

Semantics or Agreement? Factors governing use of English *themselves*

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Issue In recent years, the English reflexive form *themselves* has drawn attention alongside the much larger discussion of singular *they*. Experimental work on *themselves* vs. *themselves* has focused mainly on whether antecedents influence the choice of reflexive, examining factors such as plurality, definiteness, or expectations of gender bias in names (Ackerman, 2018; Prasad et al., 2018). We add a new dimension to the study of *themselves*, controlling the plurality of antecedents along with the tense of trial items, asking whether overt present tense subject agreement for singular antecedents makes *themselves* more acceptable in an acceptability rating task (ART). Our conclusion is that semantic number is more predictive of reflexive form, regardless of overt singular agreement.

Background The most recent comprehensive study of *themselves* is Conrod et al. (2021), where seven different antecedent types of varying number and definiteness are tested with *themselves* and *themselves* in an online survey with 28 trial items and no distractors. Recruiting over 1000 online participants, they report that *themselves* is more accepted than *themselves* overall, with *themselves* ratings higher with more definite antecedents, and negatively correlated with prescriptive attitudes and adherence to binary gender ideology. However, their trial items contain a mix of past and present tenses, along with some modal constructions, leading to an uneven distribution of trials across conditions where singular antecedents are highlighted through subject-verb agreement.

Design 48 English speaking undergraduate students participated in our online study, ranging in age from 17 to 27 years old. Our ART study uses a 2x2x3 design, with the variables **Reflexive** (*themselves* or *themselves*), **Tense** (past or present) and **Antecedent** (gender neutral proper names, *All Ns*, *Each N*). Trial sentences are structured as in (1), showing past tense:

- (1) Quinn/All members/Each member applied themselves/selves to the company.

Our proper names are singular, with overt agreement in present tense (e.g. *applies* in (1)). *All Ns* phrases have no agreement distinctions between tenses, and we assume default plural interpretations. *Each N* phrases have the same agreement pattern as proper names, but despite being strongly distributive, may evoke a witness set plural reading similar to *All Ns*. With twelve conditions and four items per condition, participants see 48 trial items in total, mixed with 36 distractor items. Rating results are analyzed in R using the *lme4* and *lmerTest* packages (Bates et al., 2015; Kuznetsova et al., 2017).

Results and Discussion Using a reductive method of model comparison, we arrive at (2) as the best fitting mixed effect model for rating scores:

- (2) Rating \sim Reflexive*Antecedent + (1+Reflexive*Antecedent|Participant)+(1|Item)

The significant interaction verifies what can be observed from overall condition means: for *All Ns*, the preferred reflexive is *themselves*, but for proper names, it is *themselves*. Both forms are highly accepted for *Each N*. Tense, triggering agreement, plays no predictive role in the overall ratings. In planned comparisons within the antecedent types, we find that for the proper name and *All Ns* conditions, Reflexive remains the significant predictor of ratings. However, within the *Each N* subset, a marginal Tense effect emerges, with ratings higher in present tense, and no significant difference between Reflexive forms. This supports a formal analysis in which antecedents and anaphors can have mismatched number features (assuming *-selves* spells out [PLURAL]), building on the Kratzer (2009) account of English *I* as a binder for the pronoun *our*. In our paper, we discuss our results in comparison to those of Conrod et al., noting our inability to replicate the finding that *themselves* is overall more preferred, and exploring in more detail our attempt to replicate their correlations between ratings and separately-measured prescriptive attitudes among participants. We find that the effect of prescriptivism is limited to the past tense proper name condition.

References

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