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The Effect of Languages on Children’s Use of Action Information

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Introduction

Noun meanings, and particularly the meanings of object names, do not differ much across languages. The verbs of different languages, however, differ dramatically in the meanings they lexicalize. The developmental implications of these have generated considerable controversy. In this paper, we do not speak directly to this controversy, which has been narrowly focused on the relative frequencies of noun and verb types and tokens in the input and in children’s vocabularies. Instead, we ask a subtler question: Do the marked differences among languages in verb meanings have consequences for children’s understanding of nouns? We present evidence on this issue by examining verbs of transfer verbs in English and Japanese and their effect on young children’s attention to object properties and generalization of object names.

Verbs of transfer in English and Japanese are a good starting point for answering the question of how differences in verbs may influence children’s acquisition of nouns. Specifically, the verb “put” in English is used for all sorts of transfer events -- from putting water in the tub, a cup on a table, a ring on a finger, a hat on a head, mail into a slot, and thread through a needle. In contrast, Japanese has a set of more specific transfer verbs. Thus, for water in the tub it is “haru”, for a cup on a table, it is “oku”, for a ring on to a figure it is “hameru”, for a hat on the head, it is “kaburu,” for mail into a slot, it is “sashikomu,” and thread through a needle, it is “toosu.” These verbs in contrast to the more abstract meaning of English “put” focus attention on the objects in the event and on their relation to each other. Here, then, is the question: Do these more specific verbs of transfer in Japanese modulate Japanese children’s interpretation of object names?

Experiments

Prior to the test phase, the child was introduced to test objects with each paired containers and how the each test object fit into or through the container. As shown in Figure 1, one test pair, the same-Fit choice, contained an object and container that matched the exemplar in the fit as described by the Japanese verb. One test pair, the same-Shape choice, contained an object the same shape as the exemplar. However, the fit of this object into the provided container would

not be instance of the Japanese verb “hameru.” The third test pair, the distracter, presented an object and a fit into the provided container that was unlike the exemplar. During the test phase, the child was presented with an exemplar and their respective containers with its appropriate action. For example, the exemplar for a “Hameru” set was demonstrated by a pushing motion how it snapped into the same shaped container, a manner outcome that would be referred to by the Japanese verb “hameru.” Then, children were asked to select one from these three choices. The specific conditions across the three experiments 1 through 3 differed in the verbal descriptions of the events, the verbal requests to make a choice and whether the exemplar had a name or not.

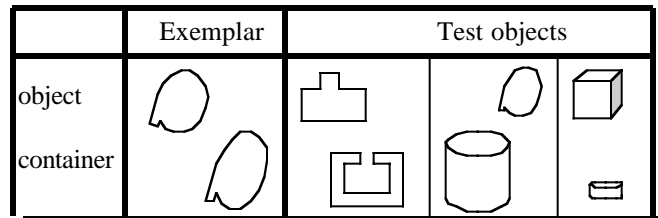


Figure 1. Actual stimuli

Conclusion

This series of experiments suggest that language a child learns emphasize or de-emphasize action information.

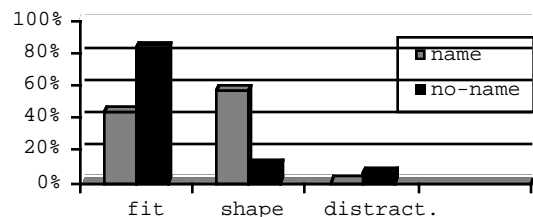


Figure 2. Japanese-speaking children’s performance

As you can see in Figure 2., Japanese-speaking children’s attention to shape of objects increased when they generalize name of the object, and decreased when they generalize object without name. Explicit action information comes to guide the naming of novel objects. However, English speaking-children did not affected by the verbal cues as much as Japanese-speaking children did.