

Arguments against Innateness of Theory of Mind

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Abstract : The nativist-constructivist debate constitutes a considerable part of current research on mindreading. Peter Carruthers and his colleagues are known for their nativist position in the debate and take issue with constructivist views proposed by other researchers, with Henry Wellman, Alison Gopnik, and Ian Apperly at the forefront. More specifically, Carruthers together with Evan Westra propose a nativistic explanation of Theory of Mind Scale study results that Wellman et al. see as supporting constructivism. While allowing for development of the innate mindreading system, Westra and Carruthers base their argumentation essentially on a competence-performance gap, claiming that cross-cultural differences in Theory of Mind Scale progression as well as discrepancies between infants' and toddlers' results on verbal and non-verbal false-belief tasks are fully explainable in terms of acquisition of other, pragmatic, cognitive developments, which are said to allow for an expression of the innately present Theory of Mind understanding. The goal of the present paper is to bring together arguments against the view offered by Westra and Carruthers. It will be shown that even though Carruthers et al.'s interpretation has not been directly controlled for in Wellman et al.'s experiments, there are serious reasons to dismiss such nativistic views which Carruthers et al. advance. The present paper discusses the following issues that undermine Carruthers et al.'s nativistic conception: (1) The concept of innateness is argued to be developmentally inaccurate; it has been dropped in many biological sciences altogether and many developmental psychologists advocate for doing the same in cognitive psychology. Reality of development is a complex interaction of changing elements that is belied by the simplistic notion of 'the innate.' (2) The purported innate mindreading conceptual system posited by Carruthers ascribes adult-like understanding to infants, ignoring the difference between first- and second-order understanding, between what can be called 'presentation' and 'representation.' (3) Advances in neurobiology speak strongly against any inborn conceptual knowledge; neocortex, where conceptual knowledge finds its correlates, is said to be largely equipotential at birth. (4) Carruthers et al.'s interpretations are excessively charitable; they extend results of studies done with 15-month-olds to conclusions about innateness, whereas in reality at that age there has been plenty of time for construction of the skill. (5) Looking-time experiment paradigm used in non-verbal false belief tasks that provide the main support for Carruthers' argumentation has been criticized on methodological grounds. In the light of the presented arguments, nativism in theory of mind research is concluded to be an untenable position.

Keywords : development, false belief, mindreading, nativism, theory of mind

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