

The effect of positive psychology interventions on SWB dynamics

In the fourth phase of the project, we will study the underlying mechanisms of SWB change resulting from positive psychology interventions (PPIs). By PPIs we mean intentional and regular positive activities that aim to stimulate behaviors and thoughts that are generally associated with high-level of subjective well-being. A large body of research (see, e.g., Sin & Lyubomirsky, 2009; Lyubomirsky & Layous, 2013) supports the efficiency of these interventions and recent meta-analysis by Bolger et al. (2013) concluded that PPIs not only enhance of subjective well-being but can also help ameliorate depressive symptoms. However, these studies have also shown that there are remarkable inter-individual differences in treatment effects among people dependent on the intervention's format and the time component, as well as on motivational and other participant-related characteristics. We expect that the combination of formal modeling and intensive longitudinal data that we propose will provide more detailed insight into the efficacy of PPIs.

Our addition to this body of research is twofold. First, we will examine underlying time dynamics of SWB as triggered by interventions in terms of the above proposed longitudinal modeling approach. This will involve looking at intra-individual variation and long- and short-term adaptation mechanisms. Second, as we plan on measuring SWB based on the five dimensions of the PERMA model, we will consider the effect of PPIs in all of the five dimensions at the same time. Additionally, we will collect time-invariant covariate information on, among other things, personality characteristics, socio-demographic variables, and life philosophies, which can further enhance our understanding of inter-individual differences in SWB. We hope to gain insights into the structural changes of SWB as a function of the interventions and will connect inter-individual differences in terms of dynamical components to personality and other characteristics.

Data analysis

The proposed Ornstein-Uhlenbeck model will be fit to the data and its parameters will enable us to compare profiles between treatment and control groups, before and after treatment. Moreover, we will compare our findings to data analytic results from other already established methodologies for analyzing intensive longitudinal data, in particular growth curve models and structural equation models. We believe that the collected dataset will be rich enough to provide us with variety of new insights on SWB. Besides longitudinal repeated measurements, we would also administer surveys to collect covariate information on personality characteristics, socioeconomic variables, life philosophies, and so on.

We expect novel findings in diverse directions. First, we expect to gain novel insights into which elements of SWB are more susceptible to PPIs, and whether changes in the mean level of SWB are accompanied by modified mechanisms in short-term SWB adaptation. Then, we will study whether personality characteristics exert their influence, if any, through mean levels of SWB or also through intra-individual variation and regulatory mechanisms.

Field experiment settings

Our preliminary set-up for a field research experiment that investigates the temporal dynamics of PPIs is as follows. We will recruit 150 participants, who will be randomly assigned to three conditions: (1) control, (2) acts of kindness intervention, (3) gratitude journal intervention. First we would measure SWB dimensions during everyday life as described in section 1 for 30 days, twice per day. Then groups (2) and (3) would be instructed to follow the established intervention routines for another 30 days (group (1) will also continue the study for another 30 days). The participants will be given financial incentives to complete the study.

Summary of aims, expected output, and target audience of the fourth phase

The primary aim of this phase is to apply the methods and tools developed in earlier phases to study the efficacy of PPIs.

As part of the expected output, we will translate our conclusions from the longitudinal PPI study into recommendations for SWB in daily life and which PPI techniques can be expected to be successful if applied by people in general. In addition to the results of the study being communicated in an academic publication and at conferences, strong conclusions might be collected for publication in a popular-science journal for broad dissemination.

The target audience of the final phase is in the first place the general public, who may be provided with techniques and strategies to improve their own SWB. Additionally, the study will serve as a powerful illustration of our new formal approach and will help SWB researchers in the future.

References

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