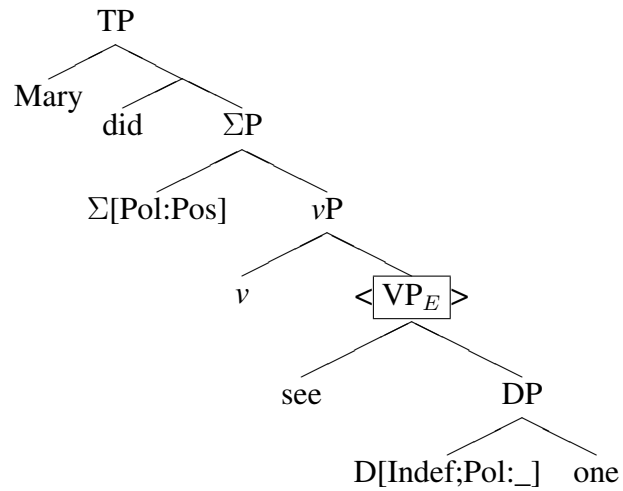
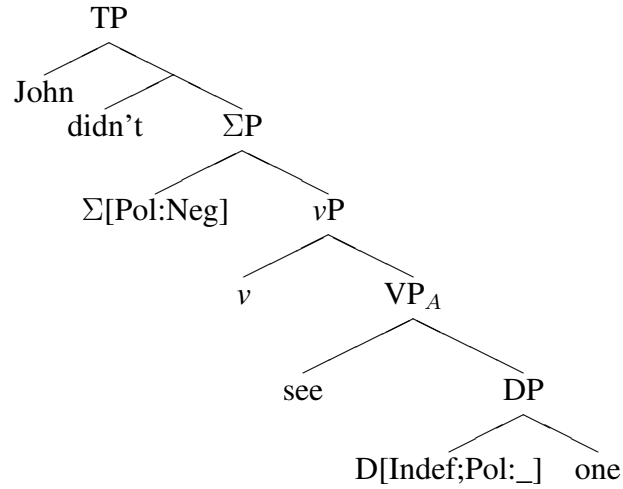
(1) John didn't see anyone, but Mary did.

(2) John saw someone, but Mary didn't.

Briefly, I propose, following the spirit of Giannakidou 2000, Giannakidou 2007 (and others since), that polarity items have a syntactic feature [Pol:_] which is valued under Agree with a c-commanding 'licensor' such as negation.¹ Generalizing, certain expressions have varying morphological realizations, depending on their syntactic environment. Which morphology is realized is determined by agreement with a valuer. The analysis is represented in (3), assuming the morphological spell-out rules in (4) (with a uniform semantics as in (4c)):

¹Obviously a large part of the literature since Ladusaw 1979 has been devoted to showing that negation isn't the only licensor. While I can't do justice to the full range of facts here, the evidence from ellipsis is suggestive for those other licensors as well.

(3)



(4) Lexical Insertion rules

- a. $[\text{Cat}[\text{D}, \text{Indef}]; \text{Infl}[\text{Pol:Neg}]] \mapsto \text{any}$
- b. $[\text{Cat}[\text{D}, \text{Indef}]; \text{Infl}[\text{Pol:Pos}]] \mapsto \text{some}$
- c. $\lambda f \lambda g \exists x [f(x) \wedge g(x)]$

From this analysis, I argue that syntactic identity conditions on ellipsis are compatible only with a refined view of polarity items.

Naturally, this proposal is programmatic in many respects, and a number of very important issues and consequences can be little more than touched upon here; it is my hope that these might be addressed in future work.

2 Protasis: Why one might believe in some syntactic identity

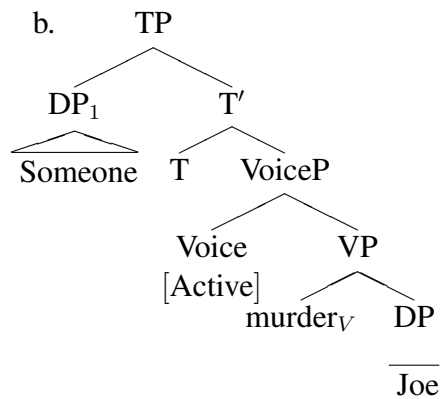
There is a substantial literature on the nature of the identity conditions on elliptical structures which shows that there are semantic constraints on ellipsis; there is also some indications that such conditions may be supplemented in some circumstances with an identity condition stated over syntactic representations. The evidence comes from the uneven distribution of voice mismatches in various elliptical structures. Summarizing from Chung 2006 and Merchant 2007², voice mismatches are allowed in English VP-ellipsis, but disallowed in sluicing, fragment answers, and other larger ellipses:

- (5) Sluicing and fragment answers
 - a. *Someone murdered Joe, but we don't know who by. <Joe was murdered>
 - b. *Joe was murdered, but we don't know who. <murdered Joe>
 - c. Q: Who is sending you to Iraq? A: *By Bush.
- (6) VP-ellipsis
 - a. The janitor must remove the trash whenever it is apparent that it should be. <removed>
 - b. The system can be used by anyone who wants to. <use it>

Previous analyses of the uneven distribution of voice mismatch posit that voice morphology which is expressed on the verb is determined by a functional head, Voice, which is external to the VP (Kratzer 1996, Harley 2006 and others; see Rooryck 1997 for important caveats):

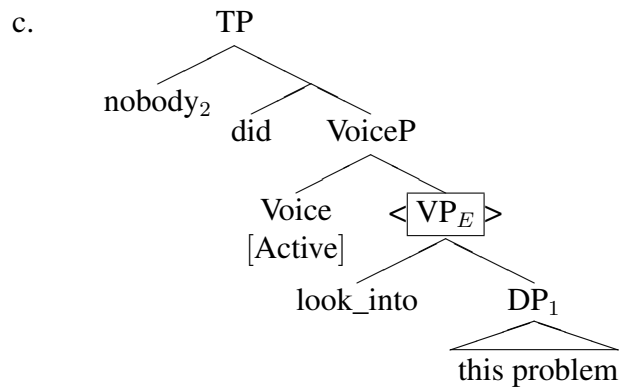
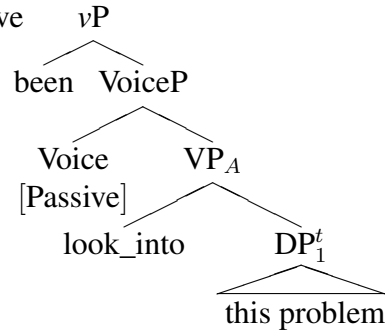
- (7) a. Someone murdered Joe.

²See also Sag 1976, Hankamer and Sag 1976, Dalrymple et al. 1991, Hardt 1993, Fiengo and May 1994, Johnson 2001, Kehler 2002, Arregui et al. 2006, Baker 2007, Merchant 2008, Kim et al. 2011 for further examples, discussion, and qualifications.



With such an articulated syntax, there are different targets for deletion: in high ellipses (sluicing, etc.), a clausal node that necessarily includes Voice, while in low ellipses (VP-ellipsis), the verbal projection that is complement to Voice. (In (8b), I use the superscript *t* on DP to indicate that that DP is a trace; see Merchant 2007 for more discussion.)

- (8) a. This problem was to have been looked into, but obviously nobody did.
 b. [_{DP} This problem]₁ was to have



The conclusion, then, is that VP-ellipsis does not include the Voice head, while sluicing and other larger ellipses do.

The mode of explanation here is similar to the usual accounts of inflectional feature variance under ellipsis, as in Greek predicate ellipsis:

(9) Greek ϕ -features

O Giannis ine perifanos, ala i Maria ðen ine (perifani).
the Giannis is proud.MASC but the Maria not is proud.FEM

‘Giannis is proud, but Maria isn’t (proud).’

- (10) a. Probe/trigger: DP[ϕ :3smasc]
 b. Goal: A[ϕ :_]
 c. Agree(DP,A; ϕ) \rightsquigarrow A[ϕ :3smasc]³

The core idea is that whenever we find an apparent mismatch, the trigger is *outside* the ellipsis site, while the goal is inside. This parallels an argument made on the basis of the distribution of English *be* under ellipsis by Lasnik 1995 (see also Warner 1985, Potsdam 1997, Lightfoot 2000, Nunes and Zocca 2005; and McCloskey 1991 and Goldberg 2005 for related points): in general, English verbs (both regular and irregular) don’t require morphological identity:

- (11) a. Emily played beautifully at the recital and her sister will, too. <play beautifully at the recital>
 b. Emily took a break from her studies, and her sister will, too. <take a break from her studies>
 c. Emily sang the song {because|the way} she wanted to. <sing the song>

Exceptionally, however, forms of *be* do require morphological identity:

- (12) a. Emily will be (beautiful) at the recital, and her sister will, too. <be (beautiful) at the recital>
 b. *Emily was beautiful at the recital and her sister will, too.
 c. Emily will be elected to Congress just like her sister was.

³A reviewer notes that this system is at odds with the proposal in Chomsky 2001, where the goal is always valued, and the probe unvalued. The inadequacies of such an assumption have been well addressed in the literature on agreement; see Zeijlstra 2010, Wurmbrand 2011 for overviews.

- d. *Emily was elected to Congress {because|just like} she really wanted to.

Lasnik's analysis is that forms of *be* are inserted fully inflected, while other verbs get their inflection in the course of the derivation (see also Depiante and Hankamer 2008 for an extension of this logic). Such an analysis does seem to make very plausible that elliptical identity is between syntactic phrase markers, at least in these cases.

Phrase marker identity provides an approach to following apparent category mismatches documented in Hardt 1993 as well:

- (13) a. David Begelman is a great [laugher], and when he does, his eyes crinkle at you the way Lady Brett's did in *The Sun Also Rises*.
b. Today there is little or no OFFICIAL [harassment of lesbians and gays] by the national government, although autonomous governments might.
c. The candidate was dogged by charges of infidelity and [avoiding the draft], or at least trying to.

Johnson 2001, following Fu et al. 2001, analyzes these examples as involving deverbal nouns, and supposes that these nouns in fact contain a VP at some level of representation, making this VP the antecedent for the VP-ellipsis. These authors point out that VP-ellipsis whose putative antecedent contains no deverbal nominal is much worse. In other words, positing a VP inside agent nominalizations in *-er* allows us to make sense of the following contrast, in which (14a) is markedly more acceptable than (14b) ((14a) has the same status as (13a)):

- (14) a. That man is a robber, and when he does, he tries not to make any noise.
b. *That man is a thief, and when he does, he tries not to make any noise.

Purely semantic approaches to elliptical identity would have difficulty distinguishing these, as the relevant lexical entailments (from *be a robber* to *rob someone* and from *be a thief* to *steal something*) are equivalent in the two cases. The important difference is not in the semantics of the nominals *robber* and *thief* but in their lexical composition: *robber* is an agentive nominal derived from *rob* + *-er*, while *thief* has no embedded VP headed by *steal*.⁴

⁴Note however that it is much harder to use even deverbal nouns like *robber* as antecedents for VP-ellipsis when they are not in predicate positions; this presumably has to do with paraphrase relations (as suggested by Johnson 2001 and Frazier 2010).

3 Apodosis: Polarity items

3.1 Polarity determiners and agreement

Imagine, then, that ellipses are subject to a condition that states that the missing (elided) material is syntactically and semantically identical to some antecedent (a detailed formulation and examples are given in the appendix). This leads us immediately to the set of data that Sag 1976:157f. considered, repeated here. As Sag (and Bresnan 1971 before him) noted, the elided VP in (15) seems to be equivalent to (15a), not to the surface-identical (15b) (which is ungrammatical, violating the conditions on polarity items); in any case, the meaning of the clause containing the ellipsis can be represented by (15c).

- (15) John didn't see anyone, but Mary did.
- a. ... but Mary did see someone.
 - b. ... *but Mary did see anyone.
 - c. $\exists x.see(Mary, x)$

The opposite problem occurs in the following example:

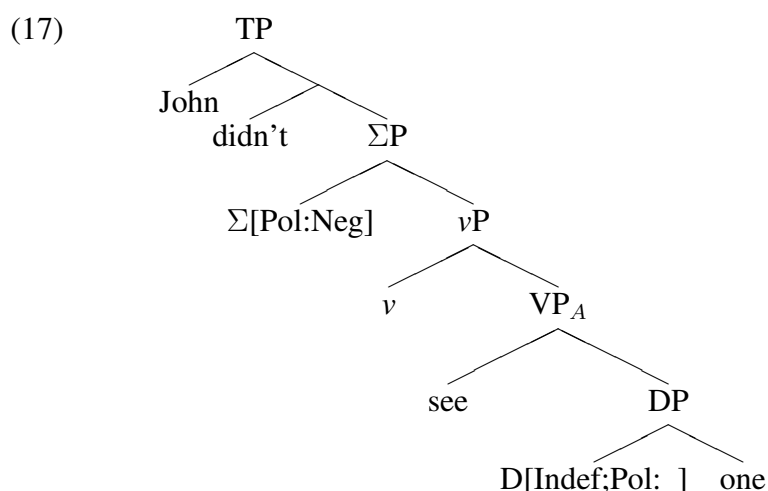
- (16) John saw someone, but Mary didn't.
- a. \neq ... but Mary didn't see someone.
 - b. ... but Mary didn't see anyone.
 - c. $\neg\exists x.see(Mary, x)$

Under a strict phrase marker identity requirement on ellipsis (see appendix for a formalization), we can confront the problem posed by the apparent mismatches above as we did for inflectional feature variance, by following Giannakidou 2000, Giannakidou 2007 in supposing that polarity items have a syntactic feature *Pol:* which is valued under Agree with a c-commanding 'licensor' such as negation. (See also Klima 1964, Zeijlstra 2008, Haegeman and Lohndal 2010, and Penka 2011 for related approaches.)

This approach assimilates, counter surface appearances, polarity items to other items that vary in their appearance: certain expressions have varying morphological realizations, depending on their syntactic environment. Which morphology is realized is determined by agreement with a valuer; the allomorph is determined by the nature of the valuer. In particular, this approach is inspired by the ideas in Giannakidou and Merchant 2002, where it is proposed that some quantificational

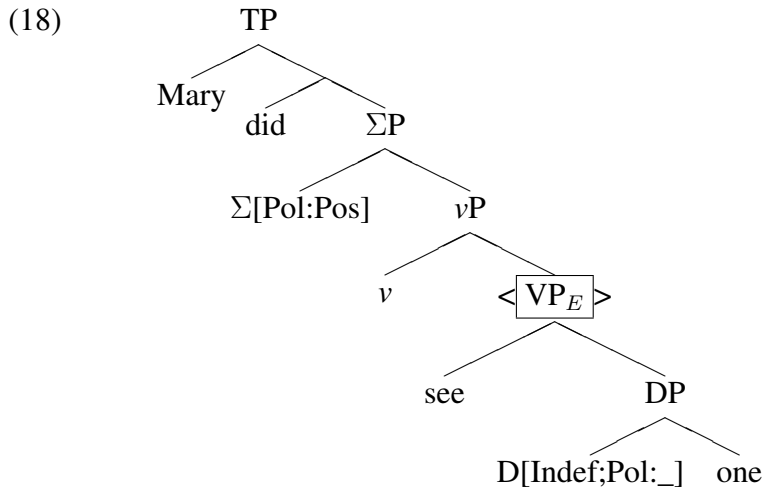
determiners may be high in the tree (specifically, that a Q head high in the tree could serve as a scope-marker whose value was determined by Agree with an in situ DP; see Sportiche 2005 for a similar approach). Here, I turn this idea around: the (higher) scope marker starts out with the Q-force determined, and values the lower determiner, which provides the restriction (with quantification over choice functions).

In detail, we need to posit phrase markers like the following (to satisfy the identity requirement⁵), interacting with morphological realization rules as those given in (19).⁶



⁵The conditions for deep anaphors like *do it* and for other surface anaphors like *do so* (see Hankamer and Sag 1976 and Sag and Hankamer 1984) differ slightly: both require some antecedent, but their conditions are clearly semantic. Both seem to allow polarity items in antecedents, with a positive reading, though further investigation will have to await a different occasion.

⁶As a reviewer notes, this commits us—at least for pairs of sentences in which ellipsis licensing of this kind is at stake—to a symmetricalist view of positive and negative sentences (see Ladusaw 1996). Such a view, if necessarily uniform across all sentences, has been well criticized by Horn 1989.



(19) Lexical Insertion

- a. [Cat[D, Indef]; Infl[Pol:Neg]] \mapsto any
- b. [Cat[D, Indef]; Infl[Pol:Pos]] \mapsto some (sm)/a

Such lexical insertion rules will take the feature bundles assembled by the syntax and map them to their appropriate morphological realizations.⁷ In essence, this approach, though updated, follows Klima 1964 in spirit (as do other recent instantiations of Distributed Morphology applied to the polarity domain, such as those mentioned above). Klima 1964:280 gave the following rules: the feature conflation transformations did the job of our Agree, while his morphological spell out rules were equivalent to ours (see below for more on the determiner *no*).

(20) Feature conflation transformations

- a. *Indef*-incorporation:
 $S: [neg] - X - Quant \implies neg - X - Indef + Quant$

⁷Additional featural specifications are obviously necessary to distinguish among the positive *some*, *sm* and *a*, which I abstract away from here; see Tubau 2008 for more discussion (and I'm discounting the putative 'positive polarity item' *some*: despite claims to the contrary in e.g. Szabolcsi 2004 and others, I don't believe there is anything to be said about its distribution beyond what is needed for lexical focus and its effects on scope—in other words, there is no such thing as 'positive polarity' *some*). It is also important to remember that the 'Neg' feature specification of $\Sigma[Pol:Neg]$ is merely a name for a feature value, and should not be taken to imply that the sentence in which it occurs must necessarily have a semantic negation present; we must assume that nonveridical and other environments can permit this $\Sigma[Pol:Neg]$ to appear as well.

b. *neg*-incorporation:

(optional) $[neg]X[Indef + Y]_{Quant} \implies X - neg + [Indef + Y]_{Quant}$

(obligatory) $[Indef + Y]_{Quant}Z[neg] \implies neg + [Indef + Y]_{Quant}Z$

(21) Morphological spell out rules

a. $Neg + Indef + Quant \implies no$

b. $Indef + Quant \implies any$

c. $Quant \implies some$

Like Klima, we must then extend this analysis to other polarity item/non-polarity item pairs, such as those discussed in Ladusaw 1979, etc.: *ever* ~ (*at least*) *once*, *yet* ~ *already* (and, for some speakers, *until* ~ *before*, according to Sag 1976:158–160, and *at all* ~ *somewhat*, from Klima 1964:282).

There are possibilities, of course, for implementing this kind of a solution without positing this kind of alternative spell-out of identical items under inflectional agreement with a higher head. The main two simply turn the analysis on its head, in terms of ordering of the operations in a derivational framework: the first would suppose that the polarity item (or at least the polarity-sensitive part) is scoped out at some abstract level of representation (say, LF), and that the post-scoping phrase markers are what are compared for purposes of the elliptical identity condition (where what remains gets interpreted for example under existential closure or as a choice function variable), as in Abels and Martí 2010. The other possible implementation along these lines is to claim that the polarity-sensitive determiner combines with the restriction outside the ellipsis site, as in Sportiche 2005. While these differing conceptions of the mechanisms are important, I do not see that the current data help us to distinguish among them, and so I will not attempt a comparison here.⁸

The present proposal shares with these other analyses the basic idea that determiners' looks are deceiving, and that it is not feasible to capture the full range of data by using only the surface morphology and constituency as guidelines (despite some successes in these directions, such as Jacobson 1992 and Swart and Sag 2002). One may justly be tempted to discount this conclusion from the behavior of polarity items under ellipsis as being due not to an intricate morphosyntax of

⁸A reviewer points out that this set of data is potentially problematic for an approach like that of Postal 2005, where the negation separates overtly from the polarity item, if the resulting phrase marker hosts a trace of the movement, and such traces are required to correspond to something in the elided phrase. If traces are not subject to such a requirement, however, the present data seem not to bear on the viability of Postal's proposals.

determiners, but rather due to some other property of ellipsis. In the remainder of this paper, I review a range of data from other determiners that make it more plausible that this pattern is not due simply to a yet to be specified set of constraints on ellipsis, but rather is indicative of a more complex understanding of determiners.

3.2 Some other determiners under ellipsis

Some of the most persuasive complicating evidence comes from the behavior of ellipsis when the antecedent contains a DP apparently headed by the determiner *no*. This determiner, when inside the VP, has a strange property: it licenses VP-ellipsis where the elided VP has no ‘negative’ meaning at all, as in the following examples:

- (22) The geriatrician, Dr. Rosanne M. Leipzig, suspected a silent infection—something the other doctors had missed because Mrs. Foley had no fever, as old people rarely do. [‘Geriatrics Lags in an Age of High-Tech Medicine’, New York Times, 18 October 2006, p. A1]
- (23) “It’s going to be Nixon for the Republicans,” Beaumont said.
“Sure, and who else? But he’s no war hero, like Ike was. And our guy, well, he is.” (Andrew Vachss, *Two Trains Running*, Vintage: New York, 2005, p. 334)
- (24) “If anyone sees you, what are they going to think?”
“Who cares? Anyway, there’s no one. If there was, I’d be out of here.”
...
“I can’t see it,” Deeba said anxiously. “There’s nothing.”
“Yes, there is,” said Zanna dreamily. (China Miéville, *Un Lun Dun*, Ballantine: New York, 2007, p. 20)
- (25) “There will be no Paradise for me. But if there were, I wouldn’t expect to see you there...” (Matt Benyon Rees, *The Collaborator of Bethlehem*, Mariner: Boston, 2008, p. 93)
- (26) % Although John will trust nobody over 30, Bill will. (Sag 1976:312)
- (27) I could find no solution, but Holly might. (Johnson 2001:(107))

The solution to this is to believe that *no* decomposes into a negation (which takes scope outside the VP) and an indefinite, interpreted as an existential (which may take scope inside the VP), as suggested for precisely these ellipsis cases by Johnson 2001. This is the path of analysis followed by many researchers,

of course, for similar facts from scope found with German *kein* and Dutch *geen* (see Jacobs 1980 for the original proposal, and Giannakidou 2000, Potts 2000, and Abels and Martí 2010 for more recent discussion, and Geurts 1996 for a contrary view). As these authors note, *kein Auto* and *no employees* can give rise to split readings (in addition to taking unitary scope above or below the universal subject or modal):

- (28) Alle Ärzte haben kein Auto.
all doctors have no car
 a. = For all doctors x , it is the case the x has no car. (*de dicto*)
 b. = There is no car y such that all doctors have y . (*de re*)
 c. = It is not the case that every doctor has a car. (split)
- (29) The company need fire no employees. (Potts 2000)
 a. \neq The company is obligated to fire no employees. (*de dicto*)
 b. = There are no employees x such that the company is obligated to fire x . (*de re*)
 c. = It is not the case that the company is obligated to fire employees. (split)
- (30) He could have no greater friend than you. (Matt Benyon Rees, *The Collaborator of Bethlehem*, Mariner: Boston, 2008, p. 88)
 a. = It is not the case that he could have a greater friend than you.
 $\neg[\exists w \in ACC_{@} \exists x \exists d [\text{great}(\text{friend}_w(x))(d) \wedge d > \max(\lambda d' (\text{great}(\text{friend}_{@}(\text{you}))(d')))]]$

A usual analysis of this is to claim that in these cases, *kein/geen/no* is an existential (or choice function variable) that takes narrow scope with respect to a higher, here unpronounced, negation.⁹

⁹Coordination facts in German point to this conclusion as well. Inside PPs, as in (i), *kein* may appear, apparently licensed by reiterated unpronounced VP-adjoined *nicht* (putting paid to any putative analysis that would rely on adjacency for a supposed *nicht+ein* \rightarrow *kein* conversion):

- (i) Und sollten Sie irgendein Bedenken haben, irgendeinen Rat brauchen, so
and should you any second.thoughts have any advice need then
 wenden Sie sich nicht an Ihre Frau und an kein Familienmitglied und auch an keinen
turn you yourself not to your wife and to no family.member and also to no
 geistlichen Beistand, sondern wenden Sie sich an unsere Zentrale und verlangen
spiritual advisor rather turn you yourself to our central.office and ask.for

This is obviously related to the phenomenon of negative concord more generally (see Giannakidou 2006 and Penka 2011), such as uses of *no* in non-standard English varieties such as the following (though negative concord items are quite variable across languages, and I by no means mean to suggest that all these items will have a similar distribution; see Tubau 2008 for discussion).

(31) They ain't got no fever.

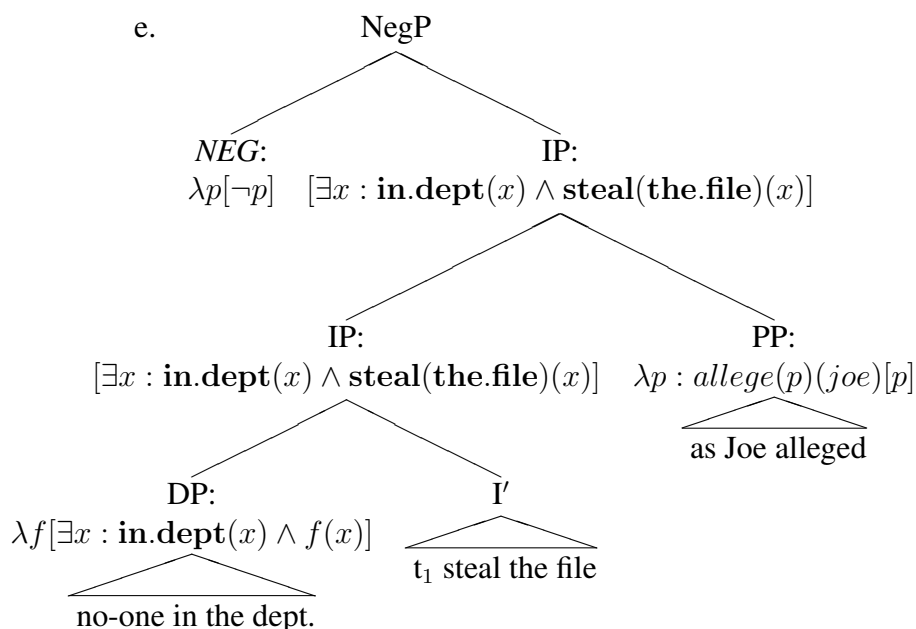
A similar conclusion is reached by Potts 2000, 2002 on the basis of the ambiguities found with adjoined *as*-clauses, to which he gives the analysis shown below:

- (32) a. No-one in the department stole the file, as Joe alleged.
 b. = Joe alleged someone in the department stole the file.
 c. = Joe alleged no-one in the department stole the file.
 d. [_{NegP} *NEG* [_{IP} someone in the department stole the file]]

Sie Zimmer achtzehn.
you room eighteen

(lit.) 'And should you have any second thoughts or need any advice, don't go to your wife, and to no family member, and also to no spiritual advisor, but instead come to our central office and ask for room 18.' (Anna Seghers, *Das siebte Kreuz*, Sammlung Luchterhand, 1962, p. 105.)

Positing that these do not involve coordinated PPs, but rather involve coordinated VPs—or Σ Ps, in one implementation—, the second two of which have unpronounced negations, seems to be the only way to make sense of the fact that the conjunction *und* 'and' is used, not *oder* 'or': if the one overt *nicht* 'not' were adjoined and taking scope over all three PPs (or indeed VPs), we'd expect *oder*, just as in English. (And any scoping mechanism for the negative part of *kein* would have to answer why the Coordinate Structure Constraint isn't violated.)



Potts 2002:681(127) points out that this tracks an ambiguity that can be found with *any*-items, which he relates to the variable height of attachment of the *as*-clause:

- (33) Alger did not do anything illegal, as Joe believed (the whole time / quite wrongly).
- a. *As*-clause = Joe believed the whole time that Alger did not do anything illegal
 - b. *As*-clause = Joe believed wrongly that Alger did something illegal

In the present system, these data can be taken to indicate that the controller for agreement that results in the determiner *no* being pronounced is featurally distinct from that which triggers *any*. Just as in Klima's system, we must distinguish these two: in the standard variety of English, these largely correspond to whether there is an overt correlate of the Neg head in the clause: when *not/n't* appears, we have *any*, and when the covert negation appears, we have *no*. One feature specification that would result in the correct pattern is the following, adopting Klima's feature name:

- (34) The negative Σ heads:
- a. $\Sigma[\text{Pol:Neg, Quant}]$ (covert negator, interpreted as in Potts 2000)

- b. $\Sigma[\text{Pol:Neg}]$ (generally co-occurring with *not*)
- (35) The featural specifications for lexical insertion:
- a. $[\text{Cat}[\text{D, Indef}]; \text{Infl}[\text{Pol:Neg, Quant}]] \mapsto \text{no}$
 - b. $[\text{Cat}[\text{D, Indef}]; \text{Infl}[\text{Pol:Neg}]] \mapsto \text{any}$
 - c. $[\text{Cat}[\text{D, Indef}]; \text{Infl}[\text{Pol:Pos}]] \mapsto \text{some}$

It would also be possible to make the relevant distinction directly dependent on the presence of the overt sentential negator, by making this negator itself control a feature on the Neg Σ ; if valued by *not*, the resulting Σ would then pass on the relevant value to D, yielding *any*, for example (see Giannakidou 2007 and Penka 2011 for accounts of concord phenomena that exhibit such patterns).

But one must be careful, however, not to link the presence of the $\Sigma[\text{Pol:Neg}]$ too directly to the presence of *not*, since *any* is found in a range of contexts that lack *not*: a wider range of nonveridical contexts (see Giannakidou 2011 for an overview). Recall that $\Sigma[\text{Pol:Neg}]$ itself should be posited to occur in clauses with the relevant semantic property: $\Sigma[\text{Pol:Neg}]$ itself does not contribute negation (*not* does, in those sentences that have it). So for instance, $\Sigma[\text{Pol:Neg}]$ in English appears in questions, *if*-clauses, and more, while in other languages it may appear also in imperatives, disjunctions, etc. Let there be no mistake: the label ‘Neg’ for the feature value is purely for convenience; it may be helpful to call it ‘57’ instead, where the mnemonic connection to *negation* is broken, and the idea that its distribution can vary across languages and constructions is more easily understood. With this very important nomenclatural caveat in mind, I will nonetheless continue to use ‘Neg’.¹⁰

Apparent scope splits leading to converse understandings can be found under ellipsis with *few* as well:

- (36) John has few friends, and frankly, his brother doesn’t really, either. <have many_{NPI} friends>

This fact is not unexpected, given the observations relating to *few* in McCawley 1993, Johnson 2000a, 2000b, and Lin 2002:

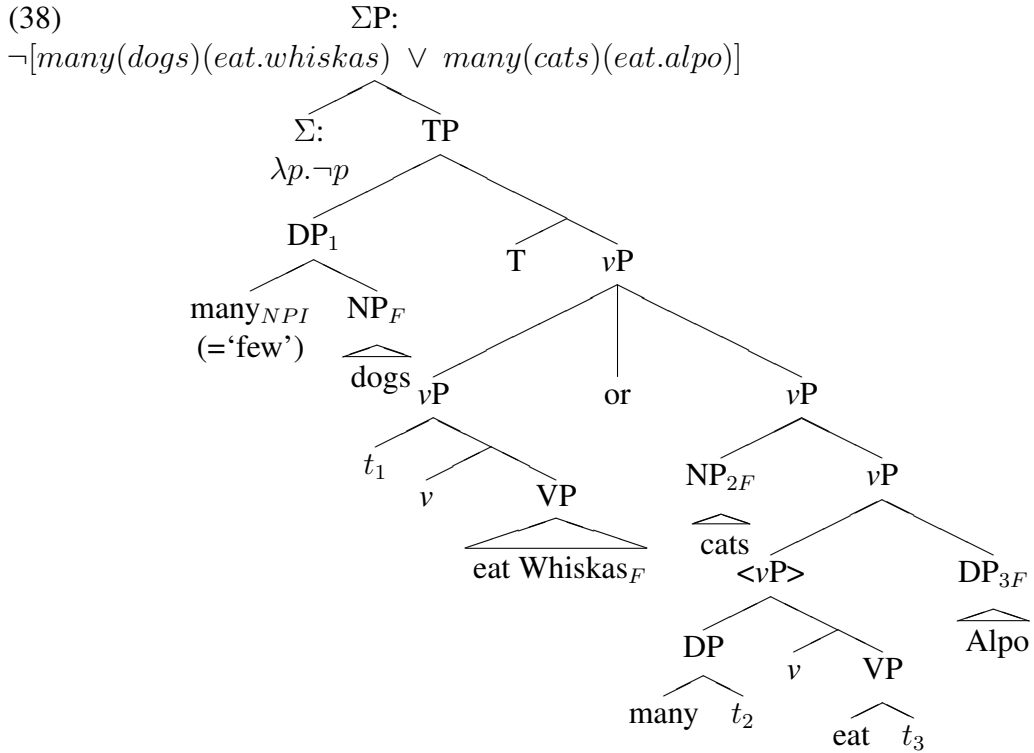
¹⁰In nonstandard varieties of English that have a concord *no* (in e.g., *It ain’t no reason to cry*), I suspect that the concord *no* is in complementary distribution with *any* (yielding **It ain’t any reason to cry*, with my hypothetical judgment indicated). These dialects do, as far as I know, also have *any*, but only in nonconcord uses: *Ifn anybody calls, I ain’t home*, where *no* is banned: *#Ifn nobody calls, I ain’t home*. These dialects would therefore have the character of polarity/negative-concord items in Slavic, exhibiting the well-known ‘bagel’-distribution (see Pereltsvaig 2004).

- (37) a. Few dogs eat Whiskas or cats Alpo.
b. Carrie was a fat, not very interesting cat, kept mainly for mousing purposes, and the children ordinarily paid little attention to her, or she to them. [Edward Eager, *Half Magic*, Harcourt, New York, 1954, pp. 30–31]

There are again the same two analytical possibilities available to us here to account for the separation of the apparently determiner-contributed quantification from the restriction: either the polarity item scopes out and the rest gets interpreted under existential closure, or the determiner combines with the restriction outside the ellipsis site (as on Johnson's and Lin's proposals). In this latter case, the resulting LF is as follows for the examples in (37):¹¹

¹¹Additional constraints will have to account for the detailed distribution of split readings with *few* and *little*, as they seem not to occur in object position when interacting with a subject, yet do persist in ditransitives, an issue I'll leave aside here:

- (i) a. *Some will eat few Brussels sprouts or others <will eat few> lima beans.
b. I'll give few Brussels sprouts to Mary or lima beans to Max.



- (39) ...ordinarily [NEG [[much(attention)(pay.to(her)(the.children))] or
 [much(attention)(pay.to(them)(she))]]]

The idea that apparently semantically potent bits of morphology may be in some case be idle (though not always) finds support also from the observations regarding dependent plurals made by Sag 1976:143–150. He points out that dependent plurals license singular deletions, and vice versa, as in (40) and (41)¹², while inherent plurals do not (shown in (42)).

- (40) a. John's uncles are bachelors, but Betsy claims her uncle isn't. <a bachelor>
 b. The women gave lectures at museums, and Sam volunteered to, also. <give a lecture at a museum>

¹²While this can be seen clearly for predicate NPs as in (41), it is impossible to test for other uses of indefinites, since the intended meaning would be rendered just as well by a singular indefinite; examples such as *Sam volunteered to spend a day at a troubled school, but no women did* give no indication as to the plurality or not of the NPs inside the elided VP.

- (41) Betsy’s uncle is a bachelor, and mine are, too. <bachelors>
 (42) John has living parents, and Bill does, too.
 =<have living parents>, ≠<have a living parent>

In sum, while morphology is often a good indicator of meaning, a strict adherence to surface lexicalism would make it difficult to account for this range of data.

3.3 Questions of position and locality

Further questions arise concerning the exact position of negation. For present purposes, it will suffice to note that larger ellipses (namely sluicing and fragment answers, which target higher nodes than does VP-ellipsis) don’t allow us to ‘ignore’ negation.¹³ That is, no ambiguities are found, and a negation in an antecedent clause will always require a corresponding negation in the elided clause:

- (43) Sluices
- a. A number of senators have told me privately that they can’t support the amendment, but I’m not at liberty to reveal which ones.
 - b. Bush didn’t invite several senators to his prayer breakfast; the White House press office has a list of which.
 - c. Lately, Mark hasn’t been able to play the sonata flawlessly. I don’t know why.
 - i. = why Mark hasn’t been able to play the sonata flawlessly
 - ii. ≠ why Mark has been able to play the sonata flawlessly
 - d. Abby didn’t turn off the stove, but I don’t know when.
 - i. = when she didn’t turn off the stove
 - ii. ≠ when she turned off the stove
 - e. Few senators support one of the lobbyists’ balanced budget amendments—find out whose!
 - i. = whose (balanced budget amendment) few senators support

¹³An exception is *why not* questions: *No-one came, but we don’t know why (not)* (see Merchant 2006). This is only possible with *why*, as Sag 1976 and Horn 1978 point out. A possible analysis would be to claim that *why* sluices delete a lower piece of structure than other sluices, with *not* in these cases being the non-clitic spell-out of Σ (pace Merchant 2006). See van Craenenbroeck 2010 for a similar conclusion for D-linked *wh*-phrases (which he posits to reside in a higher CP’s specifier) vs. non-D-linked ones (in a lower CP).

ii. \neq whose (balanced budget amendment) many senators support

(44) Fragment answers

a. Q: Who didn't you invite? A: Well... Mark.

i. = I didn't invite Mark.

ii. \neq I did invite Mark.

iii. cf. felicity of *Well, I DID invite Mark*

b. Q: When was no-one in the shop? A: Between 5 and 6 o'clock.

These examples are unambiguous, as one would expect if, as standard analyses posit, they involve targeting a larger structural domain—a clausal one which will necessarily include negation. Therefore, no split readings will be found: the negation is contributed by a clause-internal head, and this head is necessarily dominated by the phrase elided.

Another question that emerges on this approach concerns locality: how local must the valuer be to the valued feature? This is a much larger question than can be answered determinatively here (the large literature on agreement addresses the complexities involved directly), but we can note that the relevant judgments seem to point in the direction of some constraints on locality.

(45) Abby didn't want to eat anything, but Ben did. <want to eat something>

(46) ?Abby didn't say she'd ever been to Uruguay, but Ben did <say he'd been at least once to Uruguay>.

(47) ??Abby didn't say Sheila had ever been to Uruguay, but Ben did <say Sheila had been at least once to Uruguay>.

(48) ?Mark would never read a book that contained a single heretical word, but Ben would, and did, that damn atheist.

(49) Abby believed the claim that no-one came to the party, but Ben didn't. \neq <believe the claim that someone came to the party>

These track scopal possibilities to some extent (a poorly understood domain; see Szabolcsi 2010), and, more clearly, islands, as certain kinds of polarity licensing does as well, as Ross 1967:170, 249–259 pointed out:

(50) a. Do you believe (*the claim) that anybody was looking for anything?

b. *I never met that man who anybody tried to kill.

Ross proposed a general condition (Ross 1967:248 (6.193)) as follows:

- (51) All feature-changing rules obey the same constraints as chopping rules [namely, islands —JM].

He also noted exceptions, in which downward cascade or iterative licensing (or valuing) is possible :

- (52) a. I can't remember the name of {anybody|*somebody} who had any misgivings. (Ross 1967:249–250)
b. Everybody who has ever worked in any office which contained any typewriter which had ever been used to type any letters which had to be signed by any administrator who ever worked in any department like mine will know what I mean.

While such examples are problematic—or at least require additional discussion—under purely semantic scope theories of polarity licensing, they fall into place in the current account as being part of the larger investigation into locality conditions between controllers of agreement and their targets (while no means a trivial question, at least one that has many lines of research addressing it; see Wurmbrand 2011 for a recent overview).

Another potential advantage of taking the *some/any* alternation to be regulated by syntactic agreement is that we may be able to begin to capture the puzzling but well-known c-command requirement that is taken to hold (typically at S-structure, but see Uribe-Echevarria 1994 for some justly famous counterexamples). On the present account, this falls out as a consequence if certain agreement relations—including the present one, crucially—only obtain if the controller of agreement c-commands the target of agreement.

As a reviewer notes, the fact that it is possible to license *any* across certain finite clause boundaries may be problematic for standard theories of agreement, which typically take the clause, or the CP, to be the domain of agreement. The fact of the matter is, however, that the full range of agreement types and the conditions on them is not well understood. Well-documented cases of cross-clausal agreement do exist: Tsez and Innu-Aimun, for instance, are argued in Polinsky and Potsdam 2001 and Branigan and Mackenzie 2002 respectively, to have true agreement into embedded clauses. If the current approach to polarity items is on track, these elements show that we need to allow such agreement in English as well, at least for certain kinds of targets of agreement.

3.4 Minimizers and complex polarity items

Finally, we should consider the behavior of minimizers under ellipsis. They are found here, but the issues they raise are different: minimizers are not ungrammatical in such contexts—instead, they receive their ‘minimal’ interpretation; we have access to the literal (or nonidiomatic) meaning, just as with idioms (Horn 1989:400).

- (53) a. John didn’t sleep a wink, but Mary did. (=sleep at least a minimal amount)
b. John wouldn’t budge an inch, but Mary did. (= move at least a minimal amount)
c. John didn’t lift a finger that day, but Mary did. (=do at least a minimal amount)
d. Mark didn’t bat an eyelid when they told them they were fired, but Susan certainly did—in fact, she fell off her chair in surprise!
e. John didn’t say a word, but Mary did. In fact, she said a lot of words/words!
f. A: John spilled the beans. B: Really? Was he able to find them all again?
- (54) a. John didn’t sleep a wink, but Mary did <sleep a wink>.
b. Mark didn’t bat an eyelid when they told them they were fired, but Susan certainly did <bat an eyelid>—in fact, she fell off her chair in surprise!
- (55) a. John didn’t sleep a wink, but Mary *did* sleep a wink—in fact, she slept all morning!
b. Mark didn’t bat an eyelid when they told them they were fired, but Susan certainly *did* bat an eyelid—in fact, she fell off her chair in surprise!

In certain (‘echoic’) contexts, minimizers differ from NPIs like *anyone*, *at all*:

- (56) Q: Did John lift a finger? A: Yes, he lifted a finger. (=‘he did at least a minimal amount’) In fact, he helped a lot.
- (57) Q: Did you eat anything/ at all this morning? A: *Yes, I ate anything/ at all this morning.

So the nature of the ‘problem’ with minimizers in ellipsis contexts is different: its solution is the solution we give to the well-formedness of dialogues like (55) and (56).

In fact, one sometimes finds these minimizers in nonlicensed environments, showing exactly their ‘minimal’ meanings:

- (58) Mr. Obama “budged” on Iran before he was ever elected.
[http://www.thenation.com/blogs/dreyfuss/418375/obama_rebuffs_israeli_hawk?rel=hp_currently, accessed 3/19/2009]

The current approach also requires that what appear to be multi-word sequences that are thought to be polarity sensitive be in fact elements that can be targeted for lexical insertion, just as for phrasal idioms. In particular, Dutch items such as *ook maar één* (lit. ‘also only one’, with a distribution similar to *any*; see e.g., Hoeksema 2002), brought to my attention by a reviewer, will have to have their polarity sensitivity encoded as a phrase. Though the nature of such phrasal items (or ‘partikelgroepjes’ in Hoeksema’s phrase) is not entirely clear, there are certainly approaches that take these to be a single whole for the purposes of polarity licensing, and do not attempt to decompose them (cf. German polarity item *auch nur*, lit. ‘also only’, and Giannakidou 2011 for discussion).

4 Conclusion

My goal here has not been to defend the protasis of the conditional—that a syntactic identity condition for ellipsis exists—but rather simply to explore the nature of the apodosis. We have been led to posit a quite abstract analysis for polarity items, with the consequence that surface properties of more items than we thought are determined by their syntactic relations to other elements in the structure.

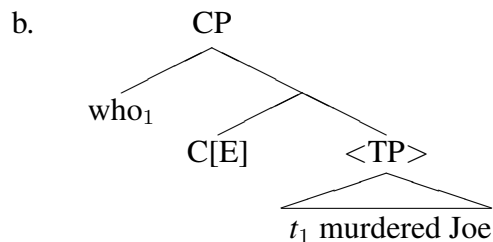
Depending on one’s theoretical predispositions, the analysis presented here will either count as a fascinating discovery about the nature of the syntax of polarity items (and potentially pronouns) or a *reductio ad absurdum* of the syntactic approach to the elliptical identity question. *Et quamquam de gustibus sic est disputandum, hic locus non est.*

Appendix: Triggering ellipsis: The [E] feature

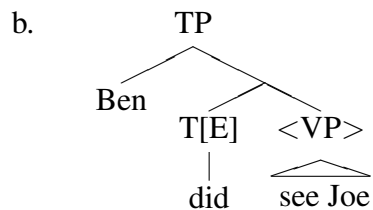
In this appendix, I present a formal version of the identity requirement on ellipsis alluded to in the body of the paper, implemented by an E-feature. (For development and discussion of the E-feature, see Merchant 2001, van Craenenbroeck and Lipták 2006, Vicente 2006, Corver and van Koppen 2007, 2009, Ha 2007, Toosarvandani 2008, Aelbrecht 2009, van Craenenbroeck and Lipták 2010, and van Craenenbroeck 2010.)

Recall the voice mismatch asymmetry, and note that focussed elements can be disregarded as well:

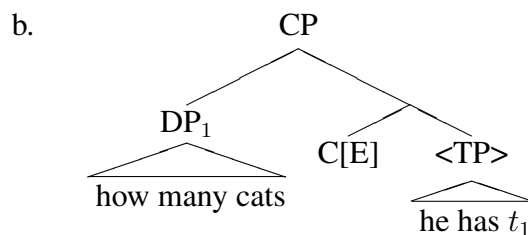
- (59) a. Someone murdered Joe, but we don't know who.



- (60) a. Abby didn't see Joe, but Ben did.



- (61) a. [$_{TP_A}$ Max has [$_{F}$ five dogs], but I don't know [$_{F}$ how many cats]
 <[$_{TP_E}$ he has t_1]>.



These latter facts were accounted for by a definition of e-GIVENness that abstracted over focussed elements and their correlates in calculating identity:

- (62) a. $\llbracket E \rrbracket = \lambda p : e\text{-GIVEN}(p).p$, where an expression ϵ is *e-GIVEN* iff ϵ has a salient antecedent A such that, modulo \exists -type shifting, $\llbracket A \rrbracket \rightarrow \text{F-clo}(\epsilon)$ and $\llbracket \epsilon \rrbracket \rightarrow \text{F-clo}(A)$ (Merchant 2001, 2004)
- b. $\text{F-clo}(\llbracket TP_A \rrbracket) = \exists x[\text{have}(x)(Max)]$
- c. $\llbracket TP_E \rrbracket = \exists x[\text{have}(x)(Max)]$

Chung 2006 proposed an addendum to this, which we can paraphrase as follows:

- (63) Chung’s lexico-syntactic requirement (applied in addition to e-givenness):
No new words (‘pedantic’ recoverability)
 Every lexical item in the numeration of the sluice that ends up (only) in the elided IP must be **identical** to an item in the numeration of the antecedent CP.

This condition still requires a semantic identity condition (Chung endorses e-givenness) to rule out examples like the following.

- (64) *Felicia loves Joe, but we don’t know why <Joe loves Felicia>.

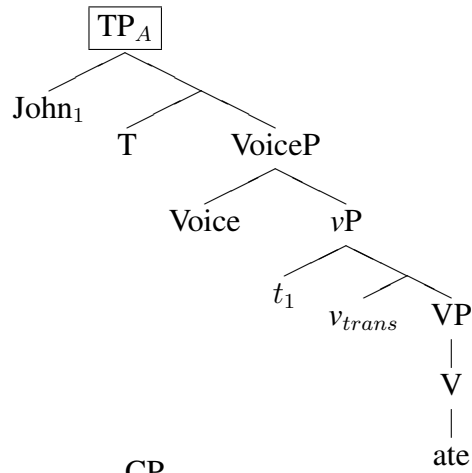
Putting these together, we reach a definition of the requirements imposed by the E-feature

- (65) The E feature imposes
- a. *e-GIVENness*, and
- b. **No new lexeme requirement** (adapted from Chung 2006):
 $\forall m[(m \in M_E \wedge m \neq t) \rightarrow \exists m'(m' \in M_A \wedge m = m')]$,
 where M_E is the set of lexemes in the elided phrase marker and M_A is the set of lexemes in the antecedent phrase marker. ($M_E - t \subseteq M_A$)
 (Any non-trace lexeme m that occurs in an elided phrase must have an equivalent overt correlate m' in the elided phrases’s antecedent.)

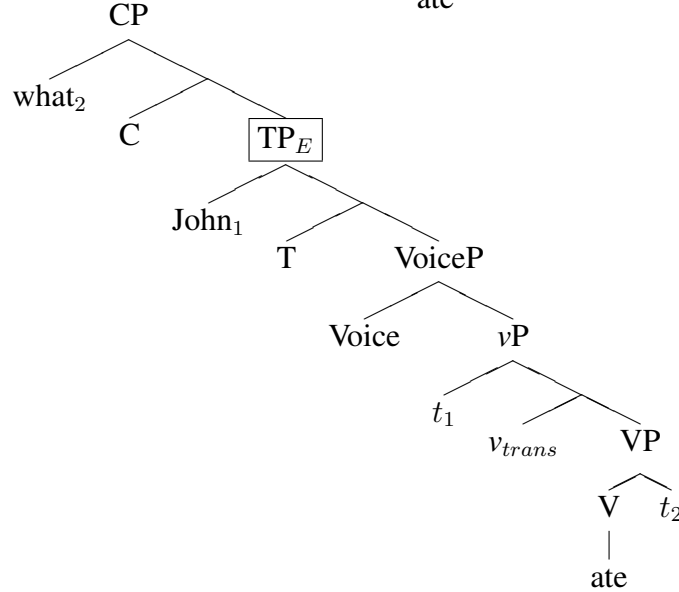
The following phrase markers and calculations of the F-closures and the sets M_A and M_E demonstrate how the alternations and the non-alternations are captured on this set of definitions.

- (66) a. John ate, but I don’t know what₁ <John ate t_1 >.

b.



c.



d. $F\text{-clo}(\llbracket TP_A \rrbracket) = \llbracket TP_A \rrbracket = \exists x[ate(x)(john)] \leftrightarrow$

$F\text{-clo}(\llbracket TP_E \rrbracket) = \llbracket TP_E \rrbracket = \exists x[ate(x)(john)]$

e. $M_A = \{\text{John, T, Voice, } v_{trans}, \text{ate}\} \supseteq$

$M_E - t = \{\text{John, T, Voice, } v_{trans}, \text{ate}\}$

(67) a. Mary was flirting, and everyone wants to know [with who]₂ <Mary was flirting t_2 >.

b. $F\text{-clo}(\llbracket TP_A \rrbracket) = \llbracket TP_A \rrbracket = \exists x[flirt(x)(mary)] \leftrightarrow$

$F\text{-clo}(\llbracket TP_E \rrbracket) = \llbracket TP_E \rrbracket = \exists x[flirt(x)(mary)]$

- c. $M_A = \{\text{Mary, T, was, Voice, } v_{unerg}, \text{ flirting}\} \supseteq$
 $M_E - t = \{\text{Mary, T, was, Voice, } v_{unerg}, \text{ flirting}\}$
- (68) a. *Mary was flirting, but they wouldn't say who <Mary was flirting with
 t >.
b. $\text{F-clo}(\llbracket TP_A \rrbracket) = \llbracket TP_A \rrbracket = \exists x[\text{flirt}(x)(\text{mary})] \leftrightarrow$
 $\text{F-clo}(\llbracket TP_E \rrbracket) = \llbracket TP_E \rrbracket = \exists x[\text{flirt}(x)(\text{mary})]$
c. $M_A = \{\text{Mary, T, was, Voice, } v_{unerg}, \text{ flirting}\} \not\subseteq$
 $M_E - t = \{\text{Mary, T, was, Voice, } v_{unerg}, \text{ flirting, with}\}$
- (69) a. The janitor must remove the trash whenever it is apparent that it should
be. <[v_P removed t]>
b. $\text{F-clo}(\llbracket vP_A \rrbracket) = \llbracket vP_A \rrbracket = \exists x[\text{remove}(\text{the_trash})(x)] \leftrightarrow$
 $\text{F-clo}(\llbracket vP_E \rrbracket) = \llbracket vP_E \rrbracket = \exists x[\text{remove}(\text{the_trash})(x)]$
c. $M_A = \{v_{trans}, \text{ remove, the, trash}\} \supseteq$
 $M_E - t = \{v_{trans}, \text{ remove}\}$
- (70) a. *Someone murdered Joe, but we don't know who by <[TP Joe was
murdered t]>.
b. $\text{F-clo}(\llbracket TP_A \rrbracket) = \llbracket TP_A \rrbracket = \exists x[\text{murder}(\text{joe})(x)] \leftrightarrow$
 $\text{F-clo}(\llbracket TP_E \rrbracket) = \llbracket TP_E \rrbracket = \exists x[\text{murder}(\text{joe})(x)]$
c. $M_A = \{\text{T, Voice[ACT], someone, } v_{trans}, \text{ murder, Joe}\} \not\subseteq$
 $M_E - t = \{\text{T, was, Voice[PASS], 'someone', } v_{trans}, \text{ murder, Joe}\}$

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