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Modeling the Development of Theory of Mind

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Abstract: Recently, there have been two process-based computational cognitive models of theory of mind (ToM) (Hiatt & Trafton, 2010; Arslan, Taatgen, & Verbrugge, 2013). Ours (Hiatt & Trafton, 2010) models the development of ToM cognitive mechanisms, such as simulation, and focuses on first-order false belief tasks; the other (Arslan et al., 2013) learns to perform ToM using the activation of declarative strategy chunks, and answers second-order false belief tasks.

Arslan et al. suggest several advantages of their model over existing models. Here, we address several of those comments and show that our model can perform second-order false belief tasks.