

MIRROR NEURONS. IN SEARCH OF A THEORY

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Abstract. *The goal of the present article is to outline the limits of the mirror neuron theory as an unifying explanatory model of social cognition. In order to achieve this, several tasks are set. The first task concerns the basic experiments and classifying principles used for functionally distinguishing between mirror neurons and other cells in the examined brain areas. The second task is related to reconstructing the traditional interpretation known as “direct-matching hypothesis“. The third task is to analyse the relevant empirical data and to explicate several problems of the direct-matching hypothesis: (a) the problem of transformational qualities of mirror neurons, (b) the problem with broadly congruent mirror neurons’ generalizing functions and (c) the problem of causal relation between ‘mirroring’ and specific kinds of social behaviour. The paper ends with an attempt for a theoretical solution of the presented problems, and a suggestion to describe mirror neurons as evolutionary by-products.*

Keywords: mirror neurons, direct-matching hypothesis, mirroring, by-products

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