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# How a white dog becomes a cloud: developmental and computational investigation of metaphor production skills in preschoolers

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## Abstract

Traditionally research on figurative language acquisition focused on comprehension, neglecting metaphor production. This study addressed this gap and investigated metaphor production ability and its cognitive correlates in preschoolers, combining cross-sectional and computational approaches. Metaphor production skills were assessed asking children to produce metaphors given literal prompts. Produced metaphors were analyzed using semantic distance analysis. Results showed an improvement in production at the age of 6, supported by Theory of Mind. A main effect of vocabulary was observed. Moreover, 6-years-old children use words more semantically distant from the literal prompt and vehicles more semantically distant from the topic for their metaphors.

**Keywords:** Metaphor production, Language development, Semantic distance

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