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Faculty of Psychology

# Colloquium lecture by Prof. Stefan Kölsch

## Exploring the Hippocampus' Role in Attachment and Social Bonding Through Music

The hippocampus is traditionally associated with memory, yet its role in emotional processing remains underexplored. This presentation introduces a nuanced perspective on the hippocampus, anchored in the "Quartet Theory of Emotions," positing the hippocampus as integral to a system generating emotions related to social bonding and attachment. While recent findings, including a meta-analysis on music-evoked emotions, highlight the hippocampus's involvement in emotional responses and support its role in social bonding, direct empirical evidence remains scarce. This talk will present results from a pilot fMRI study, examining attachment-related emotions while controlling for memory processes, revealing activation clusters in the insula, cingulate cortex, secondary somatosensory cortex, and the hippocampus bilaterally. These results challenge traditional views, underscoring the hippocampus's involvement in social and emotional functions beyond its well-documented memory roles. Recognizing the hippocampus as a key player in the neural basis of social bonding and attachment advances our understanding of affective neuroscience and opens new avenues for exploring the therapeutic potentials of music in emotional well-being and social connectivity.

**Prof. Stefan Kölsch**  
University of Bergen

This lecture takes place at  
**Fakultätssitzungszimmer 2**  
**Forschungs-, Lehr- und Praxisambulanz,**  
**Wächtergasse 1, 1. Stock**  
and will be streamed.



**Thursday, April 17, 2024; 10 am**