

NULL PRONOUNS IN ENGLISH EVIDENCE FROM PARTICLE VERB CONSTRUCTIONS

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Particle verbs are a type of complex predicates common to Germanic languages, whose syntactic characteristics in their respective languages have presented a puzzle for the generative enterprise almost since its inception (Chomsky, 1957). A class of English particle verbs (PVs) which show an argument structure alternation between ground promotion and figure retention, also shows a pragmatic asymmetry (Levin and Sells, 2007). This paper argues that this pragmatic asymmetry is the result of a null pronoun which has previously not been described. Furthermore, this paper demonstrates that a previous attempt to account for ground promotion (Svenonius, 2003) predicts the presence of this null pronoun. Finally, this null pronoun, though it bears some similarity to null elements in other languages, does not fit neatly within a typology.

1. Background

In this section I will set up the empirical basis of this study. First, I will lay out the general properties of PVs in English, followed by the more specific properties of ground promotion PVs which are the subclass of PVs under investigation.

1.1 Properties of PVs

Particle verbs are a type of complex predicate common among Germanic languages and are characterized as consisting of two elements: a lexical verb and an adpositional element referred to as a particle. They display some sort of deviant morphosyntactic behaviour in whatever language they appear in. In English, PVs are notable due to the fact that they display *particle shift* which is an alternation in the particle's linear order with respect to the object. As shown in (1) below, English PVs alternate between discontinuous and continuous orders, adopting Dehé's (2002) terminology.

(1) Particle Shift

- a. Discontinuous Order
Jamie *turned* {the offer/it} *down*.
- b. Continuous Order
Jamie *turned down* {the offer/*it}.

Note that the availability of particle shift is restricted to sentences with non-pronominal objects.

In addition to their status as morphosyntactic oddities, PVs also tend to differ in their argument structure from their simplex counterparts. The exact difference between the argument structure of a given particle verb and that of its simplex counterpart, however, has heretofore evaded generalization. McIntyre (2007) presents a set of argument structure based classes of PVs examples of which are given below in (2)

(2) **PV class examples (McIntyre, 2007)**

- a. **Resultative**
We *voted (out)* the government (*out*).¹
- b. **Ground Promotion**
The waiter *brushed (off)* the crumbs (*off*).
- c. **Aspectual**
The crowd *sang (*the song) along*.

Since ground promotion PVs are the objects of inquiry in this study I will present a proper definition of them in the next section.²

1.2 Ground promotion/figure retention

The term *ground promotion* is a reference to the spatial thematic role, ground. Spatial expressions can be thought of as expressing a the spatial location and orientation of one entity, the figure, with respect to another, the ground. The ground argument of a spatial expression is interpreted as the absolute location against relative to which the location of the figure argument is judged. For instance in *I poured the water out of the bucket*, the ground argument is realized by *the bucket*, which is the object of the preposition *out of*, and the figure, a term which is often used interchangeably with *theme*, is realized by *the water*. Ground promotion PVs, then, are PVs whose argument is interpreted as the ground argument of the particle rather than as the figure/theme of the verb as demonstrated and schematized below in (3).

(3) **Ground Promotion**

- a. I wiped [the dust]_{Figure} off [the table]_{Ground}. \Rightarrow I wiped off [the table]_{Ground}.
- b.

<i>wipe</i>				<i>wipe off</i>	
Agent	Figure	Ground	\Rightarrow	Agent	Ground
DP	DP	DP		DP	DP

In contrast to other West Germanic languages like German and Dutch, which have a wide variety of ground promotion PVs (Svenonius, 2003), English ground promotion PVs are

¹This use of parentheses signifies the availability of particle shift

²I encourage the interested reader to seek out McIntyre (2007) which gives proper descriptions of the full complement of PV classes, followed by an overview of the theoretical debate surrounding the argument structure of PVs.

restricted to combinations of verbs that denote cleaning as the verb component and *off* or *out* as the particle.

(4) **English Ground Promotion PVs**

- a. Dagmar *rinsed* (*out*) the pot (*out*).
- b. Irene *cleared* (*out*) the room (*out*).
- c. Jamie *brushed* (*off*) the jacket (*off*).

Ground promotion PVs in English have an alternative argument structure in which the object is interpreted as the figure argument rather than the ground. I refer to this argument structure, which is demonstrated and schematized in (5) below, as *figure retention*.

(5) **Figure Retention**

- a. I wiped [the dust]_{Figure} off [the table]_{Ground}. \Rightarrow I wiped off [the dust]_{Figure}.
- b.

<i>wipe</i>			<i>wipe off</i>	
Agent	Figure	Ground	Agent	Figure
DP	DP	DP	DP	DP

 \Rightarrow

In many aspects, figure retention and ground promotion constructions show similar behaviour. Both constructions display the particle shift alternation with non-pronomial objects, as demonstrated below in (6).

- (6) a. **Ground Promotion**
 wipe {the table/it} off.
 wipe off {the table/*it}.
- b. **Figure Retention**
 wipe {the dust/it} off.
 wipe off {the dust/*it}.

When the object of one of these PVs is a pronoun, it can be interpreted as either a figure or a ground. The deciding factor for how the pronoun is interpreted is the utterance context. This means that, as demonstrated below in (7), a given PV can be ambiguous between figure retention and ground promotion in the right context.

- (7) There's dust_i on that table_j, can you wipe it_{i/j} off?

The one asymmetry between the two constructions, which was pointed out by Levin and Sells (2007), has to do with the felicity of the PVs in out-of-the-blue contexts. Ground promotion PVs can be uttered out of the blue, while figure retention PVs require contextual support.

- (8) The maid said that as part of her job ... (adapted from Levin and Sells, 2007)

- a. #she has to wipe fingerprints off.
- b. she has to wipe mirrors off.

Levin and Sells (2007) offer no explanation of this pragmatic asymmetry, though. As I argue in the next section, the source of this asymmetry is a null pronoun being interpreted as the ground argument of figure retention PVs.

2. The Null Pronoun

In this section I argue that, in sentences with figure retention PVs in English, there is a null pronoun that is interpreted as the ground argument. I first present evidence based on a deeper empirical investigation into the pragmatic asymmetry between ground promotion and figure retention described in the previous section. I then show that the null ground pronoun is, in fact, predicted by a particular theoretical account of ground promotion.

2.1 Evidence for the Null Pronoun

As described above, there is a pragmatic asymmetry between the two argument structures of the PVs under investigation. When there is salient object in the context in which a figure retention PV is uttered, that object seems to always be interpreted as the ground argument of the PV. Consider the utterances in (9) and their interpretations below.

- (9) a. Whenever Jim wears his blazer, [he wipes the fingerprints off.]
Interpretation: He wipes the fingerprints off **his blazer**.
 b. Whenever Karen uses the coffee pot, [she rinses the oatmeal out.]
Interpretation: She rinses the oatmeal out of **the coffee pot**.

The fact that these utterances are interpreted as describing odd situations (wiping fingerprints off a blazer and rinsing oatmeal out of coffee pot), highlight the fact that the interpreted grounds are clearly context dependent rather than the result of any sort of stereotypical or prototypical interpretation.

This interpretation pattern is in stark contrast with that of ground promotion PVs in the same context. Ground promotion PVs seem never to interpret any contextually salient objects as figures as demonstrated by the utterances in (10) and their interpretations below.

- (10) a. Whenever Sheila sees fingerprints, [she brushes her blazer off.]
Interpretation: She brushes something off her blazer.
Not: She brushes **fingerprints** off her blazer.
 b. Whenever Tom finds oatmeal, [he rinses the coffee pot out]
Interpretation: He rinses something out of the coffee pot.
Not: He rinses **oatmeal** out of the coffee pot.

These utterances do not describe the same odd situations as their figure retention counterparts. Rather, they seem to imply that the agents of the PVs have some variety of obsessive-compulsive disorder. The sight of fingerprints compels Sheila to brush off her blazer, and the finding oatmeal compels Tom to rinse a coffee pot out.

We exactly the same pattern when we perform these tests on optionally transitive verbs such as *eat* and *fight*. When these verbs are placed in the appropriate context with a pronoun as their object, the pronoun picks up the contextually salient object as a referent.

(11) **Transitives with pronouns (compare (9))**

- a. Whenever Ellie sees a chair, she fights it.
Interpretation: She fights the chair.
- b. Whenever Oliver sees a plant, he eats it.
Interpretation: He eats the plant.

As with the grounds of figure retention PVs, the pronouns pick up referents from context regardless of the oddness of the resulting interpretation of the utterance.

In their intransitive forms, these optionally transitive verbs show an interpretation pattern identical to that of ground promotion PVS. The implicit themes of the intransitive verbs receive stereotypical or prototypical interpretations as demonstrated below.

(12) **Intransitives (compare (10))**

- a. Whenever Ellie sees a chair, she fights.
Interpretation: She fights
Not: *She fights the chair.
- b. Whenever Oliver sees a plant, he eats.
Interpretation: He eats (something)
Not: *He eats the plant.

Just like the ground promotion PVs in (10), these sentences seem to imply their agents are compulsively reacting to the sight of a chair or a plant. Since the only apparent difference between the morphosyntax of the transitive constructions in (11) and the intransitive ones in (12) is the presence of the pronoun *it*, and that difference leads to the interpretive contrast demonstrated above, it is reasonable to assume that the same interpretive contrast in ground promotion vs figure retention PVs is the result of the presence or absence of a pronoun.

If the ground argument in figure retention PVs is a null pronoun as I claim here, it should have the properties of pronouns. One property of pronouns is that they are able to display the phenomenon of *donkey anaphora*, that is their reference is able to co-vary with quantificational elements that do not syntactically bind them. Compare the classic donkey sentence in (13) with a figure retention version in (14).

(13) [Every Farmer [who owns a donkey_{*i*}] [beats it_{*i*}]].

(14) [Every butler [who is holding a glass_{*i*}] [must wipe off *e_i* his fingerprints.]]

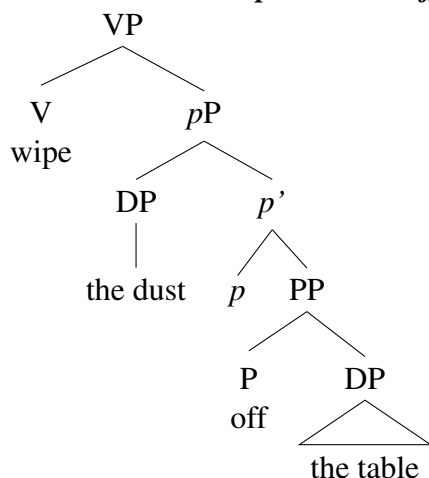
Just as (13) can be paraphrased as *Every farmer who owns a donkey beats the donkey they own*, the sentence in (14) can be paraphrased as *Every butler who is holding a glass must wipe his fingerprints off the glass he is holding*.

The natural conclusion that the data presented above leads to is that there is an empty category project in the ground argument position of figure retention PVs. Since this empty category has interpretive properties identical to those of pronouns, it is reasonable to assume that figure retention PVs take a null pronoun as a Ground argument. In the next section I will argue that, if we assume a certain for these PVs, the proposal that figure retention PVs project a null pronoun has theoretical support in addition to the empirical support presented so far.

2.2 Theoretical support

Svenonius (2003) proposes a structural account of ground promotion PVs which correctly predicts the presence of a null pronoun in figure retention constructions.³ Central to this account, is the claim that adpositions are composed of two heads: a *P* head which contains the bulk of the adposition's lexical information and selects the Ground argument, and a *p* head which selects the figure argument. This structure, demonstrated below in (15), bears a striking resemblance to what has become the standard structure for transitive verbs, where the lexical verb introduces the Theme and *v*/Voice introduces the Agent.

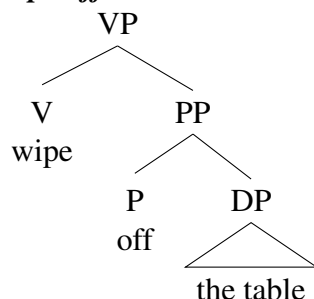
(15) The structure of *wipe the dust off the table* following Svenonius (2003)



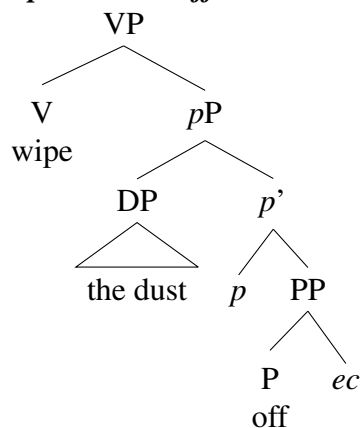
The particles of ground promotion PVs are PPs without *p*'s. The adpositional head *P* is sufficient to introduce a ground DP, but without a *p* head, the figure DP cannot be introduced. The structure of a ground promotion PV is given below in (16).⁴

³ Svenonius' (2003) goal in his paper is to account for what he claims to be an empirical fact: that North Germanic languages and English systematically lack ground promotion PVs, while non-English West Germanic languages have ground promotion PVs. Given the premise of this paper, it should come as no surprise that I find Svenonius' premise problematic, despite the fact that I adopt his structural analysis.

⁴ The trees in this section represent the base generated structures, and are only able to explain the argument structures of these PVs. The structural analysis here does not approach an account for particle shift, and I feign no hypotheses regarding how it may be accounted for.

(16) *wipe off the table*

If we make the reasonable assumption that ground promotion and figure retention constructions are related to each other, we are forced to ask how this analysis of ground promotion PVs can be extended to cover figure retention. The structure of figure retention PVs must have a *p* head to introduce the figure argument. The structure also must have a lexical P head, as the semantic and phonological content of the particle is encoded there. In this system, however, P also introduces the ground argument, so this analysis of ground promotion PVs makes two possible predictions with respect to figure retention. Either figure retention PVs are not possible in English, a language that lacks null pronouns, or figure retention in English involves a null pronoun. Since we have already seen evidence of figure retention and its null pronoun in English, the latter prediction seems to be the correct one. The structure of figure retention PVs in English, then, is demonstrated below in (17).

(17) *wipe the dust off*

Note that the structure of the figure retention PV would be identical to that of the verb + full PP structure in (15), but for the fact that, in the full PP, the ground argument is phonologically overt. This small structural difference seems to result in the availability of particle shift, but there is not obvious reason why this would be the case.

2.3 Summary

In this section, I have demonstrated that figure retention PVs in English involve a null pronoun. I first demonstrated the empirical support for this claim by comparing the inter-

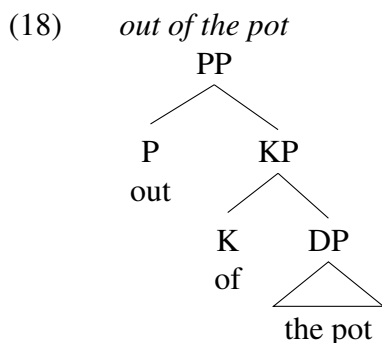
pretative patterns of ground promotion and figure retention PVs with those of optionally transitive verbs, showing that figure retention PVs have some interact with context in exactly the way transitive verbs with pronomial objects do. I then argued that these null pronouns are, in fact, predicted from an existing structural analysis of ground promotion PVs. In the next section I will compare the English null grounds with more familiar null pronouns.

3. Properties of the null grounds

At this point we have reason to claim that English has null pronouns, but what can be said about those pronouns? In this section I will first discuss the formal properties of null grounds given some standard theoretical assumptions regarding ground arguments in general. I will then assess some of their empirical properties by comparing them with some better studied null pronouns.

3.1 The formal properties of ground arguments

Ground arguments, being arguments of prepositions, are semantically different from verbal arguments. This is because, rather than relating individuals/entities to one another, prepositions define relations between regions in space (Zwarts, 2006). DPs however, denote entities, so they must be translated into location-denoting expressions to combine with prepositions. Svenonius (2010) proposes a functional head K, which merges with DPs, to map the entities they denote to the regions of space those entities occupy. In languages with overt case morphology, K is spelled out as oblique case. In English it is sometimes spelled out as *of* as shown below in (18).



If ordinary null pronouns are null DPs, null grounds must be null KPs according to the analysis I adopt here.

3.2 English null grounds and other null arguments

Null grounds in English join the ranks of null arguments that have been identified cross-linguistically. In this section, I will compare and contrast the distributional properties of

null grounds and those of some of the previously described null arguments. To begin with let's consider the distributional properties of null grounds: They are (a) restricted to a particular structural positions (Complement of P), and (b) associated with anomalous morphosyntactic behaviour (Particle Shift).

First, let's consider the null arguments in so-called *radical pro-drop* languages, such as Mandarin. In these languages, given a proper discourse context, pronouns are optionally overt. Consider the discourse snippet below in (19)

(19) **Radical Pro-drop**

- a. Q: Zhangsan kanjian Lisi le ma?
 Z. see L. LE Q
 “Did Zhangsan see Lisi?”
 b. A: (ta/e) kanjian (ta/e) le.
 he see he LE
 “He saw him”

(Mandarin; Huang, 1984)

By definition, radical pro-drop is not restricted to any syntactic position, it is restricted only by discourse/pragmatic considerations. It is also not restricted to any particular construction. These properties contrast with those of null grounds.

Next, we look at another familiar type of null argument: null subjects in *pro-drop* languages, exemplified here by Italian.

- (20) *e* Ho trovato il libro.
 have.1SG found the book
 “(I) have found the book”

(Italian; Roberge, 1990)

As the name suggests, null subjects are restricted to subject positions, just as null grounds are restricted to ground positions. Unlike null grounds, null subjects are associated with rich morphological agreement on verbs. Also, null subjects are not associated with any one construction.

Finally, we have German *topic drop*. In German, the sentence initial position is associated with the sentence topic rather than the subject, and in colloquial speech that topic may be dropped.

- (21) *e_i* Hab' ich *t_i* schon gesehen.
 have I already seen
 “I have seen him/her/it/them already.”

(Huang, 1984)

Like null grounds (and null subjects), topic drop only occurs in certain syntactic position (Spec CP). Also like null grounds, null topics are not associated with rich agreement morphology. Again, this instance of null a null argument contrasts with null grounds, as it is not associated with an anomalous construction.

Null grounds, then do not quite fit in our current typology of null arguments. It is worth noting, though, that the two types of null arguments that most closely resemble null

grounds, null subjects and dropped topics, both occur towards the left periphery, while null grounds occur at the absolute right edge of the clause.

4. Conclusion

The goal of this paper has been to convince readers, both empirically and theoretically, that English figure retention PV constructions involve null pronouns. I have shown that there is an implicit ground argument in figure retention PVs that receives reference in exactly the same manner as overt pronouns, and can participate in donkey anaphora. I then argued that a formal account of ground promotion PVs (Svenonius, 2003) actually predicts the presence of these null pronouns. Finally, I discussed the formal and distributional properties of the null grounds in comparison with better studied null arguments.

Absent from this paper in any attempt to account for particle shift, a phenomenon that seems to resist resolution to this day. The discovery of the null ground, however, may provide a new avenue to finding an explanation of particle shift. Given the formal account argued for here, the only difference between a verb + PP construction, which does not allow particle shift, and a figure retention PV, which does allow particle shift, is whether the ground argument is phonologically overt. A deeper investigation into this formal analysis along will likely yield interesting results.

References

- Chomsky, Noam. 1957. *Syntactic structures*. Berlin: De Gruyter.
- Dehé, Nicole. 2002. *Particle verbs in english: Syntax, information structure, and intonation*, volume 59 of *Linguistik Aktuell*. Philadelphia: John Benjamins Publishing Company.
- Huang, C-T James. 1984. On the distribution and reference of empty pronouns. *Linguistic inquiry* 531–574.
- Levin, Beth and Peter Sells. 2007. Unpredicated particles. In *REDPILL (reality exploration and discovery: Pattern interaction in language and life)*, eds. Lian Hee Wee and Uyechi Linda. CSLI Publications.
- McIntyre, Andrew. 2007. Particle verbs and argument structure. *Language and Linguistics Compass* 1:350–367.
- Roberge, Yves. 1990. *The syntactic recoverability of null arguments*. Kingston & Montreal: McGill-Queens University Press.
- Svenonius, Peter. 2003. Limits on P: filling in holes vs. falling in holes. In *Nordlyd 31.2*, eds. Anne Dahl, Kristine Bentzen, and Peter Svenonius, 431–445. University of Tromsø.
- Svenonius, Peter. 2010. Spatial P in English. In *Cartography of syntactic structures*, eds. Guglielmo Cinque and Luigi Rizzi, volume 6. Oxford University Press.
- Zwarts, Joost. 2006. Event shape: Paths in the semantics of verbs. Paper presented at the Workshop on the geometric structure of events, Konstanz October 7-8, 2004.