

## Introductory Remarks to Symposium 27

## The neuroscience of good and evil: translational insights into pro- and antisocial decision-making

*Trynke de Jong and Marijn van Wingerden, Regensburg and Düsseldorf*

Social decision-making is of incredible importance to all social animals, including humans and rats. To approach or avoid, to attack or befriend, to help at a cost or to harm for a profit? The wrong decision may waste valuable energy at best or cause social exclusion or even severe physical damage at worst. Social neuroscientists are currently making rapid progress to understand how the brain controls social decision-making. Increasingly sophisticated human neuroimaging studies analyze the neurobiological correlates of social behavior in both healthy subjects and patients suffering from social-emotional disorders such as autism, conduct disorder, borderline personality disorder and antisocial personality disorder. Simultaneously, established and innovative rodent paradigms are utilized to delineate neuronal networks and neurotransmitters underlying pro- and antisocial interactions. In the present symposium we want to bring together four social neuroscientists to present and discuss these developments. Prof. Dr. Bernd Weber and Dr. Katja Bertsch will bring us up to date on their findings on social decision-making in healthy humans as well as patients with socio-emotional disorders. Dr. Marijn van Wingerden and Dr. Trynke de Jong will present their recent results on the neuroscience underlying pro-social choices and anti-social offensive and sexual aggression in rats. Special emphasis will be placed on the role of the amygdala and cortical areas in socio-emotional behavior, on the modulation of social decisions by the neuropeptides oxytocin and vasopressin, and on putative sex-differences. The symposium will not only focus on the exchange of recent data and insights, but is also expected to inspire a more philosophical debate (both during and after the symposium): is it likely to find neurobiological markers that unequivocally distinguish pro-social, altruistic, empathic individuals from anti-social, egoistic, callous ones? Can social rodents adequately model the full array of human social interactions, or are the ultimate and/or proximate causes of their social decision-making fundamentally different from ours? And finally, how does social-decision making change in the development from infancy to adulthood in males compared to females?

## Symposium 27

*Friday, March 24, 2017  
14:30 – 16:30, Lecture Hall 8*

*Chairs: Trynke de Jong and Marijn van Wingerden,  
Regensburg and Düsseldorf*

- 14:30 **Opening Remarks**
- 14:40 Bernd Weber, Bonn  
THE ROLE OF ATTENTION IN THIRD-PARTY PUNISHMENT (S27-1)
- 15:00 Katja Bertsch, Heidelberg  
NEUROBIOLOGICAL CONTRIBUTIONS TO A BETTER UNDERSTANDING OF HUMAN AGGRESSION: WHAT CAN WE LEARN FROM RECENT STUDIES? (S27-2)
- 15:20 Marijn van Wingerden, Düsseldorf  
THE NEURAL BASIS OF SOCIAL CHOICE IN RODENTS (S27-3)
- 15:40 Trynke de Jong, Regensburg  
ANIMAL MODELS OF ANTI-SOCIAL BEHAVIOUR: ROLE OF OXYTOCIN AND VASOPRESSIN (S27-4)
- 16:00 Antoine Couto, Gif-sur-Yvette, France  
HORNETS HAVE IT: A CONSERVED OLFACTORY SUBSYSTEM FOR SOCIAL RECOGNITION IN HYMENOPTERA (S27-5)
- 16:10 Ina Hübener, Marburg  
SEEING FACES IN RANDOM NOISE: A BRAIN NETWORK FOR ILLUSORY FACE PERCEPTION (S27-6)
- 16:25 **Concluding Remarks**