A pluralistic account of word learning

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How do language learners come to understand the meaning of words? This is an intriguing question that has given rise to a vast research field [1]. One smaller aspect within this research field is how novel words are mapped onto novel objects. We studied this question in a domestic dog, Rico, who had already learned the names of more than 200 toys. We found that he was able to link a novel word to a novel object on the basis of exclusion [2]. Markman and Abelev have taken a closer look at how Rico’s behavior could be accounted for ([3], this issue). Their main concern is that Rico selected the new toy among the familiar ones because of an inherent novelty preference. They also critically discuss the importance of rewarding Rico after fetching the novel toy. Finally, they note that only experiments that pit reference against associative learning (e.g. [4]) can uncover a true understanding of reference. In the following, we will briefly address these concerns.

Firstly, novelty is indeed the discriminating feature of the ‘novel object’. It remains an empirical issue whether Rico can link a novel word to an unnamed object that he had been familiarized with before. Markman and Abelev suggested using the command ‘fetch’ without specifying the object, to see if Rico would show a preference for the novel object. However, we do not think that this test is conclusive because he might still bring the novel object because, unlike all other familiar objects, it did not have a label. In other words, Rico could solve the problem on the basis of recognizing that all objects have labels except one rather than on the basis of preference for novelty. It is also important to note that Rico was able to control his interest in the novel item as he first brought familiar objects upon request (see online video material; [2]). Therefore novelty alone cannot explain our results.

Secondly, we feel the need to clarify that the name of the novel object was never mentioned at the time when Rico was rewarded with food or play. Importantly, within the setting of the fetching game, a lack of reward would in fact constitute a negative reinforcement. That is, without a reward, Rico might still have learnt that he had brought the ‘wrong’ item.

The final issue concerns the importance of the speaker’s intention for word learning. Clearly, children can use the speaker’s attention to guide their process of word learning. However, this is not a prerequisite for word learning. In Carey’s experiments [5], for example, children selected the ‘chromium tray’ without being able to use the speaker’s attention as a cue. Again, it is an empirical issue whether or not Rico monitors the speaker’s attention to disambiguate which object the speaker refers to. In conclusion, we – like Markman and Abelev – propose a pluralistic account of word learning where some mechanisms are shared among children and language-trained animals, and others are uniquely human.

References

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