A theory of causal learning in children: Causal maps and Bayes nets

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Abstract

We propose that children employ specialized cognitive systems that allow them to recover an accurate " causal map " of the world: an abstract, coherent, learned representation of the causal relations among events. This kind of knowledge can be perspicuously understood in terms of the formalism of directed graphical causal models, or " Bayes nets ". Children ' s causal learning and inference may involve computations similar to those for learning causal Bayes nets and for predicting with them. Experimental results suggest that 2- to 4-year-old children construct new causal maps and that their learning is consistent with the Bayes net formalism.

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