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RESEARCH PAPER

Nussbaum's Capabilities and Self-Determination Theory's Basic Psychological Needs: Relating Some Fundamentals of Human Wellness

Cody R. DeHaan[1] · **Tadashi Hirai**[2] · **Richard M. Ryan**[3]

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Abstract Research and theory concerning the nature and sources of well-being has been undertaken through varied approaches. Two such approaches are the capability approach and self-determination theory (SDT), both of which have postulated specific factors deemed necessary for human well-being and flourishing. In two studies we examine the relations between capabilities and well-being indicators, as well as the mediating role of basic psychological need satisfaction in these relations. Results indicate that both capabilities and SDT's basic psychological needs are substantially associated with well-being, and that SDT's basic needs partially mediate the relation between capabilities and indicators of wellness.

Keywords Well-being · Self-determination theory · Capability approach

1 Introduction

The relatively recent emergence of the positive psychology movement highlights growing interest in the nature of well-being and human flourishing and the factors that contribute to them. This interest cuts across disciplinary fields, spanning psychology, philosophy,

✉ Cody R. DeHaan
cody.dehaan@rochester.edu

Tadashi Hirai
hirai.tadashi@gmail.com

Richard M. Ryan
richard.ryan@acu.edu.au

[1] Department of Clinical and Social Sciences in Psychology, University of Rochester, PO Box 270266, Rochester, NY 14627-0266, USA

[2] Institute for Advanced Studies on Asia, University of Tokyo, Tokyo, Japan

[3] Institute for Positive Psychology and Education, Australian Catholic University, Strathfield, Australia

economics, and others. Flourishing has been defined as optimal or full functioning involving the expression and realization of human capacities and excellence (Ryan et al. 2013). A number of scholars have linked the concept of *flourishing* with the Aristotelian concept of *eudaimonia* (Huppert and So 2013; Ryan and Deci 2011; Waterman 2012).

Interest in fostering well-being and flourishing has spread to policy makers and organizations around the globe, in part because of the very real economic implications associated with greater wellness (Delle Fave and Massimini 2005). As a World Health Organization (WHO; see Friedli 2009, p. 2) report summarizes: "These individual attributes and skills can be measured through a range of well-being scales and a growing number of longitudinal studies confirm their power to predict outcomes, for example, longevity, physical health, quality of life, criminality, drug and alcohol use, employment, earnings and pro-social behaviour…". Researchers at Gallup (Rath and Harter 2010) have estimated the average per-day cost of employees' ill-being to employers in the US at $200 per sick day (based upon the median salary in the US, and adjusted for non-working days). Such direct costs associated with ill-being do not begin to assess the opportunity costs associated with the absence of flourishing, and the depletion of vitality associated with it (Ryan and Deci 2008).

1.1 Capabilities

Several highly visible thinkers in economics and philosophy have attempted to contribute to the discussion of wellness promotion, principally by outlining what social and material conditions provide room for the exercise of basic human abilities that are part of a eudaimonic life. The most prominent among these are those embracing the *capabilities approach*. One major proponent of this approach, Sen, argues that individual wellness is best evaluated in terms of an individual's ability to engage in those things he or she values (Sen 2009, p. 231). Specifically he argues that wellness requires that persons must have *capabilities*, the latter conceptualized as a reflection of the freedom to achieve valuable functionings. Capabilities include for Sen such factors as being able to live a healthy life to obtain the education and skills needed to effectively achieve one's goals, and having the freedoms to pursue what one deems to be valued ends. That is, he argues that societies focused on wellness ought to provide individuals the opportunities that allow them to pursue those ways of living they deem worthwhile. This focus, for society and policy makers, instead of being on the accumulation of wealth, or even on specific ends (since those valued ends are, in Sen's view, different in each person and open to discussion), is thus on the affordances that would allow persons to freely and effectively pursue that which they have reason to value.

Also theorizing about capabilities, Nussbaum (2000) adopts a more direct approach. She specifically defines ten capabilities that she deems essential for human flourishing. The affordance of these specific capabilities is understood by Nussbaum as providing the foundations upon which a good life can be established. Her list of capabilities is comprised of the following: (1) ability to have a reasonable length of life; (2) ability to have bodily health; (3) ability for bodily integrity, including freedom of movement and freedom from fear of violence; (4) ability to use one's senses, imagination, and thought; (5) ability and freedom to experience and express emotions, including love; (6) ability to exercise practical reason; (7) ability to experience affiliation, including freedom to live with others, and to have the respect of others; (8) ability to have an appreciation of and contact with other species; (9) opportunities for play; and (10) ability to have control over the environment, both political and material. Together, in Nussbaum's view, people possessing these

capabilities have greater capacities for flourishing, and indeed in Nussbaum's view this list represents a minimum of capabilities, without which wellness and social justice cannot be achieved in society (e.g., Nussbaum 2006).

Some have noted that the capabilities approach focuses heavily on objective evaluations, as opposed to subjective evaluations (Deneulin and McGregor 2010). In particular, whereas the capability approach outlines important social and material conditions and affordances (which can be measured by objective assessment), it may not reflect how people live their lives according to their own subjective valuations. Nonetheless, an attempt has been made to both operationalize these capabilities and empirically connect them with traditional subjective measures of wellness. Specifically, Anand et al. (2009) developed a survey-based assessment of Nussbaum's ten capabilities, which they administered to a sample of 1048 national-representative residents of the United Kingdom. Their results showed that the measured capabilities were in fact predictive of subjective well-being as measured by the item, "How satisfied or dissatisfied are you with your life as a whole?" This study provided evidence that, while the capabilities approach may focus on the objective capacities of one's life, these capabilities are nonetheless predictive of subjective experiences of well-being. Self-determination theory (SDT) may offer even a fuller set of variables for examining how capabilities link with subjective valuations of wellness.

1.2 Self-Determination Theory

Self-determination theory (SDT; Deci and Ryan 2000) is a prominent empirically-driven psychological theory that has also been addressing the questions of eudaimonia and human flourishing (e.g., Ryan and Deci 2001; Ryan et al. 2008). SDT views humans as inherently oriented toward actualizing their capabilities, through processes including intrinsic motivation, social internalization and integration, and connecting with others (Vansteenkiste and Ryan 2013). However, these growth-oriented processes do not occur under all conditions; these processes can be supported by the social environment, leading to growth and well-being, or they can be thwarted by the environment, leading to defense, suffering, and ill-being (e.g., Ryan et al. 2006).

The social conditions that support these processes are, according to SDT, those that fulfill people's *basic psychological needs* (Deci and Ryan 2000). Basic psychological needs are not defined as simply preferences, but rather are required for psychological growth and well-being (Ryan 1995). Given this definition (see Deci and Ryan 2000) only three such needs have been identified. *Autonomy* is the need to experience one's behavior as volitional and self-endorsed. Autonomy is afforded when behavior is experienced as choiceful and volitional, and is thwarted when behavior is experienced as pressured or coerced by forces perceived to be alien to the self. *Competence* is the need to experience efficacy and mastery in important activities in one's life. Competence occurs in environments that provide opportunities to acquire skills and obtain informational feedback that support effectiveness. Finally, *relatedness* is the need to feel significant and connected to important others. Relatedness is experienced when one cares for and is cared for by important others, and is thwarted when one experiences isolation or disconnection. Importantly, need satisfaction is assessed according to the experience of the individual. While experiences of need satisfaction are heavily impacted by the affordances provided from the environment, experiences of need satisfaction mediate relations between these conditions and outcomes. In this way, need satisfaction may provide the pathway through

which the more objective affordances provided by the environment, including those assessed in the capability literature, impact well-being.

Numerous studies have shown the crucial role of these basic psychological need satisfactions in well-being. For example, Chirkov et al. (2003) showed support for psychological needs leading to well-being across cultures as varied as South Korea, Turkey, Russia, and the United States. Ryan et al. (2010) showed that the experiences of autonomy and competence, both at the trait level and the daily level, led to better days on average. Chen et al. (2014) recently showed in samples from multiple cultures the positive relations of these need satisfactions (and the negative effects of their frustration) to wellness-relevant outcomes, and also how these effects were not moderated by subjective preferences for these satisfactions (see also Sheldon and Hilpert 2012).

New evidence also suggests that basic psychological needs appear to mediate the effects of poor economic conditions. For example Gonzalez et al. (2014) examined a sample of US workers to test whether basic need satisfactions mediated the relations between their socioeconomic status (SES), evaluated in terms of occupational status indicators, and both physical and mental health. Controlling for several variables known to impact health (e.g., age, exercise levels, and smoking status), their findings indicated that a substantial portion of the variance in health-related outcomes was accounted for by the three basic psychological needs of SDT. Di Domenico and Fournier (2014) similarly examined relations between SES and wellbeing, and whether these were mediated by SDT's basic need satisfactions. They specifically assessed the relations between self-reported SES, household income, and the degree of socioeconomic inequality in one's surroundings as predictors of health and wellness. In this work, all three of these indicators were related to greater self-reported health and wellness, and importantly, SDT's basic need satisfactions mediated these relations.

Among the implications of such research is that factors associated with poor social and economic conditions can be frustrating to people's basic psychological needs, and thereby reduce wellness, whereas other objective factors in life can enhance wellness. A question in the current research is the extent to which the capabilities as described in Nussbaum's approach are associated with these psychological need satisfactions and frustrations. Because of the nature of capabilities, and their tendency to aim more toward environmental affordances, SDT's basic psychological needs may also provide a meaningful psychological pathway by which these capabilities afforded by the environment translate into personal well-being. We expect that basic psychological needs will mediate the relations of capabilities to varied indicators of psychological wellness. This partial mediation is expected because capabilities afford people opportunities to pursue what they find worthwhile and thus conduce to greater basic psychological need satisfaction, which in SDT's view underlies wellness and vitality.

2 Present Research

We examined the relations between capabilities, basic psychological needs, and well-being in heterogeneous convenience samples from two cultures, namely the USA and India. We hypothesized that capabilities would be positively linked to well-being, as found in prior research. In addition, we expected that the relations between capabilities and wellness-relevant outcomes would be substantially mediated by SDT's basic psychological need satisfaction and that these effects would be similarly present in both cultures sampled. In

short, we were expecting to support the import of both the capabilities approach and the SDT framework as predictors of wellness.

3 Study 1: USA

3.1 Participants and Procedure

Participants were recruited online via Amazon Mechanical Turk in the United States, which is an online platform allowing individuals to accept surveys or tasks to be completed online. Participants selected this study from among the other 'tasks' available on Mechanical Turk, and were paid $.50 USD for participating. Of the 185 participants who completed the online survey and an attention check item, 121 were female and 64 male. Participants represented a broad range of adult ages ($M = 38.32$, $SD = 13.44$, range 18–79). Participants were 83.24 % Caucasian, with the rest comprised of 8.11 % Black, 4.32 % Asian, and 4.32 % Other. The survey asked participants to complete measures of capabilities, basic psychological needs, and psychological well- and ill-being. No participants were missing more than 10 % of data on key study variables, and thus none were excluded.

3.2 Materials

3.2.1 Capability Indicator

Nussbaum's capabilities were assessed using the Capabilities Indicator developed by Anand et al. (2009). This includes items such as "Does your health in any way limit your daily activities compared with most people of your age?", "I am free to practice my religion as I want to," and "At present how easy or difficult do you find it to enjoy the love care and support of your immediate family?" Four items asking about different types of discrimination were combined into single items. Capability indicators were computed according to Anand et al. (2009), resulting in 12 variables representing the 10 indicators of life; bodily health; bodily integrity; senses, imagination, and thought; emotions, practical reason, affiliation (A & B); other species, play, and control over one's environment (A & B).

3.2.2 Basic Psychological Needs

Basic psychological need satisfaction was measured using the 24-item Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al. 2014). A composite was created from this scale, representing autonomy, competence, and relatedness need satisfaction. Reliability was good ($\alpha = .91$).

3.2.3 Psychological Well-Being

Psychological well-being was assessed in our models using two summary variables. Life satisfaction, positive affect and the absence of negative affect were used to form the widely index of *subjective well being* used in many studies (Diener et al. 1985). To have a richer

picture of wellness outcomes a second index was created consisting of meaning in life and vitality, both of which have been cited as common associated of eudaimonic living (Ryan et al. 2008).

3.2.4 Vitality

itality was assessed using the subjective vitality questionnaire (Ryan and Frederick 1997). Five of the seven items identified by Bostic et al. (2000) as most internally consistent were used. These were rated on a seven-point scale (1 = *Not at all true* to 7 = *Very true*), and included "I feel alive and vital," and "I feel energized." Reliability (α) for this scale in this sample was .93.

3.2.5 Affect

Both positive and negative affect were assessed using the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988). Twenty items were assessed on a five-point scale (1 = *Very slightly or not at all* to 5 = *Extremely*), and included "interested," "upset," "guilty," and "proud." Reliabilities were good (α = .90 overall; α = .92 positive affect, α = .91 negative affect).

3.2.6 Life Satisfaction

The Satisfaction with Life Scale (Diener et al. 1985) was used to assess life satisfaction using a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). The five items include "In most ways my life is close to my ideal," and "So far I have gotten the important things I want in life." Reliability (α) for this scale in this sample was .90.

3.2.7 Meaning in Life

The presence of meaning in life was measured using the presence subscale of the Meaning in Life Questionnaire (Steger et al. 2006). Five items were assessed on a seven-point scale (1 = *Absolutely Untrue*, 7 = *Absolutely True*), and included items such as "I understand my life's meaning," and "my life has a clear sense of purpose." Reliability (α) for this scale in this sample was .91.

3.3 Data Analytic Strategy

Correlation tables were first generated among all relevant study variables. Structural equation modeling (SEM) was used to examine the theoretically-driven model of basic psychological need satisfaction as a mediator of the relationship between capabilities and well-being. All data analysis was completed using Stata 13.

A principle components analysis (PCA) was conducted to confirm the consolidation of well-being measures into two factors. Subjective well-being was made up of life satisfaction, positive affect, and negative affect. An analysis of the scree plot, as well as factor loadings, indicated that a single factor represented these three variables well (with Eigenvalue = 1.72, other Eigenvalues < .84) and explained 57.4 % of the variance. For the index of vitality and meaning in life, a single factor was again appropriate (Eigenvalue = 1.59, other Eigenvalue = .41) that explained 79.3 % of the variance.

3.4 Results

3.4.1 Measurement Model

To examine the measurement model, we first modeled all latent variables by manifest composite variables representing each construct. The latent capabilities variable was modeled with each subscale of the Capability Indicator as a manifest variable. Basic psychological need satisfaction was modeled with autonomy satisfaction, competence satisfaction, and relatedness satisfaction as manifest variables. Subjective well-being was modeled with life satisfaction, positive affect, and negative affect as indicators (with positive and negative affect error variances correlated), and vitality and presence of meaning in life were modeled as indicator variables on a second latent variable. Covariances were included between all latent variables in the model (see Table 1). Model fit was moderate, $\chi^2(195, N = 185) = 542.57$, $p < .001$, $\chi^2/df = 2.78$, RMSEA = .10 (90 % CI .088–.108), CFI = .77.

3.4.2 Structural Model

The results of the final structural model are shown in Fig. 1. The model controlled for the effects of age and gender on need satisfaction, subjective well-being, and vitality/meaning. Model fit was moderate, $\chi^2(195, N = 185) = 542.57$, $p < .001$, $\chi^2/df = 2.78$, RMSEA = .10 (90 % CI .088–.108), CFI = .77. The hypothesized path from capabilities to basic psychological need satisfaction was significant ($\beta = .85$, $p < .001$), as were the paths from basic psychological need satisfaction to both subjective well-being ($\beta = .66$, $p < .001$) and vitality/meaning ($\beta = .60$, $p < .001$). In addition, the path from capabilities to subjective well-being was significant ($\beta = .36$, $p < .05$), however the path from capabilities to vitality/meaning ($\beta = .35$, $p = .06$) was marginal.

3.4.3 Mediation Analysis

To test our expectation that need satisfaction would mediate the effects of capabilities on well-being, we report and calculate ratios of direct, indirect, and total effects (see Table 2). Capabilities exerted a marginal direct effect on subjective well-being (direct $\beta = .36$, $p = .08$). However, capabilities did exert significant indirect effects on subjective well being (indirect $\beta = .56$, $p < .05$), resulting in 60.9 % of the total effect of capabilities on subjective well-being being mediated by basic psychological need satisfaction (total $\beta = .92$, $p < .01$).

Capabilities did not exert significant direct effects on vitality/meaning (direct $\beta = .35$, $p = .10$). However, capabilities did exert significant indirect effects on vitality/meaning

Table 1 Measurement model covariances, Study 1 (US) above diagonal, Study 2 (India) below

	Capabilities	Need satisfaction	Subjective well-being	Vitality/meaning
Capabilities	1.00	.86***	.92***	.87***
Need satisfaction	.76***	1.00	.97***	.91***
Subjective well-being	.90***	.91***	1.00	1.07***
Vitality/meaning	.73***	.87***	1.12***	1.00

***$p < .001$

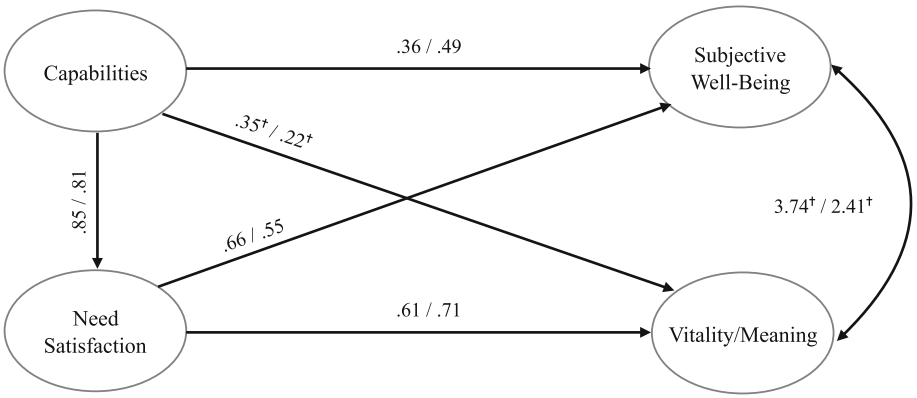

Fig. 1 Structural equation model of effects of capabilities and basic psychological need satisfaction on subjective well-being and vitality/meaning in a United States (listed first) and India (listed second) sample. US Model Fit: $\chi^2(195, N = 185) = 542.57$, $p < .001$, $\chi^2/df = 2.78$, RMSEA = .10 (90 % CI .088–.108), CFI = .77; India Model Fit: $\chi^2(195, N = 171) = 437.36$, $p < .001$, $\chi^2/df = 2.24$, RMSEA = .09 (90 % CI .075–.096), CFI = .83

Table 2 Direct, indirect, and total effects of capabilities on subjective well-being and flourishing in the US and India

	β	B	SE	*p*
US				
Direct effects				
CAP → SWB	.36	1.57	.91	>.05
CAP → VM	.35	1.16	.71	>.05
NS → SWB	.66	1.11	.33	<.01
NS → VM	.60	.78	.26	<.01
Indirect effects				
CAP → NS → SWB	.56	2.43	1.01	<.05
CAP → NS → VM	.51	1.70	.75	<.05
Total effects				
CAP on SWB	.92	4.00	1.20	<.01
CAP on VM	.86	2.86	.85	<.01
India				
Direct effects				
CAP → SWB	.49	1.76	.61	<.01
CAP → VM	.22	.61	.40	>.05
NS → SWB	.55	.77	.21	<.001
NS → VM	.71	.78	.16	<.001
Indirect effects				
CAP → NS → SWB	.44	1.62	.43	<.001
CAP → NS → VM	.57	1.62	.43	<.001
Total effects				
CAP on SWB	.93	3.35	.68	<.001
CAP on VM	.79	2.23	.44	<.001

CAP capabilities, *NS* need satisfaction, *SWB* subjective well-being, *VM* vitality/meaning

(indirect $\beta = .51, p < .05$), resulting in 59.3 % of the total effect of capabilities on vitality/meaning being mediated by psychological need satisfaction (total $\beta = .86, p < .01$). These results suggest that need satisfaction is a partial mediator of the effects of capabilities on both subjective well-being and vitality/meaning.

4 Study 2: India

4.1 Participants and Procedure

The design of Study 2 was identical to that of Study 1. Participants were recruited online via Mechanical Turk in India, and again awarded $.50 USD for participating. Of the 176 participants who completed the online survey and an attention check item, one participant was missing greater than 10 % of study data, and 4 participants indicated being of American origin and were thus excluded from analyses, leaving a sample size of 171. Participants were 107 males and 64 females, and again represented a broad range of adult ages ($M = 32.64$, $SD = 9.84$, range 20–67). Most participants identified as Asian (96.5 %), with the rest being White (1.75 %), or Other (1.75 %).

4.2 Materials

All measures were identical to those used in Study 1. Reliabilities were all similar to those in Study 1 (αs $\pm$ .10), with the exception of vitality ($\alpha = .75$).

4.3 Results

4.3.1 Measurement Model

Using the same procedure as Study 1, we first modeled all latent variables by manifest composite variables representing each construct. Covariances were included between all latent variables in the model (see Table 1). Model fit was moderate, $\chi^2(195, N = 171) = 437.36$, $p < .001$, $\chi^2/df = 2.24$, RMSEA = .09 (90 % CI .075–.096), CFI = .83. However, loadings from the latent capabilities variable to two indicators, life, and control over one's environment (A) were not significant, and were removed from the model. This resulted in a final measurement model fit: $\chi^2(156, N = 171) = 350.26$, $p < .001$, $\chi^2/df = 2.25$, RMSEA = .09 (90 % CI .073–.097), CFI = .86.[1]

4.3.2 Structural Model

The results of the final structural model are shown in Fig. 1. Model fit was moderate, $\chi^2(156, N = 171) = 350.26, p < .001, \chi^2/df = 2.25$, RMSEA = .09 (90 % CI .073–.097), CFI = .86. The hypothesized path from capabilities to basic psychological need satisfaction was significant ($\beta = .81$, $p < .001$), as were the paths from basic psychological need satisfaction to both subjective well-being ($\beta = .55$, $p < .001$) and vitality/meaning ($\beta = .71$, $p < .001$). In addition, the path from capabilities to subjective well-being was

[1] The authors also ran this model in the US sample, removing these two indicator variables, but it did not change the overall pattern of results, so the original model was retained.

significant ($\beta = .49$, $p < .001$), but again the path from capabilities to vitality/meaning ($\beta = .22$, *ns*) was not significant.

4.3.3 Mediation Analysis

To test our expectation that need satisfaction would mediate the effects of capabilities on well-being, we followed the same procedures as in Study 1 (see Table 2). Capabilities exerted significant direct effects on subjective well-being (direct $\beta = .49$, $p < .01$). Additionally, capabilities exerted significant indirect effects on subjective well-being (indirect $\beta = .44$, $p < .01$), resulting in 47.3 % of the total effect of capabilities on subjective well-being being mediated by basic psychological need satisfaction (total $\beta = .93$, $p < .001$).

Capabilities did not exert significant direct effects on vitality/meaning (direct $\beta = .22$, *ns*), but did exert significant indirect effects on vitality/meaning (indirect $\beta = .57$, $p < .001$), resulting in 72.2 % of the total effect of capabilities on vitality/meaning being mediated by basic psychological need satisfaction (total $\beta = .79$, $p < .001$).

5 General Discussion

Across two studies representing two different cultural samples, the hypothesized relations between capabilities and both subjective well-being and vitality/meaning were supported. Consistent with previous work by Anand et al. (2009) in the UK, in both the United States and India, the capability indicator was highly positively correlated with measures of well-being. The affordance of these basic human capabilities was associated with some of the most commonly used indicators of human flourishing, and to the extent that these capabilities are absent, they were associated with indicators lower well-being. Also consistent with previous work, basic psychological need satisfaction was highly positively correlated to both subjective well-being as well as vitality/meaning. The literature supporting these relations of basic needs to wellness outcomes is extensive (for a comprehensive review, see Ryan et al. 2016).

The hypothesized mediating role of basic psychological needs in the relations between capabilities and well-being measures was also generally supported. It appears that capabilities represent at least some of the necessary conditions associated with the satisfaction of the basic psychological needs, which in turn support well-being. This sheds some light on previously mentioned critiques of the Nussbaum approach, suggesting that capabilities are overly objective, and don't fully take into account the subjective experiences that lead to well-being. In these two studies, it appears that basic psychological needs, powerful and consistent predictors of well-being that focus on phenomenological experience, are related to and partially account for the effects of the environmental affordances of Nussbaum's capabilities approach. In addition, capabilities did not consistently directly predict vitality/meaning, whereas basic psychological need satisfaction did. Notably, basic psychological needs did not fully mediate the relation between capabilities and well-being; indeed, we shouldn't expect them to. The reach of Nussbaum's capabilities approach includes dimensions such as adequate food, shelter, personal safety, and longevity, which concern physical rather than psychological needs (Deci and Ryan 2000). These results may suggest that need satisfaction may be more robustly related to vitality/meaning than capabilities, perhaps offering a more complete picture of optimal human functioning.

This set of studies is not without limitations. Importantly, while the data was collected from two separate countries, all data was collected online through Amazon Mechanical Turk. There is evidence that Mechanical Turk is significantly more diverse than typical American college samples (Buhrmester et al. 2011) and most convenience samples (Berinsky et al. 2012). However, it is less representative than panel methods specifically designed to be nationally representative, such as national probability samples (Berinsky et al. 2012). In addition, because Mechanical Turk requires access to a computer and internet connection, it is possible that samples collected in this way across the world may not represent certain groups or socioeconomic statuses equally. Future research would benefit from extending these methods beyond the methods and countries represented in this work.

A second limitation to this work is that it is cross-sectional. While our model shows the mediational role of basic psychological need satisfaction in the relations between capabilities and well-being, future work should strive to show this pattern longitudinally, more fully establishing the potential ordered nature of these effects. In particular, it is important to show that changes in life circumstances reflected in the capabilities measures would be related to subsequent changes in basic psychological need satisfaction, which then impact changes in well-being.

The variables included in this study are also relatively highly correlated. This is to be expected given previous work and the nature of these constructs, but presents challenges for disentangling the unique contributions of each of these variables to well-being. The measures in the present studies are also based on self-report data, and future work might consider other indicators of well-being, as well as other outcomes of well-being. To capture wellness we assessed the commonly employed assessment of subjective well being, which facilitates comparisons. Yet we also added two variables that have been associated with eudaimonia in the literature, namely vitality and meaning. In doing so our attempt is to broaden the outcomes assessed, and we in no way claim that these two variables alone represent a full definition of eudaimonia or flourishing (see, e.g., Huppert and So 2013, for a fuller treatment).

Despite these limitations, the present work is an important first step in coordinating the capabilities approach and SDT in predicting human wellness and flourishing. Importantly, this work reveals that both lines of work, while focusing on well-being, assess aspects that are critical to well-being.

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