

BIOGRAPHY

Salvador Soto

Salvador Soto was born in Vilassar de Dalt in 1970. He obtained his B.A in Psychology from the Universitat de Barcelona in 1994 and his PhD in Cognitive Science from the same university in 1999. He is interested in the multisensory processes that underlie perception across several domains of perception, including motion, localization, timing, speech, or body representation.

PROJECT

European Research Council Starting Grant

Project acronym: MIA

Project full title: Multisensory Integration and Attention

Overview

Objective: the world around us is immensely rich in sensory information, which we perceive through a varied range of different sensory systems (enabling us to feel, hear, and see). Yet, our perceptual experience is not a sensory piecemeal, but a unitary phenomenon brought about by Multisensory Integration mechanisms. MSI is in charge of binding sensory input to create faithful and coherent representations of the environment, an ability that confers important advantages in terms of optimizing behavioural outcomes. For example, people often find it easier to speak with someone when they can see their partner's face, as lip and facial movements compensate for acoustic noise. The novelty of the project is that it focuses on internal processes, and in particular attention, to be of utmost importance during MSI. Attention enables efficient allocation of limited cognitive and neural resources, and therefore it plays a paramount role in perception, cognition and action. The aim is to understand the interplay between attention and the mechanisms of multisensory integration.

Unravelling this interplay presents important challenges but, in return, promises to provide very important insights into how perception is accomplished by the human mind and brain. In particular, the driving hypothesis underlying the present proposal is that objects of perception are multi-sensory defined events, and that attention plays a key role in building up and maintaining these perceptual representations. The strategy is to address this dynamic interplay between MSI and Attention by addressing a set of key specific research questions by means of converging methodological approaches. I propose to undertake this task with the help of a multidisciplinary team of researchers of different backgrounds, and a set of research methods including a behavioural approach (psychophysics in healthy adult humans, developmental studies and neuropsychology) combined with selective use of brain imaging.