Are words for objects easier to learn than words for actions?

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Young children of various linguistic backgrounds have been shown to exhibit a bias towards nouns over verbs during early language acquisition, particularly in production. For example, in a cross-linguistic study (Bornstein et al., 2004), 20-month-old children of various native languages were found to produce more nouns than verbs. Moreover, in proportion, words for objects constitute a larger part of children's early vocabularies compared to adults and older children's (Bloom, 2002). Attempts to explain this bias have been made, proposing that the conceptual difference between verbs and nouns could be the cause (Gentner, 1982). Indeed, in a semantic perspective, most verbs denote actions or events (activities or changes in state) and most nouns refer to objects or people. Concepts for objects could be argued to be easier to grasp than concepts for actions. Alternatively, the bias might be attentional: humans might be drawn more strongly towards objects, or expect speakers to draw attention to objects and not actions most of the time (Bloom, 2002). It has also been proposed that the bias towards nouns could be explained by the different morphosyntactic properties of verbs and nouns in certain languages (called 'noun-friendly'); however, the noun bias seems quasi-universal at least in certain developmental periods and situations (Labertonière & Skoruppa, 2022).

Most studies on the subject focus on the noun vs. verb part of the problem, but we propose to look at this noun bias in a semantic perspective, with an ecologically oriented setting. In our study, we compare word learning in French-learning infants (13- to 20-month-olds) for novel objects (Condition 1) and novel actions (Condition 2), using a fast-mapping eye-tracking method. We present infants with four blocks of two novel object– or action–pseudoword associations in each condition (see Figures 1 and 2 for examples). In the learning phase, infants see a series of 2 different videos of 2 people either looking at an object (Condition 1) or performing an action (Condition 2) while a voice-over names the object / action 3 times. During the following test phase, the two novel objects or actions appear side-by-side with one pseudo-word in two trials. We compare pre- and post-naming looking times towards the target object in the test phase after 3 and 6 expositions (in order to assess possible subtle learning effects).

In our analysis, we will calculate the mean proportion of target looking (PTL) for each trial in pre- and post-naming phases and average it by subject. If children have learned to associate meaning to form in the learning phase, we expect a naming-effect to manifest as an increase in PTL in the post-naming phase. We expect infants to have a bias towards objects rather than actions; therefore, they should perform better in Condition 1. Twenty-seven subjects have currently been tested and data collection is still on the way. We hope to present analyses (logistic regressions) for at least 30 subjects.
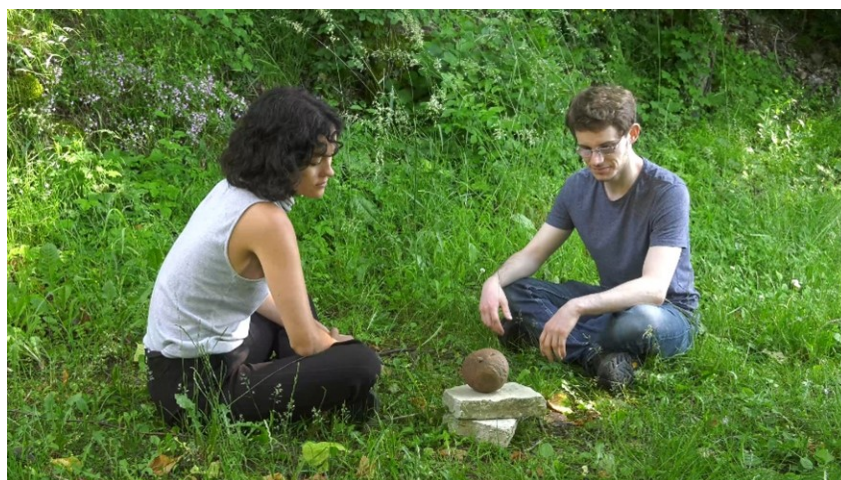

Fig. 1: Still of an 'object' video

Fig. 2: Still of an 'action' video

References

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