## Self-Transcendence or Self-Enhancement: People's Perceptions of Meaning and Happiness in Relation to the Self

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# Self-Transcendence or Self-Enhancement: People's Perceptions of Meaning and Happiness in Relation to the Self

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We all desire to have meaningful experiences in life, but what factors give rise to perceptions of meaning? Across seven preregistered studies (total $N$ = 1362), we examined the role of self-transcendence (i.e., benefits to society) and self-enhancement (i.e., benefits to the self) in people's judgments of meaning, in comparison with their judgments of happiness. We found that people weighed benefits to society more heavily than benefits to the self when evaluating the meaning of different jobs (Study 1), other people's life (Study 2a), and advice given to others (Study 2b). In contrast, benefits to the self were weighed similarly to (Studies 1 and 2) or even more heavily than benefits to society (Study 3) in people's judgments about happiness, suggesting people's meaning judgment is more self-transcendent than happiness judgment. Similar differences between meaning and happiness were found in participants' first-party perceptions of their own jobs (Study 4), advice intended to improve their own lives (Study 5), and actual feelings of completing a behavioral task (Study 7), except that self-enhancement played a relatively bigger role in *first-party* meaning judgments than in *third-party* meaning judgments (Studies 4–6). The results consistently suggest that people's meaning perceptions are more self-transcendent than their happiness perceptions (Studies 1–7). Our findings help illuminate the social–cognitive processes underlying people's perceptions of meaning, as well as shed light on the similarities and differences between people's conceptualizations of meaning and happiness.

*Keywords:* happiness, judgment, meaning, self-enhancement, self-transcendence

What gives rise to a sense of meaning in life? This eternal question for human beings has been discussed by philosophers, psychologists, and ordinary people throughout history. According to existential philosophers (e.g., Camus, 1954; Nietzsche, 1883/1995; Sartre, 1948, 1966), life has no intrinsic meaning, and each individual has to overcome nothingness and create a sense of meaning through their own choices, values, and actions. Based on this view, meaning is inherently subjective and idiosyncratic, and each individual has the freedom and responsibility to construct the meaning of his or her own life. The majority of psychological research on meaning has also embraced a subjective approach, focusing on self-reported *feelings* of meaning in life as a emotional state that relies on each participant's own definition of meaning

(e.g., the Purpose in Life Test, Crumbaugh & Maholick, 1964; the Meaning in Life Questionnaire, Steger et al., 2006; the Perceived Personal Meaning Scale, Wong, 1998; also see Hicks & King, 2009; King & Hicks, 2021; for review). Research adopting this approach has generated substantial insights about feelings of meaning in life and its correlates (see King & Hicks, 2021, for a review). But researchers have also wondered what meaning in life judgment is about (Costin & Vignoles, 2020) and raised questions about directly asking participants about meaningfulness (Leontiev, 2013). What needs to be understood is essentially the *social–cognitive processes* underlying people's perceptions of meaning: How do individuals determine what constitutes meaning and make meaning judgments? Are there basic conceptual structures or

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themes underlying people's perceptions of meaning? To shed light on these questions, our article aims to systematically examine people's conceptions and judgments of meaning (with happiness as a comparison), in relation to two fundamental and orthogonal aspects of the self (i.e., self-enhancement or self-transcendence).

Psychology researchers have proposed various facets of meaning (e.g., George & Park, 2016; see Martela & Steger, 2016, for review; Heintzelman & King, 2014), among which the most prominent and widely adopted are three components: (a) *purpose*, (b) a *coherence* that "transcends chaos," and (c) *significance* "beyond the trivial or momentary" (King et al., 2006, p. 180). It was hypothesized that when people experience these three components, they would experience meaning in life. Each component has received empirical support. Sense of purpose has been found to be highly correlated with feelings of meaning, despite that the two constructs also have distinct predictors and correlates (George & Park, 2013). Participants reported higher levels of meaning in life after viewing coherent stimuli than after viewing random stimuli, supporting the role of coherence in meaning in life (Heintzelman et al., 2013). Significance, or "mattering," has been found to be a more reliable factor predicting feelings of meaning in life, compared with the other two factors (Costin & Vignoles, 2020). Recent findings suggest that "*experiential appreciation*"—valuing one's life experiences—also uniquely predicts feelings of meaning in life over and above the three components (Kim et al., 2022). These findings help elucidate the correlates of subjective feelings of meaning in life, while leaving open the social–cognitive processes underlying people's conceptions of meaning.

Empirically, recent research has directly examined lay beliefs about meaning in life and found that people perceive meaning in life as common subjective experiences, created and discovered by individuals (Heintzelman et al., 2020). Informed by philosophical discussions of meaning in life as objective or subjective states, Prinzing et al. (2021) found that both subjective experiences (e.g., feelings of interest, engagement, and fulfillment) and objective conditions of life (e.g., their impacts on others) contribute to lay people's third-person attributions of meaning. Building on these findings, we aim to examine people's conceptualizations of meaning from a new perspective: How meaning is perceived in relation to the self—the role of *self-transcendence* (actions and outcomes that benefit entities beyond the self) and *self-enhancement* (actions and outcomes that benefit the self) in people's perceptions and judgments of meaning.

The broad conceptualization that "meaning is about transcending the self" has been considered by many theorists. As one of its most seminal advocates, Viktor Frankl (1984) argues, life has a meaning when "He becomes so, not by concerning himself with his self's actualization, but by forgetting himself and giving himself, overlooking himself and focusing outward" (p. 36). A specific form of self-transcendence—being a productive and contributing member of society—has been viewed as features for maturely constructed personal narratives and identity (McAdams, 1993). In contrast, exclusive concern with oneself has been viewed as a symptom of the absence of meaning in life (Frankl, 1995/1996; Yalom, 1980). At the societal level, Charles Taylor notes that the loss of meaning is a pervasive problem in modern individualistic societies that did not exist in traditional societies, when people naturally adhered to things larger than themselves, such as religion or traditional cultural norms (Taylor, 1989, 2018). Even existential

philosophers have argued that in constructing personal meaning, people have to go outside themselves and pursue transcendent goals (Sartre, 1948).

Consistent with these views, Reker and Wong's model (Reker & Wong, 1988) on personal meaning system categorizes meaning orientations into four hierarchical levels: self-preoccupation (i.e., hedonic pleasure and comfort), individualism (i.e., devote time and energy to realizing one's potential), collectivism (i.e., commitment to larger societal and political groups), and self-transcendence (i.e., pursuing values and goals that transcend self-interests). The model posits that perceived meaning increases in proportion to one's commitment to higher levels of orientations. Therefore, meaning has been extensively theorized to be fundamentally about self-transcendence, although empirical evidence is much needed in terms of whether this is how people actually perceive meaning.

Conceptualizing meaning as deeply related to self-transcendence does not necessarily mean that meaning is only about self-transcendence. When asked about sources of meaning in life, for example, adults indeed report self-transcendent goals and actions (e.g., contributing to society, leaving a legacy, promoting others' welfare), in domains like work, service, or close relationships (e.g., Baum & Stewart, 1990; Cassar & Meier, 2018; Emmons, 2005; Fave et al., 2013, 2013; Reker & Woo, 2011). But people also report activities and experiences that enhance the self as sources of meaning, in terms of eudaimonic (personal growth and achievement), hedonic (enjoyable experiences like traveling and hobby), and material (e.g., major purchases) aspects of the self (Baum & Stewart, 1990; Fave et al., 2013; Lambert et al., 2010). These values underlying people's sources of meaning are consistent with the categories in Schwartz's Theory of Basic Values (Schwartz, 1992, 2012), that self-transcendence (e.g., universalism and benevolence) and self-enhancement (e.g., achievement, hedonism, and power) are both universal values that motivate goal pursuits in life. In fact, meaning orientations among older adults were found to be distributed relatively equally among self-preoccupation (25%), individualism (28%), collectivism (20%), and self-transcendence (27%; Reker & Woo, 2011). Therefore, it is likely that self-enhancement and self-transcendence may both influence people's perceptions of meaning, and it is an empirical question whether self-transcendence plays a relatively more important role than self-enhancement does.

Self-enhancement and self-transcendence are not only important sources for meaning but may also be sources for another equally important dimension of the good life—happiness. To understand people's view of meaning, it will be informative to compare it with people's view of happiness. On one hand, people distinguish meaning and happiness as two distinct components of the good life (King & Napa, 1998) and view them as related to different feelings, thoughts, and behaviors in life (Dwyer et al., 2017). Some findings suggest that happiness and meaning may not always be in harmony with each other. For example, people perceive parenthood and work as meaningful, but time spent in raising children or at work is often associated with decreased happiness (e.g., Baumeister, 1991; Kahneman et al., 2004; White & Dolan, 2009). Receiving benefits for the self is associated with higher levels of happiness, whereas doing good actions to benefit others is associated with the most meaning (Hofmann et al., 2014). According to these findings, self-transcendence might play a more important

role in perceived meaning, and self-enhancement might play a more important role in perceived happiness.

On the other hand, however, happiness and meaning may also be related experiences and constructs in people's minds. Happiness is often listed as one of the key sources of meaning (Lambert et al., 2010). Feelings of happiness have also been found to be strongly related to feelings of meaning, and induced happiness leads to higher meaning in life (King et al., 2006). Similar to meaning, people also seem to derive happiness from sources of self-enhancement and self-transcendence. Individuals in Western societies frequently report happiness from self-enhancement experiences and outcomes, such as gaining hedonic (pleasure and enjoyment), eudaimonic (personal growth and achievement), intellectual (mental alertness), and physical (e.g., physical fitness) benefits for the self (Diener et al., 2009; Lu & Shih, 1997). At the same time, being prosocial and transcending self-interests also lead to experiences and perceptions of happiness (e.g., Dunn et al., 2008; Sun et al., 2017). For example, prosocial behaviors such as benefiting others make people feel happier than benefiting themselves (e.g., Dunn et al., 2008). Moreover, children and adults judge morally bad people (who fulfill desires at the expense of others) as not happy (e.g., Phillips et al., 2011, 2017; Yang et al., 2021). Therefore, it is possible that self-transcendence and self-enhancement may play similar roles in happiness and meaning. Few studies have systematically examined the potential similarities and differences in people's perceptions of meaning and happiness. We examine this question by directly comparing people's perceptions of meaning and happiness in relation to self-enhancement and self-transcendence.

To thoroughly understand the social–cognitive processes underlying people's perceptions of meaning, it is necessary to consider the points of view—if people use the same standard to evaluate their own meaning in life versus others' meaning in life. Given the extensive findings showing discrepancies between third-party and first-party judgment, especially that people tend to evaluate themselves more positively and more morally good than others (e.g., Heintzelman et al., 2020; Loughnan et al., 2010; Walmsley & O'Madagain, 2020), it is conceivable that people might overestimate the role of self-transcendence in their own meaning and happiness and underestimate its role in other people's meaning and happiness. Supporting this possibility, it has been found that when perceiving others (as compared with themselves), people tend to underestimate the importance of higher-level psychological needs (e.g., self-transcendence) and overestimate the importance of lower-level physiological needs (Schroeder & Epley, 2020). Alternatively, given that people have direct access to their own needs and desires, it is also possible that they may weigh the self-enhancement dimension more heavily in first-party judgment of meaning and happiness than in third-party judgment. In the current research, we explore these possibilities by examining whether there is a difference in third-party and first-party judgments of meaning and happiness.

Overall, the present set of studies take a social–cognitive approach to examine how individuals make judgments about meaning and happiness from both third-party and first-party perspectives, in relation to two fundamental aspects of the self—self-enhancement and self-transcendence. Based on the literature on sources of meaning (e.g., Baum & Stewart, 1990; Cassar & Meier, 2018; Emmons, 2005; Fave et al., 2013, 2013; Lambert et al., 2010; Reker & Woo, 2011), we operationalize *self-enhancement* in our manipulations as sources that provide benefits to the self, including personal

achievements, growth, and hedonic pleasures, and we operationalize *self-transcendence* as sources that provide benefits to society, such as helping others and making broader social impact, which is consistent with the conceptualizations of self-transcendence in the literature (Reker & Wong, 1988; Reker & Woo, 2011). We did not include close relationships (e.g., supporting family members) in either dimension, because it is theoretically unclear whether it would be best categorized as self-enhancement or self-transcendence, a point we return to in the General Discussion. In all studies, we are most interested in whether people value benefits to society and benefits to the self equally in meaning judgment. We include people's happiness judgment as a comparison to see whether the two factors play similar roles in people's conceptions of the two constructs. Our hypotheses are as follows:

*H1:* People value self-transcendence more than self-enhancement when evaluating meaning in other people's lives (third-party judgments).

*H2:* Compared with meaning judgments, self-enhancement may play a relatively more important role in happiness judgments (third-party judgments).

*H3:* Similar to their third-party judgments, people would value self-transcendence more than self-enhancement when making judgments about meaning in their own lives, and value self-transcendence more than (or similar to) self-enhancement when making judgments about happiness in their own lives (first-party judgments).

We tested these hypotheses in seven preregistered studies. Existing literature mostly focuses on the overall amount of people's feelings of meaning in life. We examine people's meaning and happiness judgments across diverse targets and contexts (e.g., jobs, activities, life as a whole, experiences of behavioral tasks). Studies 1 through 3 investigate how people make disinterested meaning and happiness judgments about jobs, activities and the life of other people. Studies 4 through 6 examine how people make first-party meaning and happiness judgments about their own jobs and activities in life. Study 7 examines people's actual feelings of meaning and happiness after completing behavioral tasks that benefit the self or the society. Our findings help illuminate the social–cognitive processes underlying people's perceptions of meaning in relation to the self, as well as shed light on the similarities and differences between meaning and happiness as two related and distinct constructs. All measures, manipulations, and exclusions in the studies are reported in the article. All studies were approved by the Institutional Review Board of The University of Chicago, protocol number IRB 19–1347-AM020. Study materials, all data, and analysis code are shared on OSF (https://osf.io/94vtk/?view_only=6c9bb348 518c4abb9dc63bde81e2e72c; Huang & Yang, 2022).

## Study 1

Study 1 explored whether and how perceived benefits to society and to the self were associated with perceived meaning and happiness of different jobs. We focused on the evaluations of jobs because work constitutes a large part of ordinary adult life, and it is often described as an important source of meaning in life (Fairlie, 2011; Ward & King, 2017). We asked participants to rate benefits to the self and benefits to society for fifteen jobs. Of interest

was whether and how their benefits ratings would predict meaning and happiness ratings for the jobs.

## Method

### Participants

We preregistered to recruit 100 participants on Amazon Mechanical Turk (MTurk) in exchange for a small amount of payment. We maintained the sample size of 100 per condition across all studies in this paper, similar to those in relevant research (e.g., Heintzelman et al., 2020; Prinzing et al., 2021; Steger et al., 2011). For this study, according to G*power (Version 3.1; Faul et al., 2007), a sample size of 100 would be sufficient to obtain 80% power to detect a small to medium effect size ($f^2 = .06$) with an $\alpha$ of .05 in a multiple regression with two predictors (benefits to society, benefits to the self). Participants in this study and all subsequent studies were recruited from locations within the United States and had a 95% or higher approval rate. Ninety-four participants (39% identified as female, 61% identified as male; $M_{age} = 36.14$ years, $SD = 11.85$ years, $range = 20–68$) completed our study. Among them, 68% of the participants were White, 9% Asian or Pacific Islander, 16% Black or African American, 7% Hispanic or Latino.

To ensure data quality, for all surveys reported in the article, we excluded participants who did not complete all questions, limited the responding time to 30 minutes, and checked participants' IP addresses to ensure no duplicate responses.

### Procedure and Design

To generate a list of jobs, we first conducted a pilot study in which we asked twenty adults to rate 30 different jobs in terms of their benefits to the person and to society at large. We selected 15 jobs that received diverse ratings on these two dimensions on a scale of 100 (benefits to the self range from 29.92 to 81.07; benefits to society range from 22.93 to 74.79; see the supplemental materials on OSF for a full list of jobs and their ratings).

In the formal study, we presented the 15 jobs to each participant in a random order. For each job, participants were asked to rate four statements regarding the job's benefits to the self ("This job brings great benefits to the person who does the job"), benefits to society ("This job makes great contributions to society"), meaning ("This is a meaningful job"), and happiness ("This is a happy job"). Participants used a slider to indicate their answers (0 = Completely Disagree, 50 = Neutral, 100 = Completely Agree).

## Results and Discussion

Descriptive statistics for the ratings and their correlations are presented in Table 1. We first conducted a linear mixed-effect model using the nlme[1] package in R (Pinheiro et al., 2007), predicting participants' meaning judgment as a function of either benefits to society or benefits to the self, with participant ID and job items included as random intercepts. We found that benefits to society ($B = .63$, $SE = .02$), $t(1314) = 30.28$, $p < .001$, 95% CI [.59, .67], and benefits to the self ($B = .15$, $SE = .02$), $t(1314) = 6.17$, $p < .001$, 95% CI [.10, .19], both independently predicted meaning judgment. We then conducted a follow-up generalized linear hypothesis test to compare the difference between these two

**Table 1**

*Descriptive Statistics and Correlations Between Benefits to Self, Benefits to Society, Meaning, and Happiness Ratings in Study 1*

| Variable | Benefits to self | Benefits to society | Meaning | Happiness |
|---|---|---|---|---|
| Benefits to self | 1.00 | | | |
| Benefits to society | 0.39*** | 1.00 | | |
| Meaning | 0.40*** | 0.68*** | 1.00 | |
| Happiness | 0.45*** | 0.43*** | 0.53*** | 1.00 |
| M | 61.24 | 57.58 | 61.46 | 56.64 |
| SD | 27.59 | 29.78 | 30.81 | 28.28 |

*** $p < .001$.

predictors, using the glht function in the multcomp package (Hothorn et al., 2008). We found that benefits to society predicted meaning judgment more strongly than benefits to the self did, $z = -13.73$, $p < .001$.

A similar linear mixed-effects model on happiness judgment also revealed significant effects of benefits to society ($B = .21$, $SE = .02$), $t(1314) = 9.72$, $p < .001$, 95% CI [.17, .25], and benefits to the self ($B = .27$, $SE = .02$), $t(1314) = 11.07$, $p < .001$, 95% CI [.23, .32]. A generalized linear hypothesis testing revealed that the difference between these two factors in happiness judgment did not reach significance, $z = 1.72$, $p = .09$.

To provide converging evidence, we also constructed a linear regression model, using benefits to society and benefits to the self to simultaneously predict participants' meaning judgment. The model revealed that both benefits to society ($B = .64$, $SE = .02$, $t(1407) = 29.94$, $p < .001$, 95% CI [.60, .68]) and benefits to the self ($B = .18$, $SE = .02$), $t(1407) = 7.71$, $p < .001$, 95% CI [.13, .22], predicted how meaningful a job is, $F(2, 1407) = 665.70$, $R^2 = .49$, $p < .001$. A subsequent linear hypothesis test using the linearHypothesis function (Fox & Weisberg, 2019) indicated that benefits to society predicted meaning judgment more strongly than benefits to the self did, $F(1, 1407) = 155.84$, $p < .001$. A similar linear regression model predicting participants' happiness judgment indicated that both benefits to society ($B = .29$, $SE = .02$), $t(1407) = 12.27$, $p < .001$, 95% CI [.24, .33], and benefits to the self ($B = .34$, $SE = .03$), $t(1407) = 13.51$, $p < .001$, 95% CI [.29, .39], predicted happiness perceptions, $F(2, 1407) = 270.60$, $R^2 = .28$, $p < .001$. The subsequent linear hypothesis test showed no significant difference between the effects of benefits to society and benefits to the self, $F(1, 1407) = 1.78$, $p = .18$. All effects remained similar when controlling for age, gender, race, and education levels.

These results revealed that in the context of job evaluations, perceived benefits to society more strongly predicted meaning judgments than benefits to the self did (consistent with Hypothesis 1). In contrast, benefits to society and benefits to the self similarly predicted participants' happiness judgments, suggesting that people's meaning judgments were more self-transcendent than their happiness judgments (consistent with Hypothesis 2).

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[1] We preregistered to use the robustlmm package in R (Koller, 2019), which adopts the robust estimation, but (unlike the nlme package) it does not allow follow-up comparisons of the magnitude of the two predictors. The results using the nlme package are very similar to those of the robustlmm models (see the supplemental materials on OSF for descriptions of those results).

## Study 2a

Study 1 provided initial correlational evidence that benefits to society plays a more important role than benefits to the self in influencing people's meaning judgments of different jobs, whereas benefits to the self and benefits to society similarly predicted happiness judgments of the jobs. To understand how benefits to society and benefits to the self may *causally* affect meaning and happiness perceptions, Study 2 experimentally manipulated the levels of benefits to society (high vs. low) and benefits to the self (high vs. low) would affect people's perceived meaning and happiness in life, when evaluating other people's life (Study 2a) and when giving advice to other people's life (Study 2b).

### Method

#### Participants

We preregistered to recruit 100 participants from Amazon Mechanical Turk (MTurk) in exchange for a small amount of payment. The sensitivity analysis suggested that a sample size of 100 has at least 80% power to detect a small to medium effect size ($f$ = .12) with an α of .05 in a repeated measure (i.e., high *society*−*low self*, high *society*−*high self*, low *society*−*low self*, low *society*−*high self*), within-factor (meaning and happiness) ANOVA. Ninety-four participants (52% identified as female, 48% identified as male; $M_{age}$ = 37.15 years, $SD$ = 12.32 years, *range* = 21–76) completed all questions in our study (70% White, 9% Asian or Pacific Islander, 15% Black or African American, 3% Hispanic or Latino, and 3% other).

#### Procedure and Design

Each participant responded to four vignettes in a random order, with each vignette describing an individual with high or low levels of contributions to society (e.g., helping people in need, solving essential problems in the world), paired with high or low levels of personal benefits obtained in life (e.g., attaining personal growth, social recognition, and wealth). Therefore, four vignettes represented four conditions: *High benefits to society and high benefits to the self*; *high benefits to society and low benefits to the self*; *low benefits to society and high benefits to the self*; *low benefits to society and low benefits to the self*. For example, for the vignette involving low benefits to the self and high benefits to society, participants read: "James spends most of his time engaging in activities that provide low benefits to himself, in terms of attaining wealth, social recognition, and personal growth. James' actions directly benefit a lot of other people, since the activities spread kindness and help to solve essential social problems (poverty, human rights, equality, etc.), making a big impact on society." The texts for the four vignettes were matched, except the wordings about benefits to the self and to society, which were directly relevant to our manipulation (see the supplemental materials on OSF for all vignettes). After reading each vignette, participants were asked to indicate to what extent they thought this person's life was *meaningful* and to what extent they thought this person's life was *happy* on a 7-point scale (1 = *Strongly Disagree* and 7 = *Strongly Agree*). Participants were randomly assigned to rate either meaning first or happiness first.

### Results and Discussion

The effects of condition on perceived meaning and happiness were assessed via hierarchical linear mixed-effects models using the lme4 package in R (Version 3.1; Bates et al., 2015). We first conducted an overall linear mixed-effects model predicting participants' judgments using condition (*high society*−*low self*, *high society*−*high self*, *low society*−*low self*, *low society*−*high self*), measure (meaning vs. happiness), and their interaction, with ID included as a random effect.[2] We found a significant interaction between measure and condition, suggesting that the pattern of judgments for the four vignettes is different for meaning and happiness, $F(3, 651)$ = 9.49, $p$ < .001. This effect was not moderated by the testing order of the scenarios, $F(3, 644)$ = 1.15, $p$ = .33, and the interaction effect remained the same with testing order included as a control variable, $F(3, 651)$ = 9.49, $p$ < .001, or as a random effect, $F(3, 651)$ = 9.49, $p$ < .001.

#### Meaning Judgment

As preregistered, we predicted participants' ratings of meaning as a function of condition (i.e., high *society*−*low self, low society*−*low self, high society*−*high self, low society*−*high self*), with a random intercept for each participant. We found a significant main effect of condition on meaning judgment, $F(3, 279)$ = 92.74, $p$ < .001. Post hoc pairwise comparisons using Tukey's adjustment indicated that all comparisons were significant (*ps* < .001) except for the comparison between *high society*−*high self* and *high society*−*low self*, $t(279)$ = 1.62, $p$ = .37, suggesting people's judgment of meaning was not sensitive to the levels of benefits to the self when benefits to society is high. The *high society*−*high self* scenario received the highest rating on meaning judgment ($M$ = 6.20, $SE$ = .15), and the *low society*−*low self* scenario received the lowest rating on meaning ($M$ = 3.51, $SE$ = .15), $t(279)$ = 14.14, $p$ < .001. Importantly, participants evaluated the life with *high benefits to society* and *low benefits to the self* as more meaningful ($M$ = 5.89, $SE$ = .15) than the life with *low benefits to society* and *high benefits to the self* ($M$ = 4.23, $SE$ = .15), suggesting that when benefits to society and benefits to the self were pitted against each other, people valued benefits to society more than benefits to the self in meaning judgments, $t(279)$ = −8.72, $p$ < .001 (Figure 1).

#### Happiness Judgment

A similar model predicting happiness ratings also revealed a significant main effect of condition, $F(3, 279)$ = 60.91, $p$ < .001. Post hoc pairwise comparisons using Tukey's adjustment revealed that similar to meaning judgment, participants considered the life with *high society*−*high self* benefits as the happiest ($M$ = 6.01, $SE$ = .14), and the life with *low society*−*low self* benefits ($M$ = 3.52, $SE$ = .14) as the unhappiest, $t(279)$ = 13.12, $SE$ = .19, $p$ < .001 (Figure 1). However, in contrast to the meaning judgment, there was no significant difference in happiness judgment between the life with *high society*−*low self* benefits ($M$ = 4.98, $SE$ = .14) and the life with *low society*−*high self* ($M$ = 5.30, $SE$ = .14), $t(279)$ = −1.68, $SE$ = .19, $p$ = .34, Figure 1 All the other pairwise

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[2] This analysis was not preregistered, but we think it is informative to include and report. Similar analysis was also added to Studies 2b and Study 5.

**Figure 1**

*Participants' Evaluations for Four Types of Activities on Meaning and Happiness in Study 2a*
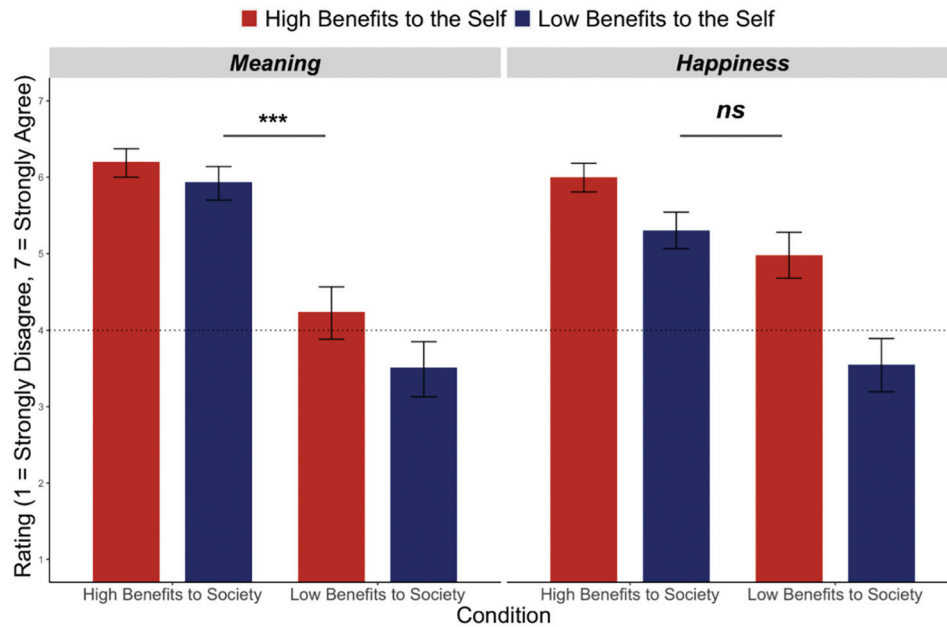


*Note.* Error bars are bootstrapped 95% confidence intervals. ns = not significant. See the online article for the color version of this figure.
*** $p < .001$.

comparisons were significant. To obtain more nuanced information about the null effect, we conducted a Bayesian paired sample $t$ test[3] using the BayesFactor package in R with default parameter values (Morey et al., 2018). The analysis indicated that the data were .37:1 in favor of the null hypothesis, or 2.70 ($1/BF10 = 2.70$) times more likely to occur under the null hypothesis. These results conceptually replicated the findings of Study 1 and provides causal evidence that benefits to society plays a more important role than benefits to the self in people's judgment of life's meaning, whereas benefits to society and to the self were weighed similarly in people's happiness judgment.

## Study 2b

Study 2b sought to conceptually replicate the results from Study 2a and extend these findings in a real-life advice-giving paradigm.

## Method

### Participants

We preregistered to recruit 200 participants from MTurk in exchange for a small amount of payment, who were randomly assigned to give advice to other people either in terms of increasing meaning or increasing happiness (100 participants per condition). A total sample of 200 has at least 80% power to detect a small to medium effect size of ($f = .16$) with an α of .05 in a repeated measure (i.e., high *society−low self*, *high society−high self*, *low society−low self*, *low society−high self*), between-subjects (meaning vs. happiness) ANOVA. Twenty participants were excluded due to either failure to pass our attention check

(i.e., "This is an attention check. Your payment will be rejected if you do not follow the instructions below. To what extent do you agree that 'killing other people just for fun is morally good'? Please select *Strongly Disagree* for this question") or did not complete all questions of the study. The final sample included 180 participants (37% reported as female, 63% reported as male; $M_{age} = 39.06$ years, $SD = 12.96$ years, *range* = 18–76). Among these participants, 80% of the participants were White, 7% were Asian or Pacific Islander, 7% were Black or African American, 4% were Hispanic or Latino and 2% were other.

### Procedure and Design

Participants were randomly assigned to the *meaning* condition ($N = 91$) or the *happiness* condition ($N = 89$). Participants in both conditions were asked to serve as a consultant for an online support program that provided advice for people (e.g., "The goal of our survey is to seek people's advice regarding various life issues through our online support program. You will play the role of being a consultant to our clients. Many individuals have requested help through our program about how to live a happier life or a more meaningful life. You will read expressions from one individual to learn about his or her situation and give advice on how to make his or her life happier or more meaningful. For confidential purposes, identifiable personal information of the client will not be included. We will send your advice directly to his or her e-mail after you complete the survey"). Participants then read narrative

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[3] We did not strongly predict null results and thus did not preregister the Bayesian factor test, but we think it is informative to conduct the test to understand these results.

statements from an individual who would like to make his or her life either more meaningful (*meaning* condition) or happier (*happiness* condition). Participants in the meaning condition read: "Overall I feel that my life is pretty happy. I enjoy my day-to-day activities and I have many good feelings. But I also feel like there is something missing, I feel like I do not really understand the meaning of my life. I want to do something to make my life more meaningful." Participants in the happiness condition read: "Overall I feel that my life is pretty meaningful. I understand the purpose of my day-to-day activities and I have many meaningful long-term pursuits. But I also feel like there is something missing, I feel like I don't have enough good feelings. I want to do something to make my life happier." Participants completed a manipulation check about the target individual's goal, to increase meaning or increase happiness (passing rate: 96.7%).

To prompt participants to reflect on these issues as a consultant, they were first asked to freely write down advice about specific activities that this person should do to increase either meaning (*meaning* condition) or happiness (*happiness* condition). After providing open-ended advice (summary provided in the supplemental materials on OSF), participants in the *meaning* condition read: "The consultants in our program have prepared recommendations regarding four types of activities for our clients. Please rate to what extent you agree that each type of activity will help this person live a more meaningful life (on the 7-point scale below). Your ratings will help our consultants better help and communicate with the clients in our program." Participants were then presented with four different types of activities, featuring high vs. low levels of benefits to society paired with high vs. low levels of benefits to the self (i.e., high *society−low self*, high *society−high self*, low *society−low self*, low *society−high self*). For example, for the *high society−low self activity,* participants read: "This type of activities may provide low benefits to oneself (e.g., do not lead to more wealth, sensory pleasures, social recognition or personal growth) but high benefits to society (e.g., improve people's lives or solve critical social problems)." After they read about each activity, participants were asked: "Remember that this person already feels happy. To what extent do you agree that spending more time doing this type of activity would make this person's life more meaningful," on a 7-point scale (1 = *Strongly Disagree* and 7 = *Strongly Agree*). Participants in the *happiness* condition saw the same information, except that "more meaningful" was replaced with "happier" in the instructions and questions.

## Results and Discussion

We followed the same analytic procedure as in Study 2a. Similar to the findings in Study 2a, the overall linear mixed-effect model showed a significant interaction between measure (meaning vs. happiness) and condition (*high society−low self*, *high society−high self*, low *society−low self*, low *society−high self*), suggesting that the pattern of judgments for the four types of activities is different for meaning and happiness, $F(3, 534) = 7.52$, $p < .001$.

### Meaning Judgment

As preregistered, we then conducted a linear mixed-effects model, predicting meaning judgment as a function of condition, with a random intercept for each participant. The result yielded a significant main effect of condition on participants' meaning

judgment, $F(3, 270) = 56.84$, $p < .001$. Consistent with Study 2a, post hoc tests using Tukey's adjustment showed that all pairwise comparisons were significant, except the comparison between the conditions of *high society−high self* ($M = 5.19$, $SE = .17$) and *high society−low self* ($M = 5.43$, $SE = .17$), $t(270) = −1.08$, $p = .70$. Importantly, activities with *high benefits to society* but *low benefits to the self* ($M = 5.43$, $SE = .17$) were rated as significantly more meaningful than activities with *low benefits to society* but *high benefits to the self* ($M = 3.62$, $SE = .17$), $t(270) = −8.07$, $p < .001$ (Figure 2).

### Happiness Judgment

A similar linear mixed-effects model predicting happiness judgment also yielded a significant main effect of condition on happiness judgment, $F(3, 264) = 39.53$, $p < .001$. Post hoc analysis indicated that activities with *high benefits to society* and *high benefits to the self* were considered as the most happiness-promoting ($M = 5.45$, $SE = .17$), whereas activities with *low benefits to society* and *low society to the self* were considered as the least happiness-promoting, $t(264) = 10.268$, $p < .001$. There was no difference between *high society−high self* ($M = 5.45$, $SE = .17$) and *high society−low self* ($M = 4.99$, $SE = .17$). More importantly, consistent with the results from Study 2a, there was no difference in happiness judgment between the *high society−low self* activities ($M = 4.99$, $SE = .17$) and the *low society−high self* activities ($M = 4.67$, $SE = .17$), $t(264) = −1.409$, $p = .49$ (Figure 2). All the other pairwise comparisons were significant. We also conducted a Bayesian paired sample $t$ test and the estimated Bayes factor ($BF10 = .27$) indicated that the data were 3.70 ($1/BF10 = 3.70$) times more likely to occur under the null hypothesis. These findings conceptually replicated and extended the results from the previous two studies. When giving advice to people who need more meaning in life, participants focus more on benefits to society than on benefits to the self. In contrast, when giving advice to people who need more happiness in life, participants focused similarly on benefits to society and benefits to the self.

## Study 3

Studies 1 and 2 together suggest that people's meaning judgment is more self-transcendent than their happiness judgment in third-party contexts, when they made both types of judgments at the same time (*within-subjects design*). There is existing evidence that participants distinguish meaning experiences from happiness experiences when explicitly comparing them, but the distinction disappears when people only think about pursuing either meaning or happiness (Dwyer et al., 2017). Study 3 thus adopts a *between-subjects* design to examine how people would make judgments about jobs (task from Study 1) and activities (task from Study 2b), in terms of either meaning (*meaning* condition) or happiness (*happiness* condition).

## Method

### Participants

We preregistered to recruit 200 adult participants from MTurk in exchange for a small amount of payment. The sensitivity analysis showed that a total sample size of 200 provided about 80% power to detect a small to medium effect size ($f = .17$) with an

**Figure 2**
*Participants' Evaluations for Advice on Meaning and Happiness in Study 2b*
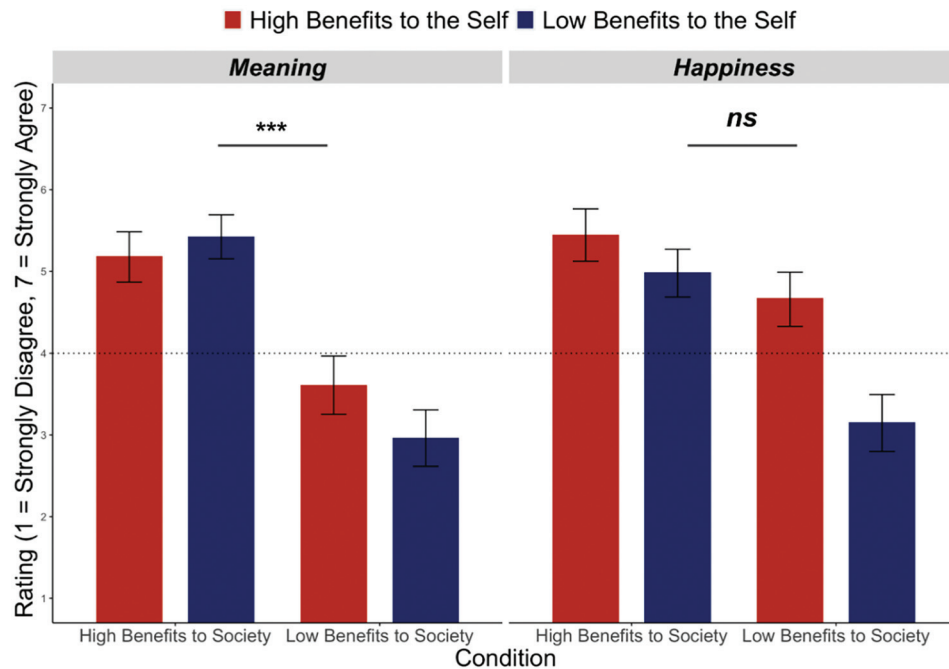


*Note.* Error bars are bootstrapped at 95% confidence intervals. ns = not significant. See the online article for the color version of this figure.
*** *p* < .001.

α of .05 in a repeated measure (i.e., high *society−low self*, *low society−high self*), between-factor (meaning vs. happiness) ANOVA. A total of 205 participants completed our survey, among whom seven participants were excluded for failure to pass our attention check (i.e., "This type of activities may provide low benefits to oneself (for example, lead to more wealth, sensory pleasures, social recognition or personal growth) and low benefits to society (e.g., improve people's lives or solve critical social problems). Please select *Strongly Agree* to this question."). Therefore, the final sample included 198 MTurk workers (48% reported as female, 51% reported as male, 2% reported as other; $M_{age}$ = 38.80 years, *SD* = 11.14 years, *range* = 20–70). Among these participants, 75% of them reported their race/ethnicity as White/Caucasian, 12% Black/African American, 9% Asian/Asian American, 3% Hispanic/Latinx, 1% other race/ethnicity.

### Procedure and Design

All participants responded to a job rating task (from Study 1) and an advice-giving task (from Study 2b). They first rated the 15 jobs in terms of benefits to the self and benefits to society on a slider that ranged from 0 to 100 (0 = *Completely Disagree*, 50 = *Neutral*, 100 = *Completely Agree*). Then depending on the condition, each participant rated either the meaningfulness or the happiness of the 15 jobs on a 0–100 scale. Next, they responded to the advice-giving task, in which they rated to what extent two different types of activities (*high society−low self*, *low society−high self*) could make a person's life more meaningful or happier.

### Results and Discussion

#### Ratings of Jobs

As preregistered, we used a linear mixed-effect model, predicting meaning judgment as a function of benefits to society and benefits to the self, with ID and job items included as random intercepts. Consistent with Study 1, both benefits to society (*B* = .82, *SE* = .02), *t*(1468) = 53.91, *p* < .001, 95% CI [.79, .85], and benefits to the self (*B* = .13, *SE* = .02), *t*(1468) = 7.34, *p* < .001, 95% CI [.10, .16], significantly predicted participants' meaning judgment of jobs. A generalized linear hypothesis test revealed that benefits to society (*B* = .82) predicted meaning ratings more strongly than benefits to the self (*B* = .13) did, *z* = −27.27, *p* < .001.

Similar analysis on happiness judgment revealed that benefits to society (*B* = .21, *SE* = .02), *t*(1300) = 9.63, *p* < .001, 95% CI [.17, .25], and benefits to the self (*B* = .36, *SE* = .02), *t*(1300) = 14.41, *p* < .001, 95% CI [.31, .41], both significantly predicted happiness judgment. The follow-up generalized linear hypothesis test showed that in contrast to meaning judgment, benefits to the self (*B* = .36) predicted happiness ratings more strongly than benefits to society (*B* = .21) did, *z* = 4.05, *p* < .001.

#### Ratings of Advice

As preregistered, we first conducted a linear mixed-effects model predicting participants' judgments using condition (*high society−low self* vs. *low society−high self*), measure (meaning vs. happiness), and their interaction, with each participant ID included as a random effect.

There was a significant interaction between measure and condition, suggesting that the difference between the two types of activities is different for meaning and happiness, $F(1, 392) = 56.73$, $p < .001$. This effect was not moderated by the testing order of the scenarios, $F(1, 388) = .11$, $p = .74$, and the interaction effect remained the same with testing order included as a control variable, $F(1, 391) = 57.2$, $p < .001$, or as a random effect, $F(1, 391) = 57.2$, $p < .001$.

We then ran two separate linear mixed-effects models to examine the effect of the two tasks for meaning and happiness judgments. Consistent with the results of Study 2a and Study 2b, the meaning model revealed a significant main effect of condition, $F(1, 208) = 31.92$, $p < .001$. People's judgments of meaning were significantly higher for the activities of *high society−low self* ($M = 5.50$, $SE = .15$) than for the activities of *low society−high self* ($M = 4.34$, $SE = .15$), $t(104) = −5.65$, $p < .001$. The results for happiness judgments were reversed: There was also a main effect of condition on happiness judgments, $F(1, 184) = 25.25$, $p < .00$, but people viewed activities with *low society−high self* benefits ($M = 5.26$, $SE = .16$) more happiness-promoting than activities with *high society−low self* benefits ($M = 4.15$, $SE = .16$), $t(92) = 5.03$, $p < .001$ (Figure 3).

Therefore, Studies 1–3 consistently revealed that in terms of third-party judgments, people value benefits to society more than benefits to the self in evaluating meaning. In contrast, people weighed benefits to the self similar to (within-subjects, Studies 1–2) or even more than benefits to society (between-subjects, Study 3) in happiness judgments. Together, the findings from Studies 1–3 suggest that in terms of *third-party* judgments, people's perceptions of meaning are more self-transcendent than

their perceptions of happiness. Studies 4–6 aim to examine how people perceive their own meaning and happiness in relation to the self in *first-party* contexts.

## Study 4

The previous three studies examined people's self-distanced perceptions of meaning and happiness, which may reflect people's intuitive theories of these constructs. As human beings, we are not only observers for others' life but also observers for our own life and evaluate our own meaning and happiness. It is thus important to examine people's *first-party* judgments about meaning and happiness, to see whether people might value self-transcendence more (owing to positive moral self-regard) or self-enhancement more (owing to direct experiences and access to the needs for self-benefits) compared with their third-party evaluations for meaning and happiness. Studies 4–6 investigate these possibilities. In Study 4, we modified our design in Study 1 to a self-version to examine participants' judgments of their own jobs in terms of meaning and happiness.

### Method

#### Participants

We preregistered to recruit 100 participants, which would be sufficient to obtain 80% power to detect a small to medium effect size ($f^2 = .06$) with an α of .05 in a multiple linear regression with two predictors (benefits to society, benefits to the self). One participant

**Figure 3**
*Participants' Evaluations for Advice on Meaning and Happiness in Study 3*
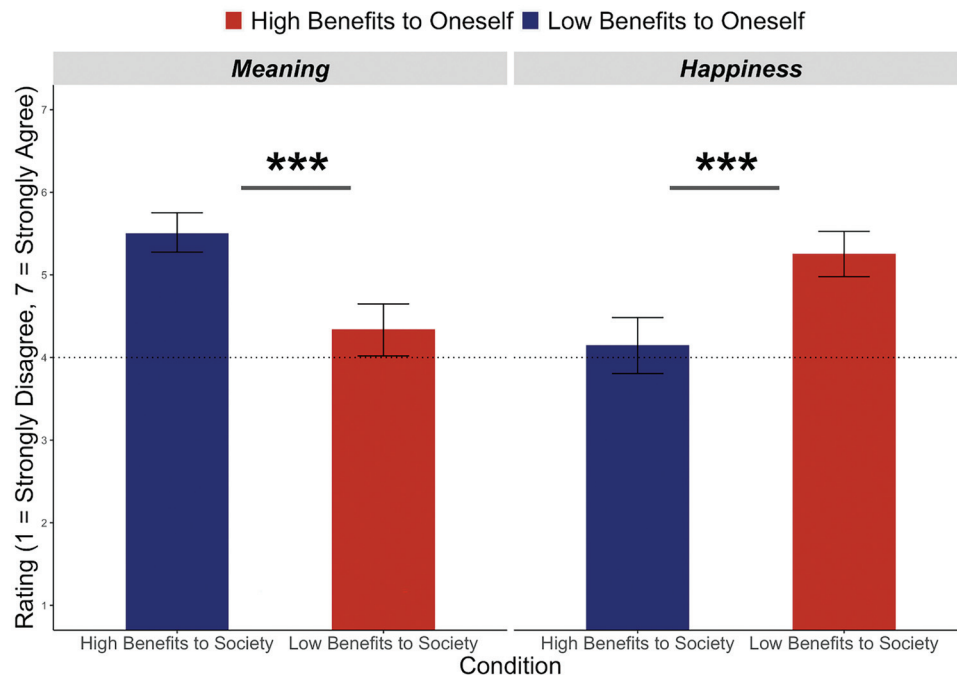


*Note.* Error bars are bootstrapped at 95% confidence intervals. See the online article for the color version of this figure.
*** $p < .001$.

was excluded due to failing the attention check ("To what extent do you agree with the following statement? To live a good life, people should do as many morally bad things as possible. Please choose *Strongly Disagree* for this question."). Therefore, 99 participants were included for data analysis (57% reported as female, 42% reported as male, 1% not-reported; $M_{age}$ = 35.34 years, $SD$ = 10.64 years, *range* = 18–69, female = 56). Among these participants, 70% were white, 10% were Latino or Hispanic, 9% were Asian, 7% were Black, 2% were American Indian or Alaska Native, and 2% other.

### Procedure and Design

Participants were first asked to write down their own job, following the prompt that "Please write down the job (paid or unpaid) that you spend the most time doing currently in your life, and briefly describe your duties." Participants then rated four statements regarding their job's benefits to themselves ("My job brings big benefits to me."), benefits to society ("My job makes big contributions to society"), meaning ("My job is a meaningful job"), and happiness ("My job is a happy job."). For each statement, participants indicated their answers on a 0–100 scale (0 = *Completely Disagree*, 50 = *Neutral*, 100 = *Completely Agree*).

### Results and Discussion

Descriptive statistics for the ratings and their correlations are presented in Table 2.

### Meaning Judgment

We first constructed a multiple linear regression model using benefits to society and benefits to self to predict participant's meaning judgment of their own jobs. The results revealed that both benefits to society ($B$ = .51, $SE$ = .07), $t(96)$ = 7.52, $p < .001$, 95% CI [.37, .64], and benefits to self ($B$ = .43, $SE$ = .08), $t(96)$ = 5.62, $p < .001$, 95% CI [.28, .58], significantly predicted participants' meaning judgments of their own jobs ($R^2$ = .66), $F(2, 96)$ = 95.16, $p < .001$. Unlike the results in Study 1, a linear hypothesis test reveals no significant difference between the two predictors in predicting meaning judgment, $F(1, 96)$ = .36, $p = .55$.

### Happiness Judgment

A similar analysis predicting happiness judgment revealed that in contrast to meaning judgment, only benefits to the self ($B$ = .56, $SE$ = .08), $t(96)$ = 6.7, $p < .001$, 95% CI [.40, .73], but not benefits to society ($B$ = .13, $SE$ = .07), $t(96)$ = 1.81, $p = .07$, 95% CI [−.01,

.28], predicted participants' happiness judgment of their own jobs. The linear hypothesis test revealed that benefits to the self predicted happiness judgment more strongly than benefits to society did, $F(1, 96)$ = 9.56, $p = .003$. These patterns of results remain the same even controlling for participants' own demographic background, including race, gender, age, and education levels.

Consistent with previous studies, these results suggest that people's meaning judgment is more self-transcendent than happiness judgment. But interestingly, unlike previous third-party results (and against our Hypothesis 3), when making first-party judgments about one's own jobs, benefits to society were valued similarly as (rather than more than) benefits to the self in meaning judgments, and benefits to the self were valued more strongly than (rather than similar to) benefits to society in happiness judgments. These results suggested that there might be a self-other discrepancy in people's perceptions of meaning and happiness, that people's first-party judgments of meaning and happiness may be less self-transcendent than their disinterested third-party judgments.

## Study 5

In Study 5, we modified the advice-giving paradigm in Study 2b to a first-party version, to experimentally examine how people perceive their own meaning and happiness. Based on the results from Study 4, we expect that benefits to the self and benefits to society would be similarly valued by participants in terms of increasing their own meaning in life, whereas benefits to the self would be valued more than benefits to society when thinking about increasing their own happiness in life.

## Method

### Participants

We preregistered to recruit 100 participants on TurkPrime (Litman et al., 2017) for Study 5, which allowed us to have at least 80% power to detect a small to medium effect size ($f$ = .12) with an $\alpha$ of .05 in a repeated measure (i.e., high *society−low self*, high *society−high self*, low *society−low self*, low *society−high self*), within-factor (meaning and happiness) ANOVA. The survey automatically terminated for participants who did not pass the attention check ("This is an attention check. The survey will terminate if you do not follow our instructions and you will not receive payment. To what extent do you agree with the following statement? To live a good life, people should do as many morally bad things as possible. Please choose *Strongly Disagree* for this question."). Twenty-nine participants in our initial sample were excluded because they did not provide sensible answers to our open-ended question, and more participants were recruited to replace them. The final sample included a total of 102 adults (44% reported as female, 56% reported as male; $M_{age}$ = 34.58 years, $SD$ = 10.20 years, *range* = 20–62). Of these participants, 67% were white, 20% were Black or African American, 6% were Asian or Pacific Islander, 5% were Latino or Hispanic, 1% were American Indian or Alaska Native, and 1% were others.

### Procedure and Design

**Judgment Questions.** To help participants recognize the potential to increase their own meaning and happiness in life, we

**Table 2**
*Descriptive Statistics and Correlations Between Benefits to Oneself, Benefits to Society, Meaning, and Happiness Ratings in Study 4*

| Variable | Benefits to self | Benefits to society | Meaning | Happiness |
|---|---|---|---|---|
| Benefits to self | 1.00 | | | |
| Benefits to society | 0.54*** | 1.00 | | |
| Meaning | 0.68*** | 0.74*** | 1.00 | |
| Happiness | 0.68*** | 0.48*** | 0.72*** | 1.00 |
| *M* | 72.64 | 62.12 | 70.60 | 70.46 |
| *SD* | 25.15 | 28.57 | 27.40 | 23.94 |

*** $p < .001$.

first asked participants to write down activities that they do regularly in life that make them feel meaningless (e.g., "*Please write down two activities that you do regularly in life but make you feel meaningless*") and unhappy (e.g., "*Please write down two activities that you do regularly in life but make you feel unhappy*"). Then participants were introduced to our online support program and asked to rate their agreement on four types of activities that were recommended by the therapist to increase meaning and happiness in life (1 = *Strongly Disagree* and 7 = *Strongly Agree*). Each type of activity represented one of four conditions: *high society−low self, high society−high self, low society−low self, low society−high self* (see the supplemental materials on OSF for full descriptions). Half of the participants were asked to evaluate meaning first and half of the participants were asked to evaluate happiness first.

**Forced-Choice Questions.** To directly examine if participants think about meaning and happiness differently, in the conditions of *high society−low self* and *low society−high self,* participants were also asked a forced-choice question at the very end: "If you have to compare, do you think this type of activity will make your life more meaningful or happier?" Participants then selected their answers from "will make my life more meaningful" (coded as 1) and "will make my life happier" (coded as 0).

After participants responded to all four conditions, we asked them to directly choose between *high society−low self* activities and *low society−high self* activities in terms of increasing meaning or happiness in life (e.g., "If you have to compare, which type of activities will make your life more meaningful?").

**Supplemental Subjective Scales.** At the end of the study, participants completed the Meaning in Life Questionnaire (MLQ; Steger et al., 2006) and the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) in a random order. Given that this study focuses on people's judgments of meaning and happiness in their own lives, we included these scales to see whether the effect of condition would hold controlling for people's self-reported meaning and happiness in life, as well as to see if they would moderate the effect of condition on people's judgments of meaning and happiness (see the supplemental materials on OSF for results).

## Results and Discussion

Following similar analysis in Study 2, we first conducted an overall linear mixed-effect model, predicting participants' judgments using condition (*high society−low self, high society−high self, low society−low self, low society−high self*), measure (meaning vs. happiness), and their interaction, with each participant included as a random effect. There was a significant interaction between measure and conditions, $F(3, 706) = 6.61$, $p < .001$. This effect was not moderated by the testing order of the scenarios, $F(3, 699) = .35$, $p = .79$, and the interaction effect remained the same with testing order included as a control variable, $F(3, 706) = 6.61$, $p < .001$, or as a random effect, $F(3, 706) = 6.61$, $p < .001$.

### Meaning Judgment

We then examined participants' meaning judgment to four types of activities via a linear mixed-effects model predicting their ratings as a function of condition (i.e., low *self−high society*, low *self−low society*, high *self−high society*, high *self−low society*), with a random intercept for each participant. We found a

significant main effect of condition, $F(3, 302.63) = 41.83$, $p < .001$. Post hoc pairwise comparisons using Tukey's adjustment indicated that participants rated the *high society−high self* activities ($M = 5.82$, $SE = .15$) as the most meaningful and the *low society−low self* activities ($M = 3.68$, $SE = .15$) as the least meaningful, $t(303) = 10.73$, $p < .001$. Moreover, consistent from Study 4, the analysis did not reveal a significant difference between people's evaluations of the *high society−low self* activities ($M = 5.30$, $SE = .15$) and *low society−high self* ($M = 5.04$, $SE = .15$) activities, $t(302) = −1.33$, $p = .54$ (Figure 4). Based on the JZS approach (Rouder et al., 2009), the estimated Bayes factor ($BF10 = .33$) indicated that the data were 3.03 ($1/BF10 = 3.03$) times more likely to occur under the null hypothesis. All the other pairwise comparisons were significant. Therefore, consistent with the results from Study 4 (and different from the third-party findings in Studies 2 and 3), the results suggest that participants valued benefits to society and benefits to the self similarly in first-party meaning judgments.

### Happiness Judgment

We also examined participants' happiness judgment to four types of activities via a similar linear mixed-effects model, and we also found a significant main effect of condition, $F(3, 303) = 54.56$, $p < .001$. Post hoc pairwise comparisons reveal that participants rated *high society−high self* activities ($M = 5.82$, $SE = .14$) as the happiest and *low society–low self* activities ($M = 3.67$, $SE = .14$) as the unhappiest, $t(303) = 11.72$, $p < .001$. The comparison between *high society−high self* ($M = 5.82$, $SE = .14$) and *low society−high self* ($M = 5.44$, $SE = .14$) suggests that when benefits to the self is high, benefits to society did not matter for participants' judgment of happiness, $t(303) = 2.08$, $p = .16$. All the other comparisons were significant. Importantly, when benefits to society and to the self were pitted against each other, participants expected that *low society−high self* activities ($M = 5.44$, $SE = .14$) would be more likely to make them happier than *high society−low self* activities ($M = 4.57$, $SE = .14$), $t(303) = 4.74$, $p < .001$ (Figure 4). The results suggest that participants weighed benefits to the self more heavily than benefits to society in terms of increasing their own happiness.

### Forced-Choice Questions

For the question whether *high society−low self* activities would increase meaning or happiness in life, a binomial test indicated that 74% of the participants chose "will make my life more meaningful" than "will make my life happier" ($p < .001$). In contrast, when asked about *low society−high self* activities, 71% of the participants chose "will make my life happier" than "will make my life more meaningful" ($p < .001$). Consistent with these results, when asked to increase meaning in life, more participants (62%) chose to engage in *high society−low self* activities, rather than *low society−high self* activities (38%) (Binomial test, $p < .001$). When asked to increase happiness in life, more participants (80%) chose to engage in *low society−high self* activities instead of *high society−low self* activities (20%) (Binomial test, $p < .001$).

The results from Study 5 conceptually replicated the results of Study 4 using experimental manipulations. When evaluating four activities in terms of increasing their own meaning and

**Figure 4**
*Participants' First-Party Meaning and Happiness Judgments for Four Activities in Study 5*
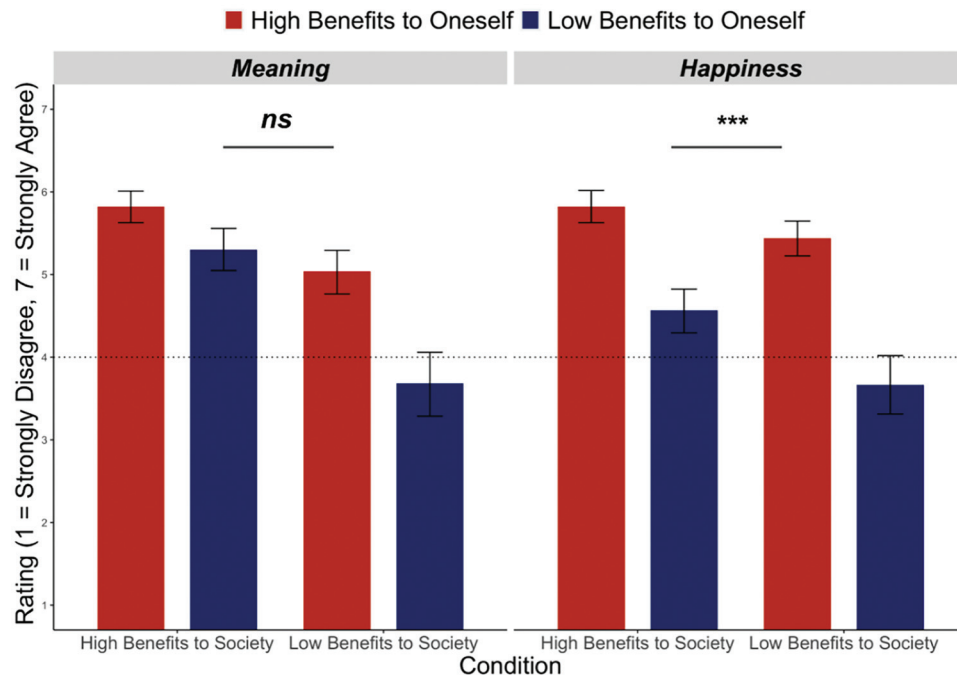


*Note.* Error bars are bootstrapped at 95% confidence intervals. ns = not significant. See the online article for the color version of this figure.
*** $p < .001$.

happiness, participants rated that engaging in *high society−low self* activities and *low society−high self* activities would increase meaning to similar degrees, suggesting that they valued self-transcendence and self-enhancement similarly. In contrast, participants rated *low society−high self* activities as leading to higher levels of happiness than *high society−low self* activities, suggesting they valued benefits to self more than benefits to society in terms of their own happiness. Comparing these results to people's third-party judgments in Studies 1–3, it seems that people weighed self-enhancements relatively more strongly in their first-party meaning and happiness judgments than their third-party judgments.

## Study 6

Study 6 adopted a between-subjects design to examine whether people view meaning and happiness similarly when they only make one type of first-party judgment. Participants were asked to evaluate either meaning or happiness in terms of jobs (the same task from Study 4) and activities in their own lives (the same task form Study 5).

## Method

### Participants

As preregistered, we recruited 200 participants to complete the study (48% identified as male, 51% identified as female, 2% identified as other; $M_{age}$ = 43.10 years, $SD$ = 13.18 years, *range* = 19–84). The sensitivity analysis indicated that this sample size

provided about 80% power to detect a small to medium effect size ($f^2$ = .06) for a multiple linear regression with two predictors (benefits to society and benefits to the self; the job rating task), as well as a small effect ($f$ = .10) for a two-way interaction (the advice activity task). The survey automatically terminated for participants who did not complete the study or failed the attention check ("This type of activities may provide low benefits to oneself (for example, lead to more wealth, sensory pleasures, social recognition or personal growth) and low benefits to society (e.g., improve people's lives or solve critical social problems).This is our attention check. Please select *Strongly Agree* to this question."). Among the 200 participants, 79% identified themselves as White, 10% as Asian, 7% as Black or African American, 4% as Latino or Hispanic, and 1% as others.

### Procedure and Design

Each participant responded to a job rating task (from Study 4) and an advice-receiving task (from Study 5). All participants were asked to write down their own jobs first, and then rated two statements regarding their job's benefits to themselves and benefits to society on a 0–100 scale (0 = *Completely Disagree*, 50 = *Neutral*, 100 = *Completely Agree*) in a randomized order. Each participant then was randomly assigned to rate either the meaningfulness (*meaning* condition) or the happiness (*happy* condition) of their job on a 0 to 100 slider. Next, participants responded to the advice-receiving task by rating two different types of activities, with levels of benefits to society and levels of benefits to self pitted against each other (*high society−low self*, *low society−high self*). The procedure was identical to that in Study 5, except that each participant only rated how

each type of activity would make their life more meaningful (*meaning* condition) or happier (*happiness* condition).

## Results and Discussion

### Ratings of Jobs

As preregistered, we conducted two separated multiple linear regression, using benefits to the self and benefits to society to predict perceived meaning and happiness for their own jobs. The meaning model showed that both benefits to society ($B = .37$, $SE = .07$, $p < .001$, 95% CI [.24, .51]) and benefits to the self ($B = .49$, $SE = .07$, $p < .001$, 95% CI [.34, .64]) significantly predicted participants' meaning judgment of their own jobs. Consistent with the findings in Study 4, linear hypothesis test showed that there was no significant difference between the magnitude of benefits to society ($B = .37$) and benefits to the self ($B = .49$), $F(1, 247) = .91$, $p = .34$. The happiness model showed that benefits to society ($B = .20$, $SE = .08$, $p = .01$, 95% CI [.04, .32]) and benefits to the self ($B = .49$, $SE = .08$, $p < .001$, 95% CI [.32, .66]) also both significantly predicted happiness judgment. In contrast to meaning judgment, the follow-up linear hypothesis test showed that benefits to the self ($B = .49$) was a stronger predictor than benefits to society ($B = .20$) in happiness judgment, $F(1, 1790) = 4.61$, $p = .034$. These patterns of results remain the same even controlling for participants' own demographic background, including race, gender, education, and income. These results replicate the within-subjects effects of Study 4 in a between-subjects design.

### Ratings of Advice

As preregistered, we conducted an overall model predicting participants' judgments using condition (*high society−low self* vs. *low society−high self*), measure (meaning vs. happiness), and their interaction, with participant ID included as a random effect. There was no significant interaction between measure and condition, $F(1, 198) = 1.07$, $p = .30$. This effect was not moderated by the testing order of the scenarios, $F(1, 196) = 1.79$, $p = .18$, and the interaction effect remained the same with testing order included as a control variable, $F(1, 198) = 1.07$, $p = .30$, or as a random effect, $F(1, 198) = 1.07$, $p = .30$.

As preregistered, we then ran separate linear mixed-effect models on participants' meaning and happiness judgments. Consistent with the results from Study 5, for participants' meaning ratings, there was no significant difference between the activities of *high society−low self* ($M = 4.48$, $SE = .15$) and the activities of *low society−high self* ($M = 4.69$, $SE = .15$), $F(1, 101) = 1.08$, $p = .30$. For participants' happiness ratings, ratings for the activities of *high society−low self* ($M = 4.49$, $SE = .15$) were lower than the ratings for the activities of *low society−high self* ($M = 4.99$, $SE = .15$), $F(1, 97) = 5.99$, $p = .016$ (Figure 5).

In summary, the between-subjects findings from Study 6 are consistent with the within-subjects effects in Study 4 and Study 5: Benefits to the self were valued similarly as benefits to society in meaning judgment but were valued more than benefits to society in happiness judgments. Together with the results from Studies 1–3 (benefits to society were weighed more heavily than benefits to self in third-party meaning judgments), the findings thus suggest

**Figure 5**

*Participants' First-Party Meaning and Happiness Judgments for Two Activities in Study 6*
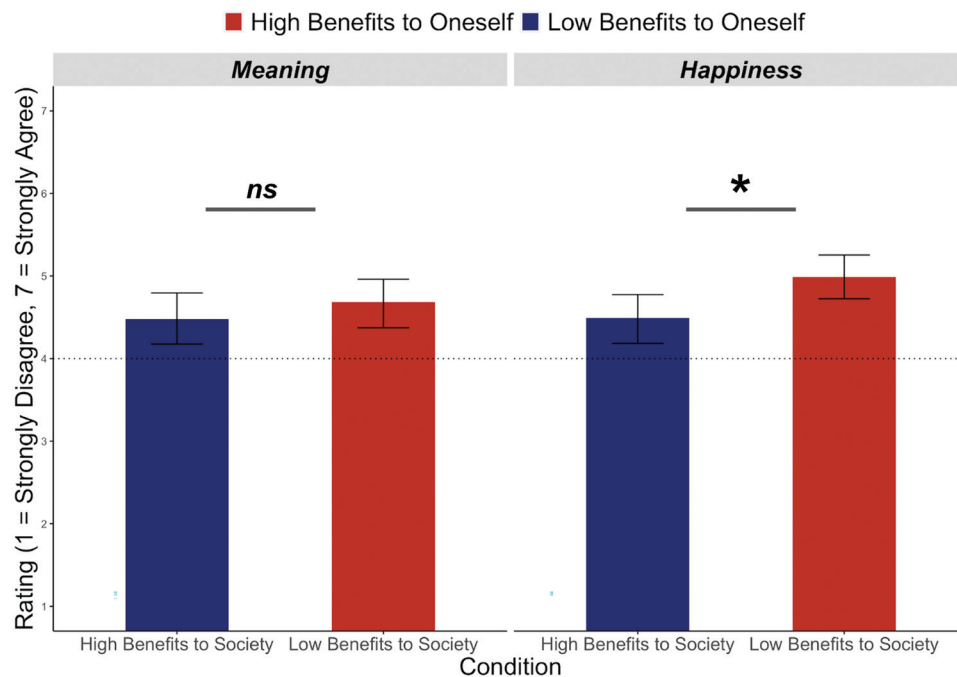


*Note.* Error bars are bootstrapped at 95% confidence intervals. ns = not significant. See the online article for the color version of this figure.
\* $p < .05$.

that (a) people's meaning judgments are more self-transcendent than their happiness judgments and (b) people's first-party meaning judgments are less self-transcendent than their third-party meaning judgements.

## Study 7

Studies 1–6 focused on people's judgments of meaning and happiness in relation to the self. The main goal of Study 6 is to examine whether similar relations would hold in terms of people's actual subjective feelings of meaning and happiness (or whether they only hold in terms of people's social–cognitive judgments). To address this question, we developed simple behavioral tasks involving photo identifications, which were framed as either providing benefits to society (e.g., contributing to a real-world public health project), or providing benefits to participants themselves (e.g., gaining extra monetary reward for themselves). Participants reported their feelings of meaning and happiness after they completed the tasks. The main question of interest is whether and how framing the task as benefiting the self or benefiting society would influence people's subjective feelings of meaning and happiness.

### Study 7a

## Method

### Participants

We preregistered to recruit 200 participants from TurkPrime, with each participant randomly assigned to either the *baseline* condition or the *experimental* condition (about 100 participants per condition, similar to the sample size of Studies 1–6). The sensitivity analysis showed that a sample size of 200 is sufficient to provide at least 80% power to detect a small effect size ($f = .10$) with an $\alpha$ of .05 in a repeated measure (i.e., photo identifying tasks), within-factor (meaning and happiness), between-subjects (control vs. experimental) ANOVA. The survey automatically terminated for participants who failed an attention check ("To what extent do you agree with the following statement? To live a good life, people should do as many morally bad things as possible. Please choose *Strongly Disagree* for this question."). A total of 195 adults (42% reported as female, 56% reported as male, 3% reported as "others" or not reported; $M_{age} = 38.24$ years, $SD = 11.16$ years, *range* = 20–67) completed all questions in the study (75% of them were white, followed by 13% Asian or Pacific Islander, 5% Black or African American, 5% Latino or Hispanic, and 2% other).

### Procedure and Design

Each participant was randomly assigned to either the *baseline* condition ($N = 99$) or the *experimental* condition ($N = 96$). In the *baseline* condition, participants completed two photo-identifying tasks in a random order (i.e., identifying photos with more than 10 people or identifying photos with people wearing summer clothes). This condition was designed to reveal the baseline levels of meaning and happiness people experience for completing the two tasks.

In the *experimental* condition, participants completed the same two tasks in a random order, except that they also received additional information about the benefits (i.e., benefits to oneself & benefits to society) of the tasks. For one task, participants

were told that they would receive extra payment for correctly identifying each photo (*benefits to oneself task*). In the other task, participants were told that identifying the photos would contribute to a COVID-19 related machine learning project (*benefits to society task*). The two types of benefits were randomly paired with the two photo identification tasks (see the supplemental materials on OSF for instructions).

In both conditions, participants rated their agreement on two statements after completing each task: "To what extent do you agree this task makes you feel meaningful?" and "To what extent do you agree this task makes you feel happy?" on a 7-point scale (1 = *Strongly Disagree*, 7 = *Strongly Agree*). After participants completed both tasks, they were asked to directly compare them in terms of which task made them feel more meaningful or happier (*present feelings question*), and to indicate which type of task they would spend more time doing in the future to make their lives more meaningful or happier (*future preference question*). At the end of the study, all participants filled out their demographic information and then were debriefed about the purpose of the study.

## Results and Discussion

### Condition Differences

**Comparing Self and Society Tasks.** Our key research question was whether and how framing the task as benefiting the self or benefiting society would influence people's subjective feelings of meaning and happiness. To examine this question, we first ran a linear mixed-effects model predicting participants' response using testing tasks (benefits to self vs. benefits to society), measure (meaning vs. happiness), and their interaction as predictor, with participant ID and test context (identifying people with summer clothes vs. number of people) included as random effects. We observed a significant interaction between measure and tasks, $F(1, 285) = 15.28$, $p < .001$, suggesting that the difference between the two tasks is different for meaning and happiness. The effect was not moderated by testing order, $F(3, 276) = .38$, $p = .76$, and it remained similar with testing order included as a covariate, $F(1, 284) = 15.33$, $p < .001$, or a random effect, $F(1, 284) = 15.33$, $p < .001$.

As preregistered, we then ran separate linear mixed-effects models to examine the effect of the two tasks for meaning and happiness ratings separately. The meaning model revealed that meaning ratings were higher for the *society* task ($M = 4.57$, $SE = .17$) than for the *self* task ($M = 3.71$, $SE = .17$), $F(1, 95) = 32.27$, $p < .001$. In contrast, there was no significant difference in happiness ratings between the *self* task ($M = 4.3$, $SE = .14$) and the *society* task ($M = 4.4$, $SE = .14$), $F(1, 95) = .53$, $p = .47$.

**Comparing Society Task With Baseline.** To see whether there is a difference regarding people's feelings of meaning between the *society* task and the *baseline* task, we conducted a linear mixed-effect model, predicting participants' meaning ratings as a function of task (baseline vs. benefits to society), with a random intercept for each participant. We found that participants felt more meaningful after completing the *society* task ($M = 4.57$, $SE = .17$) than completing the *baseline* task ($M = 3.12$, $SE = .16$), $F(1, 193.86) = 38.22$, $p < .001$. A similar model on participants' feelings of happiness indicated higher levels of happiness after completing the *society* task ($M = 4.40$, $SE = .16$) compared with completing the *baseline* task ($M = $

3.61, $SE = .15$), $F(1, 195.38) = 13.22$, $p < .001$ (Figure 6). These results suggest that doing an activity that benefits the society contributes to people's feelings of meaning and happiness.

**Comparing Self Task to Baseline.** We then ran similar models to compare the *self* task and the *baseline* task. Participants felt that the *self* task ($M = 3.71$, $SE = .18$) made them feel more meaningful than the *baseline* task ($M = 3.12$, $SE = .17$), $F(1, 193.35) = 5.81$, $p = .02$. Participants also viewed the *self* task ($M = 4.30$, $SE = .16$) as making them feel happier than the *baseline* task ($M = 3.61$, $SE = .16$), $F(1, 194.42) = 9.43$, $p = .002$ (Figure 6). These results suggest that completing tasks involving benefits to the self also contribute to people's feelings of meaning and happiness.

### Forced-Choice Questions

For the forced-choice questions comparing the *self* task and the *society* task, we conducted two separate generalized linear models using measure (happiness vs. meaning) to predict their responses about how the two tasks made them feel (*present feelings question*) and which task they would like to spend more time doing (*future preference question*; "1"= society task, "0" = self task). We found a significant main effect of measure for both the question about feelings ($B = 4.10$, $SE = .48$, $p < .001$) and the question about future preference ($B = 5.26$, $SE = .63$, $p < .001$). For the meaning measure, binomial tests revealed that more participants indicated that the *society* task (as opposed to the *self* task) made them feel more meaningful (67% vs. 33%, $p < .001$), and participants would like to spend

more time in the future on activities like the *society* task (as opposed to the *self* task) to make their lives more meaningful (59% vs. 41%, $p = .04$). In contrast, participants were equally likely to indicate the *society* task and the *self* task as making them feel happy (46% vs. 54%, $p = .24$), and more participants chose to spend more time in the future on activities like the *self* task, rather than the *society* task, to make their lives happier (64% vs. 36%, $p = .005$; Figure 7). These results are consistent with ratings findings, suggesting that doing activities that benefit the society led to higher levels of meaning (but not happiness) compared with doing activities that benefit the self.

## Study 7b

Study 7b aims to examine the within-subjects effects from Study 7a in a between-subjects design, in which participants only report their feelings of meaning (*meaning* condition) or feelings of happiness (*happiness* condition).

## Method

### Participants

As preregistered, we recruited 200 participants (49% reported as female, 49% reported as male, 3% reported as others; $M_{age} = 42.85$ years, $SD = 13.64$ years, *range* = 19–78), which allowed us to have at least 80% power to detect a small effect size ($f = .10$) with an $\alpha$ of .05 for a two-way interaction between a within-subjects factor (benefits to the self vs. to society tasks) and a between-subjects factor

**Figure 6**
*Participants' Perceptions of Meaning and Happiness by Measure and Condition in Study 7a*
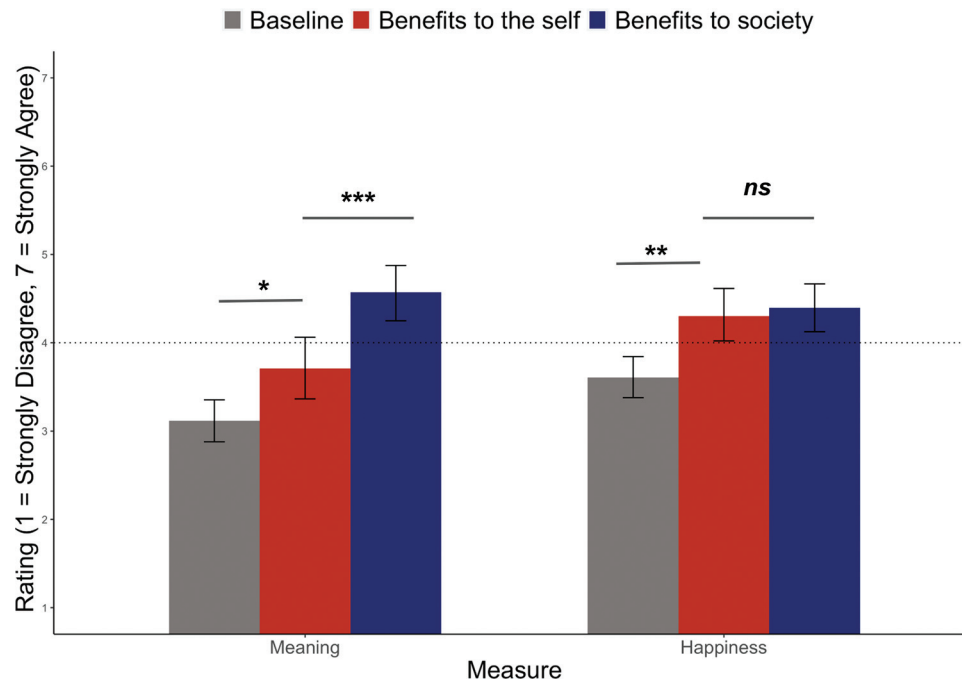


*Note.* Error bars are bootstrapped at 95% confidence intervals. ns = not significant. See the online article for the color version of this figure.
* $p < .05$. ** $p < .01$. *** $p < .001$.

**Figure 7**

*Participants' Forced-Choice Responses of Meaning and Happiness in Study 7a*
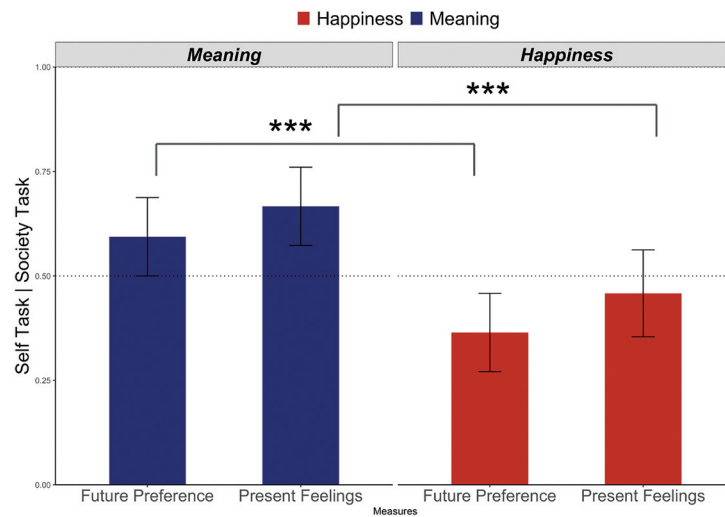


*Note.* Error bars are bootstrapped at 95% confidence intervals. See the online article for the color version of this figure.
*** $p < .001$.

(meaning vs. happiness). 76% of the participants reported as white, 10% as Asian or Pacific Islander, 6% as Black or African American, 6% as Latino or Hispanic, 1% as American Indian or Alaska Native, 1% as Native Hawaiian or Pacific Islander, and 3% as others. The survey automatically terminated if participants failed the attention check ("To live a good life, people should do as many morally bad things as possible. This is our attention check. Please choose *Strongly Disagree* for this question.").

### Procedure and Design

This study adopted the same paradigm and procedure for the self and society tasks from Study 7a, except that each participant was randomly assigned to either report feelings about meaning (*meaning* condition) or feelings about happiness (*happiness* condition). We did not include the baseline in this study.

### Results and Discussion

As preregistered, we first conducted a linear mixed-effects model to predict participants' response using testing task (benefits to self vs. benefits to society), measure (meaning vs. happiness), and their interaction as predictor, with each participant and test context (count photos with summer clothes vs. number of people) included as random effects. There was a significant interaction between measure and task, $F(1, 198) = 15.87$, $p < .001$. This effect was not moderated by the testing order of the scenarios, $F(3, 192) = .70$, $p = .55$, and the interaction effect remained the same with testing order included as a control variable, $F(1, 197) = 15.88$, $p < .001$, or as a random effect, $F(1, 197) = 15.88$, $p < .001$.

We then ran separate linear mixed-effects models on participants' meaning and happiness perception of the two tasks. Consistent with the findings in Study 7a, the ratings of meaning feelings were higher

for the *society* task ($M = 4.65$, $SE = .18$) than for the *self* task ($M = 4.20$, $SE = .18$), $F(1, 99) = 11.22$, $p = .001$. But the ratings of happiness were higher for the *self* task ($M = 4.96$, $SE = .13$) than for the *society* task ($M = 4.73$, $SE = .13$), $F(1, 99) = 4.77$, $p = .03$ (Figure 8). The designs and results for all studies are summarized in Table 3.

Taken together, Study 7 revealed that the general pattern we observed in previous judgment studies is also present in people's subjective feelings: Completing a society-benefiting task made people feel more meaningful than completing a self-benefiting task, whereas completing a self-benefiting task made people feel similar (Study 7a, within-subjects) or higher levels (Study 7b, between-subjects) of happiness than completing a society-benefiting task. Interestingly, the patterns for subjective feelings of meaning seem to be closer to people's disinterested third-party judgments (benefits to society were more prioritized than benefits to the self) than their first-party judgments (benefits to society were similarly valued as benefits to the self). One intriguing possibility could be that people overestimate the role of self-enhancement when making judgments about meaning and happiness in their own life, compared with their actual feelings. But given the differences in the paradigms, we cannot make that conclusion yet based on our current results. Regardless of whether people are more self-transcendent in their actual feelings than in their judgments about the meaning in their own life, the findings suggest that people's actual feelings of meaning are relatively more self-transcendent and less self-enhancement oriented compared with people's feelings of happiness.

### General Discussion

Across seven studies, we examined the role of self-transcendence (benefits to society) and self-enhancement (benefits to the self) in people's perceptions of meaning and happiness. We consistently found that people's meaning perceptions were more self-transcendent than their happiness perceptions, both in terms of judgments (Studies 1–6)

**Figure 8**

*Participants' Perceptions of Meaning and Happiness by Measure and Condition in Study 7b*
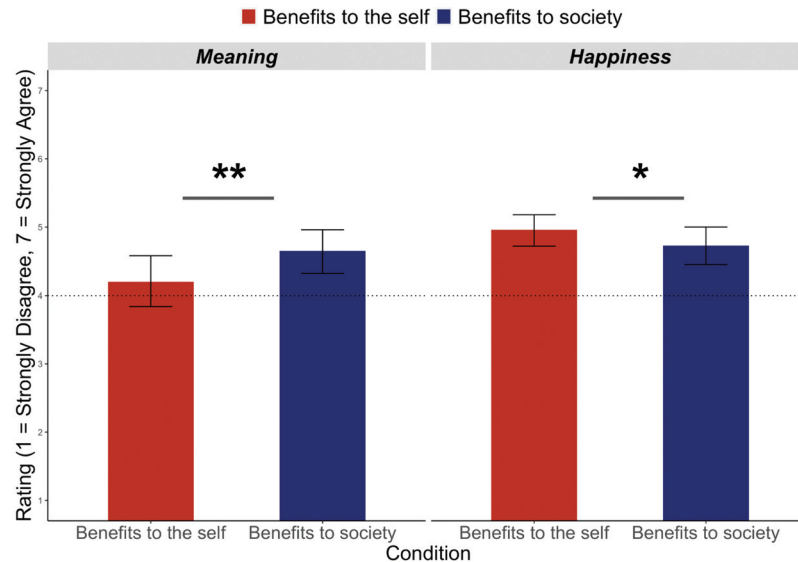


*Note.* Error bars are bootstrapped at 95% confidence intervals. See the online article for the color version of this figure.
* $p < .05$.   ** $p < .01$.

and their subjective feelings (Studies 7a and 7b). When making self-distanced judgments, people weighed benefits to society more heavily than benefits to the self, in terms of evaluating the meaningfulness of jobs (Study 1), the meaningfulness of other people's life (Study 2a), and advice to help people increase meaning in life (Study 2b). In contrast, benefits to the self were weighted similar to (Studies 1–2) or even heavier than benefits to society (Study 3) in happiness judgment. Compared with third-party judgments, people's first-party judgments about their own meaning focused more on self-enhancement, such that benefits to society and benefits to the self were weighed similarly in evaluations of the meaning of their own jobs (Study 4 and Study 6) and advice on improving the meaning of their own life (Study 5 and Study 6). Across the seven studies, the results consistently suggest that people's third-party judgment of meaning is more self-transcendent than their first-party judgment of meaning, and people's meaning perceptions are more self-transcendent than their happiness perceptions.

Our findings help illuminate how people perceive the nature of meaning (and the nature of happiness). Unlike many psychological constructs that we could typically categorize as emotion or cognition, trait or a state, objective or subjective, the nature of meaning is multifaceted and could be a mixture of all these (Leontiev, 2013; Wolf, 1997). Most existing research on meaning has focused on people's subjective feelings of meaning in life, which involves at least three distinct dimensions (purpose, coherence, and significance; e.g., Crumbaugh & Maholick, 1964; Hicks & King, 2009; King & Hicks, 2012; Martela & Steger, 2016; Steger et al., 2006; Wong, 1998). By relying on participants' own definitions of meaning, this subjective approach helps reveal the actual *amount* of meaning people have (high, moderate, or low) and its correlates in life (e.g., Hicks & King, 2007). Our work instead takes a social–cognitive approach to reveal *how* people make meaning judgments in relation to the self. By revealing self-transcendence and self-enhancement as dimensions underlying

**Table 3**

*Summary of the Designs and Results for Studies 1–7*

| Study | Perspective | Evaluation target | Design | Meaning | Happiness |
|---|---|---|---|---|---|
| 1 | Third person | Jobs | Within | Society > Self | Society = Self |
| 2a | Third person | Other people's life | Within | Society > Self | Society = Self |
| 2b | Third person | Advice-giving about life activities | Within | Society > Self | Society = Self |
| 3 | Third person | Jobs + advice-giving about activities | Between | Society > Self | Society < Self |
| 4 | First person | One's own job | Within | Society = Self | Society < Self |
| 5 | First person | Advice-receiving about life activities | Within | Society = Self | Society < Self |
| 6 | First person | Job + Advice-receiving about life activities | Between | Society = Self | Society < Self |
| 7a | First person | Photo identification tasks | Within | Society > Self | Society = Self |
| 7b | First person | Photo identification tasks | Between | Society > Self | Society < Self |

people's perceptions of meaning across diverse targets and contexts (e.g., jobs, activities, experiences from doing different tasks), our work complements the subjective approach and contributes to a better understanding of the perceived nature of meaning as a psychological construct in people's mind.

Despite that some philosophical traditions have posited that life's meaning is idiosyncratic and each individual has to create a unique sense of meaning in life (e.g., Camus, 1954; Nietzsche, 1883/1995; Sartre, 1948, 1966), our studies have revealed that one common theme—self-transcendence—plays an important role in people's perceptions of meaning. The notion that meaning arises from transcending the self has been proposed by many theorists (Frankl, 1984; McAdams, 1993; Sartre, 1948; Yalom, 1980). When we think of meaningful lives, for example, certain individuals would come to mind, such as Gandhi, Mother Teresa, and Albert Einstein (Wolf, 1997, 2016), who have devoted themselves to societal benefits and achievements greatly beyond themselves. We found that benefits to society were valued similar to or even more than benefits to the self in people's judgments and feelings of meaning. These results are consistent with the findings that people often list activities and experiences that benefit others and society as sources of meaning (Baum & Stewart, 1990; Fave et al., 2013), as well as the findings that other-regarding activities are associated with feelings of meaning in life (Reker & Woo, 2011). By revealing the important role of self-transcendence in people's perceptions of meaning, our results may help explain and predict why these specific types of activities might be common sources of meaning to people, as well as providing empirical support to the theoretical view that "meaning is about self-transcendence."

Importantly, our findings also suggest that the relation between self-transcendence and meaning could be more nuanced than previously thought, that the relative weight of self-transcendence and self-enhancement in people's judgments of meaning also depends on the point of view (i.e., third-party versus first-party perceptions). Past research has documented a discrepancy between third- and first-party attributions about feelings of meaning in life, that most people believe their lives are more meaningful than the average life of others (Heintzelman et al., 2020). We found a discrepancy in people's third-party and first-party perceptions of meaning in relation to the self: benefits to society were weighed more heavily than benefits to the self in third-party meaning perceptions but were weighed similarly in first-party perceptions. It has been found that people have a tendency to demean others' personal needs, believing that the psychological needs of others are less important than those needs of their own (Schroeder & Epley, 2020). When people are making judgments about the meaning in their own life, they may be more likely to take their personal needs and desires into consideration and value self-enhancement more than in third-party evaluations. Our work focused on people's social–cognitive judgments about meaning, and future research could examine whether people display similar discrepancy or "affective forecasting errors" in attributing subjective feelings of meaning to other people (or their future self).

The notion that "meaning is about self-transcendence" can be seen most clearly when compared with happiness. Similar to meaning, happiness is also a desirable state in life. People tend to think of meaning and happiness as two dimensions both essential to a good life (King & Napa, 1998; Scollon & King, 2004; Wolf, 1997). Nevertheless, the findings across studies reveal one key difference between the perceived nature of meaning and happiness: People view meaning to be more about self-transcendence than happiness is (for both first-party and third-party judgments). Indeed, we did not find that people value benefits to society more than benefits to the self in happiness judgments in any of our studies. These findings may carry important implications in light of the growing body of work on folk concepts of the good life (e.g., Heintzelman et al., 2020; Prinzing et al., 2021). It will be interesting and important to examine whether pursuing meaning versus pursuing happiness may have different consequences for people's motivation and behaviors, due to their different orientations in relation to self-transcendence.

It should be noted that our findings do not mean that self-enhancement plays little role in people's perceptions of meaning. Instead, we found that both self-enhancement and self-transcendence are essential components in people's views of meaning. This finding resonates with previous findings that people list both individual pursuits and service to others as sources of meaning (Baum & Stewart, 1990; Fave et al., 2013). Similarly, self-transcendence also plays a role in happiness. People view a life involving high benefits to society as happier than a life involving low benefits to society, consistent with the existing findings that people value moral goodness in happiness attributions (e.g., Phillips et al., 2011, 2017; Yang et al., 2021). Hence, unlike the simpler view that meaning is about being a "giver" while happiness is about being a "taker" (Baumeister et al., 2013), our results suggest that meaning and happiness share important similarities in the sense that they both involve self-enhancement and self-transcendence (only with different relative weights of the two factors). These results are consistent with the findings that people's feelings of happiness are empirically correlated with and even give rise to feelings of meaning (e.g., Hicks & King, 2007; King et al., 2006; van Tilburg & Igou, 2019). It will be fruitful to examine whether people intuitively understand this relation between meaning and happiness, as well as whether perceptions of relations to the self may partly account for the relations.

It is worth pointing out that our studies broadly categorized relations to the self in terms of self-transcendence and self-enhancement, but there could be more subtleties than the dichotomous categories we adopted. In terms of self-enhancement, we tried to be comprehensive and included both "lower" levels of basic needs and "higher" levels of personal benefits. If we only focused on the physical and pleasurable aspects of self-enhancement, for instance, we might find even bigger differences between people's perceptions of meaning and happiness. In addition, family relationships are a salient source of meaning for most people (Fave et al., 2013; Lambert et al., 2010, 2013), but it is theoretically unclear which of the two categories family relationships belong to. Building a family is a primary concern for human beings and could be viewed as a major component of self-enhancement (Schwartz, 2012), but supporting family members also entails caring about others' interests rather than self interests (Lambert et al., 2013; Schwartz, 2012). For these reasons, in our operationalizations, we only adopted examples of activities that clearly go beyond self-interests (e.g., contributions to society) or focus on the self (e.g., material and psychological needs). It would be important to examine how people view family relationships (or other activities that are hard to categorize, such as religion) in relation to the self. In fact, one interesting possibility is that viewing family relationships as self-transcendent or self-enhancing might influence the perceived meaning and happiness they bring. Finally, the content and the

valuation of self-transcendence may vary depending on the cultural contexts and life circumstances; it will be important to study the variations in meaning perceptions beyond WEIRD populations (Henrich, 2020) and in natural day-to-day life situations.

To conclude, across seven preregistered studies, we consistently found that self-transcendence and self-enhancement are important for both meaning and happiness, but people's perceptions of meaning are more self-transcendent than perceptions of happiness. When thinking about the meaning in others' life (third-party judgments), people valued benefits to society more than benefits to the self, but they valued the two similarly when thinking about the meaning in their own life (first-party judgments). Self-transcendence, which has been theorized as an ideal and the highest stage of human development (Maslow, 1971), thus may not only be intrinsically valuable in itself but may also have important implications for perceived meaning and happiness in life. Our findings help illuminate the social–cognitive processes underlying people's perceptions of meaning, provide evidence to the theoretical view that "meaning is about self-transcendence," as well as contribute to a better understanding of the similarities and differences between the perceived nature of meaning and happiness. Finding meaning in life is an eternal quest for human beings. Our findings suggest that if we would like to find the most meaning in life, it may not be sufficient to only focus on the self, but it is important to think about how we could make a broader impact beyond the self.

## Context of the Research

This project is part of our broader research program aiming to understand the nature of meaning and happiness as psychological constructs in people's mind. What gives rise to meaning and happiness in life? Different people may have different answers, but do we also share consensus about the basic nature of meaning and happiness? Motivated by this question, we studied the social–cognitive processes underlying people's perceptions of meaning and happiness. We were particularly interested in how people see meaning and happiness in relation to the self, which was inspired by both existing theories and our personal experiences. As a teenager, the second author deeply felt the need for meaning, and Maslow's work on "self-actualization" provided valuable guidance for a long time. But as both authors enter the next stage of life, we feel a greater need for "self-transcendence" (the concept advocated by theorists such as Viktor Frankl). We were excited to find that people view both self-transcendence and self-enhancement as important for meaning and happiness, and people's meaning perceptions are more self-transcendent than happiness perceptions. The findings illuminate people's conceptualizations of meaning and happiness, which may also help explain and predict why certain activities (e.g., volunteering, physical pleasures) are often viewed as sources for meaning, happiness, or both. In future research, it will be fruitful to theorize in greater depth and examine meaning and happiness in relation to self-orientations, as the self seems to be a fundamental dimension of how we understand the nature of meaning and happiness in life.

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