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## The happy, the sad, and the anhedonic

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# The happy, the sad, and the anhedonic

Towards understanding altered reward function  
 from a micro-level perspective

**PhD thesis**

to obtain the degree of PhD at the  
 University of Groningen  
 on the authority of the  
 Rector Magnificus Prof. E. Sterken  
 and in accordance with  
 the decision by the College of Deans.

This thesis will be defended in public on

Monday 4 December 2017 at 14.30 hours

by

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To the love of my life: Dennis Raven.

Your emotional support has been enormous,  
and your intellectual insights have  
found their way into my thesis.

Thank you





## **ABSTRACT**

Anhedonia, the loss of pleasure, is highly prevalent in both clinical and non-clinical populations but far from fully understood. Anhedonia was recently reconceptualized into an impaired ability to pursue, experience, and learn about pleasure. Although plausible, a major caveat of this reconceptualization is that it is almost exclusively based on studies that use a nomothetic approach to knowledge (macro-level perspective), largely neglecting how altered reward function in anhedonia takes shape idiographically (micro-level perspective).

This PhD thesis sheds a first light on altered reward function in anhedonia from a micro-level perspective. The perspective is provided by the use of recent technologies (e.g., smartphones) and Experience Sampling Methods (ESM). ESMs allow for reliable sampling of moment-to-moment experiences, and holds considerable promise for improving the current understanding of anhedonia. In Part I, we investigated anhedonic individuals' ability to pursue pleasure (chapter 2), to experience pleasure (chapter 3), and to learn from pleasurable experiences (chapter 4). Differences were found in some, but not all, aspects of reward function.

Scientific studies often contradict each other, and Part II of this PhD thesis addresses two problems related to research reproducibility: Different operationalizations of the same construct (chapter 5) and chance capitalization (chapter 6).





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