Belgian-Dutch Network for
ESM Research in Mental Health

Heerlen Meetup 3 & 4 October 2024

Hackathon submission form	
Title	*Modeling affective states: Using ESM*
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Abstract (max 200 words)	Imagine you go to your favorite restaurant and expect your favorite dish, but instead, receive rather untasteful food. This experience is likely to produce a negative prediction error that will lower your affective state. However, if you were in a very good mood before experiencing the negative prediction error chances are that the negative experience will not put you in a very negative mood. In fact, it has been shown that reward prediction error influence subjective reports of mood and that mood in turn influences the way prediction errors are perceived: A positive mood would make a positive outcome look more pleasant, while a negative mood would make a negative outcome look more negative. Reinforcement learning models have been used to formalize this relationship. Studies using naturalistic mood have shown that subjective reports of happiness depended strongly on the amount of recent reward prediction errors and outcome sensitivity. The relationship between mood and reinforcement learning parameters thus intriguingly suggests a computational mechanism that gives rise to the subjective experience of mood. Using ESM, we will gain insight into how computational parameters such as reward and outcome sensitivity interact dynamically.
Relevance for attendees	This hackathon session will allow attendees to discuss ideas on the fundamental components of affective states and identify potential mechanistic processes underlying them. This discussion has the potential to spark collaborations and open new lines of research.
Other comments	
The number of participants per session will be 25-30 participants. The hackathons will take 60 min on Oct 3th and (max) 120 min on Oct 4th. In addition, a summary of the session will be presented on the 4th (5 min).	

All end products will be shared with the network on Basecamp so they can be used as starting points for follow-up actions/collaborations.