1. Record Nr. UNINA9910136407803321

Autore	Nicolas Rothen
Titolo	Developing synaesthesia [[electronic resource] /] / edited by Nicolas Rothen, Julia Simner, Beat Meier
Pubbl/distr/stampa	Frontiers Media SA, 2015 [Lausanne, Switzerland] : , : Frontiers Media SA, , 2015
Descrizione fisica	1 online resource (173 pages) : illustrations; digital, PDF file(s)
Collana	Frontiers Research Topics Frontiers in Human Neuroscience
Disciplina	152.1/89
Soggetti	Synesthesia Phenomenology - Psychology Neuropsychiatry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	Synaesthesia is a condition in which a stimulus elicits an additional subjective experience. For example, the letter E printed in black (the inducer) may trigger an additional colour experience as a concurrent (e. g., blue). Synaesthesia tends to run in families and thus, a genetic component is likely. However, given that the stimuli that typically induce synaesthesia are cultural artefacts, a learning component must also be involved. Moreover, there is evidence that synaesthetic experiences not only activate brain areas typically involved in processing sensory input of the concurrent modality; synaesthesia seems to cause a structural reorganization of the brain. Attempts to train non-synaesthetes with synaesthetic associations have been successful in mimicking certain behavioural aspects and posthypnotic induction of synaesthetic experiences in non-synaesthetes has even led to the according phenomenological reports. These latter findings suggest that structural brain reorganization ‡a may not be a critical precondition, but rather a consequence of the sustained coupling of inducers and concurrents. Interestingly, synaesthetes seem to be able to easily transfer synaesthetic experiences to novel stimuli. Beyond

this, certain drugs (e.g., LSD) can lead to synaesthesia-like experiences and may provide additional insights into the neurobiological basis of the condition. Furthermore, brain damage can both lead to a sudden presence of synaesthetic experiences in previously non-synaesthetic individuals and a sudden absence of synaesthesia in previously synaesthetic individuals. Moreover, enduring sensory substitution has been effective in inducing a kind of acquired synaesthesia. Besides informing us about the cognitive mechanisms of synaesthesia, synaesthesia research is relevant for more general questions, for example about consciousness such as the binding problem, about crossmodal correspondences and about how individual differences in perceiving and experiencing the wo ‡a rld develop. Hence the aim of the current Research Topic is to provide novel insights into the development of synaesthesia both in its genuine and acquired form. We welcome novel experimental work and theoretical contributions (e.g., review and opinion articles) focussing on factors such as brain maturation, learning, training, hypnosis, drugs, sensory substitution and brain damage and their relation to the development of any form of synaesthesia.