

## Plurality and Binding within the English *th...sel{f/vs}* Paradigm

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**Issue** While *themselves* is usually described as a third person plural reflexive in English, there is considerable variation in both the forms and functions of the elements that can fill this role. This paper examines two loci of variation: plural nominal inflection (*self*, *selves*) and case forms of the pronominal element (*they*, *them*, *their*). Crucially, we find that the three levels of pronominal variation behave asymmetrically with respect to the two levels of number variation. Specifically, we note i) that the *they* forms have fewer singular antecedents than *them* or *their* forms, ii) that *themselves* resists binding from a strong quantifier more than the other *selves* forms, and iii) that for *themselves* in particular, strong quantifier binding facilitates a singular interpretation.

**Background** Variation within these forms touches on a number of issues in the composition of pronouns. In particular, the issue of bound variable uses has previously been cited in discussions of both the number and case variation. Bjorkman (2017) notes that epicene singular *they* is acceptable or even required for some speakers in bound variable contexts with singular animate antecedents:

- (1) Somebody<sub>i</sub> left their sweater<sub>i</sub>.

Meanwhile, Déchaine and Wiltschko (2002) predicts that an added layer of syntactic structure present in genitive *theirselves* should block semantic variable binding that is acceptable for *themselves*. There is relatively little discussion on the nominative *themselves* forms.

**Data Collection** Here we report on a preliminary investigation using twitteR Gentry (2015) to collect a global sample of each of the six forms. The initial search requested the most recent 5000 tokens of each, though only the *them* forms were frequent enough to reach this maximum count within the time window (roughly one week) allowed by the Twitter API. We note though that while there are more tokens of *theirselves* compared to *themselves*, the reverse is true of the *they* variants, where the *self* form is more frequent. After removing retweets, repeated advertising, and tweets from artificial agents, all tokens are classified according to the function of the various reflexives, along with the type, number, and animacy of the antecedents.

**Key Results** Among the *selves* forms, *themselves* and *theirselves* are used in singular contexts at roughly equivalent frequencies (13% and 12%, respectively). In the collected sample, *themselves* is singular only 1.7% of the time (claim i)). We further find that while *themselves* and *theirselves* have overall significantly different ( $p < 0.001$ ) types of antecedents, they are both used in bound variable contexts at the same frequency, 10% of the time. The significant difference between those two forms is a greater use of *theirselves* with definite antecedents such as proper names or pronouns. While there are too few tokens to report statistics, *theirselves* is only used as a bound variable in 3.4% of cases (claim ii)). Overall, the three *self* forms are used in more singular contexts than their respective *selves* counterparts, and the pattern of *themselves* having proportionally fewer singular tokens than the other two is maintained. Interestingly, it is *themselves* which most reflects Bjorkman's observation that bound variable contexts facilitate singular interpretations. While *themselves* and *themselves* derive less than 30% of their singular usage from bound variable contexts, more than 60% of singular *themselves* tokens are bound variables similar to (1) above (claim iii)).

**Discussion** Overall, we find that *themselves* and *themselves* behave quite differently from the other forms. In the collected twitter data, we observe that the *they* forms are much more regionally concentrated as a feature of African American English. A general process of de-rhoticization (Pollock and Berni, 1996) may explain how a historically *theirselves* reflexive is now manifested as *themselves*, explaining the resistance to variable binding. Analysis of a more regionally-controlled corpus is needed to test this hypothesis, and account for other differences from the other forms.

## References

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