

Seminar IRH-ICUB

Consciousness and Cognition: An Interdisciplinary Approach

<https://irhunibuc.wordpress.com/2016/04/05/new-seminar-consciousness-in-philosophy-and-neuroscience/convenor>

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Date: Tuesday, 8 November 2016, 17h

Place: IRH-ICUB (D. Brandza 1), conference room

Laura Craciun, MD

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Laura Craciun, MD is a specialist in neurology at the Colentina Hospital in Bucharest. She graduated the Medicine and Pharmacy University in Bucharest in 2010 and then she started her residency stage under the supervision of Dr. Ioana Mindruta at the University Emergency Hospital in Bucharest. She is interested in neurophysiology and in its applications in epileptology. She has been undergoing several training sessions in scalp and intracranial EEG in specialised centres in Copenhagen, Paris and Rennes. During her residency, she continued her activity in neurophysiology and then started working as a specialised doctor at the Colentina Hospital in Bucharest. In 2016, Laura Craciun also started her PhD studies in Neuroethics at the Faculty of Philosophy of the University of Bucharest, under the supervision of Prof. Valentin Muresan.

Moral Decision in Neurological Ailments

Progresses lately made by neuroscience fostered a more profound understanding of the mode in which our brain works and a change of perspective regarding the essence of the human being. Due to the scientifically proved intimate relationship between the brain and the mind, the Cartesian dualism of *res extensa* and *res cogitans* (matter and thought) seems to have lost all scientific foundation.

Morality is considered one of the most complex aspects of judgment, behaviour and human mind in general, some authors considering it to be innate (Mendez, 2009) and a decisive factor of the good functioning of any society. Thus, the last years witnessed a growing interest both in the cognitive and emotional processes involved in moral judgment and in the anatomic and physiological foundation of moral behaviour.

Recent studies demonstrate the existence of a 'network of morality' at the cerebral level, which includes both cortical and subcortical areas. Since morality is a complex process, these structures seem also to be involved in emotions, the theory of mind, empathy, disgust, etc. (Fumagalli & Priori, 2012; Greene, Nystrom, Engell, Darley, & Cohen, 2004).

Among the anatomic structures involved are : the frontal, temporal and cingulate cortex. The first regulates the activity of the subcortical emotional centres and the moral decision planning. The second is involved in the 'theory of mind' and lesions here may induce psychopathic behaviour. The third mediates the conflict between emotional and rational aspects in moral judgment. Other important structures in moral judgment are : the amygdala, the hippocampus and the basal nuclei.

A change in moral behaviour can appear both in functional and structural anomalies of these areas. The present lecture will exemplify and compare the modes in which diverse neurological pathologies can affect social behaviour and, implicitly, moral judgment.