

Do bilinguals lag behind monolingual children in semantic development? Evidence from a narrative task

Bilingual children often score lower on vocabulary tests than monolinguals of both languages (Bialystok, Luk, Peets, & Yang, 2010). Perhaps in part because of lower vocabularies, during the middle childhood, bilingual children show delay in semantic development, notably in the shift from schematic to categorical responses (once called the paradigmatic-syntagmatic shift; Yan & Nicoladis, 2009). Schematic responses are based on associations between the target word and words for objects in the world (Perraudin & Mounoud, 2009). For example, for a target word “dog”, a child might say “bone”. Categorical responses take into account the taxonomic relation between words (Perraudin & Mounoud, 2009). For example, a child might say “cat” or “animal” for the target “dog”. This shift between schematic and categorical organization of words in the mental lexicon is expected to take place around 7-8 years of age (Danovitch & Keil, 2004; Perraudin & Mounoud, 2009). Around that age, bilinguals give more schematic responses than monolinguals, consistent with a delay in semantic development (Yan & Nicoladis, 2009).

Studies showing a bilingual delay in semantic development have relied on single word access tasks, like picture naming (Yan & Nicoladis, 2009). The objective of this study is to investigate whether bilinguals will show the same lag in semantic development relative to monolinguals in the context of telling a narrative. In telling a story, adults often use basic-level words, unless they wish to make a rhetorical point. However, if storytellers do not know the target words, they could simply leave out reference to events or objects. Alternatively, they could use compensatory strategies, such as a lot of categorical responses (like “animal” for a dog), light verbs (e.g., “go” instead of “run”), or descriptions of the target.

We conducted 3 studies in which the participants were invited to watch a Pink Panther cartoon and retell the story. We identified 12 target words that were important in telling the story (6 verbs and 6 nouns) and we coded participants’ lexicalization of these words as: target words, categorical responses for nouns (use of superordinate or taxonomic related word, e.g., “cat” for the target “Panther”), light verbs (use of more general meaning verbs, e.g., “puts” for the target “throws”) and creative responses (use of descriptions, e.g., “that little bird that leaves inside a clock and sings” for the target “cuckoo clock”). In Study 1 we compared younger (3-5 year olds) and older (8-10 years old) English monolingual children in order to characterize what would be a delay. Younger children tended to do not lexicalize the unknown target words, that is, to avoid them. In Study 2 we compared English second language learners adults to English monolingual children (8-10 years olds). In this case, the adults did try to lexicalize the target words, using compensatory strategies such as creative responses. Finally, in Study 3, we compared French-English bilingual children to English and French monolinguals, all of the same age range (7-8 years). The bilinguals did produce fewer target responses than the monolinguals. However, their lexical choices when not producing the target word resembled the adults in Study 2 more than the younger children in Study 1. That is, the bilingual children tended to produce more categorical responses for nouns and more light verbs than monolinguals, consistent with more advanced semantic development than monolinguals. That is, these findings contradict previous findings with single word tasks.

In the context of a narrative task, bilingual children can use compensatory strategies when accessing an unknown word in their mental lexicon, and do not appear to lag behind monolinguals in the shift from schematic related responses to categorical ones.

References

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