

# Mirror Cognition

## Perception, Reasoning, Perspective and ... Art

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Mirrors are familiar objects in our environment, we use mirrors effectively, and we recognise ourselves without effort. Yet many simple aspects of mirror reflections are surprising for a large number of children and adults. This difficulty in understanding how mirrors work leads to prediction errors. We can identify two types of errors. The first type relates to questions of what can be seen from where. This issue is linked with the role of the viewpoint in perception and in memory. It is the explanation for the Venus effect ([en.wikipedia.org/wiki/Venus\\_effect](http://en.wikipedia.org/wiki/Venus_effect)). The second type relates to information on the surface of the mirror itself. This issue relates to size constancy, distance perception and the nature of the distal stimulus. In this respect mirrors are transparent surfaces akin to windows. The nature of these two types of errors is different, but also linked. I will illustrate both of them with a series of studies and in relation to some works of art in which mirrors are present. Indeed, artists across the centuries have taken advantage of certain aspects of mirror cognition. In addition, I will illustrate the difficulty in detecting mirror reversals using two famous films by Kurosawa, to test whether mirror reversal affects how we experience a story. Mirrors remain unique tools to explore many aspects of human perception and cognition.