

Agreement marking can benefit child learners

Shira Tal, Kenny Smith, Jennifer Culbertson
 University of Edinburgh, Edinburgh, United Kingdom

Abstract

Agreement, i.e., systematic covariance between elements (e.g., *-s* and singular *(s)he in ‘(s)he writes’*), is present in many languages, despite being a source of redundant complexity (Corbett, 2006; Leufkens, 2020), and being notoriously difficult for adult language learners (Clahsen et al., 2010; Ellis, 2022). Importantly, previous work suggests that the ubiquity of complex morphological features like agreement might be due to a functional advantage for *child learners* (Lupyan & Dale, 2010; Tal & Arnon, 2022). Here, we test this using an artificial noun class learning experiment with 56 English-speaking children (mean age 5;11). We compare noun class learning with and without agreement. Noun classes are indicated by distinct noun suffixes (e.g., *po* vs. *fei*), phonological features of nouns (e.g., *mibi* vs. *gata*) and noun semantics (planets vs. aliens, see Table 1). In one condition, when nouns were modified by the numeral two, an agreeing suffix appeared (e.g., *mibipo dupo*), in the other condition the numeral had no suffix (e.g., *mibipo du*). Following exposure, children were presented with familiar and novel singular nouns without their suffixes and were asked to indicate the correct suffixes (e.g., *mibipo* vs. *mibifei*). If agreement benefits learning, then accuracy should be better in the agreement condition, despite the greater complexity. Results reveal that children were better than chance in choosing the correct suffix in both conditions ($p < .001$). There was no significant main effect of condition ($p = .19$), however there was a significant interaction between condition and noun type ($p < .03$): Novel nouns were classified better in the agreement condition compared to the no-agreement condition (see Figure 1). This suggests that agreement can facilitate generalization of a noun class system to novel nouns. Importantly, previous work using a similar paradigm with adult participants showed no facilitative effect of agreement on noun class learning (Tal et al., 2022). Taken together, these results show that while agreement marking may not aid adult learners, it can be facilitative for child learners. These results shed light on mechanisms that differentiate how children and adults learn language, and suggest that the ubiquity of agreement may be driven by its advantage for children.









	No agreement	Agreement		
Class 1	mibipo du	mibipo dupo		
	tibipo du	tibipo dupo		
Class 2	gatafei du	gatafei dufei		
	patafei du	patafei dufei		

Table 1. Example input structure for the two experimental conditions.

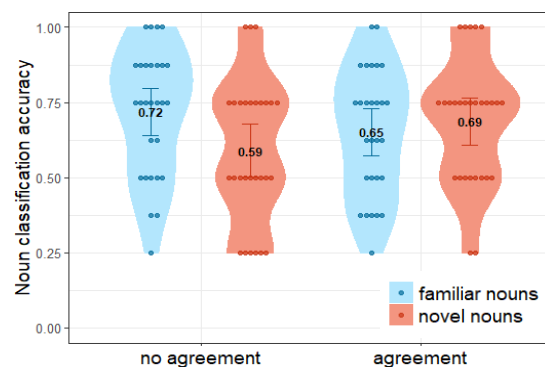


Figure 1. Accuracy scores by language condition and noun type in the noun classification test. Error bars indicate confidence intervals of 95%; individual points indicate by-participant means; numbers represent means.

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