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DATA PAPER

Foundational Tests of the Need-Support Model: A Framework for Bridging Regulatory Focus Theory and Self-Determination Theory

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This dataset includes data from the three studies reported in my paper on Foundational Tests of the Need-Support Model [6]. I collected these data in 2014, 2015, and 2016 from over 2,100 Amazon Mechanical Turk workers in the United States and Canada. The dataset contains the measures described in the paper, as well as participants' writing about the experiences they brought to mind in these studies. The data are stored on the Open Science Framework, and they could be used for exploratory research, meta-analyses, and research on replication. I also welcome collaborative research involving re-analyses of these data.

Keywords: motivation; need-support model; psychological needs; regulatory focus theory; self-determination theory

Overview

Context

Collection date(s)

2014, 2015, and 2016

Background

[6] presented foundational tests of the new need-support model, which bridges regulatory focus theory and self-determination theory. Regulatory focus theory proposes that people have fundamental needs for security and growth, which motivate prevention-focused and promotion-focused activity, respectively [3]. Self-determination theory proposes that people have fundamental needs for autonomy, competence, and relatedness, which are requirements for psychological well-being and optimal performance [1]. The need-support model proposes that regulatory focus theory's needs-as-motives can influence self-determination theory's needs-as-requirements, and vice-versa. These effects are possible because both the strength of needs-as-motives and the support for needs-as-requirements are based on subjective judgments about how well things are going. People can enhance their promotion-focused eagerness by inflating their subjective need support, and they can enhance their prevention-focused vigilance by deflating their subjective need support. Additionally, people are likely to view experiences that are highly need-supportive as more promotion-focusing and less prevention-focusing. This can occur because highly need-supportive experiences subjectively present more opportunities for growth and for making good things happen and fewer pressures to maintain good things in life by making sure bad things do not happen. The three studies in the initial paper (N = 2,114) tested this model's basic hypotheses.

Study 1 showed that participants reported stronger support for autonomy, competence, and relatedness in recalled promotion-focused experiences than in recalled prevention-focused experiences, and that their need support in an experience with no particular regulatory focus (their day yesterday) tended to fall in between.

Study 2 showed that participants reported stronger promotion focus and weaker prevention focus in recalled experiences that were higher in support for autonomy, competence, and relatedness. Each need accounted for distinct variance in labeling of experiences as promotion-focused or prevention-focused.

Study 3 varied regulatory focus within a performance task. It showed that participants inflated their subjective autonomy, competence, and relatedness support in the promotion condition and deflated their need support in the prevention condition, relative to a group of participants who had no particular regulatory focus in the performance task.

Methods

Sample

Participants were recruited through Amazon's Mechanical Turk website. Eligible MTurk workers resided in the U.S. or Canada, had an approval rate of at least 95% on MTurk tasks, and 500–5000 approved tasks. Participants were paid between $0.30 and $0.80, depending on the length of the study (approximately $0.10 per minute). At the end of each study, I collected information on age, gender, ethnicity, and the state in which they resided. The total sample of the three studies had slightly more women (50.9%, n = 1,075) than men (48.4%, n = 1,024; 15 participants reported "other" for gender or left this question blank). Mean age was 33.99 (SD = 11.27; range = 18–76). Participants were asked to select all the racial/ethnic categories to which they belonged; 77.44% selected White (n = 1,637), 8.70% selected Asian (n = 184), 8.23% selected African American (n = 174), 6.29% selected Hispanic or Latina/Latino (n = 133), 1.51% selected multiethnic (n = 32), 1.47% selected Native American or Alaska Native (n = 31), 0.20% selected Native Hawaiian or Pacific Islander (n = 4), and 0.66% selected "other" (n = 14). Most of the participants said they lived in the U.S. (99.20%, n = 2,108).

Studies 1a–1c: Participants were randomly assigned to promotion and prevention conditions. There were 105 participants in Study 1a, 298 participants in Study 1b, and 198 participants in Study 1c.

Study 1d: Participants reported on an experience with no particular regulatory focus (their day yesterday). There were 266 participants in this study.

Studies 2a and 2b: Participants were randomly assigned to high versus low need-support conditions. There were 305 participants in Study 2a and 198 participants in Study 2b.

Study 3a: Participants were randomly assigned to promotion versus prevention conditions of a performance task. There were 498 participants in this study.

Study 3b: Participants did the same performance task as in Study 3a, except that this study did not vary regulatory focus. There were 246 participants in this study.

Materials

A methodology file containing the exact wording of all the independent and dependent instructions, manipulations, and measures used in these studies can be found in the online supplement (https://osf.io/uxneu/) and in the online supplement to the initial article [6].

Studies 1a–1c: Participants were randomly assigned to write about either a promotion-focused experience (pursuing a hope or aspiration) or a prevention-focused experience (pursuing a duty or obligation). Then participants reported their support for autonomy, competence, and relatedness in the experience they wrote about, using the Balanced Measure of Psychological Needs (BMPN; [5]) phrased to be about a past experience. This 18-item scale contains six-item subscales that measure support for autonomy (e.g., "I was free to do things my own way"), competence (e.g., "I took on and mastered hard challenges"), and relatedness (e.g., "I was lonely"; reverse-scored). I calculated an index for each subscale by taking the mean of the relevant items after appropriate reverse-scoring. The final page of measures included demographic questions, a request for impressions of the study, and a question about whether participants were distracted by anything as they were working on the study.

Additionally, participants in Study 1c completed the Emmons Mood Indicator [2] in between the writing task and the page with the BMPN. This nine-item scale measures how much respondents are currently experiencing four positive emotions (e.g., happy) and five negative emotions (e.g., frustrated). I calculated a mood index by taking the mean of the items after reverse-scoring the negative mood items. This index was used to test the secondary hypothesis reported in Footnote 3 of the initial article.

Study 1d: Participants reported what their previous day was like using the BMPN.

Studies 2a and 2b: Participants were randomly assigned to write about either an experience high in support for autonomy, competence, and relatedness, or an experience low in support of these needs. Then participants reported their need support in the recalled experience using the BMPN. On the following page, they reported the strength of their promotion focus and prevention focus in the experience they recalled, using a new scale that I developed for these studies. An example of a promotion item is "During the experience, I was focused on how to achieve my hopes and aspirations", and an example of a prevention item is "During the experience, I was focused on how to achieve my duties and obligations". The final page of measures included demographic questions, a request for impressions of the study, and a question about whether participants were distracted by anything as they were working on the study. Additionally, participants in Study 2b completed the Emmons Mood Indicator [2] in between the writing task and the page with the BMPN. The mood index I created from this measure was used to test the secondary hypothesis reported in Footnote 5 of the initial article.

Study 3a: Participants did a performance task in which they found and reported the coordinates of a diamond shape in six 10 × 10 grids. The maximum payment for the study was $0.80, which included up to $0.30 bonus ($0.05 for each shape). The participants were randomly assigned to a promotion-focus condition (in which they learned that they would gain $0.05 bonus for each shape they correctly found) or a prevention-focus condition (in which they learned that they would maintain $0.05 of their bonus for each shape they correctly found). They did a practice page to familiarize themselves with the performance task, then they were introduced to the gain/maintain manipulation. On the page after the introduction of the gain/maintain manipulation, participants completed the BMPN about their lives in general. Then they did the target trials of the performance task, which repeated gain/maintain-framed instructions at the top of each trial page. The correct answer of each grid was then shown on the following

page. After the target trials, participants reported their need support in the shape-finding task. For brevity, this measure of need support contained only the half of the BMPN items that were positively worded. I calculated six indexes: general autonomy support, general competence support, general relatedness support, shapes-task autonomy support, shapes-task competence support, and shapes-task relatedness support. The final page of measures included demographic questions, a request for impressions of the study, and a question about whether participants were distracted by anything as they were working on the study.

Study 3b: Participants did the same performance task and measures as in Study 3a, except that this study did not mention a bonus (all participants received $0.80) and did not vary regulatory focus.

Procedures

The study was administered through an Internet link provided to participants when they signed up for the study.

Quality control

Multiple responding was discouraged by using the procedure by [4], the "Prevent Ballot Box Stuffing" option in Qualtrics, and TurkPrime. I used only the first response from any participants who responded more than once. Of the 2,212 responses collected in the present three studies, I excluded 24 cases because of multiple responding. Additionally, I excluded a response if the participant reported being less than 18 years old (two participants reported that their age was 2), if the participant did not do the writing task (n = 8; three in prevention, two in promotion, two in low need support, and one in high need support), or if the latitude/longitude data automatically collected by the survey indicated a location outside the U.S. or Canada (n = 16). Additionally, responses from Study 3 were excluded if the participant answered with the high endpoint of the scale on all items of the general BMPN (on which half the items get reverse-scored; n = 2), took more than ½ hour to do this 7-minute study (n = 6), got one or more trials of the performance task wrong (n = 39; 5.24% of participants in Study 3; 11 in prevention, 16 in promotion, and 12 in no-framing), or whose written impressions of the study indicated that it was about framing effects (n = 1). The 98 excluded participants are in a separate data file within this dataset.

Ethical issues

The research was conducted under the oversight of the Ithaca College Institutional Review Board. The dataset was stripped of any potentially identifying variables before being uploaded to the repository site.

Dataset Description

Object name

Data from Paper "Foundational tests of the need-support model: A framework for bridging regulatory focus theory and self-determination theory".

Data type

Processed data. The file contains "cleaned" dataset files with some variables added (e.g., condition assignments, reverse-scored items of scales, index variables with Cronbach's alphas). The 98 participants who were excluded from analyses are in their own data file. All of the potentially identifying variables have been removed from all of the data files.

Format names and versions

The data are available as .sav files, which were created with SPSS 24 for Windows, or as .dat files. A Word-format codebook accompanies each study's data files.

Study 1a – exclusions done, with alphas for this study.sav/.dat/ codebook
Study 1b – exclusions done, with alphas for this study.sav/.dat/ codebook
Study 1c – exclusions done, with alphas for this study.sav/.dat/ codebook
Study 1c – exclusions done, with alphas for this study.sav/.dat/ codebook
Studies 1a, 1b, and 1c – exclusions done, with alphas for this dataset.sav/.dat/ codebook
Studies 1a, 1b, 1c, and 1d – exclusions done, with alphas for this dataset.sav/.dat/ codebook
Study 2a – exclusions done, with alphas for this study.sav/.dat/ codebook
Study 2b – exclusions done, with alphas for this study.sav/.dat/ codebook
Studies 2a and 2b – exclusions done, with alphas for this dataset.sav/.dat/ codebook
Study 3a – exclusions done, with alphas for this study.sav/.dat/ codebook
Study 3b – exclusions done, with alphas for this study.sav/.dat/ codebook
Studies 3a and 3b – exclusions done, with alphas for this dataset.sav/.dat/ codebook
Studies 1–3 – exclusions done, for demographics, no transformed variables.sav/.dat/ codebook
Studies 1–3 – excluded cases, no transformed variables.sav/.dat/ codebook

Data Collectors

The author collected all of the data.

Language

The data file is annotated in English.

License

CC0.

Embargo

No embargo.

Repository location

https://osf.io/uxneu/

Publication date

November 21, 2016

Reuse Potential

These data could interest researchers in social, personality, applied, or developmental psychology who study regulatory focus theory or self-determination theory, and they could interest researchers and teachers of replication more generally. This dataset includes variables such as participants' occupations, age, and gender that could moderate effects observed in the initial paper. Additionally, many of the participants wrote about experiences at work or with friends and family, and researchers could text analyze participants' written descriptions for goal contents (e.g., family, money), emotion words, pronouns, and other aspects of language use that could relate to regulatory focus or need support. Moreover, researchers could examine how interactions between different kinds of need support relate to participants' recalled regulatory focus. The data files also contain timer data for each page (e.g., time spent on page, number of clicks), which researchers could use to analyze participants' speed in the shapes task or on any other page of these studies. Finally, researchers and teachers could use these data to examine or teach replicability more generally, such as by demonstrating how effect sizes can vary across direct replications of a study.

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Competing Interests

The author has no competing interests to declare.

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