Grammatical person, pronouns, and the subject-object asymmetry in relative clauses
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Object relative clauses (ORCs) are more difficult to process than subject relative clauses (SRCs) in general: in ORCs, RTs are higher and accuracy is lower compared to SRCs [1-2]. This S/O asymmetry depends on the DP type of the RC arguments. When the RC subject is a pronoun, the asymmetry is reduced or eliminated [2]. However, previous research has focused only on local persons, i.e., 1st or 2nd person [2-3]. In the present study, we test the hypothesis that the S/O asymmetry will be stronger when the RC subject is 3rd person.

There are two reasons to suspect that a 3rd person pronominal RC subject should strengthen the S/O asymmetry compared to a local person. Firstly: because the relativized DP is 3rd person, then overlap in person features between the two arguments may generate interference in encoding or retrieval [2]. Secondly: cross-linguistically, many languages obligatorily align grammatical role and person hierarchies (2 > 3 or local > non-local) [4-5]. If this (universal) ranking were weakly respected in English [6], we would expect incremental comprehension to be facilitated by local pronouns in subject position compared to 3rd person pronouns and thus selectively ease the burden of processing an ORC.

We tested our prediction in a self-paced reading study that crossed DP type (Full DP, 2.Pro, 3.Pro) with RC type, as in exx. (a)-(c). Each sentence was followed by a comprehension question (which, for experimental sentences, targeted the RC’s thematic role bindings). Target sentences were introduced by an embedding context to license the appearance of a pronoun. There were 24 experimental item sets, 72 fillers, and (to-date) 41 participants.

a. Full DP The nurse that \( ^{\text{SRC}} \) welcomed the mechanic / \( ^{\text{ORC}} \) the mechanic welcomed _ with a smile \( _{\text{RC}} \) ran a marathon during the month of July.

b. 2.Pro The nurse that \( ^{\text{SRC}} \) welcomed you / \( ^{\text{ORC}} \) you welcomed _ …

c. 3.Pro The nurse that \( ^{\text{SRC}} \) welcomed him / \( ^{\text{ORC}} \) he welcomed _ …

Embedding context: “Your friend John tells you that …”

On reading times at the RC verb, we found a significant interaction between RC type and gap type, such that ORCs were read more slowly than SRCS in the Full DP condition. Replicating [1-3], we found no significant S/O asymmetry in either 2.Pro or 3.Pro conditions. And crucially there was no difference between 2.Pro and 3.Pro (t=1.5). In comprehension accuracy, we observe the same S/O asymmetry for Full DP only (t=-2.6), though accuracy was higher in the pronoun conditions (t=-3.01) and there was a main effect of 2.Pro compared to 3.Pro (t=-3.0). Numerically, 3.Pro ORCs were slightly easier.

By hypothesis, we expected that the 2 > 3 hierarchy would cause the S/O asymmetry to be reduced more with 2nd person pronouns compared to 3rd person pronouns, and this prediction was not borne out in either measure. This suggests that the S/O asymmetry found in previous studies is conditioned by the surface form of the DP. In comprehension accuracy, we even observed a numerical preference for ORCs for 3rd person, which supports [3]’s claim that case ambiguity is an important factor in RC comprehension. We also found that overall accuracy is higher for 2nd person pronouns compared to 3rd person pronouns, which suggests that grammatical person affects retrieval of DPs in memory.