

## English Reflexive Use is Mediated by Event Role Construal

**Introduction:** A long-standing aim within linguistic theory has been to systematically account for the distribution of pronominals. Binding principles straightforwardly capture the appearance of the reflexive *herself* or pronoun *her* in simple transitive sentences like those in (1) by dictating that a reflexive must be bound (as in (1a)) while a pronoun must be free (as in (1b)). The situation becomes murkier when we consider **locative prepositional phrases (LPPs)**, as in (2), where in English both reflexives and pronouns can be used to refer back to the sentence subject.

- (1) a. Anna<sub>i</sub> hugged herself/\*her<sub>i</sub>.  
b. [Anna's brother]<sub>k</sub> hugged \*herself/her<sub>i</sub>.
- (2) Anna<sub>i</sub> set a glass next to herself<sub>i</sub>/her<sub>i</sub>.

It has commonly been assumed that binding principles have no say when it comes to LPPs, such that the two pronominal forms are in free variation (e.g., Reinhart & Reuland, 1993; Büring, 2005). But while both forms may be possible, they are not always equally acceptable, with preferences between them ranging widely from sentence to sentence. To account for this variability, some work has argued that binding principles operate over both syntactic *and* event structure, and that the reflexive must be used whenever it and its antecedent are linked to two thematic roles (e.g., agent/patient or experiencer/stimulus) within the same event description (see Kuno, 1987; van Hoek 1997; Bryant 2022). We articulate application of this proposal to English LPPs as follows:

- (3) **Event Role Doubling Account:** Use of the reflexive within an LPP should covary with event role doubling, such that the reflexive is required when the sentence subject and LPP complement link to two event roles within the event described by the sentence containing them.

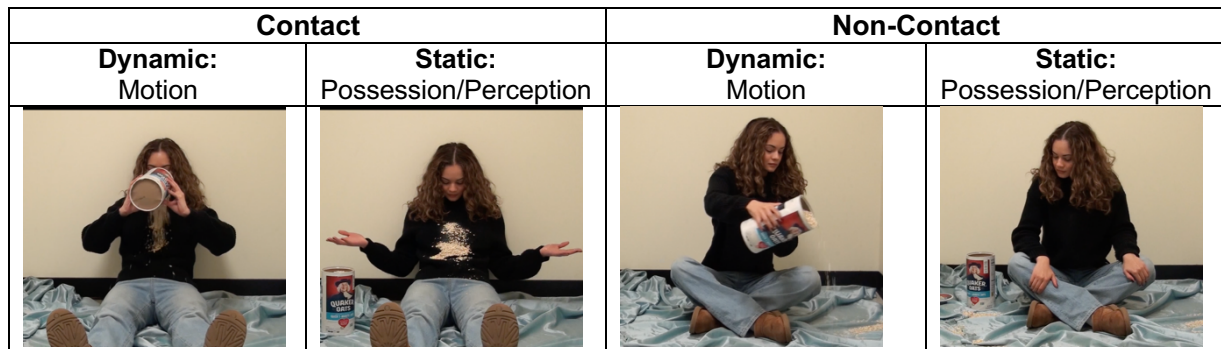
Recent experimental work (Bryant, 2022) has presented promising empirical evidence in support of this proposal, showing that reflexives are most acceptable in events described as dynamic rather than static, and as involving contact rather than non-contact, where both factors contribute to the likelihood of a role doubling construal. However, a major shortcoming of this work is that the stimuli were written, thus leaving important aspects of event construal up to the imagination of the participants. Furthermore, narrow focus on the acceptability of reflexives and pronouns fails to tap into the full range of lexical alternatives available to participants, potentially augmenting the effects of event structure on pronominal choice. Thus, to date, we lack unambiguous evidence evaluating (3). The current work seeks to fill this gap and offer novel experimental evidence bearing on theoretical accounts of reflexive use with LPPs.

**Design:** We conducted two complementary tasks (run online) investigating the acceptability and production of reflexives in sentences such as (2) by manipulating event structure both visually and linguistically. Visual stimuli were 72 video clips depicting 18 scenarios in 4 variations, crossing the **event type** (dynamic or static) and **spatial relation type** (contact or non-contact) (Fig.1). Videos were accompanied by text descriptions varying **verb meaning** (motion, possession, or perception), and **preposition meaning** (contact or non-contact). In a Forced Choice (FC) task, participants ( $N=95$ ) judged whether a sentence with a reflexive or pronoun LPP complement was the more natural description of what happened in the video. In a Cloze task, participants ( $N=97$ ) received similar sentences with a blank LPP complement and were asked to complete the description of what happened in the video by filling in the blank. Each task featured six target trials and six fillers, in a fully randomized order, with scenario Latin-squared across lists so that participants only saw one variant of each scenario.

**Results:** Data were analyzed in R using mixed effects logistic regressions. In the FC task (Fig. 2a), as predicted and consistent with previous work, we found significant main effects of event type (dynamic/static) ( $p < .001$ ) and spatial relation type (contact/non-contact) ( $p < .001$ ): **reflexive sentences were selected more often in the description of dynamic events and contact than in the description of static events and non-contact.** With this baseline in mind,

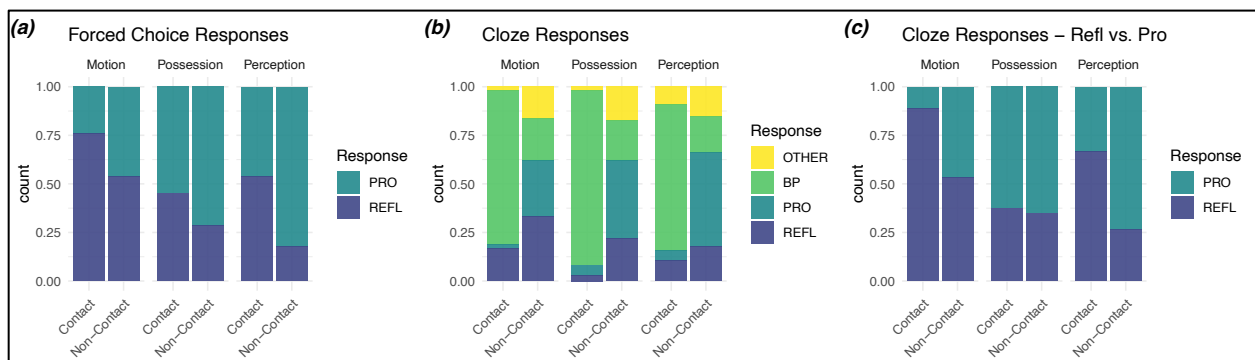
we turn to the Cloze task, where participants were not restricted in their productions to reflexives and pronouns. Interestingly, participants overwhelmingly described contact relations with body parts (e.g., *her torso/chest*) (Fig. 2b), presumably reflecting a pragmatic push for maximal informativity in event descriptions. Once we pull back the veil of body part production and refocus on the choice of reflexive/pronoun (Fig. 2c), we observe that **reflexives were again more frequent often in the description of dynamic events and contact**. Crucially, the frequency of reflexive production was **lower in possession sentences than in perception sentences**, with an effect of relation type in the latter ( $p < .001$ ) but not the former ( $p = .92$ ), despite these sentences being paired with the *exact same videos*.

**Conclusions:** Not only did we replicate previous experimental work, demonstrating that reflexives are most acceptable in LPPs in the description of dynamic events and contact, but we showed that these effects still hold when we control for the visual representation of the event and provide participants with an open choice of how to describe the event. In addition, our results demonstrate that verb meaning strongly influences reflexive use above and beyond visual cues to event structure. We attribute this influence to differences in the event roles projected as a part of a verb’s lexical semantics: perception verbs project experiencer and stimuli roles that, in the case of contact, can be linked to both the subject and LPP complement (seeing oatmeal on oneself entails seeing oneself) whereas possession verbs do not. Together, these findings lend support to the event role doubling account of LPP reflexive use (3), underscoring both the fundamental role of language in event construal and the role of event construal in pronominal selection.



*Tessa [motion: dumped; possession: left; perception: noticed] some oatmeal [contact: on; non-contact: around] [FC: a) her / b) herself. Cloze: \_\_\_\_\_.]*

**Figure 1.** Still frames of video stimuli (4 versions of one scenario) paired with the linguistic prompts in the FC and Cloze tasks.



**Figure 2.** Results from (a) the FC task, (b) the Cloze task (all responses), and (c) the Cloze task focusing only on proportion of reflexive and personal pronoun responses.