

DISTINGUISHED LECTURE SERIES

Thursday,
8th June 2017

17:00 - 18:30

Campus Biotech
Room 144.165
9, chemin des Mines
Geneva

The Epigenesis of Fear in Human Infants

Prof. Joseph Campos

(University of California)

This presentation is a tribute to Jean Piaget and the University of Geneva. It is simultaneously an opportunity to share findings sharply challenging some evolutionary psychological approaches to emotional development. The tribute to Piaget stems from the strong confirmation of the importance of motoric activity for psychological development. The challenge to certain evolutionary approaches is as follows:

The fear of heights is a lifespan phenomenon, one of the strongest fears in the human being, often thought to be innate. Innateness is inferred from its obvious biological adaptive value when such fear prevents falls that can kill or maim or otherwise prevent reproduction of a person's genes. The fact of the matter is that the fear of heights is distinctly not innate. Rather it results from experience with locomotion. Neither is the fear of heights mediated by the development of depth perception. These foundational facts will be illustrated in the talk which will then center on precisely what is the organizer or cause of the developmental shift from little or no fear of heights to the strong enduring fear evident after six weeks of locomotor experience. The mediating variable will be a little-known phenomenon called visual proprioception (VP). VP, defined as postural compensation produced by optic flow, such as in the periphery of the visual field, will be demonstrated in the talk. VP itself is facilitated by locomotor experience in the infant, and then goes on to coordinate with the perception of drop offs or large expansions of space to create the emotion of fear or its weaker version, awe. The causal role of locomotor experience on VP and fear of heights will be demonstrated in a true randomized control trial involving entirely pre-locomotor infants who are given powered go-carts to voluntarily control their movement or (in a control condition not given a go-cart). Pre-locomotor infants given active control of the go-cart show precocious VP and wariness of heights. Furthermore, the stronger the VP the more powerful the fear of heights. Thus, motoric activity proves a crucial determinant of the wariness of heights. Numerous film clips will illustrate for the audience the central ideas for this presentation ■

Swiss Doctoral School in Affective Sciences

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