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Replication Report of Larsen and McKibban (2008, *Psychological Science*, Study 2)

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Introduction

Original citation

Larsen, J. T., & McKibban, A. R. (2008). Is happiness having what you want, wanting what you have, or both? *Psychological Science, 19*(4), 371-377.

Original Study

In their original paper, "Is happiness having what you want, wanting what you have, or both?" Larsen and McKibban (2008) suggested that while many believe that happiness comes from having what you want, alternate theories indicate that happiness may actually originate from wanting what you have. Probability theory proves that both situations are quantifiable and distinct, which allows the original authors to explore whether "happiness may be associated with wanting what one has, having what one wants, neither, or both." (p.372).

Target of replication

In this replication of Larsen and McKibban (2008), we sought to exactly reproduce the methodology used in the second study of the original paper. In the second study, the original authors examined how wanting what one has affects purpose in life and psychological well-being. Their principal hypothesis was that having what you want and wanting what you have account for unique variance in happiness. They found that this was the case: "people who had what they wanted more than others did tended [sic] to be happier even after we controlled for the number of things they had and the extent to which they wanted what they had, pr = .21, p_{rep}=.92." (p.375). A successful replication would hence find a moderate correlation between having what one wants and happiness when controlling for wanting what one has.

Method

Power Analysis

The power analysis was conducted using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) to calculate the necessary sample size regarding the principal hypothesis mentioned above. "Exact" was chosen as Test Family, "Correlation: Bivariate normal model" was chosen as Statistical Test, "a priori" as the type of power analysis, correlation ρ H0 = 0.21, .05 was the error of probability, correlation ρ H0 = 0. This yielded a sample of 175 participants for 80% power, 234 participants for 90% power, and 289 participants for 95%.

Planned Sample

Based on the above power analysis, 175 participants were planned to be included in the analyses. Should 175 participants be easily recruited, we planned to continue collecting participants until time or resources ran out.

The sample consisted of first-year psychology students at the Radboud University Nijmegen (RU), the Netherlands. Recruitment was done using the SONA system, which is an online system used by the Behavioral Science Institute (BSI) of the RU where students can sign up to participate in studies. For their participation, students were awarded 0.5 credit points.

Materials

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) measures global cognitive judgements of satisfaction with one's life. It consists of five items which can be answered on a 7-point Likert scale (1 = strongly disagree; 4 = neither agree nor disagree; 7 = strongly agree). The total scores range from 5 to 35, with a score higher than 24 indicating satisfaction with one's life. The Dutch version was used (Arrindell, Meeuwesen, & Huyse, 1991).

Gratitude Questionnaire. The Gratitude Questionnaire (GQ-6; McCullough, Emmons, & Tsang, 2001) was used to assess individual differences in the proneness to experience gratitude in daily life. It is a six-item self-report questionnaire. The items can be answered on a

7-point Likert scale (1 = strongly disagree; 4 = neutral; 7 = strongly agree). The total scores range from 6 to 42, with higher scores indicating more gratitude in daily life. The Dutch version was used (Jans-Beken, Jacobs, & Lataster, 2014).

Maximization Scale. The Maximization Scale (MS; Schwartz, Ward, Monterosso, Lyubomirsky, White, & Lehman, 2002) was designed to measure the tendency to satisfice or maximize. The self-report questionnaire consists of 13 items which can be answered on a 7-point Likert scale (1 = completely disagree; 7 = completely agree). It has three subscales, namely high standards, alternative search, and decision difficulty. A Dutch version was used.

Personal Growth Initiative Scale. Personal Growth Initiative Scale (PGIS; Robitschek, 1998) is a self-report instrument that yields a single scale score for personal growth initiative. It consists of 9 items which can be answered on a 6-point scale (1 = definitely disagree; 6 definitely agree). Personal Growth Initiative can be determined by summing the scores on all 9 items. Scores can range from 9 to 54, with higher scores indicating greater levels of intentional self-change. A Dutch version was used.

Ryff Scales of Psychological Well-Being. Two subscales of Ryff Scales of Psychological Well-Being were used, namely the Purpose in Life subscale and Personal Growth subscale. Each subscale consists of 9 items which can be answered on a 6-point Likert scale (1 = definitely disagree; 6 = definitely agree). The Dutch version was used.

Have/Want Survey. For the current study, a Have/Want Survey needed to be created consisting of a representative sample of material items that members of our participant population have and want. Both the have category and the want category consisted of the following five sub-categories: material possessions, interpersonal relationships, abilities, accomplishments, and other. In order to create the survey, 61 items were culled that were listed at least by two participants (see table 1). The following procedure was adopted from Larsen and McKibban (2008): “For each item included in the Have/Want Survey, participants answered two questions, beginning with the dichotomous (i.e., yes/no) question, ‘Do you have a __?’ This question was followed by ‘If YES: To what extent do you want the __ that you have?’ and ‘If

NO: To what extent do you want a __?' Participants answered the latter two questions on 9-point scales ranging from 1 (not at all) to 9 (a lot)."

Procedure

In contrast to the procedure of the original study, in which paper and pencil questionnaires were used, the current study distributed the questionnaire online via the above-described SONA system of the RU.

Analysis Plan

Qualifying the extent to which people want what they have. The following procedure is an exact replication of Larsen and McKibban (2008). "Figure 2 depicts two hypothetical profiles of haves and wants. Shaded areas represent items the individuals have, and numbers ranging from 0 to 8 represent the extent to which the individuals want each item. If wants are dichotomized (i.e., 0 = does not want; 1–8 = want, indicated by the dotted area in Fig. 2), the proportion of individuals' possessions that they want represents the extent to which they want what they have. For both hypothetical individuals in Figure 2, this value is provided by the following conditional probability:

$$p(Want|Have) = p(Have \cap Want)/p(Have) = 2/6 = .33.$$

Schachtel would presumably recommend that people greatly, as opposed to scarcely, want each of the things they have. To weight the conditional probability accordingly, we simply averaged the extent to which participants wanted each of their possessions and divided this average by the maximum want rating, 8. For the hypothetical individuals represented by the left and right panels of Figure 2, these scores, which can range from 0 to 1, are

$$\frac{(0+0+0+0+7+8)/6}{8} = \frac{15/6}{8} = .31$$

and

$$\frac{(0+0+0+0+1+2)/6}{8} = \frac{3/6}{8} = .06,$$

respectively. Thus, participants who greatly wanted the things they had (like the person represented by the left panel in Fig. 2) received higher scores than those who only scarcely

wanted the things they had (like the person represented by the right panel in Fig. 2). These scores resemble conditional probabilities in that they reflect how many items individuals want conditional on their having those items. However, these scores are also affected by how much individuals want each of the items they have. Thus, these scores can be termed weighted conditional probability scores."

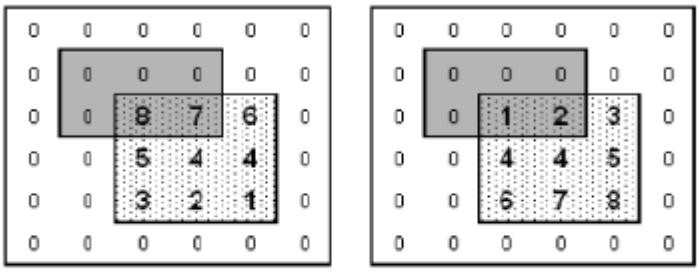

Fig. 2. Two hypothetical individuals' profiles of haves and wants for 36 items. In each illustration, the items with a shaded background are those that the individual has, and the items with a dotted background are those that the individual wants. The numbers represent the extent to which the individual wants each item.

Qualifying the extent to which people have what they want. The following procedure is an exact replication of Larsen and McKibban (2008). "We also computed weighted conditional probability scores representing the extent to which participants had what they wanted. If wants are dichotomized, the proportion of individuals' desired items that they have represents the extent to which they have what they want. For both hypothetical individuals depicted in Figure 2,

$$p(Have|Want) = p(Have \cap Want)/p(Want) = 2/9 = .22.$$

"To weight the scores by how much individuals wanted each item, we divided the sum of the extent to which they wanted each of their possessions by the sum of the extent to which they want all 52 items. This calculation yielded weighted conditional probability scores that could range from 0 to 1. For the hypothetical individuals represented by the left and right panels of Figure 2, these scores are

$$\frac{7+8}{1+2+3+4+4+5+6+7+8} = \frac{15}{40} = .38$$

and

$$\frac{1+2}{1+2+3+4+4+5+6+7+8} = \frac{3}{40} = .08,$$

respectively. Thus, participants who had only what they greatly desired (like the person represented by the left panel in Fig. 2) received higher scores than those who had only the things they scarcely desired (like the person represented by the right panel in Fig. 2)" (Larsen and McKibban, 372-373)."

Data-analysis. In order to answer the question whether happiness is wanting what one has, having what one wants, neither, or both, a partial correlation analysis was carried out. That is, the linear relationship between having what one wants and happiness, measured with the SWLS, after excluding the effect of wanting what one has was studied. Likewise, the linear relationship between wanting what one has and happiness after excluding the effect of having what one wants was analyzed. In addition, as advised by the original authors, a partial correlation analysis was carried out with only the materialistic items of the Have/Want Survey. This procedure was implemented after the original authors pointed out that in the original study, the partial correlation analysis consisted mainly of materialistic items.

Differences

The population of the replication study consists of Dutch students while in the original study by Larsen and McKibban (2008) the population consisted of U.S undergraduates from a large, Southwestern university. This could lead to differences in the Have/Want Survey. Indeed, our pilot study indicated that our sample named much more accomplishments and skills compared to the original U.S. sample, which named mostly material possessions. Thus, compared to the original Have/Want Survey, our Have/Want survey is much more balanced and includes accomplishments, skills, and interpersonal relationships.

In the original study, paper and pencil questionnaires were distributed among the students in a class setting (between 5 and 30 students). The current study, however, distributed the

questionnaires online via the SONA system of the Radboud University. The original authors approved this change in procedure.

As in the original study, participants were awarded 0.5 course credit.

Primary Replication

Actual Sample

238 psychology students participated in this study, of which 16 were male. The mean age of the total sample was 19.21 years (SD = 1.76).

Differences from pre-data collection method plan

None.

Results

Confirmatory analyses

Partial correlation analyses were conducted using the ppcor package in R (Seongho, 2012; R Core Team, 2014). When controlling for having what they wanted, participants who wanted what they had more than others tend to be happier, r = .21, p < .001. Also, when controlling for wanting what they have, participants who had more of what they wanted were happier, r = .5, p < .001. The number of things people had did not predict happiness after we controlled for the extent to which they had what they wanted, p = .2; however, it did predict happiness after controlling for the extent to which they wanted what they had, r = .46, p < .001. In sum, the current study indicated that wanting what you have and having what you want both account for unique variance in happiness.

As advised by the original authors, a partial correlation analysis was carried out with only the materialistic items of the Have/Want Survey. When controlling for having what they wanted, participants who wanted what they had more than others did tend to be happier, r = .2, p < .01. Also, when controlled for wanting what they have, participants who had more of what they wanted were happier, r = .23, p < .001. The number of things people had did not predict happiness after we controlled for the extent to which they had what they wanted, p = .09; however, it did predict happiness after controlling for the extent to which they wanted what they

had, $r = .16$, $p < .01$. Thus, the results of the materialistic items only correspond with the results of all items on the Have/ Want Survey.

Exploratory analyses

To get further insight into having or wanting which things makes people happy, we conducted partial correlations on the categories 'accomplishments', 'interpersonal relationships', and 'skills'. In the category of 'accomplishments', several participants had yet to achieve any accomplishments, and subsequently had no Have/Want score. Therefore, a subset without those was used. When controlling for having accomplished what they wanted, participants who wanted what they had accomplished more than others did tend to be happier, $r = .14$, $p < .05$. Also, when controlled for wanting what they have accomplished, participants who had accomplished more of what they wanted were happier, $r = .2$, $p < .01$. The number of things people had accomplished did not predict happiness after we controlled for the extent to which they had what they wanted, $p = .3$; however, it did predict happiness after controlling for the extent to which they wanted what they had accomplished, $r = .18$, $p < .01$.

When controlling for having the relationship(s) they wanted, participants who wanted the relationships they had more than others did tend to be happier, $r = .35$, $p < .001$. When controlling for wanting the relationships they have, participants who had more relationships which they wanted were not happier, $p = .07$. The number of relationships people had predicted happiness both after we controlled for the extent to which they had the relationships they wanted, $r = .19$, $p < .01$; and after controlling for the extent to which they wanted the relationships they had, $r = .2$, $p < .01$.

When controlling for having the skill(s) they wanted, participants who wanted the skills they had more than others did tend to be happier, $r = .15$, $p < .05$. When controlling for wanting the skills they have, participants who had more skills which they wanted were happier, $r = 43$, $p < .001$. The number of skills people had did not predict happiness after we controlled for the extent to which they had the skills they wanted, $p = .81$; however, it did predict happiness after controlling for the extent to which they wanted the skills they had, $r = .42$, $p < .001$.

Table 1. *Categories and items of the Have/ Want Survey*

Accomplishments	**Interpersonal**	**Possessions**	**Skills**	**Other**

	Relations			
First year of study	Mother	Mobile phone	Social	Pet
Part-time job	Friends	Living place	Intelligent	Enough/ healthy food
Pre-university secondary education	Sisters	Laptop/computer	Writing (skills)	Nice room/ flat
Bachelor's degree	Brothers	Clothes	Creative	Nice life
Internship	Acquaintances	Bed	Sportive	
Volunteering	Colleges	Television	Helpful	
Travelling	Roommates	Books	(Fast) reading	
Learning of languages	Love	Bicycle	Listening	
Sport	Romantic relationship	Car	Cooking	
Master's degree	Grandma	Money	(Several) Languages	
	Father	Jewelry	Kindness	
	Family	Guitar	Reliable	

Discussion

Summary of Replication Attempt

The present study aimed to replicate the results of Larsen and McKibben (2008). The results of the original study were replicated for materialistic items; people who want what they have, are happier; people who have what they want are also happier. This implies that having what you want, and wanting what you have account for unique variance in happiness. In addition, people that have more items are also happier, when controlling for the extent to which they want what they have, but when controlling the same correlation for having what you want, this correlation disappears.

The same pattern of correlations was also found when items of all categories were analyzed together. This pattern of correlations also appeared when analyzing for each category

separately, except for the category ‘Relationships’. This category was not analyzed by the original authors.

Commentary

This study replicated the results of Larsen and McKibben (2008). The current study analyzed additional categories of items and found the same result pattern for each of those, except for relationships. For this category, having what you want is not associated with happiness.

References

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