

**The enchanting role of belongingness in the Mona Lisa's  
ambiguous expression [abstract only]**

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## **The enchanting role of belongingness in the Mona Lisa's ambiguous expression**

This presentation shows the advantages of integrating neurophysiology (the study of the nervous system) with phenomenology (the study of subjective experience) to gain a more comprehensive understanding of perceptual phenomena. In fact, by combining neurophysiology with phenomenology, we can gain a more holistic view of how we process and interpret perceptual phenomena. This is illustrated by the paradigmatic example of the Mona Lisa effect. This effect is defined as the condition under which the perceived level of contentment of the portrayed figure changes with viewing distance. In fact, from a distance, the Mona Lisa appears more content than from a close-up. Previous research on this effect focused solely on neurophysiological mechanisms, overlooking the role of subjective experience. Two experiments were conducted using the method of “percept-percept coupling”, in which all variables are measured at the perceptual level. The perceptual belongingness principles (the functional relations between parts of the stimuli that determine what appears as a unitary object) were manipulated, and their impact on the perceived expression of the Mona was measured. In particular, the perceptual belongingness of the shadow contiguous to the mouth was manipulated by an artist on digital copies of the masterpiece. These copies were then printed, and observers had to rate the perceived level of contentment from different distances.

The results showed that the perceived change in contentment vanishes when the good continuation between the mouth and the contiguous shadow is broken by a clearly visible line; and that the effect reverses (i.e., the Mona Lisa less, not more, content from afar) when the shadow is artistically moved from above to below the corners of the mouth.

By highlighting the importance of configurational patterns, it is concluded that complementing neurophysiology with phenomenology is the key to a thorough understanding of complex perceptual phenomena such as ambiguous expressions.