

specific level of analysis and uses a specific set of research tools, making communication across research domains both difficult and infrequent. Investigating the effects of MDMA on how we think, feel and act, and investigating the paradoxical effects of MDMA on mood and physiology offer opportunities for bridging across these domains. As a result of the potential (and necessity) for collaboration across research domains, the hypotheses and models that might arise from human research with MDMA are liable to inform broad areas of neuroscience and psychology. Both psychotherapists and social psychologists are likely to appreciate more information about the empathic experience. Clinical psychologists might better understand

relationships between “psychological” and “neurochemical” sources of emotion and awareness of emotion, and researchers interested in psychoneuroimmunology might learn more about the nature of the stress response. A clearer and more accurate model of empathy or of emotion generation and perception might, in turn, assist in improving behavioral or psychotherapeutic interventions that increase empathy or alleviate depression.

References

To read the references for this article, please see http://www.maps.org/news-letters/mdma_basic_research_refs.html

Neurocognitive Profile of Long-Term Ecstasy Users: Proposed Research

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There is some evidence that MDMA causes neuropsychological deficits in long-term users. The most examined of these are memory, attention, executive functions and the speed of information processes. Although the research field concerning the neurocognitive aspects of MDMA is growing, there is little consensus about where the changes in these domains come from. Some researchers suggest that these are premorbid differences in the subjects, others say that it has to do with the lifestyle of the typical ecstasy users (excessive, all-night rave parties and their side effects) and others argue that it is the result of a neurotoxic effect of MDMA. There are a number of fMRI and PET studies, which examine the relation between changes in brain functions or neuropharmacological markers and changes in different neuropsychological aspects. However, there is, as far as I know, only one MRI study (Cowan R.L. et al., *Drug and Alcohol Dependence* 72, 2003) which was done together with MDMA. This study was not specifically intended to investigate the relationship between changes in neuropsychological markers and the according anatomical areas.

Our proposed study has several purposes. First, we hope to examine the neurocognitive profile of long-term ecstasy users in several aspects (TAP, VLMT, DCS and so on). Thereby we try to rule out some of the well known confounding variables, like the consumption of Cannabis and others. Second, with our MRI design, which includes diffusion tensor imaging (DTI), we would like to examine the relationship between changes in the cognitive domains (if there are any) to changes in the anatomy. We would also like to investigate if there are changes in the white matter concentration. Specifically, we are interested in areas which are responsible for the mentioned neurocognitive domains. Third, we want to examine/replicate the results of Cowan et al., which no one has yet attempted.

The study design is not yet fully complete. We would like to have three different groups: long-term MDMA users, who have been abstinent for some time (former users), long-term users who are still active consumers (current users), and a control group which matches the other two groups. There are already some people who are interested in participating in the study, but because the procedure will take several hours, we need to offer compensation in order to recruit subjects. I am asking for donations in order to reach our goal of enrolling thirty people, ten in each group. We are seeking a total of about \$4000. Of course, we appreciate every little donation.

If you have any questions concerning the study design, the purpose, or other things, please contact me at: hellophi@hotmail.com

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