

The Academy of Science of South Africa (ASSAf)  
and the Embassy of Switzerland in South Africa,  
jointly with the UCT Neuroscience Institute,  
cordially invite you to a public lecture on

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### Being human – Where Neuroscience Meets Culture

Professor Stephanie Clarke,  
Head of Neuropsychology and Neurorehabilitation, CHUV – University of Lausanne

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**Date:** Monday, 27 August 2018  
**Time:** 17:00 – 19:00 (followed by light refreshments)  
**Venue:** Wolfson Pavilion Lecture Theatre  
Institute of Infectious Disease & Molecular Medicine  
Faculty of Health Sciences  
Anzio Rd, Observatory  
Parking <https://goo.gl/maps/D9y5a8oR2r42> or GPS 33° 56'38.5"S 18° 27'57.9"E  
**RSVP:** Please [click here](#) to confirm your attendance by 24 August 2018

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Highly evolved cognition differentiates us from non-human species. It relies on complex neural networks, which are fine-tuned throughout life by exposure to specific stimuli, focused training or other interventions. Culture, defined here as integrated pattern of knowledge, belief and behaviour, shapes cognitive processes and in particular language, theory of mind and expert knowledge. Language is believed by some to be the foundation of abstract thought or by others to represent means of communication; it depends critically on a left hemispheric network. Creative aspects of language, such as poetry, draw in additional brain regions. Non-human primates use a system of vocalizations, which conveys simple contents; the underlying networks bear similarities with human language networks but they remain relatively rudimentary. Theory of mind describes cognitive processes, which allow us to have a representation of our beliefs, knowledge, intents and emotions and of those of others. It involves complex neural networks centred on prefrontal and temporal cortices as well as on the temporo-parietal junction and the precuneus. These same regions play also a role in different aspects of spiritual and religious life and are modulated by regular practice. Expert knowledge is encoded both in sensory-specific and in supramodal representations, as illustrated by face recognition or skills in cardiac auscultation. Expertise, which we acquire within a field, shapes the corresponding sensory perception and recognition. Thus, human identity is constituted by the interplay of cognitive functions and culture. The latter provides external representations and transmits knowledge, beliefs and codes of behaviour between individuals, generations and populations

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### ABOUT PROFESSOR STEPHANIE CLARKE



Stephanie Clarke is Professor and Head of the Neuropsychology and Neurorehabilitation Clinic at the University Hospital, Lausanne, Switzerland. The Clinic provides neurorehabilitation to in- and outpatients in postacute and chronic stages of brain lesions, with particular emphasis to neuropsychological rehabilitation and speech therapy. With her group Stephanie Clarke carries out research projects that combine investigations of cognitive functions and of the functional organization of the human cerebral cortex, with particular interest in the organisation and plasticity of the human auditory cortex.

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### PROGRAMME

**Facilitator:** Prof Graham Fieggen, Neuroscience Institute, UCT

16:30 Arrival and Registration  
17:00 Welcome and Introduction – Ms Jacqueline Friedenthal, Embassy of Switzerland  
17:05 Lecture – Professor Stephanie Clarke  
17:50 Questions and Discussions  
18:20 Closure and Word of Thanks – Dr Siyavuya Bulani, ASSAf  
18:25 Refreshments and Networking