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The use of strategies for learning words by populations with language delays

Toddlers learn words with amazing speed, adding as many as nine words to their vocabularies every day. Normally developing children can infer meanings of new nouns they hear in sentences by using the verb meaning (Goodman, McDonough, and Brown, 1998) and remember those meanings a day later. For example, upon hearing, “Mommy feeds the ferret,” children know “ferret” must be something that can eat because the verb “feeds” can only apply to animate objects. It is unclear whether children’s ability to do this depends on mechanisms specific to language (Chomsky, 1991) or general cognitive mechanisms (MacWhinney, 1987). One way to test this is to assess language-disordered populations that do or do not involve mental impairment. If this ability depends on cognition, language disordered populations with mental impairment will not be able to complete this task, while language disordered populations without mental impairment will be able to complete the task. We are conducting a study to compare children with specific language impairment (language deficits in the absence of mental impairment), Down syndrome (mental impairment that causes language delays), and autism (severe language delays with varying degrees of mental impairment) on word learning performance. We will present novel nouns in a sentence with a constraining verb (e.g., “Mommy feeds the ferret”) and ask children to choose a picture corresponding to the novel noun from a set of four novel object pictures. Two days later, we will present the novel nouns without the constraining verb to the children (e.g., Show me the ferret), and ask them to choose the picture from a new set of four. We will present preliminary data from this task. The results of this study will contribute to our understanding of the mechanisms involved in word learning and to the nature of language disorders in different populations.