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Core knowledge of objects, space and number: the use of the domestic chick as a model

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ABSTRACT OF THE TALK

Studies on human infants, focused on the ontogenetic origins of knowledge, provided evidence for a small set of separable systems of core knowledge dealing with the representation of objects, number and space. We investigated core knowledge systems in comparative perspective, making use of the domestic chick as a model system and filial imprinting as a key to animal mind. We discuss evidence showing precocious abilities in the chick to represent (i) animate objects on the basis of their motion and face-like characteristics; (ii) the cardinal and ordinal/sequential aspects of numerical cognition and (iii) the distance, angle, and sense relations among extended surfaces in the surrounding layout. Some of the abilities associated with core knowledge systems of objects, number and space were observed in the absence (or with very reduced) experience.