
MIRROR NEURONS AND EMPATHY: PROPOSAL OF A NOVEL PARADIGM FOR HYPNOSIS

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ABSTRACT

Mirror neurons are becoming topical and their relevance for clinical hypnosis is immense. The gap between empirical certainty and biological evidence is narrowing and new perspectives are opening up for the understanding of man and thought.

This paper seeks to explore the relationship between mirror neurons, empathy, and hypnosis, and accordingly propose a novel paradigm for hypnosis, starting from the analysis and commentary of the relevant literature from Medline, PubMed, and Embase databases as well as from monographs and expert opinion.

The mirror system appears to unite a wide array of phenomena within the same neuronal system, ranging from elementary behaviour such as facilitating responses to higher cognitive functions, imitative learning and action, and language understanding. Mirror neurons can help us to understand the neuronal basis of empathy and bridge the gap between the sciences of biology, psychology, philosophy, sociology, educational theory, and anthropology.

The discovery of mirror neurons provides strong evidence in favour of long-recognized concepts of modern clinical hypnosis regarding the significance of the therapeutic relationship. The mirror neuron system paradigm gives us the opportunity to fully reappraise a more anthropologically correct form of medicine based on human agents before technical agencies. These studies represent an opportunity for practitioners of hypnosis to reflect on a novel paradigm, which may be more unifying than previous ones, on the basis of the natural functions of the human being.

Key words: mirror neurons; empathy; hypnosis; imitation; learning; therapeutic relationship.

INTRODUCTION

The earliest studies in support of the existence of a mirror system in humans can be considered those of Gastaut and Bert in the first half of the 1950s, which analyzed electroencephalographic changes occurring during the projection of a film (Gastaut & Bert, 1954). Their results were confirmed towards the end of the 1990s by Cochin who studied the perception of motion through the spectral analysis of electroencephalograms (Cochin et al., 1998). However, the neurophysiological research which led to the identification of mirror neurons was carried out in the 1990s, following an almost serendipitous observation of macaques by Rizzolatti and co-workers. While recording the activity of individual neurons in the premotor macaque cortex, the researchers observed that many cells in this area fired