

1. Record Nr.	UNINA9910227349003321
Autore	Jess Hartcher-O'Brien
Titolo	A Matter of Bottom-Up or Top-Down Processes: The Role of Attention in Multisensory Integration
Pubbl/distr/stampa	Frontiers Media SA, 2017
Descrizione fisica	1 electronic resource (139 p.)
Collana	Frontiers Research Topics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The integration of information from various sensory modalities influences behaviour. It can induce behavioural benefits such as faster reaction times and enhanced detection of noisy signals but may also produce illusions, all of which have been characterized by specific neuronal signatures. Yet, while these effects of multisensory integration are largely accepted, the role of attention in this process is still the object of intense debate. On the one hand, it has been suggested that attention may guide multisensory integration in a top-down fashion by selection of specific inputs to be integrated out of the plethora of information in our environment. On the other hand, there is evidence that integration could occur in a bottom-up manner, based on temporal and spatial correlations, and outside the focus of attention. An extreme example is the multisensory enhancement of neural responses in anaesthetised animals. Attention itself is not a unitary construct, and may refer to a range of different selection mechanisms. Therefore, the interplay between attention and multisensory integration can take many forms which explain, in part, the diversity of findings and the disputes in the literature. The goal of this Research Topic is to help clarify the picture by trying to answer the following questions from various perspectives: Under which circumstances does multisensory integration take place without attention?, and, When does attention determine the fate of multisensory integration?</p>

