Adults and children fast-map novel connections between words.

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Abstract: Adults and children rapidly capitalize upon relationships between agents and actions to generate expectancies for upcoming language, yet relatively little is understood how this knowledge is acquired and initially used. We explore this question in children (aged 3-10) and adults by measuring the degree to which sentences depicting recently learned connections between agent, actions and objects lead to anticipatory eye-movements to the objects. Participants first heard stories accompanied by pictures portraying two agents (e.g. dog, monkey), two actions (e.g. eating, riding) and four objects (e.g., candy, bus, apple, car). Next we measured eye-movements to the objects of these novel relationships while participants heard sentences like "The monkey rides the bus." Combinatory information about the agent and action yielded anticipatory eye-movements to the target objects in both adults and children. Our findings suggest that adults and children can "fast-map" agent-action-object relationships and rapidly activate this knowledge in subsequent language processing.