

Description of Consortium

1. GENERAL INFORMATION ON THE CONSORTIUM

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TITLE	Ethical and practical aspects of neuroimaging research on human aggression
CONDITION/TOPIC	Neuroethics, construction and interpretation of research paradigms, consequences for individual responsibility, effects on interactions between patients and medical professionals
KEY WORDS	Aggression, medical anthropology, social anthropology, neuroethical and social implications, moral responsibility, social construction, evidence-based research
PROJECT DURATION	18 months
SUMMARY	<p>In the past decade, neuroimaging research has helped to elucidate correlates of aggressive behaviour such as alterations in central serotonergic neurotransmission, dysfunction of amygdale-associated signalling of anxiety and reduced orbital-frontal control of behavioural inhibition. This research can potentially influence the way we understand and deal with aggressive behaviour. However, there are some inconsistencies in the major neuroscientific findings, which may be explained by changing research paradigms. Neuroimaging research itself is pre-configured and research paradigms are often constructed within the Humanities. For example, while evolutionary models of hierarchical brain interactions structured research paradigms in the first half of the 20th century, social factors have been strongly implicated in neuroscientific research in the 60ies and 70ies. It was not before the 1980ies and 90ies that a predominant focus on genetic research re-emerged and only within the last decade have gene-environmental interactions been explored within neuroimaging paradigms of aggressive behaviour.</p> <p>Secondly, several topics of neuroimaging research of aggressive individuals have been claimed to have important ethical implications, both on a theoretical and on a practical side. On the one hand, there is the question of whether it helps the individual or society if subjects at risk for increased aggressiveness can be identified with the help of biological markers. On the other hand, some researchers have claimed that specific populations carry an increased risk for perpetrating or suffering increased aggressiveness. This can strongly affect interactions between patients and professionals and can be seen to have</p>

	<p>implications for the individual's responsibility.</p> <p>This research proposal therefore calls for an interdisciplinary approach that includes both neuroimaging researchers on affective and aggressive behaviour and its correlates and anthropologists, theoretical biologists, social scientists and philosophers who elucidate the theories and paradigms applied in experimental research and the social and ethical consequences and considerations of the research. In three related fields, we will examine the theoretical foundations and the ethical implications of current neurobiological research on aggression with respect to the following aspects:</p> <ol style="list-style-type: none"> 1) Changing research paradigms and findings in neuroimaging research on aggression and violent behavior and their implications for theoretical brain models of impulse control and behavior regulation 2) Neuroethical implications, especially implications with regard to the legitimate ascription of responsibility, of current research on the neurobiological correlates of affects and aggression. 3) Effects of current research on self-concepts of psychiatric patients on their interactions with medical professionals, particularly within forensic psychiatry and patients with diverse cultural background 4) Changing explanatory models and empirical evidence in the social sciences about social settings that afford, enhance or alleviate violence, aggression and anti-social practices and the role of – assumed – cultural diversity in generating these practices <p>We expect to increase insight in social preconditions and neuroethical as well as practical implications of neurobiological research on determinants of aggressive and violent human behavior.</p>

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