Nature Human Behavior

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Cover Letter for a Stage 1 Registered Report

Dear Dr. Kousta,

we would like to submit the *Stage 1 Registered Report* titled “Estimating individual subjective values of emotion regulation strategies” for consideration in *Nature Human Behaviour*.

We present the evaluation of a new paradigm for determining individual subjective values of demand levels of effortful tasks. More concrete, the present study involves the determination of subjective values of emotion regulation strategies. In emotion regulation flexibility, the choice of the right strategy is an important aspect of goal achievement and adaptive behavior. To describe choice behavior and individual differences in emotion regulation choice better, we want to determine what value different emotion regulation strategies have for a person. We therefore adapt an existing paradigm by Westbrook and colleagues (2013). However, the paradigm was only partly suitable because it linked the easiest demand level with the highest subjective value. The paradigm was changed in a way that allows to determine subjective values without assuming that the objectively easiest level is preferred and for effortful tasks whose levels have no objective order of difficulty. The suitability of the new paradigm is to be answered on the basis of two research questions. The first question, covered in a separate Registered Report, is to investigate whether this paradigm can depict individual differences in the preference of n-back task levels accurately. The second question is to determine subjective values in the context of emotion regulation. Furthermore, we are interested in predicting subjective values by measures of efficiency and effort, as well as the prediction of choice behavior by subjective values.

To investigate both properties rigorously, both research questions are covered in separate Registered Reports that we have submitted concurrently. Here we present the Registered Report for the second research question, which is of great interest for fields such as psychology, economics, and sociology, offering an effective and adaptable method to assess the preference for effortful tasks without objective order of task load.

Following Stage 1 acceptance in principle of both Reports, we will collect the data over a span of six months, and analyse the data and write the Stage 2 Report within four to six weeks, resulting in a total project duration of about seven to eight months. Depending on how the Covid-19 pandemic impacts the feasibility of data collection in the lab, this estimation can vary.

We hereby confirm that all necessary support and approvals are in place for the study to commence immediately. We agree to share the raw data, study materials, and analysis code openly on the Open Science Framework (OSF). We agree to register the approved protocol publicly available preprint on the Open Science Framework following Stage 1 acceptance in principle. We agree to *Nature Human Behaviour* publishing a short summary under a section Withdrawn Registrations, should we choose to withdraw our paper.

Thank you very much for considering our manuscript.

Sincerely,

Christoph Scheffel

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