



Call for Applications

International Interdisciplinary Summer School: “The Neurobiology of Moral Conscience”

with Patricia Churchland

June 4th – June 8th, 2018

Topic

In 1975 Edward O. Wilson proclaimed that “the time has come for ethics to be removed temporarily from the hands of philosophers and biologized.” He may be gratified to see that in the last fifteen years, there has been a wave of publications that focus on a science of morality. Although Wilson’s was a minority position back then, it is now more widely acknowledged that morality and ethics have indeed migrated from the philosopher’s armchair to the lab of neuroscientists, geneticists, experimental psychologists, and the studies of ethologists. These sciences have helped to clarify mechanisms for learning, decision-making, and self, as well as for social attachment and the motivation to care for others. As a result, today’s humanists try to integrate neuropsychological results into their own research. Thus, we see the rise of a new synthesized science of morality.

Using this approach, this year’s Unselde Lecturer Professor Dr. Patricia Churchland is convinced that recent developments in the biological sciences teach us a lot about the nature and origin of human morality. Although these sciences may not tell the complete story of human morality, Churchland argues that

mammalian morality emerged in the context of attachment between mammalian mothers and highly dependent infants. This new circuitry was an evolutionary response to three interlocking developments: warm-bloodedness, the emergence of the neocortex, and the resulting need for a high calorie intake. For some species, such as vervet monkeys, wolves, and humans, social cohesion within a group most likely has secured a better chance for that group’s survival. Churchland thus suggests that morality is rooted in social attachment mechanisms like care, trust, and cooperation and that understanding the processes which promote sociability and cooperation leads to a better idea of what grounds morality. Her aim is to characterize a neural platform for mammalian sociability which in the end has been a necessary condition to develop moral behaviour and cultural institutions such as a criminal justice system. In this sense, the anchors of morality are the neural structures that mediate attachment and trust.

At the centre of her argument is the role of the hormones oxytocin and arginine vasopressin which are crucial in promoting attachment and social bonds. According to Churchland the key

step towards morality-enabling mechanisms is to be found in the fact that mammalian brains evolved to adapt oxytocin to the job of caring for offspring and family members. In a next evolutionary step an expansion of neural structures led to an extension of care beyond the kin circle to broader social groups, for some species. In a last step out of these structures morality eventually did originate, and given the very large human brain, morality even adopted flexible and intelligent facets. She concludes that morality is a four-dimensional scheme for social behaviour that is made by interrelated brain processes: Caring, recognition for others' psychological states, problem-solving in a social context, and learning of social practices.

With her approach Churchland may, however, not be offering the whole story of the rise of human moral values. Churchland obviously follows a reductionist strategy. She tries to understand psychological capacities in terms of neurobiological mechanisms. For her, phenomena of the human mind are in fact phenomena of the human brain whose physical mechanisms can be understood by science. This view predicts that some ordinary psychological categories may be modified (as for example, "memory" has) or eliminated (as for example, "nervous breakdown" has) depending on what is discovered by neurobiology. An example taken from a very different field may help to clarify this shift from ordinary to scientific language: Since rapid oxidation is the "real underlying nature of fire", fire can best be understood in the language of chemistry. However, by this we risk to forfeit other dimensions of the phenomenon of fire, in particular its meaning in a social context. In the same way, reducing high level psychological properties to the language of neurobiology may just not meet the plural meanings of moral behaviour.

Professor Churchland will take up these discussions in three sessions:

1. The hormonal trigger of social motivation.
2. The neurobiology of acquiring norms and values.
3. Conclusion: conscience from a neurobiological perspective.

Additionally, participants will have the opportunity to present their own work taking up some of Churchland's ideas.

Patricia Smith Churchland, born 1943, is a Canadian-American professor emerita of philosophy at the University of California, San Diego, and an adjunct professor at the Salk Institute for Biological Studies. She is a member of the Board of Trustees Moscow Center for Consciousness Studies of Philosophy Department, Moscow State University. In 2015, she was elected a Fellow of the American Academy of Arts & Sciences. She won a MacArthur Prize, and the Rossi Prize in Neuroscience. Her research focuses on the interface between neuroscience and philosophy. She explores the impact of scientific developments on our understanding of consciousness, the self, free will, decision making, ethics, learning, and religion. Her current work focuses on morality and the social brain.

Program

The interdisciplinary summer school will take place at the Forum Scientiarum of Tübingen University, from June 4th – June 8th 2018. During the summer school, twenty graduate students and junior scientists from all over the world will have the opportunity to discourse morality from a neurobiological perspective with this year's Unselde lecturer Patricia Churchland. In addition, up to twelve participants will be selected to present their own research related to Churchland's work during the summer school. The participants will also attend the Unselde Lecture held by Patricia Churchland and an interdisciplinary colloquium, both open to the public.

Application procedure

To apply for the international summer school, applicants have to send in a completed application form downloadable from our website (www.unseld-lectures.de/cfa), including a **CV** according to usual standards. Additionally, each applicant is required to submit an **essay** of up to **5000 characters**. This essay should delineate your specific motivations and qualifications for the summer school's topic - and a short abstract of your presentation, if you like to present your work during the summer school. Deadline for the receipt of complete applications (application form, CV, essay) is **March 15th, 2018**. A letter of admission will reach successful applicants by April 15th.

There is no program fee. The Forum Scientiarum seeks to facilitate the participation of competent students from all over the world, and as the Forum Scientiarum is provided a limited fund by the Udo Keller Foundation Forum Humanum for covering part of travel expenses, limited financial resources should not affect your decision to apply. Moreover, the Forum Scientiarum will assist participants in finding inexpensive accommodation. For more information please see the application form on our website.

Applications should be sent to [unseld\[at\]fsci.uni-tuebingen.de](mailto:unseld[at]fsci.uni-tuebingen.de) or to our postal address:

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