Syntax 5: Verb Phrase Ellipsis
Laura Gilmore, Jacob Gimbel, Philip King, Andrew Pedelty, Emma Peoples, Nicholas Primrose, Michael Titone, Josue Torres, Casey Willison

I. Introduction

The purpose of this assignment is to consider the phenomenon of verb phrase ellipsis and to determine what type of identity condition must be met in order for the process to be licensed. While this seems fairly straightforward, it is an issue that does not necessarily lend itself to a single solution. This paper is a testament to that, reflecting the contentious nature of this debate in the fact that it presents three conflicting approaches to the issue.

II. Outlining the problem

We will begin by laying out the issue of verb phrase ellipsis (VPE) in simple English, before delving into the theoretical approaches that we have considered as potential explanations of the phenomenon.

While there are many issues concerning VPE that our currently unresolved, we do have a foundation from which to consider these issues. We have previously determined that VPE is a type of surface anaphora that is licensed by some head, be it T, Σ, auxiliaries, and bep.¹ In this process, the entire complement of the licensing head will be elided, but the licensing head must remain. We have also established that VPE is able to go backwards (but not in coordinate structures), is not bounded, and does not obey island constraints. However, the main issue that remains unresolved is what type of identity is required between the anaphor and the antecedent in order for VPE to take place. In this discussion we must also consider the issue of pronouns that are found in the anaphor, and their possible antecedents, as that weights on the way in which we will need to formulate the identity requirement. It is these two issues that will be the focus of our discussion.

In order to lay out the foundation for this discussion, we ought to look at some sentences in which VPE takes place. These sentences are as follows:

1. Bill washed his car, and Harvey did _ too.
2. I washed my car, and Harvey did _ too.
3. Harvey washed his car, and I did _ too.
4. Harvey hurt himself, and I did _ too.
5. I hurt myself, and Harvey did _ too.
6. Every member of the polo team was supposed to wash his/their socks,
   … but Harvey didn’t _.
   … but I didn’t _.

¹ There are potentially other licensing heads for VPE, such as possessives, and for some individuals (those who can get active/passive mismatch), little v.

I want to hear more about this.
7. A: Did Harvey see you?
   B: Yes, he did _.
8. A: Did you call me?
   B: No, I didn’t _.

It is clear that in the majority of these cases the T is the licensing head of the VPE, as there is do-support, which allows the remaining T to be spelled out, despite the lack of a verb, except in sentences 6 and 8, in which the negative Σ is the licensing head. In addition to this, it is relatively apparent that sentences 1 through 6 would be ungrammatical without the presence of the word too, this seems to be a fact concerning the conjunction and in cases of VPE, rather than an element of the VPE itself, and consequently, we will be ignoring the syntactic properties of too throughout this assignment. Now that we have made a few basic observations about VPE in the example sentences, we ought to consider the basic issues surrounding pronouns and antecedents in the structure of VPE.

Pronouns and antecedents in this particular construction are important to our debate concerning an identity condition for VPE in that knowing precisely what a pronoun in the anaphor is able to take as its antecedent bears on the information that must be encoded in the anaphor, and consequently, it bears on whether the information in the antecedent and the anaphor are identical or not, making it a fairly important aspect of our discussion. That being the case, we will take the time to consider all of the sentences individually, and discussing all of the possible readings that can arise.

1. Bill washed his car, and Harvey did _ too.

In this sentence there are three possible readings, which are given below.

   c. Bill washed [his own] car, and Harvey [washed his own car] too.

It is evident that some level of identity is needed between the two pronouns. In reading a, both refer to an element that is syntactically present in the sentence. In reading b, they both refer to a third person masculine entity that is not established in the syntax of the sentence, but rather, in the previous discourse or contextual background. And lastly, the pronoun can be identical in that it has some type of reflexive property, such that each pronoun refers to the same entity as the subject of its clause. However, these are the only three grammatical readings that one can get, readings like d are not licit (likely due to some failure of an identity restriction). Sentence 2 is fairly similar to sentence 1, but only has two readings, rather than three. This is shown below.

2. I washed my car, and Harvey did _ too.
   a. I washed my car and Harvey [washed my car] too.
   b. I washed my car and Harvey [washed his own car] too.
In reading a, both of the pronouns refer to the same entity, whereas in reading b, they are both reflexive. Sentence 2 only has two readings instead of three, because _my_ and _Harvey_ both have specific referents, while there is a strict reading in which both pronouns are _my_, and a reading in which both of the pronouns are reflexive, there is no possible reading in which both of the pronouns refer to an entity that is outside of the syntax, but already established in the discourse. We can now consider sentence 3, which like sentence 2, has two possible readings.

3. Harvey washed his car, and I did _ too.
   a. Harvey washed his car, and I [washed his car] too.
   b. Harvey washed his car, and I [washed my car] too.

\[\text{Since this sentence seems to be exactly like sentence 2 with respect to the possible readings that a speaker can get. Consequently, we'll skip the discussion and continue on to sentence 4.}\]

4. Harvey hurt himself, and I did _ too.
   a. Harvey hurt himself and I [hurt myself] too.
   b. Harvey hurt himself and I [hurt Harvey] too.

The readings that arise from this sentence vary from speaker to speaker. A number of people can only get a reading in which both pronouns seem to have a reflexive property, but some can also get a reading in which both pronouns take the antecedent _I_. Sentence 5 is identical to sentence 4 in terms of the readings that it lends itself to.

5. I hurt myself, and Harvey did _ too.
   a. I hurt myself and Harvey [hurt himself] too.
   b. I hurt myself and Harvey [hurt me] too.

Since the readings are of the same nature of those for sentence 4, we will continue on and consider the readings in sentence 6.

6. Every member of the polo team was supposed to wash his/their socks,
   ... but Harvey didn’t _.
   a. ... but Harvey didn’t [wash his own socks].
   ... but I didn’t _.
   b. ... but I didn’t [wash my own socks].

Each of these sentences gives rise to only a single reading, one in which the pronoun before socks refers to the same entity as the subject of the clause in which the VPE takes place. We can now look at sentence 7.

7. A: Did Harvey see you?
   B: Yes, he did _.
   a. A: Did Harvey see you?
   B: Yes, he did [see me].
Sentence 7 has only one reading, one in which both of the pronouns refer to the same entity in the discourse. The fact that no other readings are available is likely due to the fact that, unlike the other examples we have seen, there is a speaker break, which probably bears of the possible referents of a pronoun. Sentence 8 is more or less identical in nature to sentence 7.

8. A: Did you call me?
   B: No, I didn’t_.
   a. A: Did you call me?
      B: No, I didn’t [call you].

Sentence 8 only has one reading, seen above, for the same reasons that sentence 7 only has one reading.

Now that we have considered each of these sentences and their possible readings individually, we can see what generalizations are to be made. Specifically, there are two primary types of readings that we are encountering in the sentences above. The first is a strict reading, one in which the pronouns in the anaphor and the antecedent have the same reference. The second is a sloppy reading, one in which the two pronouns do not have the same reference, but are either both possessive or both reflexive, and both take the subject of their respective conjuncts as their antecedent. In addition to both of these readings, there seems to be a third type that is acceptable to some native speakers, in which it is possible to get a strict type of reading, even when the pronoun in the first conjunct is reflexive, and reflexives, by nature, typically take the subject of their own clause to be their antecedent. These are the issues concerning pronoun/antecedent relations that will bear on our analyses of the identity condition, as discussed in the following sections.

III. [+Josue] Theory

Under the ‘[+Josue] theory,’ VPE has specific semantic and syntactic properties. This theory proposes that there is a [+Josue] feature in the deep structure. The [+Josue] is a feature that specifies the properties of ‘Josue.’ Therefore, each person and pronoun will already have a specific feature that corresponds to the person or entity only. Let’s take the following example:

1. Harvey hurt himself and John did_ too.

   In the deep structure, Harvey has a [+Harvey] feature and John has a [+John] feature. In the deep structure the very existence of ‘xself’ is conditioned by ‘xself’ being locally bound by an R-expression that it refers to, such as Harvey. It is important to note that ‘him’ (in himself) does not have the [+Harvey] feature and that it receives its interpretation by the same process that allows for its very existence (namely the fact that it has to be locally bound by an R-expression). Therefore, the ‘him’ can only refer to Harvey. As for the elided x-self, it is bound locally by ‘John,’ therefore ‘him’ refers to John only. Now, the question is when does VPE happen? This will be answered shortly.

What’s the identity condition for VPE?
In our hypothesis the identity condition for VPE is complete structural identity, in which the features from both conjuncts must have the exact same features in order for VPE to occur. We assume that some features are split between the semantics and the pragmatics: some occur in the deep structure, namely the semantic features, while the pragmatic features occur later in the derivation, specifically after A movement and before A’ movement. Furthermore, we have some evidence to think that VPE is not eliding structure, but rather it is an underspecification of features, which occurs during A movement.

VPE

We have been operating under the assumption that VPE needs complete structural identity. Why? This is because having exact structural identity allows for easy interpretation of the elided structure. This makes sense; if the material that is being elided is redundant, then it is clear what the referent should be. If there was a mismatch in features, then VPE could not occur, because the information being elided would not be redundant and would need to be stipulated. Without exact structure, you need a theory like the interpretivists. So, if we assume that VPE needs complete structural identity then we have a problem, because the features for first and second person do not match in both conjuncts based on their respective subject and object positions, as the following shows.

(2) A: Did Harvey see you?
   B: Yes, he did (see me).

Moreover, if all the features are in the deep structure, then we must change our condition for how VPE can occur, because if they are all in the deep structure, then we would be lead to assume that VPE doesn’t care about complete structural identity and that there could be a mismatch in features, which would make some startling predictions, such as the following.

(3) A: Did Harvey see me?
   B: #Yes, he did (see Betty).

(4) John swallowed a sword and I know a man who did, too

(5) Homer showed me the books that he read, but he would show me which ones he didn’t

(6) A: Did you see me?
   B: No, I didn’t (see you)
Example (4) shows that VPE can apply in relative clauses, while example (5) shows that WH movement can apply in this situation, too. Finally, if subject are Islands, and we have assumed that A’ movement create Islands, then subject raising should probably be A’ movement and happen after VPE, thus giving rise to example (6). If this is true, then it would lead us to assume that it is possible to extract from an ellipsis site; since A’ movements such as subject raising and WH movement, etc would have to occur after A movement. This is clearest in example (5), where the WH element starts in the VPE site and later moves out.

Semantic Features

[+Josue]

The [+Josue] feature is the most outlandish addition to linguistic theory in this theory. To understand why it is so outlandish and why it is so needed will require a detailed sketch of how our previous theory accounted for determining reference and what the very nature of features can be.

The [+Josue] feature picks any single referent out of the real world. It could be [+Susy] or [+Maria] or [+Fluffy]. This feature hypothesis is clearest for names, but it could be [+Parrot3652]. This sounds like a crazy idea considering what we have been assuming for features in our syntactic theory. If we consider this idea from the perspective of our previous theory, there are two main problems. Both will be shown to be incorrect and a new theory of features that better accounts for names and specification of entities will emerge. The first problem is that it goes against what feature values could do and the second problem is that it goes against what features really denoted.

The first problem is that in our previous theory, features seemed tied to a negative counterpart of themselves, such that [+PL] and [-PL] were related. But there seem to be serious problems in truly trying to follow this logic. Between [+passive] and [+active], which is the positive value for the feature and which is the negative. In Japanese, it seems nice to say you have a [+past]/[-past] value as both present and future get lumped into the same category in Japanese. But in a language like French, you have a [+past]/[+present]/[+future] difference. What do you do there? It seems better to accept positive features that do not have a negative counterpart, like [+M].

What a possible interpretation of this theory is is that [-Josue] might be everything in the universe that is not Josue. But that seems crazy to have. That would mean that our [+Sarah] would have [-Josue, -Bill, -Takeshi, -Jessica, -Salim, etc.]. But this seems absolutely ridiculous because then we’ve created infinite features upon every element. What seems better is to accept purely positive features without a negative counterpart. As I was saying in the previous paragraph, what’s the negative version of [gender]? Is it [+M] and [-M]? Or [+F] and [-F]? This makes the feature [+Josue] easier to swallow because it’s picking out a specific entity in the same way that the speaker picks out a specific tense.

Why not just an index? Features are for picking out sets. What you want to pick out is an individual. Individuals are simpler than sets.
you have discussed the difference between binary features (like 'is přest') and "private" features (like "past"). Let's talk about that.
The second problem is a very deep problem of something that’s built into the very notion of how features have worked in our theory. Previously, features denoted different sets of entities, so [+M] is one set and [+F] is another. The idea of such precision in a feature is extremely strange based on our understanding of how features have worked in the past. Let’s consider how part of (A) is generated:

A. Your kitten is really cute.

In the deep structure for ‘kitten’, under our previous assumptions, we would have [+animal, +small, +furry] and similar features. We would need some of these, like [+small], to account for classifier languages in which the classifier that attaches on the numeral would restrict the choice of the noun. Japanese has classifiers for small and large animals and forces these features to be there.

The difficulty is truly trying to understand the semantic and pragmatic predictions of this. This means when you are creating the event in your mind, you haven’t quite picked out the kitten yet. You’ve picked out some sort of small, furry creature that might even have [+baby] feature. But until you evaluate you this small, furry, baby creature against the context at hand, you can’t determine exactly what it is. Once you get the pragmatic situation later, then you narrow the creature down to a specific kitten. But this is very strange explanation. The pragmatic situation could be as follows:

7. [Harvey and Maria are discussing Maria’s cats]
Maria: I love all my cats. Aren’t they beautiful?
Harvey: Your kitten is really cute.

For this pragmatic situation, this story we’ve been working with makes a good amount of sense. You could have been thinking about the cats in general and then focused in on the kitten based on the pragmatic situation. But the pragmatic situation could have been:

8. [Harvey and Maria are discussing theoretical astrophysics]
Maria: I guess that’s the running hypothesis we have to work with.
Harvey: By the way, your kitten is really cute.

Even a spur of the moment, non-pragmatically controlled situation can still properly choose ‘kitten’ even though no kittens were around. Thus it seems like Harvey is really choosing a specific kitten out of the world to discuss without the need for pragmatics to get the reference for the kitten. Therefore, Harvey actually picks out [+SirMeowingtons] in the deep structure. Harvey’s choice to discuss [+SirMeowingtons] doesn’t fall out of the pragmatic situation. Instead, it falls out of the semantics. Therefore, you know exactly who and what you are talking about and then context applies.

What’s interesting about this theory is how it relates to underspecification. For VPE, we are now saying it is underspecification of features because WH movement can apply moving
silent things higher up and have them still be pronounced. Therefore, all the features have to be there even when silent and the silence only applies to elements that stay within the “elision” site. Additionally, we can extend this underspecification of features to account for how to deal with pns in the [+Josue] theory. Let’s look at a simple example.

9. He devoured the cheeseburger.

Since we are using the [+Josue] feature to put reference into the deep structure, ‘he’ in (D) must get the [+Josue] in the deep structure.

Later, after the pragmatic feature sprinkled into the syntax would you get the person features to be able to spell [+Miguel] correctly as ‘he’.

Then, the speaker has a choice at this point. Either they can be unambiguous with their words and say ‘Miguel’. Or they can underspecify the [+Miguel] feature and say ‘he’.

How does this work for (10)?

10. Bill washed his car, and Harvey did too.
   a. Bill washed his (Bill’s) car, and Harvey washed his (Bill’s) car too.
   b. Bill washed his (Joe’s) car, and Harvey washed his (Joe’s) car too.
c. Bill washed his (Bill’s) car, and Harvey washed his (Harvey's) car too.
d. #Bill washed his (Joe's) car, and Harvey washed his (Harvey's) car too.
e. # Bill washed his (Joe’s) car, and Harvey washed his (Miguel’s) car too.

As this theory argues in the ‘xself’ section, (10c) is an example of ‘xself’ and you can tell because you can replace the ‘his’ with ‘his own’. Comparing (10a,b) and (10d,e) shows interesting results. In (10a,b) the pn refers to the exact same identity. (10d,e) refer to completely different entities. If you just have pns in both clauses, you would expect that the pns could refer to anything they normally can refer to. But that’s not what we’re seeing. The two conjuncts in (10a) both have the [+Bill] feature and the two conjuncts in (10b) both have the [+Joe] feature. Our theory would predict that both (10d) and (10e) are ungrammatical because the features aren’t the same.

‘xself’

11. Harvey hurt himself, and I did __ too.
   A. Harvey hurt himself and I hurt myself too. (sloppy reading)
   B. #Harvey hurt himself and I hurt him too. (strict reading)
12. I hurt myself, and Harvey did __ too.
   A. I hurt myself and Harvey hurt himself too. (sloppy reading)
   B. #I hurt myself and Harvey hurt me too. (strict reading)

For examples like (11) and (12), only the sloppy reading is available. This presents a difficulty for any theory as pns seem to pick out individuals but ‘himself’/’herself’ doesn’t seem to be picking out individuals in the same manner. Rather, ‘himself’/’herself’ seems to be a special type of relation going from the subject to the ‘himself’/’herself’. It seems that rather than referring to these as ‘himself’/’herself’, it might be best to refer to these as ‘xself’. This would help capture the generalization that ‘xself’ has to be extremely local and gets its referent from its antecedent. This means that ‘xself’ is acting as a function where the pragmatic features have yet to be filled in. ‘xself’ is locally bound. Notice (13):

13. Harvey thinks that John hurt himself.

In example (13), the only possible referent for ‘himself’ is ‘John’ and not ‘Harvey’. There are additional restrictions. Look at (14):


In (14), the only possible referent for ‘himself’ is ‘Paul’s brother’ and not ‘Paul’. This means the restrictions for determining reference for ‘xself’ is that the ‘xself’ has to be locally
bound by an R-expression that it refers to. But this can’t just be the restrictions for determining reference, it must also be the restrictions for its very existence, as when it’s not locally bound by an R-expression, it can’t appear.

Compare (15) and (16):

15. Harvey has hurt himself.
16. Harvey seems to have hurt himself.

With a raising V like ‘seem’, the subject is able to raise up to the matrix specifier. Because of the locality of ‘xself’, this example makes clear that ‘xself’ needs to be in the deep structure so that way the reference is determined before ‘Harvey’ moves up to the higher clause. If you notice (17), you can get VPE with a raising verb and ‘xself’, but only on the reading of (17b) and not (17a).

17. Sarah seemed to hurt herself, and John did too.
   a. #Sarah seemed to hurt herself and John seemed to have hurt himself too.
   b. Sarah seemed to hurt herself and John hurt himself too.

But this is the general restriction upon VPE with a raising verb, as in (18):

18. Miguel the Magician seemed to disappear, but he really didn’t.
   a. #Miguel the Magician seemed to disappear, but he really didn’t seem to disappear.
   b. Miguel the Magician seemed to disappear, but he really didn’t disappear.

Features

What features are on ‘xself’? It has to get [person] and [gender] features in order to spell out in its various forms, as in (19)-(25):

19. Why did I hurt myself?
20. Why did you hurt yourself?
21. Why did he hurt himself?
22. Why did she hurt herself?
23. Why did we hurt ourselves?
24. Why did they hurt themselves?
25. Why did y’all hurt yourselves?

In (19)-(25), ‘our’ and ‘my’ are [+GEN] but ‘your’, ‘him’, ‘her’, ‘them’, and ‘your’ are [+ACC].

² It remains a question why the first person pronouns contrast with the other pronouns in this way.
Additionally, what allows for the appearance of ‘self’? Some feature needs to allow for its existence. To account for this, this hypothesis argues for a [+REFL] feature. This feature is in deep structure and is only given to ‘xself’. This [+REFL] feature allows for complete unambiguity between the object [-REFL] and the object [+REFL]:

26. He hit him.
27. He hit himself.

In the case of a [+REFL, +GEN], it allows for optional ambiguity, but spell out creates a way to disambiguate. Compare (10), (28), and the various interpretations of both.

10. Bill washed his car, and Harvey did too.
   a. Bill washed his (Bill’s) car, and Harvey washed his (Bill's) car too.
   b. Bill washed his (Joe’s) car, and Harvey washed his (Joe's) car too.
   c. Bill washed his (Bill’s) car, and Harvey washed his (Harvey's) car too.
   d. #Bill washed his (Joe's) car, and Harvey washed his (Harvey's) car too.
   e. # Bill washed his (Joe’s) car, and Harvey washed his (Miguel’s) car too.

28. Bill washed his own car and Harvey did too.
   a. #Bill washed his own (Bill’s) car, and Harvey washed his own (Bill's) car too.
   b. #Bill washed his own (Joe’s) car, and Harvey washed his own (Joe's) car too.
   c. Bill washed his own (Bill’s) car, and Harvey washed his own (Harvey's) car too.
   d. #Bill washed his own (Joe's) car, and Harvey washed his own (Harvey's) car too.
   e. # Bill washed his own (Joe’s) car, and Harvey washed his own (Miguel’s) car too.

In (28), you can only get the interpretation where in each conjunct the pn refers to the subject of that sentence. Therefore, the ‘his’/’his own’ in examples (10c) and (28c) are in fact ‘xself’. [+REFL, +GEN, +3rd, +M] can either be spelled out as ‘his’ or ‘his own’. [-REFL, +Josue, +GEN, +3rd, +M] is either spelled out as ‘his’ or ‘Josue’. This cancelable ambiguity is a nice result from this data, as it clarifies the result into (10a) and (10b) being normal pns and (10c) being ‘xself’.

A big question and possible problem is whether or not [+REFL] has [+Josue] feature in the deep structure. Notice (11) again.

11. Harvey hurt himself, and I did too.
   A. Harvey hurt himself and I hurt myself too. (sloppy reading)
   B. #Harvey hurt himself and I hurt him too. (strict reading)
In (11), does ‘xself’ in both conjuncts also have [+Harvey] and [+Sarah] respectively? Since [+Josue] features are in the deep structure, then to get the right sloppy reading in (11), it looks like we need those [+Josue] features to get the reference to be correct. But this can’t possibly be the case, as this would throw out our identity condition. So could the [+Josue] feature join onto ‘xself’ at some later point in the derivation? This can’t be it either, because we’ve been saying that the [+Josue] feature is in the deep structure and the only features that come in later are the pragmatic features like [person] and [gender]. So how does ‘xself’ receive its interpretation? This theory argues that ‘xself’ receives its interpretation in the same way that it receives its very existence, by being locally bound by an R-expression. This creates the link at deep structure that allows for the pragmatic feature spreading that occurs later to properly distribute [person] and [gender] onto the ‘xself’ later. So ‘xself’ does not start with the [+Josue] feature and never gets it.

This seems to get pretty close to an understanding of the difference between referential and bound proforms.

In order to derive (11), there needs to be a clear break between the semantic and pragmatic features. Thus, as I argued in the feature section, the ‘xself’ needs to have only the [+REFL] feature in the deep structure and not have the [+Josue] feature. At the point of VPE, after deep structure and before pragmatic features come in, the anaphor and antecedent are identical. Later, when the pragmatic features come in, [gender] and [person] glom on to ‘xself’ and allow it to spell out correctly.

11. Harvey hurt himself, and I did too.

A. Harvey hurt himself and I hurt myself too. (sloppy reading)
B. #Harvey hurt himself and I hurt him too. (strict reading)

VPE deletes the same thing in both conjuncts. It’s important to note that the subject is out of the elision site. How the adverbal elements get into this structure is an interesting question that will be asked to further detail in the Questions section. Later, when the pragmatic
features get added in, the structure looks like the following:

Pragmatic Features

What are the pragmatic features? These features would include at least some of the phi-features [person] and [gender], whereas the other phi-features, [+Number], [+Josue], and [+Refl] occur in the deep structure. Including these phi-features in the pragmatics and not the deep structure is appealing for several reasons. One reason might be due to the fact that it helps to account for the mismatch of features between the conjuncts and allows for structural preservation for VPE to occur. Another reason that this split in phi-features might seem appealing could be attributed to ambiguous names, such as Pete, Alex, or Morgan, where they remain ambiguous until a pragmatic context has been applied which could then disambiguate the identity based on the [gender] feature. This split in features is really appealing for [person] features, as those, clearly, are only evaluated at the point when context applies. Moreover, this hypothesis can correctly account for the data as seen in the following examples, where there is a mismatch between 1st and 2nd person pronouns; this is assuming, of course, that VPE needs complete structural identity.

(29) A: Did you see me?
   B: No, I didn’t (see you).

Let’s take a step-by-step process to derive this sentence under our hypothesis. The deep structure would contain the following phi-feature, [+Josue], which is the identity feature that selects out a unique individual, as seen for example (29).

Speaker A
At this point in the derivation those two structures have the exact same identity, which allows for VPE to occur. When it applies, however, it does not elide the structure, but rather it makes the features underspecified or silent. This is important, because the pragmatic context applies and provides the much needed [+person] [+gender], phi-feature to these sentences deriving the following structure. Furthermore, it should be noted that the [+Pat] and [+Alex] features are giving a context to example (29). However, it could be argued that even if there was no context for [+Pat] or [+Alex], there are, at least, two identities mention in that example, namely Speaker A and Speaker B.

Speaker A:
Okay, by focusing on names, you have got yourself in a position where it looks like you have no way to account for I saw that the first deer that appeared in the clearing, and she did too.

Speaker B:
At this point, VPE has already applied, so in this instance A’ movement raises the subject out of the ellipsis site to SpecTP, and after all the A’ movements have applied, spellout happens. Thus, by having the pragmatic features occur after VPE, but before A’ movement, we have maintained structural preservation, while allowing for A’ movements to occur after, such as subject raising or WH movement.

So the subject isn’t deleted? Or raised for silence?

Strict vs sloppy readings with other ellipsis processes

What’s interesting about trying to create an identity condition for VPE is the condition that we created appears to be a part of all ellipsis processes. In our theory, the ellipsis identity condition is very clear: exact syntactic identity. The fact that these same strict versus sloppy readings occurs with other processes and gives further evidence towards adopting a theory like ours where the identity condition is clear.

NPE
30. Although John never believed Mary’s claim that he’s a stud, I believed Susy’s.
31. Mary’s hatred towards herself always scared me a lot, but it never scared me as much as John’s.
32. A: Did you hear John’s claim that I’m the best chef in town?
   B: No, but I heard Betty’s

Stripping
33. A: Did you see all of the play?
   B: Only the beginning of the play.
34. A: Did John tell you he was going to be here?
   B: Not really.
35. A: Didn’t John hurt himself?
   B: No, Mary.

Sluicing
36. A: Somebody hurt me.
   B: I’ll find out who.
37. John told me somebody hurt him and I’m going to find out who.
38. John told me somebody hurt himself and I’m going to find out who.
Gapping\(^3\)

39. A: You gave John a pumpkin pie?
   B: And Phil, an apple pie.

40. He gave Bill a couple pieces of chocolate and Sally a candy bar.

**Conclusion:**

Although this theory accounts for all the data, there are many flaws, terms, and operations that might be difficult to swallow, especially in a purely syntactic theory. The [+Josue] feature being in the deep structure might be a big issue since it would predict a sentence like ‘Josue hit Josue and John did, too.’ One could utter this sentence and understand what is being said but instead the pragmatic features, [person] and [gender], are processed by the speaker, which causes the speaker to substitute the name with a pronoun. This wouldn’t be a problem pragmatically, but is still a problem syntactically and would be rather difficult to account for syntactically. Another problem that arises here is that if we have a [+Josue] feature in the deep structure, then what we would predict that everything isn’t [+Josue] must have a [-Josue] feature. But as we have seen before, features do not have to have a counterpart, such as the [+present] so that we don’t see a [-present] feature. This theory might also be a problem in our current binding theory where we say that a pronoun must be free locally. Therefore, this causes a problem for a sentence such as ‘He killed Harvey and John did, too.’ This is a problem because ‘he’ would not be entirely free if we were to say in interpret a [+Josue] feature in the deep structure. But we could solve this by saying that the pronoun is free before the deep structure. Finally, we have noticed that VPE is A movement and that it would occur before A’ movement, based on the fact that it is Island Insensitive. This idea would lead to think that Agree would be later in the derivation, after A movement, because only after A movement would the pragmatic phi-features be inserted. This may also lead us to think that this concord is before A’ movement, since concord seems to rely heavily upon the pragmatic features, which would appear after A movement. Moreover, our theory for understanding the phi-feature for [number] seems to be rather blurry; it might be a pragmatic phi-feature.

Therefore, we are left with a series of questions as a result of this analysis. If there is silence in the syntax, then should be structure for A’ movements to occur. How does our theory compare with the principle B of the binding theory? What does this predict for Morphology? Finally, how are adverbs and negation (not) affected through this analysis? Since we have created a split between the semantic and pragmatic features, perhaps adverbs and negation arise later during this pragmatic stage.\(^4\)

---

\(^3\) For gapping, you can’t test the ‘xself’ data because gapping takes the lowest two arguments of a verb. ‘xself’ can only appear in the bottom two arguments and thus you could never have ‘xself’ be silent in gapping.

\(^4\) Consider stripping for a moment. Perhaps stripping is just picking out 1 constituent to remain pronounced and adverb and negation arrive in this pragmatic stage after stripping.

(41) Mark often plays volleyball, but rarely on Tuesdays.
IV. Syntactic Event Structure Theory

In this section we will claim that the kind of identity that exists between a VPE elision and its antecedent is syntactic event structure identity. We will define syntactic event structure in greater detail in the following pages, but for now we will say that it roughly refers to the syntactic realization of predicates with aspectual analysis. First, we will establish the constraint we find between a pronoun in an elision site and the possible syntactic location of its antecedent. Next, we will define the identity condition of VPE in greater detail. After this, we will argue for syntactic event structure identity and consider how various forms of an overt pronoun antecedent and pronoun recovered from a VPE elision site can force or permit different readings under this analysis. Next, we will look at how different anaphoric processes behave with respect to these pronoun forms. Finally, we will take into account the possibility that no A’ movements can occur out of an elision, identify what claims this would make about the identity conditions of VPE, and weigh these conditions against our own theory of VPE identity.

First, let’s become familiar with the WAL of Pronouns. The WAL of Pronouns is a condition that restricts an elided pronoun’s freedom to point to syntactic antecedents, thereby limiting the interpretations that a pronoun can have. That is, it restricts an elided pronoun’s range of linguistic antecedents. It says, roughly:

**The WAL of Pronouns (WAL)**
The only viable candidate (outside the elision site clause) to enter into anaphoric relation with the pronoun recovered from the elision site is the pronoun appearing in the E-antecedent clause.

What follows from WAL is that the gap in VPE can only be interpreted as involving a referent same as that of a DP (other than the pronoun in the E-antecedent) when the pronoun within the E-antecedent also has that referent. That is, the pronoun in an elision site is walled-off from directly referring to anything that the pronoun in its E-antecedent itself refers to. The latter pronoun is its gatekeeper, so to speak, and only through it can the pronoun recovered from the elision site refer to something in the outside world.

Let’s consider WAL in action:

1. Spock_i watched him_j until Kirk_k did ___ [Kirk watched the same person Spock watched]
2. * Spock_i watched him_j until Kirk_k did ___ [Kirk watched Spock]
3. Spock_i watched him_j until Kirk_k watched him_j
4. Spock_i watched him_j until Kirk_k watched him_j

When VPE occurs in sentences 1 and 2, the pronoun recovered from the elision must point to the same entity that the pronoun in the E-antecedent clause points to, and this entity can neither be Spock nor Kirk.

---

5 We will use the word *E-antecedent* to make it clear we are referring to the antecedent of an ellipsis operation. *P-antecedent* will refer to the antecedent of a pronoun, and will also apply to pronouns recovered from an ellipsis site. This only exists to clear up ambiguity. That’s not very clear.

NB. (4) is possible (with the indicated conjunctions) only with extra stress on the final ‘him’. One of the long-known properties of ellipsis is that stressed elements cannot be elided.
In Alan, believes she deceived him; she clearly the did. [Deceit him]

On the intended interpretation, where both pronoun coreset with 'Alan', the second pronoun (like the first) is clearly in an anaphoric relation with 'Alan'.

The second statement seems to say that the second 'him' cannot co-refer with the first pronoun (which is manifestly false).
This is not the usual behavior of a pronoun assigned accusative case, as the 'him' in the lower clause in examples 3 and 4 show. In 4, the lower-clause 'him' may refer to Spock, as in a case where Spock's gazing at a pedestrian is awkwardly interrupted by a disapproving stare from Kirk. It is our hypothesis that the pronoun recovered from the ellipsis site can't refer to Spock because it can only be coindexed with the DP the pronoun in its antecedent clause is coindexed with. We claim that this restriction applies to all antecedent relations for pronouns in elision sites, though it may compete with (and lose to) other properties it borrows from its pronoun antecedent.

Now that we have discussed what restrictions exist on the syntactic positions from which an elided pronoun may have its antecedent, we will move on to discuss the identity conditions of VPE. A VPE elision must preserve the syntactic event structure of its antecedent.

**Syntactic Event Structure Identity**

Because active passive mismatch can produce grammatical results for some speakers, (e.g. 'The trash needed to be taken out, so finally Joe did') there is a need to abstract beyond the conventional sense of 'syntactic identity' - that is, exact feature identity and exact placement of phrases within verb phrases (and noun phrases too). Instead, entertain the idea that there is commonality across all predicates that have aspectual analysis with respect to how they express arguments in phrase structure. What is meant by this is that within VP the external arg of a predicate is always expressed within the maximal projection of v and the first argument of a predicate is always expressed at complement position to V, and in the case of predicates with indirect objects, the second argument (the internal arg which is not the first argument of a predicate) is always expressed at specifier position of VP.

It is true that the syntactic position of the external argument varies between passive and active forms of a predicate; this quickly puts into question whether we can call the identity between an active VPE clause and its passive antecedent (and vice versa) "syntactic" identity. We will argue that for VPE to satisfy the restrictions imposed by syntactic event identity between a passive and an active clause, the following conditions must be true: 1) the active predicate must be the active form of the passive predicate and vice versa, and 2) the external argument of the active form must be in SPEC vP and the external argument of the passive form must be right-adjointed to vP in a by-phrase. This second condition is apparently redundant; however, whereas it only seems to rule out ungrammatical passive sentences, it's the fact that the syntactic realization of the passive and active have fixed variation in their subcategorization frame

---

6 (and noun phrases too) is addressed in more detail in section **Bearund Constructions and VPE.**
Two assassins are lurking in a doorway. 
An innocent victim walks by.

Assassin A:
I'll stab him.
B: I will too.

The first pronoun (him) has no antecedent.

What you seem to be trying to get at is that the identity condition in VFC requires any pronoun in the elided VP to corefer with a corresponding element in the antecedent.

There's a second flaw in your story:
There might not be any pronoun in the antecedent VP.
I like Henry, but someone doesn't...
that is responsible for the restrictions we find on the antecedents pronouns may have.

We can put our conditions on syntactic event structure identity between two clauses more abstractly: those arguments that are encoded within the meaning of the predicate in the E-antecedent clause must always be observed in the gap-clause, elided non-pronoun material must have its index preserved between the E-antecedent and gap clause, and the syntactic realization of the arguments between the two main predicates must be perfectly consistent with the regular subcategorization variations on syntactic argument position between possible forms of the predicate. It’s this latter fact about the preservation of the syntactic realization of the arguments - not the mere preservation of the arguments or indexes between the clauses - that provides us the leverage we need to make good predictions about the conditions of identity between VPE elisions and their antecedents.

The above constitutes our definition of the identity condition pertaining to VPE. It is at this point that we will provide evidence in support of this theory as well as consider the syntactic mechanisms at work in VPE and the consequences of their interactions, e.g., strict and sloppy readings.

*The trouble is that I don’t understand what an “identity condition is.”*

**Active-Passive Mismatch**

One of the key pieces of evidence that syntactic event structure identity is the necessary identity condition of VPE at work between the elision site and its antecedent is the existence of active-passive mismatch constructions. It should be said that not everybody finds these grammatical; for speakers that do, however, a more abstract condition on VPE identity such as the one we are proposing is necessary.

5. The trash needed to be taken out, so finally Joe did_ .

6. Everyone believed that someone had taken out the trash, and when Spock looked, the trash had been_ .

The gap and E-antecedent in constructions 5 and 6 can’t be in pure syntactic phrase structure identity with one another. In our theory, passive and active constructions are syntactically distinct in the arrangement of their arguments as a result of their predicates’ different subcategorization frames. This rules out the possibility of preserving fixed structural identity between the two clauses. Although we ultimately argue that the nature of the VPE identity between these two clauses is syntactic, it cannot be identity between rigid, phrase-structural components, otherwise we would not expect to find ‘the trash’ in complement position in the E-antecedent and in SPEC TP in the gap-clause for example 6. Rather, we need to combine the various syntactic manifestations of event structure into a synthesis, syntactic event structure, to produce an identity condition powerful enough to overlook characteristic differences between passive and active constructions without permitting arbitrary syntactic variation between clauses. It can be observed in each of the above examples that the arguments encoded within the meaning of the predicates are observed in both clauses, indexes are preserved between the elided material in the gap and E-antecedent clauses, and the two predicates follow subcategorization variation to be expected of passive and active contrast. In virtue of these properties, their identity conditions fit our description of syntactic event identity.
Example 7, wherein two passive clauses compose the gap and E-antecedent clauses of a VPE construction, lends support to our claim that the index of elided material in the gap-clause must be the same as that of its counterpart in the E-antecedent clause.

7. The trash needs to be taken out by Joe, but the recycling doesn’t ____.

The only interpretation of the gap in 7 is ‘...the recycling doesn’t [ need to be taken out by Joe ]’. This is evidence that it is the argument in SPEC TP, the internal argument of ‘take out’ in this case, rather than the external argument that is always variable between VPE constructions. As an argument of the predicate in the E-antecedent clause, the absence of any by-phrase in the gap-clause forces an interpretation in which Joe is the external argument of the elided predicate. This is consistent with our claim that elided non-pronominal material in the gap-clause must be coindexed to its structural counterpart, that is, corresponding material in the syntactic event structure of the antecedent clause. The subject of the gap-clause will invariably differ from the subject of the antecedent clause due to the nature of VPE, which never elides material in SPEC TP. If the following sentence is grammatical, as a few of us believe, refrain from eliding the by-phrase can allow for variability in the index of the by-phrase:

8. ?The trash needs to be taken out by Joe, and the recycling does ____ by Sally.

Here, since neither the material in SPEC TP nor the by-phrase has been elided, their indexes may vary from those in the antecedent clause. The gap cannot refer to anything other than “needs to be taken out,” however. Once again, the requirements of the syntactic event structure identity analysis are met.

**Bearund Constructions and VPE**

We will refer to phrases of the kind exemplified by the bolded words in *This rash needs looking at by a specialist* as bearunds. Any clause which contains a bearund is a bearund construction (BC hereafter). Before moving onto the analysis of BCs and VPE, it is necessary to spell out the assumptions we hold that pertain to the syntax of BCs:

1. Bearunds are complex event nominals.
2. Bearunds select a (null) DP complement.
3. The null DP is linked to the subject of the higher verb.

With assumptions in tow, consider the sentence in 9 below. The interpretation of the gap can only be that there is a sorting event of which ‘the recycling’ is the object—the interpretation of the ellipsis clause is that Joe is the external argument of the sorting event in the gap. What is theoretically interesting about this sentence is that the gap, which is syntactically controlled in VPE, is anteceded by a noun phrase, not a verb phrase.

---

7 Assumptions regarding the syntax of BCs in this paper directly follow from the analysis of bearund constructions presented by Gilmore in her Syntax 3 squib *Bearund Constructions in English* (2012–). Ms. Gilmore will happily discuss the syntax of BCs with anyone interested in the topic.
First I didn't like classical music, but later I did...
Constructions like 9 do not pose any problems for the analysis that has been laid out thus far—in fact, it is examples like 9 that inspired the analysis of VPE involving syntactic event structure identity in the first place. What is common between a complex event nominal and verb is that both are predicts with aspectual analysis and therefore express arguments in phrase structure.

9. The recycling needed sorting by a specialist so finally Joe did _.

   [Joe sorted the recycling]

* [Joe needed sorting]

10. No one fixed the blue chair and the yellow chair needs doing _ too.

11. [Spock walks into a room and announces ]
   a. *I’m going to do the yellow chair.
   b. *The yellow chair needs doing _.
   c. I’m going to do the dishes.
   d. The dishes need doing _.

The example in 10 shows that it is possible for a bearund phrase to be anteceded by a verb phrase in VPE. The gap-clause in 10 is interpreted as ‘The yellow chair needs to be fixed by someone too’ which suggests that it is the syntactic event structure of ‘fix’ in the E-antecedent that is under identity with the syntactic event structure recovered from the gap in the bearund elision clause. The examples in 11 are provided to show that ‘the yellow chair needs doing _’ requires a linguistic antecedent and that the bearund form of ‘do’ is not verb in the same respect as ‘do’ in 11c and 11d, ‘I’m going to do the dishes’ and ‘The dishes need doing _’.

The below tree constitutes the TP constituent, that is ‘the recycling needs sorting _ by a specialist’, of the E-antecedent clause in 9 above.
Causative-Inchoative Contrast

An important observation we make in this section is that it is impossible for the causative form of a verb or the inchoative form of a verb to anteced e one another in a VPE construction, compare the grammaticality of 12 and 13 to 14 and 15. What is theoretically interesting is that this directly follows from the fact that the event structure of inchoatives is not identical to the event structure of their causative counterparts—the syntax of inchoative predicates is distinct from the syntax of causative predicates for this reason.

12. * The tub didn’t drain, so finally Joe did_. (so finally Joe drained the tub)
13. * Kirk drained the tub, until finally the tub did_. (until finally the tub drained)
14. The vase broke but the table didn’t_. (but the table didn’t break)
15. Spock broke a vase and Kirk did too. (and Kirk broke a vase too)

The syntax is sensitive to the fact that the E-antecedent is inchoative in (12) and causative in (13). What distinguishes an inchoative from a causative counterpart is its syntactic frame. The former has no external argument whereas the latter does. We can assume that the syntactic event structure of an inchoative (which appears below to the left) is unlike that of a causative (appearing to the right).

![Syntax Diagram]

Now that we have developed a case for syntactic event structure identity as the identity condition pertinent to VPE, we can demonstrate how various interpretations of pronoun antecedent forms recovered from a VPE elision site interact with our theory, particularly its concept of WAL, to force or permit specific sentence readings. Consider the following examples:

16. Bill washed his car, and Harvey did_ too.
17. I washed my car, and Harvey did_ too.
18. Harvey washed his car, and I did_ too.

In each of these constructions, the pronoun recovered from the gap, fully consistent with the WAL, can be interpreted according to up to two strict readings: the pronoun in the E-antecedent clause may refer to the subject of the E-antecedent clause (or the lower clause in the case of 16) and/or to a contextually relevant individual (ignoring the possibility of a linguistic antecedent unavailable to us). In turn, the pronoun recovered from the gap may point to anything this higher clause pronoun can point to. Remember that the pronoun in the antecedent clause is the gatekeeper, and the pronoun recovered from the gap can be
coindexed to other individuals only through the guidance of this P-antecedent. We thus get the following interpretations:

19-21 strict readings:

   Bill washed [Fred's] car and Harvey did [wash Fred's car] too.
   Bill washed [Harvey's] car and Harvey did [wash his own car] too.
20. I washed my car and Harvey did [wash my car] too.
    Harvey washed [Fred's] car, and I did [wash Fred's car] too.

Notice how well these examples illustrate the principles of WAL - each thing the pronoun in the antecedent can be coindexed with, the pronoun interpreted in the elision site can also be coindexed with in some interpretation. What is unexplained by WAL, however, is the fact that we can get an additional reading for each sentence:

10-12 sloppy readings:

20. I washed my car and Harvey did [wash his own car] too.

When the pronoun in the antecedent clause is coindexed to the subject of the antecedent clause, we can get a reading in which the pronoun recovered from the gap can be coindexed to the subject of its own clause. The pronoun in the E-antecedent clause, however, cannot always be coindexed with the subject of the lower clause. In examples 20 and 21 respectively, 'my' can't be coindexed with 'Harvey' and 'his' cannot be coindexed with 'I.' Our little gatekeeper, although highly skilled at shepherding the lower clause pronoun to its own indexes, doesn't appear to restrict the lower clause pronoun to some indexes it can't possess. If this isn't a flaw in our WAL of Pronouns, it might be an inadequacy.

These sloppy readings are quite widespread, however. Consider examples 22 and 23:

22-23 sloppy and strict readings

22. Harvey hurt himself, and I did [hurt Harvey] too. (strict)
    Harvey hurt himself, and I did [hurt myself] too. (sloppy)
23. I hurt myself, and Harvey did [hurt me] too. (strict)
    I hurt myself, and Harvey did [hurt himself] too. (sloppy)

Because reflexive pronouns can only be coindexed with something in their own clauses, and the pronouns in the E-antecedent clauses are all reflexive in these examples, WAL predicts that the pronoun in the gap-clause will also be funneled into coindexation with the subject of the E-antecedent clause. Because we get strict readings for both of these examples, WAL makes correct predictions. However, just as the pronouns
in the E-antecedent clause in 19-21, the pronouns in the E-antecedent clause in 22 and 23 allow for sloppy readings in the lower clause when coindexed with their subjects. We therefore see WAL’s potential inadequacy as being of a more systematic sort than one of not being able to account for a few exceptions.

We can account for these phenomena quite easily if we consider one merit between our syntactic event structure identity theory. Remember that, according to our theory, if an elision is in identity with its antecedent, all elided material must be coindexed with its respective antecedent. If we apply this to the pronoun in a VPE elision, it must be coindexed with the pronoun in the E-antecedent clause. When coindexed with such a pronoun, we predict that it will also be coindexed with whatever its F-antecedent is coindexed with by transitivity. In this way, WAL, the notion that an elided pronoun in the gap clause may be coindexed to anything the pronoun in the E-antecedent is, appears to follow directly from our theory about syntactic event structure identity. If we look closely at these sloppy readings, we can view them as an invitation to strengthen the claims we made about the necessity of a gap’s being coindexed with corresponding material from its antecedent. Rather than merely being coindexed with material from its antecedent, suppose the pronoun recovered from a gap must possess the same features and syntactic restrictions that apply to its antecedent. Let’s consider how this might apply to example 22.

22. Harvey hurt himself, and I did [hurt Harvey] too. (strict)
Harvey hurt himself, and I did [hurt myself] too. (sloppy)

As noted in [21], this will be impossible to impose, because of pronoun mismatch.

If the pronoun recovered from the gap had to possess the same features and syntactic restrictions as its antecedent, it would have to be a reflexive pronoun that is coindexed to Harvey. It would also, admittedly, have to have the same phi-features, which include person, as its antecedent; the result would be, before VPE, **“Harvey hurt himself and I hurt myself too.” Suppose, however, that what actually happens isn’t a straightforward concatenation of features, syntactic restrictions, and indexation; suppose that when the features and syntactic restrictions come into conflict with the indexation, speakers’ syntactic preferences come into play, resulting in one of two interpretations. In the first interpretation, speakers prefer that the coindexation between the pronouns over the copying of features and and syntactic restrictions between them. The result is that the features and syntactic restrictions of the pronoun in the E-antecedent clause are dropped to preserve the coindexation between the gap-clause pronoun and the E-antecedent clause; a strict reading results. On the other hand, some speakers might prefer the copying of features and syntactic restrictions over the coindexation. In this case, a reflexive pronoun results which must be coindexed to something in its own clause. A sloppy reading results. Of course, if there is a conflict between the features and the syntactic restrictions, we might predict that this might skew the competition, resulting in stronger grammaticality judgements for one interpretation over another. Unfortunately, intuitions within our own group have been extremely varied, so it isn’t clear that this is the case.

In the case of genitive pronouns like 19-21, a similar story emerges. In this version, there is another conflict between coindexation and the inheritance of features and syntactic restrictions. If the pronoun in the gap clause is coindexed with the pronoun in the E-antecedent clause in an example like 11, the inability of “my” to be coindexed with “Harvey” will compete the lack of restrictions against a genitive pronoun to be coindexed with its subject.

20. I washed my car and Harvey did [wash his own car] too. (sloppy)
I washed my car and Harvey did [wash my car] too.  (strict)

Although it is true that a genitive construction of any sort can't be coindexed with its subject, (e.g. 'I washed his car,') the fact that some property of genitives exist that allows them to be coindexed with their subject might play a role in our selection of a preferred interpretation. If the pronoun in the gap has phi-features that need to be checked, we might supposed these features could come packaged checked with the pronoun, or they could be checked by the subject of the gap-clause.

Example 23 contains a similar phenomenon:

23. Every member of the polo team was supposed to wash his/their socks,
    ... but Harvey didn't __.
    ... but I didn't __.

Here, we get the same series of possible possessive readings from the sentence. On the one hand, every member of the team may have had to wash their own socks, the team's socks, Jeff's socks, or Harvey's socks. Meanwhile, it could be that Harvey didn't wash each member of the teams socks, the team's socks, Jeff's socks, or his own socks. In the second sentence, neither 'his' nor 'their' can refer to 'I.' However, because pronouns can refer to things in their own clauses, and because getting phi-features checked off by an entity in subject position is an alternative to getting them canned from the pronoun in the antecedent itself, this fact about coindexation between the pronouns does not prevent us from getting a sloppy reading. Just as in the previous example, multiple readings are possible depending on how the issue of reconciling between different syntactic entities is solved.

Our theory can also handle pragmatic control:

24. A: Did Harvey see you?
    B: Yes, he did __.
25. A: Did you call me?
    B: No, I didn't __.

These sentences spell death for any pure phrase-structure account of VPE identity. Because 'you' and 'me' are pragmatically controlled, no amount of phrase-structure identity can account for the alternation in their reference throughout a conversation. Fortunately, because syntactic event structure identity requires that coindexation occur between the recovered pronoun in the elision and the corresponding pronoun in the E-antecedent clause, we can predict that the gap-clause pronoun is coindexed to 'you' (and 'me') in 8. Insofar as each of these pronouns gets its meaning via pragmatic control and the pronoun in the gap is coindexed to them, the changing context based on the speaker isn't lost on our theory.

We might also say something about examples such as the following:

26. "Molly drove her truck off a cliff and Bob did __ too."

*find (26) grammatical: ambiguous, even.
Insofar as this construction is ungrammatical, it is our assumption that pronouns must have their \( \phi \)-features checked off by their P-antecedent. The recovered pronoun in the elision site copies the \( \phi \)-features from the pronoun in the first clause, and they may be checked off by this pronoun or by the subject of the lower clause depending on the possible P-antecedents for the pronoun in the elision clause. This allows us to rule out the gender mismatch examples such as the above one.

Another ellipsis process:

We might consider looking at stripping to find out if there are similarities between the constraints on VPE and this other ellipsis process.

**Stripping allows** for sloppy reading:

27. Harvey went to his house, and Paul ___ too. (went to other party's house, went to Harvey's house, Paul's house)

28. *Bill's house was invaded by the children, though not Sally ___. (though Sally didn't invade Bill's house)

Stripping, which elides all the syntactic material from a clause with the exception of one constituent and a possible adverb, seems to allow for sloppy readings as well as strict readings. Because we get similar possible readings as the output of such an ellipsis process, we could apply an identity condition similar, though not quite the same as syntactic event structure identity. Notice that it is almost impossible to form an active-passive mismatch via stripping; consider example 28. This shows that the active and passive forms of each clause can't share characteristic passive/active syntactic variation, thereby being able to be in identity. For this reason, although we might predict that the constraints on coindexing still apply to the gap in stripping just as they do in VPE, we do not see syntactic event structure identity at play in stripping.

**No Raising A' Out of an Ellipsis Site**

The analysis presented in this section operates under the assumption that relative clauses, e.g., 'what books he hasn't read', are the product of HEAD-NP RAISING. What this means is that the head of the relative clause 'book' originates in complement position to 'read' then raises up phrase structure until it reaches its ultimate position outside of the relative clause in complement position to the determiner 'which'---this would look like \( [\text{what} \ [\text{books} \ [\ell \text{he hasn't read} \ell_{CP} \ell_{NP}]]] \) in phrase structure.

In light of the following examples, it was proposed that no A' movement are permitted to occur out of a VPE elision. Take a moment and look at the syntactic constituents that appear within the gap-clause and examine their relationship with the syntactic event structure of read. Notice that in the ungrammatical

---

8 At least one of the authors, Laura Gilmore, can get this reading.
example the DP ‘which’ in its entirety has to have originated from within the syntactic event structure of ‘read’—it would look something like this [ he [ read which ] VPE ] VPE.

29.  a. * Tyrion told me the books he hasn’t read but which did he_?
    b. Tyrion told me the books he’s read but he wouldn’t tell me which ones he hasn’t_.
    c. Tyrion told me the books he has read and what books he hasn’t_.
    d. Tyrion told me the books he’s read and why shouldn’t he_?

Let us focus on the gap-clause of the above examples. First off, we are able to understand why 30d is grammatical because ‘why’ originates in an adjunct position to the syntactic event structure and is therefore unaffected by the elision mechanism of VPE. Now, instead focus on the relation of the wh-phrase appearing in square brackets in 30a,b,c. The first is a wh-word which originates in complement position to ‘read’ and is raised out in its entirety to SPEC CP. In 30b and 30c, notice that the wh-phrase is a wh-relative clause containing the VPE gap. This is a crucial difference between the grammatical examples in 30b and 30c and the ungrammatical example in 30a. A property of relatives clauses is that the head must always be pronounced---it is our assumption that the head ‘ones’ or ‘books’ raises out of the elision site into SPEC CP and finally into the landing site at NP outside of the CP clause. There is a difference between Relative wh-movement and Interrogative wh-movement to which VPE is sensitive.

30.  a. *...but [which] did he_?
    b. ...but he wouldn’t tell me [which ones he hasn’t read _].
    c. ...and [what books he hasn’t _].
    d. ...and [why] shouldn’t he_?

A clear difference between the interrogative above and the examples with relative clauses is that the relative clauses contain the elision site of VPE. It is not the case that the wh-phrase in 30a contains the elision site. Essentially, the structural restrictions from the sloppy reading condition occur after A-movement has taken place. Presumably, if no A'-movements can take place outside of an elision, this is because the syntactic event structure that must be identical between the elision and its antecedent must be the one that exists after A-movement and before A'-movement and during the entire derivation for that matter. Thus we ground. 30 b-c don’t contain Relative clauses.

Open Questions
What about control-pro? Notice that there is only a sloppy reading available in 31a. However, there is only a strict reading available in 31b. This issue is not resolved here but it would not be surprising if the constraints on what anaphoric relations “pro” can enter into are not the same for the two examples above.

31 a. I tried _ to leave and Joe did _ too.  [I, Joe]
    b. The garbage needed sorting _, so finally Joe did _.  [the garbage, the garbage]

V. An Interpretive Analysis
Given the broad array of data and acceptability judgments, it behooves us to consider all analyses which might possibly account for the data, no matter how silly they might on the surface seem to be. It is in this spirit that we posit an analysis that might strike some as silly.

The theory, as we believe it, states that there is by the end of a derivation no structure in an ellipsis site. Since this is a somewhat radical and generally new theory, we are going to constrain our analysis largely to a single phenomenon, VPE. This theory does not claim that there is no structure in DS, as this is easily disproven by a number of extraction tests. Rather, we just decide to take a rather simple proposition seriously: that the silence heard by an interlocutor does not contain structure or information. If it did, we would likely be able to measure it in, say, the sound waves of said silence. In fact, we see exactly what you'd expect if you were to embrace a theory of lack of structure: there are (apparent) recoverability constraints on the potential readings (and any material, be it agreement or polarity item, that can cue this reading by necessity was in the syntax). It's a little too convenient that the only thing which might prove silence-as-meaningful wrong is always interpreted after the fact; such post-hoc analyses fail to offer conclusive proof.

Choosing to believe in recoverability-licensing binds you in to potentially conflicting rules about where in derivation ellipsis can take place. Without this constraint, an admittedly less restrained ellipsis is free to take place in a remarkably vast array of places—potentially accounting for varying acceptability judgements and readings across odd phenomena (gender mismatch, voice mismatch, even a mismatch between nominal and verbal elements). Broad variation in judgments requires a theory which is sufficiently agnostic to account for idiolectic goofiness, and this theory is agnostic as you'll find.

The general justification for such an analysis goes somewhat thusly: we have no means of knowing exactly what is in an ellipsis site by the very nature of ellipsis: it deletes things. Hence, any analysis of what might have once been in this silence is by definition a post-hoc one, using clues left by operations prior to deletion. By this reasoning, there is nothing inherent to the ellipsis site which gives meaning to what might have been there. Indeed, I propose that mismatched VPs being elided, as in (1) below, are syntactically well-formed but so very marked by pragmatics (violating maxims so very strongly, that is) as to be uninterpretable. Let's see an example or two that might prove this:

1. Jim was going to the store, and Yusuf was #\#(too).

Our claim is that the base sentence here is grammatical without the ‘too’ - but with no recoverability (induced by ‘too’9), there is nothing for an interpretation to base itself on. Here's where you ask if I seriously think that this could be the case, to which I happily respond that

---

9 Our purpose herein is not to talk too much about ‘too’, but speculation places it in the realm of licensed particle, coordinator-bound ditic, or an AGR node or similar. As such, its appearance forces an interpretation involving some level of parallelism. Possibly a good squib topic.
grammaticality is in the ear of the beharer, and that context trumps anything (supposedly) in the syntax here. See (2) and (3):

2. Jacob: Who the hell shot my dog?
   (Here, a third party, Yusuf, enters the room.)
   Andrew: Ah, well, Amandalynne gave Sam the gun, and then he did.

Yusuf cannot get the reading that Sam shot Jacob’s dog. In fact, without the pragmatic setup for this, the sentence is uninterpretable. But it’s not ungrammatical, as we can see. Unlike grammaticality, uninterpretability is pragmatically conditioned. We don’t need a ‘too’ here at the end of Andrew’s response; adding the ‘too’ would change the available meaning, but that’s to be expected.

3. Jacob: Bob went to the store.
   (Enter interlocutor/interpreter)
   Kelsey: James ate all the pie, so later Alfonse did, too\(^{10}\). (to mean that Alfonse went to the store)

What does this point to? Restriction on actual meaning is semantic and pragmatic, and what we have been calling ‘ungrammaticality’ is in fact a more context-dependent phenomenon, one of uninterpretability.

A number of other, more reasonable theories have trouble with x-self and x-own, as well as justifying gender mismatch being totally bad (for most) while for this interpretivist approach there is no issue: if interpretation is semantic and/or pragmatic in nature, people are free to read x-self as a function mapping relationship ((ref → ref) → individual, or some such nonsense) or as a ‘pointer’ in a series of linked pronominal nodes, eventually ending up at a referent. And so, sentences in which Harvey paints {himself | his own car} and I do, too don’t require semantics invading our syntax, +Josue features, event identity in the PF, or anything along those lines. Instead, we’ve conveniently pushed that work out to the semanticists who have already done a pretty bang up job of explaining the workings of pronouns in lambda calculus.

Finally, by pushing the work of interpretation out of the syntactician’s domain, we open a path towards otherwise inexplicable phenomena like -ing blocking ellipsis; there is no syntactic reason why it can’t work, but I leave it to the phonologists to explain why a plainly phonological string appears to block interpretation (not licensing).

\(^{10}\) ‘too’ shows a locality restriction here, which is interesting. More evidence for a concord-like system within the coordinator’s domain?
Let us consider the interpretivist approach in use by looking at some sentences and how it deals with them.

(1) Bill washed his car, and Harvey did _ too.
(2) I washed my car, and Harvey did _ too.
(3) Harvey washed his car, and I did _ too.

These first three sentences present a difficult problem for any theory of ellipsis. As I’m sure has been discussed in prior sections of this paper, these three sentences have two readings each: one strict and one sloppy. That is, one reading where the car belongs to the same person in each conjunct, and another reading where the car belongs to the subject of the respective conjunct. This is a problem because identifying what content is pertinent for the elision depends on what interpretation the hearer takes. If the hearer interprets, say, (1) as meaning that Bill’s car was washed by two people, then there must be a relation between elided content and the antecedent that specifies that such should be the meaning. In the other reading, where two cars are washed, something else must occur, such as the elided content mimicking the relation between possessor and subject of the first conjunct.

No, these six are ambiguous. The hearer has to hear both interpretations available.

An interpretive analysis of ellipsis, however, does not need to confront this issue directly. The interpretive theory does not concern itself with the elided content. In fact, the elided content doesn’t have to match the antecedent in anything (see the end of this section for more discussion of this). So the second conjunct in (1) could have very well been “Harvey washed an elephant’s back”, but the hearer will never interpret it as having been so. They will only be able to interpret the ellipsis as referring to old information, i.e., information provided by the first conjunct. So, it does not matter whether the second conjunct (the ellipsis site) contained, in the case of (3) for instance, “I washed my car” or “I washed his car”, because the hearer will reasonably be able to get either reading. The first would be based on the hearer interpreting the possessor as being mapped to a relation with the subject of its clause, and the second would require the hearer to interpret the possessor as pointing to a unique entity (i.e., Bill).

Let’s consider some more sentences:

(4) Harvey hurt himself, and I did _ too.
(5) I hurt myself, and Harvey did _ too.
(6) Every member of the polo team was supposed to was his/their socks, [but I didn’t / but Harvey didn’t].
(7) A. Did Harvey see you?
    B. Yes, he did _.
(8) A. Did you call me?
    B. No, I didn’t _.
These sentences present problems similar to those presented by (1) - (3). The issue in (4) and (5) is that the way in which one can relate the anaphor to the antecedent is a little more restricted for the strict identity reading. To say "I hurt himself too" would be ungrammatical, thus the anaphor must have used the non-reflexive form ‘him’. But the sloppy reading must say that ‘himself’ is underlyingly a person-unspecified pronoun, which becomes ‘myself’ in a clause where the subject is first person. To get both these readings in one theory is a challenge, unless of course the theory specifies that the reader supplies the interpretations, and thus the content can be either. The reader can interpret the pronoun as being a reflexive that takes meaning based on the subject of the clause, or they can interpret it as a pointer that identifies one person for both events.

Essentially this same story can, and for the purposes of this theory, is told for the variations of sentence (6). In every case, the distinction of readings is arrived at by a choice made by the hearer of whether a pronoun is a unique identifier that points to an entity in the world, or a relation mapper, that creates a relation within the first conjunct that is to be mimicked in the second. Such is the case with reflexives, as well as possessors. As for sentence (7) and (8), only one reading is available. This is a consequence of there only being one event at hand--the anaphoric answer does not talk about an event different than the one supplied in the antecedent, thus there is no room to interpret the event any differently.

There are a handful of concepts that one should take away from the freshly-constructed interpretive analysis, if only to identify the claims of the theory itself. First is that context dependent utterances are not ungrammatical, but uninterpretable. That is, a sentence whose ellipsis is dependent on an antecedent across sentence boundaries is not ungrammatical just because the antecedent is not known to the hearer/interpreter, it is merely uninterpretable. That is, the interpreter has no information to substitute for that ellipsis site.

Second is the conditions for VPE under the interpretive analysis: there are none (except for a licensing head). Initially we had considered restricting VPE to a match of main verb. This was not for purposes of proper interpretation, but to account for the then-considered ungrammaticality of sentences such as:

9. #Bob washed his car and there will.

Without any VPE condition, VPE can occur anytime. This sentence was originally thought to be a problem, though it is merely uninterpretable due to some mismatching features of the conjuncts that will not be explored here. Allow us to provide appropriate context to make the previous sentence interpretable:

10. A. What did Bill do this morning? Oh and do you know if there will be beer at this party?
B. Bob washed his car and there will.

VPE can happen at any time. The question is left up to pragmatics and semantics as to how and what hearers will interpret. This may as well be the third grand point to take away from this: VPE is head-licensed, which is a syntactic fact, though there are no shape, form, or identity requirements. And finally of course, the theory puts forth that the shape of the elided content is syntactically unrecoverable--by the end of the derivation, there is no content left in the ellipsis site. The shape of ellipsis sites are instead merely interpreted by hearers who attempt to recover the elided material by substituting information provided by the antecedent.

As a final note, we would like to concede that this theory is extensively permissive, and to some, perhaps overly-generative. Most responsible syntacticians would likely refute this proposal in favor of solving the various ellipsis problems without the help of pragmatics or semantics, though we like to believe that this theory holds some merit--as more than just a particularly sharp thorn in the side of a scrupulous syntactician.

VI. Comparing the Three Approaches

Having described each of the theories in detail, we must now weigh the advantages and disadvantages of each of these three theories.

We will begin by considering the +Josue Theory, a theory in which there must be strict identity between the anaphor and ellipsis site in order for VPE to take place. This theory is appealing in that having strict identity would be an incredibly tidy solution to the problem at hand. It has the distinct advantage of being able to account for sentences like the following, in which the pronouns involved have distinct morphological features, but the same referent.

8.  A: Did you call me?
    B: No, I didn't [call you].

In our syntactic theory (as it currently stands), it is understood that the pronoun me has the features [+1, +sg], while the pronoun you has the features [+2, +sg]. This is the point at which many syntactic theories of strict identity break down, as there is a mismatch in features, and consequently, no strict identity. However, the presence of features that are more or less semantic manage to get around this problem, as both pronouns have the same referent. Since this theory places features such as +personx to indicate the referent of a pronoun, it manages to adhere to the strict identity condition. That being said, while this theory manages to account for the issue of featural mismatch, it does so at the expense of other notions that we have established in our theory of syntax at large. This theory, more than any other proposed, alters some of the basic notions that we have included in our theory of syntax. Specifically, by including features such
as +personx in our deep structure, we are introducing reference and semantics into the structure that the syntax will be able to manipulate. This is bound to make other theoretical predictions about the ways in which syntax and semantics interact, and about the way in which morphology occurs. It also raises questions about other features, due to the fact that strict identity would require all of the features in both the anaphor and the ellipsis site to be completely identical, which would mean that features that would differ, such as +1 or +2 person, would not be present in the deep structure. However, in order to spellout to take place, and for the pronouns to receive their proper forms, they must be specified for number. So when are features like person added, between deep structure and vocabulary insertion? It seems like a rather significant problem. In short, the +Josue Theory is likely one of the simpler theories, as it maintains strict identity, but it is problematic in terms of our pre-existing linguistic theory.

You sound like you never heard of the Binding Theory.

We will now continue on to discuss the advantages and disadvantages of the Syntactic Event Structure Identity Theory.11 Under this theory there is a single identity condition that relies on identity of the syntactic event structure between the antecedent and the ellipsis site, and a condition on pronoun reference and recovery that uses co-indexing. Perhaps the most appealing aspect of this theory is that it is able to account for the ways in which a pronoun that is found inside the ellipsis site will get its reference, using an account that weighs heavily on syntactic notions rather than semantic or pragmatic ones. However, this theory seems less advantageous when it comes to examples of VPE in which a speaker boundary is crossed, like in the following sentence.

8. A: Did you call me?
   B: No, I didn’t.

Specifically, this theory accounts for the issue of pronoun reference by co-indexing the antecedent pronoun, and the pronoun within the ellipsis site, which will then be able to recover its reference. While this seems to be a good solution assuming that it is possible to co-index syntactic entities that are found in separate syntactic trees, it seems problematic that along with the reference, the pronoun within the ellipsis site also receives φ-features from its antecedent. This seems problematic given the fact that the two ought to be specified differently in person, the pronoun in part A should be specified [+1 person], while the pronoun in the ellipsis site ought to be specified [+2 person]. While this is not a huge theoretical problem, it does seem to be inconsistent with the identity restriction as defined in this theory. In short, this theory is desirable in that it solves most issues that we have been addressing, and is particularly good at accounting for pronoun reference. However, this theory seems to be less adept at accounting for examples of VPE in which there is a speaker boundary.

11 This discussion surrounding the advantages and disadvantages of the Syntactic Event Structure Identity Theory is still somewhat disputed. The creators of this theory maintain that it is able to account for all of the problems addressed in this paper, while others feel that it is not a perfect solution and has a weakness just like all of the other theories we have discussed. This difference in opinion could be due to a lack of mutual understanding, or to more significant theoretical differences. (At this point it is unclear.)
Lastly, we must consider the advantages and disadvantages of the Interpretive Theory, a theory in which there is no mention of an identity condition at all. Instead, this theory makes use of our assumption that the only syntactic information that will ever be deleted is information that is already in the discourse, information that can be readily recovered from the surrounding context (linguistic or real-world). No new information can ever be deleted. This makes for a rather pleasing argument in a number of ways. As it is able to account for VPE that goes across sentence boundaries, as well as those in which features differ between the anaphor and the antecedent. It is also appealing in that it is a relatively simple fix that does not necessitate changing our theories of syntax or morphology. That being said, the Interpretive Theory is by no means a syntactic or semantic one, and as such it makes rather weak predictions about semantic involvement in VPE. While this may not necessarily be problematic, it is worth pointing out as a potential disadvantage. In short, this theory is able to account for sentences that are problematic to the Syntactic Event Structure Theory, but runs into some problems that the Syntactic Event Structure Identity Theory manages to avoid.

Now that we have weighed the advantages and disadvantages of each, we have seen that each of the theories have taken extremely different approaches to the issue at hand. Since the problems that we have encountered with these three theories are quite diverse, we might consider combining the best of these approaches to make a unified theory that manages to account for all of the facts. However, the theories that we have devised are so diverse in their theoretical assumptions that this does not seem promising.

VII. Conclusion

The next step in this process ought to be to consider the theoretical implications that each of these theories makes with respect to our linguistic theory as it currently stands, and to test these implications to see if they are correct of completely unfounded. While each of these theories needs to be perfected, the fact that they are so divergent with respect to their basic assumptions, that we ought to look at the external implications of each of the theories, as well as for external motivation for selecting one approach over another.
In General:

In a nutshell, I would prefer to see a much shorter, more focused analysis of a circumscribed body of facts. If there are competing views, I would like to see them engage with each other.

In a couple of places, you talk about the human being choices of interpretation in cases of ambiguity. If you think about it, if a sentence is ambiguous, the human doesn't have a choice. Both readings are meanings of the same sentence.

The "minimalistic" theory does not do what an interpretive theory has to do, which is specify how ellipses got their interpretations.

In upcoming discussions, we will concentrate on the issue of how pronouns get related to their antecedents — then we will come back and ask again what is the identity condition for ellipses.