

Restrictions on English Possessors: An Extension of Distributed Morphology*

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1 Introduction

- In English, there are restrictions on what can be a possessor in the 's construction (also known as the Saxon genitive).
- In particular, the demonstrative pronouns *this*, *that*, *these*, and *those* cannot be possessors. A demonstrative with an overt noun is fine, however.

- (1) Grammatical and ungrammatical demonstrative possessors
- | | |
|------------------------------------|-------------------------------|
| a. [That book]'s cover is worn. | *[That]'s cover is worn. |
| b. [This book]'s cover is worn. | *[This]'(s) cover is worn. |
| c. [Those books]' covers are worn. | *[Those]'(s) covers are worn. |
| d. [These books]' covers are worn. | *[These]'(s) covers are worn. |

- The contrast in (a) is not due to phonology: *that* is happy with a left-leaning /-z/ morpheme in other circumstances, as in *That's my friend Bob*.
- The contrast is also not likely to be semantic in nature. *This* and *that* as demonstratives can be in the same relationship in different constructions.

- (2) a. The cover on/of/for/around this (book) is worn.
b. This *(book)'s cover is worn.

- Because it is not phonology or semantics, we will pursue a morpho-syntactic account.

- I propose that the distribution of demonstratives in possessives is actually due to a morphological gap.

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- In the following section, we will briefly consider an analysis using a Lexicalist approach. We will see that it captures morphological gaps easily, but there are problems with the approach.
- I will then present an analysis based on Distributed Morphology, formalizing how these morphological gaps work.
- This analysis makes crucial use of **flag-throwing Vocabulary Insertion rules**: rules that do not simply insert phonological forms, but rather mark the entire utterance as ungrammatical.

2 A Lexicalist Approach

- One analysis of the gap in demonstrative possessives involves the lexicon as a collection of word entries. If the lexicon does not have an entry, then the syntax would never use it to combine with other lexical entries in a sentence.
 - For instance, there is no entry corresponding to the features [demonstrative, distal, singular, genitive], so there is no **that's*. Likewise for the other demonstratives.
- This analysis appears to capture morphological gaps very easily, so if it is sufficient then it would be the simplest explanation.

features	dependent form	independent form	corresponding accusative
1sg.gen	my	mine	me
1pl.gen	our	ours	us
2sg.gen	your	yours	you
3sg.masc.gen	his	his	him
3sg.fem.gen	her	hers	her
3sg.nonhuman.gen	its	*	it
3pl.gen	their	theirs	them
wh.gen	whose	whose	who
wh.d-linked.gen	*	*	which
proximal.sg.gen	*	*	this
proximal.pl.gen	*	*	these
distal.sg.gen	*	*	that
distal.pl.gen	*	*	those

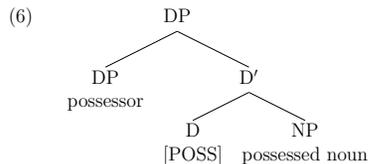
- The dependent form (Huddleston et al. 2002) is the form of the possessive before an overt noun, as in *my dog*. The independent form (also known as the possessive pronoun) is the form that occurs alone or when the noun complement is deleted.
- The table above also shows that there are other gaps in the English genitive pronominal system. In addition to the demonstratives, the independent form of *its* is missing, as are genitive forms for the discourse-linked *which*.

- Problem: Order of operations. Does ellipsis come before or after morphology?
 - If ellipsis occurs in the syntax after lexical insertion, then this predicts that the morphological form should not be sensitive to ellipsis.
 - But the form of the genitive pronouns is sensitive to ellipsis. An independent form must be used before an elided noun. (Example modeled on Jackendoff 1971's N'-Gapping examples.)
- (4)
- I like Bill's wines from Spain and your wines from Italy.
 - *I like Bill's wines from Spain and your ~~wines~~ from Italy.
 - I like Bill's wines from Spain and yours ~~wines~~ from Italy.
- The ellipsis must also be sensitive to morphological gaps.
- (5)
- This computer has a lot of ideas, but your ideas are much better than its ideas.
 - ??...but your ideas are much better than its ~~ideas~~.
- To maintain the Lexicalist viewpoint and still have ellipsis in the syntax, we would need a cyclic lexical insertion and re-evaluation system.
- See also Marantz 1997 and others for further arguments against the Lexicalist Hypothesis.

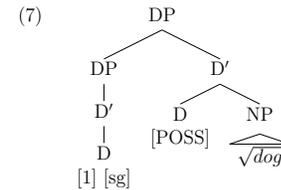
3 A Syntax-First Approach

3.1 Vocabulary Insertion and the Extended Subset Principle

- This approach, based on Distributed Morphology (Halle & Marantz 1993, Embick & Noyer 2001), assumes that the syntax occurs first in the derivation, and then the morphology acts on the structure that the syntax produced.
- The narrow Syntax is responsible for generating the appropriate bundles of features, and merging or moving these bundles into the appropriate configuration.
- For possessives, I am assuming the structure in (6), which is based on Abney 1987. This structure will be the same for possessive pronouns and full possessive DPs.



- For an example like *my dog*, the Syntax outputs a tree like this:



- The Morphology, in the form of Vocabulary Insertion Rules, is responsible for providing the correct form. When there is an overt noun complement to POSS, the dependent form is inserted; when there is no overt noun complement, the independent form is inserted.
 - The following Vocabulary Insertion rules govern the first-person singular forms.
- (8) $my \leftrightarrow [D, 1, sg]$ if it is the only element in the specifier of [POSS]
- (9) $mine \leftrightarrow [D, 1, sg]$ if it is the only element in the specifier of [POSS] **and** [POSS] has no overt complement
- The two Vocabulary Items compete for realization of the same features: [D, 1, sg]. The choice is determined by Hankamer & Mikkelsen 2005's **Extended Subset Principle**:

“... If two or more Vocabulary items contain the same features but differ in contextual specification so that the contextual specification of one item is a subset of the contextual specification of another, the item with the more restricted contextual specification must be chosen.” (p. 105)
 - This is an instantiation of what is known as Panini's Principle, where a more specific rule blocks the application of a more general one.
 - The rule for *mine* is the more specific one, so it must be chosen when POSS has no nominal complement. Otherwise, we use the dependent form *my*.
 - For the example of *my dog*, the features [D, 1, sg] in the tree in (7) correspond to the Vocabulary Insertion Rules given above. Because the more specific rule (9) does not describe the appropriate environment, we must use the less specific rule (8). The phonological form *my* is inserted, and we eventually arrive at *my dog* instead of **mine dog*.

3.2 Default Possessives

- I am not claiming that **every** possible DP has a corresponding Vocabulary Insertion rule for the possessive form. The only feature-bundles that have these specific rules for possessive forms in English are the pronouns.

- In all other situations, the possessive DP is realized as it is in every other situation (default case of some sort, perhaps equivalent to accusative), and the possessive morpheme (POSS) is realized as 's.

(10) 's ↔ [POSS]

- In order to get the possessive form of *[the guy next door]'s dog*, the possessor DP *the guy next door* is in the default case. Then the default form of POSS is inserted.

- This means that competing with *my* is also the default **me's*. In such a situation, the possessor is inserted as the default *me*, and POSS is inserted as the default 's.

(11) me ↔ [D, 1, sg]

- The Extended Subset Principle will ensure that *my* is inserted instead of *me*, because (8) is more specific in its contextual specification than (11) is.
- To make sure that POSS is not realized as 's in this environment, we will use a Vocabulary Insertion Rule to insert silence when the possessor is a personal pronoun.

(12) ∅ ↔ [POSS] when the specifier of [POSS] is only a D with [1], [2], or [3].

3.3 Accounting for Gaps

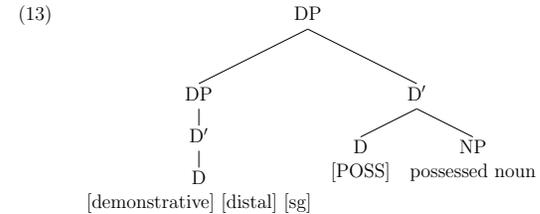
- So far we have used rules to give phonological forms to morpho-syntactic features. Can the same system be used to capture morphological gaps?

- Yes!

- I propose that the Vocabulary Insertion rules should also be used to formalize morphological gaps. This is an extension of the use of Vocabulary Insertion rules in Distributed Morphology.

- With this system, we can prevent **that's* from surfacing as a grammatical output.

- The Syntax overgenerates, giving us forms like (13), but the Vocabulary Insertion rule in (14) filters out structures of this sort.



(14) * ↔ [D, demonstrative] if it is the only element in the specifier of POSS

- If all the requirements of Vocabulary Insertion rule (14) are met, then the Morphology throws a flag, causing the derivation to crash.
- On the other hand, when *that* occurs with a noun, then the structural description of (14) fails to match. In this way, we can generate examples like *[that book]'s cover* by a general rule, but still rule out **that's* with the more specific (14).

- We can also use this formalism to account for the distribution of *its*. There is a dependent form available, but no independent one.

- The rule for the dependent form of *its* looks nearly identical to the rule for *my*.

(15) its ↔ [D, 3, sg, -hum] if it is the only element in the specifier of POSS

- The rule for the independent form, on the other hand, is responsible for marking it as ungrammatical.

(16) * ↔ [D, 3, sg, -hum] if it is the only element in the specifier of POSS and POSS has no overt complement

- It is not enough to say that there is no Vocabulary Insertion rule for the independent form of *its*, or for any possessive form of *that*. If there simply were no such rule, then the default rules would have to come into effect.

- We were able to rule out **me's* with more specific Insertion rules. That is a type of blocking: the general, more complex **me's* is blocked by the specific, mono-morphemic *my*.

- This blocking is exactly what that the flag-throwing Vocabulary Insertion rules in (14) and (16) are doing. The only difference is, there is no realized specific, mono-morphemic possessive to block the default form—not even a phonologically null version!

- Usually Morphology will figure out some way to realize the features and structure that Syntax hands it. That is why default rules are so useful.
- In some situations, though, the Morphology cannot deal with it, and ineffability results.
- With flag-throwing Vocabulary Insertion rules, we can account for this phenomenon within a Syntax-first framework.

4 Conclusion

- **That's cover*, **which's cover*, and **its* without an overt noun, are all ungrammatical because there are morphological gaps in English.
- In a Syntax-first framework, we have to be explicit in how we formalize morphological gaps.
- Crucially, we cannot rely on the absence of Vocabulary Insertion rules to account for these gaps, because there are default forms available.
- These gaps can be accounted for in Distributed Morphology, through the use of flag-throwing Vocabulary Insertion rules.

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