# What determines human value?
# Well-being and the primacy of moral considerations in human valuations[*]

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In the present research, we examined how individuals weigh 4 key dimensions of person perception (competence, warmth, morality, attractiveness) in judgments of human value and whether evaluators' level of well-being moderates these judgments. Participants in the U.S. (Study 1) and South Korea (Study 2) assigned social credit scores to 8 versions of a target, described as possessing positive or negative traits on each of the 4 dimensions. In both Studies 1 and 2, the valuation difference between the positive and negative conditions was greatest for the morality dimension, indicating that valuations were influenced most by moral considerations. Importantly, this effect was moderated by evaluators' well-being (happiness), such that the weight given to moral information was amplified among those who reported higher (vs. lower) well-being. Together, our findings suggest that morality figures most prominently in human valuations, and more so for happy individuals.

*Key words : value, morality, social cognition, happiness, well-being*

Don't come. I don't want you here. I don't know what is up with you, but I cannot have a 2.6 at my wedding.

- Naomie from Nosedive, Black Mirror

What makes someone a valuable human being, and does it matter who the judge is? In the "Nosedive" episode of Black Mirror (a science-fiction anthology television series), an individual's value and standing in society is determined by others' ratings of their interactions with the individual on a five-star scale. In the real world, the answer to this question is not only germane to social interactions at the individual and group level, but also the arena of policymaking, which necessarily involves value judgments that benefit some individuals and disadvantage others (e.g., Brick, Freeman, Wooding, Skylark, Marteau, & Spiegelhalter, 2018). Research in the field of social cognition has documented a tendency among people to perceive as less than human those who lack competence and warmth (e.g., the homeless; Harris & Fiske, 2006; 2009), suggesting that there are implicit value calculations that occur in individuals' minds that render some individuals more or less valuable than others. In the fields of transport, labor, and health economics, scholars and practitioners commonly calculate the monetary value of a human life to assess the utility of proposed policies and have arrived at estimates that vary depending on factors such as the age and socioeconomic status of the assessed population (Keller, Newman, Ortmann, Jorm, & Chambers, 2021). Furthermore, given that scarcity of natural and food resources (e.g., Good Food Institute,

2022; Sogari et al., 2023) may be exacerbated by worsening climate conditions (Lenton et al., 2023; Muluneh, 2021), it is probable that in the future, policymakers will be forced to make even more difficult and polarizing decisions that prioritize the welfare of some groups of people over others. In such a scenario, it is possible that considerations of who is more or less worthy will shape policies and the resulting beneficiaries of those policies.

While the issue of who is a valuable human being is a socially relevant topic with real-world implications, there is a paucity of research that explicitly addresses judgments of human value from a social cognition perspective. Thus, we identified key dimensions of person perception from the social cognition literature (i.e., warmth, competence, morality, attractiveness) and sought to study how people weigh those dimensions when evaluating the value of an individual. To this end, we developed a tool for measuring human valuations using a hypothetical social credit score, inspired by the "Nosedive" episode of Black Mirror (a science-fiction anthology television series) and the social credit system being developed in the People's Republic of China, which tracks the trustworthiness of individuals, businesses, and institutions (Drinhausen & Brussee, 2021). Moreover, because characteristics of the evaluator often shape the evaluator's judgments of others (Hehman, Sutherland, Flake & Slepian, 2017) and previous findings suggest a close relationship between well-being and morality in lay minds (Phillips, De Freitas, Mott, Gruber, & Knobe, 2017), we investigated whether evaluator well-being moderates the impact of our person perception dimensions on human valuations.

## Dimensions of Person Perception

The literature on person perception or social cognition more generally has uncovered key dimensions along which people are perceived. While some scholars have proposed two dimensions of warmth (encompassing morality) and competence (Cuddy, Fiske & Glick, 2008; Fiske, Cuddy & Glick, 2007), others have argued that morality is a separate third dimension that predominates impression formation (Brambilla, Sacchi, Rusconi & Goodwin, 2021; Goodwin, 2015; Goodwin, Piazza & Rozin, 2014; Land, Piazza & Goodwin, 2016). Furthermore, some have more broadly distinguished between the "Big Two" classes of social cognition content—one of which is agency, which represents traits pertaining to goal pursuit and achievement (e.g., competence), and the other communality, which embodies content relevant to the maintenance of relationships (e.g., warmth, morality; Abele & Wojciszke, 2014; Chu & Martin, 2021; Formanowicz, Goldenberg, Saguy, Pietraszkiewicz, Walker & Gross 2018; Ybarra, Chan, Park, Burnstein, Monin & Stanik, 2008).

In the present research, we used the dimensions of competence, warmth, and morality, as they appear in most major discussions of person perception. Additionally, although physical attractiveness is not a character trait, it is an important observable dimension that affects interpersonal evaluations and outcomes starting at a young age (e.g., Berscheid & Walster, 1974; Dion & Berscheid, 1974; Thornhill & Gangestad, 1999). Therefore, we included physical attractiveness as our fourth dimension of interest.

We note that although other target characteristics such as wealth, power, or occupation may also influence judgments of the target's worthiness, as an initial experiment, we focus on innate qualities that speak to who the individual is as a person after stripping away attributes related to the individual's background. Thus, in the present research, we examine which inherent quality among warmth, competence, morality, and attractiveness people weight most heavily in their judgments of a target individual's value. Given research findings suggesting that morality supersedes other dimensions in impression formation (Brambilla et al., 2021; Goodwin et al., 2014), we predicted that morality cues would hold most sway in determinations of human value.

## Evaluator Well-Being as a Moderating Variable

As is true with all types of social evaluations, value judgments are highly subjective and likely to be shaped not just by observable qualities of the target, but also by the characteristics and state of the evaluator (e.g., Bodenhausen, Kramer & Süsser, 1994; Hehman et al., 2017; Kraus, Piff, Mendoza-Denton, Rheinschmidt & Keltner, 2012; Toma, Yzerbyt & Corneille, 2012; Xie, Flake & Hehman, 2019). We propose that one such characteristic that can influence valuations of a target individual is the evaluator's level of well-being (e.g., Bodenhausen et al., 1994). Well-being, a more general term for happiness, refers to the overall judgment that one is living a good life. It is not only a highly desirable and sought-after goal and outcome (Diener, 2000; King & Napa, 1998; Oishi, Diener, & Lucas,

2007), but also a powerful causal variable that exerts top-down effects on judgments and beliefs (Diener, Lucas, & Oishi, 2018; Feist, Bodner, Jacobs, Miles, & Tan, 1995). We propose that it is meaningful to examine whether and how evaluator well-being affects human valuations because there are pervasive ongoing efforts at the individual, organizational, and national levels to promote human happiness (e.g., Diener, 2000; Diener, Oishi, & Lucas, 2015; Helliwell, Layard, Sachs, DeNeve, Aknin, & Wang, 2023; Purcell, 2019), and the findings could potentially provide insight into how populations comprised of happier (vs. less happy) individuals will judge the value of other individuals and more broadly, the policies they may favor.

Scholars have distinguished between two traditions in well-being research that espouse different views on what constitutes a "good life" (Diener, 2000; Kahneman, Diener, & Schwarz, 1999; Ryan & Deci, 2001). In the hedonic tradition, scholars define well-being as the presence of pleasure and absence of displeasure (Kahneman et al., 1999; Ryan & Deci, 2001), which is commonly measured with subjective well-being (SWB; Diener, Suh, Lucas, & Smith, 1999). In the eudaimonic tradition, scholars view well-being to be the experience of meaning, purpose, and growth, as one strives for self-actualization (Keyes, Shmotkin, & Ryff, 2002; Ryan & Deci, 2001) and lives in accordance with one's true self (Schlegel & Hicks, 2011). This form of well-being is often measured with the psychological well-being scale (PWB; Ryff & Keyes, 1995). Central to this latter view of happiness is the assumption that virtue is part and parcel of the good life (Aristotle:

Nicomachean Ethics, 2002). Interestingly, studies show that lay people conceive of happiness in ways that reflect both conceptions (e.g., King & Napa, 1998; McMahan & Estes, 2011; Scollon & King, 2004).

Of particular interest to the present research is the finding that lay conceptions of happiness are inextricably linked to morality (Phillips et al., 2017; Phillips, Misenheimer, & Knobe, 2011; Yang, Knobe & Dunham, 2021). For example, Phillips et al. (2017) demonstrated that the moral value of agents influenced assessments of the agents' happiness, and people did not believe an immoral agent could be happy. Yang and colleagues (2021) further compared whether happiness is about feeling good (i.e., having positive subjective experiences) or being good (i.e., moral) and found that individuals weighted morality more heavily than subjective states in attributions of happiness. Not only did they find this propensity among adults, but also among children as young as 4, who viewed morally bad people as less happy than morally good people, even though the characters were described as having good feelings most of the time. Similar results were obtained with a Chinese sample, leading the researchers to suggest that the tendency to consider moral elements in happiness attributions may "reflect a fundamental cognitive feature of the mind" (p. 277). Together, the existing literature on happiness underscore the general belief－among scholars and lay people alike－that happiness entails living a moral life.

Assuming that morality and happiness go hand-in-hand, it is likely that those who report being happy are in fact living morally upright

lives. Indeed, in a study by Kwon and Choi (2022), those who reported higher levels of well-being at the beginning of an experience-sampling study also reported greater momentary sense of morality in their daily lives. Moreover, existing research suggests that people consider moral traits to be most central and essential to their true self and perceive the greatest identity discontinuity when one's morality is impaired, compared to other traits, such as memory (Strohminger & Nichols, 2014). Thus, it is conceivable that happy people, who are likely to be living in accordance with their true selves (Schlegel & Hicks, 2011), will give greater weight to the moral quality of their lives. Combined with research suggesting that people have a tendency to evaluate others in relation to oneself (e.g., Epley & Gilovich, 2006; Lydon, Jamieson & Zanna, 1988) and that a heightened sense of one's morality can lead to harsher judgments of others (e.g., Zhong, Strejcek, & Sivanathan, 2010), we predicted that the evaluator's happiness would be an individual-difference variable that would moderate the weight given to the morality dimension. More specifically, we hypothesized that the import given to the morality dimension during valuations of a target individual would increase with the evaluator's level of well-being.

## The present study

In the present research, we test the following hypotheses: 1) morality cues will hold most sway in determinations of human value, and 2) the import accorded to the morality dimension during valuations of a target individual will increase with

the evaluator's level of well-being. To this end, we developed a tool for measuring human valuations using a hypothetical social credit score, inspired by the "Nosedive" episode of Black Mirror and the social credit system being developed in the People's Republic of China (Drinhausen & Brussee, 2021). We note that there are existing measures of human value, such as the value of a statistical life (VSL), which assesses the price people attach to reducing mortality risk (i.e., saving a human life) in a given population. However, such measures do not allow for nuanced examinations of valuations based on person-level characteristics of the target individuals, and generally only reference population-level characteristics (e.g., mean age, country, etc). Furthermore, because people often find such attempts to assign a price-tag to human life aversive (Cameron, 2010), we designed our instrument to exclude monetary valuations. Instead, we operationalized human value as the social value and worth of an individual in a society, and designed the scale such that higher valuations represent deservingness of higher positions on the social ladder and lower valuations represent deservingness of lower positions on the social ladder. This context involving rank in society is likely familiar to everyone (e.g., Adler, Epel, Castellazzo, & Ickovics, 2000) and allows an investigation of explicit judgments of human value across our four dimensions of interest while mitigating the type of backlash one would expect when using monetary sums. We measured the evaluator's hedonic and eudaimonic well-being with Subjective Well-Being (SWB; Diener, Suh, Lucas, & Smith, 1999) and Psychological Well-Being (PWB; Ryff & Keyes,

1995), respectively.

## Study 1: American Sample

In Study 1, we sought to investigate which dimension is most pivotal in determinations of human value, and whether the effects of the dimensions on valuations is moderated by the evaluator's level of happiness. Participants (evaluators) assigned a social credit score to 8 versions of a target individual described as possessing either positive or negative traits on four dimensions: morality, warmth, competence, and attractiveness. We first compared differences in human valuation across these 8 conditions (4 dimensions: morality, warmth, competence, and attractiveness × 2 valence: positive and negative) as well as across the positive-negative difference scores computed for each dimension, which comprised our measure of weight given to each dimension. We then examined whether the weight given to the morality dimension varies with the evaluator's level of happiness.

### Method

#### Participants and design

We recruited 251 American adults from Prolific and were paid £2.14 each for their participation. Respondents who failed attention checks were excluded from analyses, resulting in a final sample of 198 participants (96 female, 92 male, 10 other). Ages ranged from 18 to 84 ($M$ = 38.80,

$SD$ = 14.66) years. Participants were presented with eight different versions of a target individual (4 dimensions × 2 valence; within-subject design) in a random order and assigned a social credit score to each. The participants then filled out well-being measures and demographic information. All studies were carried out with IRB approval from Seoul National University.

#### Measures

##### Social credit score (SCS)

In a survey, we asked participants to imagine themselves in a hypothetical scenario in which the U.S. has implemented a social credit system that "assesses the social value and worthiness of individuals." Participants read that the score in the system would affect individuals' rights and privileges, and ultimately determine their quality of life. Afterwards, we presented participants with 8 different versions of a target person (named Joe), described as possessing positive and negative traits on each of the 4 dimensions (morality, warmth, competence, attractiveness), as follows: "Joe is a person living in the United States. He is fairly average in every respect except for one: He is particularly (honest and trustworthy / dishonest and untrustworthy / warm and friendly / cold and unfriendly / intelligent and competent / unintelligent and incompetent / physically attractive / physically unattractive)." The adjectives were those that were frequently used in prior research to represent each respective dimension (e.g., Abele & Wojciszke, 2007; Chu & Martin, 2021; Fiske et al., 2007; Goodwin et al., 2013; Leach, Ellemers, & Barreto, 2007; Wojciszke,

2005) and appeared to have good face validity. Based on the information given, participants were asked to assign each version of Joe a social credit score ("What social credit score do you think he deserves?") on an 11-point scale (0 = He won't be able to survive, 5 = He will live a middle-class life, 10 = He will live like a king).

### Well-being

We measured participants' happiness using Subjective Well-Being (SWB; Diener, Suh, Lucas, & Smith, 1999), conceptualized as consisting of a cognitive component (i.e,. satisfaction with life) and an affective component (i.e., positive and negative affect). Subjective well-being was computed by standardizing each subindex and subtracting the negative affect index from the sum of the satisfaction with life and positive affect indices (Pavot, 2018). Given that the two subcomponents sometimes exhibit differential relationships with outcomes (Diener et al., 2018) we report the results with SWB as well as each of the subindices.

**Satisfaction with life.** Participants rated their overall life satisfaction on the 5-item Satisfaction With Life Scale (e.g., "I am satisfied with my life."; SWLS; Diener, Emmons, Larsen, Griffin, 1985). Each item was presented on a 7-point Likert scale (1= strongly disagree, 7 = strongly agree).

**Positive affect and negative affect.** We assessed the extent to which participants felt positive and negative emotions during the past month using the Positive Affect and Negative Affect Schedule (PANAS; Watson, Clark, and Tellegen, 1988). The instrument included 10 items representing Positive Affect (PA; e.g., "excited," "inspired," "attentive") and 10 items representing Negative Affect (NA; e.g., "distressed," "hostile," "nervous"), administered on a 5-point Likert scale (1 = very slightly or not at all, 5 = extremely).

### Results

The descriptive statistics for the social credit scores and well-being measures, along with their intercorrelations, are shown in Table 1. The SCS in the positive morality condition was significantly correlated with subjective well-being ($r = .197$, $p = .005$) as well as positive affect ($r = .220$, $p = .002$), and marginally negatively correlated with negative affect ($r = -.133$, $p = .062$). However, in the negative morality condition, SCS was not significantly correlated with any of the well-being indices (all $ps \geq .129$). The other dimensions, such as warmth, competence, and attractiveness, did not exhibit significant correlations with the well-being indices.

### Social credit scores

We first conducted a two-way repeated-measures ANOVA on the social credit score (SCS) with dimension (morality, warmth, competence, and attractiveness) and valence (positive, negative) as within-subject factors. There was a significant main effect of dimension ($F_{2.619, 515.952} = 29.113$, $p < .001$), a main effect of valence ($F_{1, 197} = 469.102$, $p < .001$), and a dimension ×

Table 1. Descriptive statistics and correlations among measures

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SCS: Positive Moral | - | -.339*** | .587*** | -.052 | .129* | .267*** | .077 | .345*** | .080 | .104 | .031 | -.051 | .121† |
| 2. SCS: Negative Moral | -.078 | - | -.231*** | .484*** | -.058 | .197** | .072 | .004 | -.185** | -.098 | -.159** | .175** | -.163* |
| 3. SCS: Positive Warm | .679*** | .026 | - | -.178** | .162* | .218** | .131* | .288*** | .063 | .054 | .062 | -.032 | .067 |
| 4. SCS: Negative Warm | .046 | .775*** | .029 | - | -.043 | .276*** | -.063 | .143* | -.090 | -.028 | -.110† | .072 | -.114† |
| 5. SCS: Positive Competent | .621*** | -.061 | .557*** | .105 | - | -.261*** | .430*** | -.013 | -.050 | -.020 | -.041 | .057 | .032 |
| 6. SCS: Negative Competent | .146* | .719*** | .257*** | .717*** | .056 | - | -.238*** | .446*** | -.056 | .018 | -.105† | .044 | -.057 |
| 7. SCS: Positive Attractive | .410*** | .178* | .500*** | .219** | .609*** | .284*** | - | -.184** | -.061 | -.037 | -.031 | .073 | .003 |
| 8. SCS: Negative Attractive | .345*** | .446*** | .328*** | .616*** | .291*** | .644*** | .282*** | - | .071 | .085 | .056 | -.026 | -.013 |
| 9. SWB | .197** | -.108 | .091 | -.087 | .044 | -.068 | -.072 | -.081 | - | .824*** | .807*** | -.709*** | .701*** |
| 10. SWLS | .109 | -.068 | .058 | -.052 | -.011 | -.062 | -.091 | -.105 | .841*** | - | .578*** | -.350*** | .557*** |
| 11. PA | .220** | -.095 | .123† | -.099 | .096 | -.086 | .006 | -.069 | .794*** | .583*** | - | -.309*** | .602*** |
| 12. NA | -.133† | .091 | -.032 | .053 | -.019 | .011 | .084 | .015 | -.712*** | -.390*** | -.280*** | - | -.480*** |
| 13. PWB | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Study 1 M | 8.54 | 3.75 | 8.1 | 4.82 | 8.48 | 4.90 | 7.19 | 6.15 | 0.00 | 4.068 | 3.05 | 2.029 | - |
| SD | 1.815 | 2.069 | 1.849 | 2.176 | 1.642 | 2.125 | 1.808 | 2.017 | 2.346 | 1.593 | 0.892 | 0.847 | - |
| Cronbach's α | - | - | - | - | - | - | - | - | - | .916 | .932 | .928 | - |
| Study 2 M | 7.98 | 2.93 | 7.54 | 4.22 | 8.47 | 3.67 | 7.37 | 5.15 | 0.00 | 3.621 | 3.102 | 2.558 | 3.52 |
| SD | 1.853 | 1.55 | 1.568 | 1.658 | 1.489 | 1.536 | 1.655 | 1.568 | 2.34 | 1.203 | 0.639 | 0.726 | 0.497 |
| Cronbach's α | - | - | - | - | - | - | - | - | - | .900 | .873 | .873 | .843 |

*Note.* Correlations from Study 1 are below the diagonal ($N$ = 198), and correlations from Study 2 are above the diagonal ($N$ = 250). SCS = social credit score; SWB = subjective well-being; SWLS = satisfaction with life; PA = positive affect; NA = negative affect; PWB = psychological well-being.

† $p$ < .10, * $p$ < .05, ** $p$ < .01, *** $p$ < .001.

valence interaction ($F$2.520, 496.427) = 130.107, $p$ < .001). Not surprisingly, further simple effects analyses revealed that the SCS was higher when the target was described as possessing positive traits rather than negative traits (all $p$s < .001). Because our main interest was in the relative importance placed on each dimension, we proceeded to compare the scores across dimensions separately for the negative and positive conditions.

As displayed in Figure 1, simple comparisons within the positive condition indicated that moral Joe was rated similarly to competent Joe ($b$ = -0.061, $SE$ = 0.157, $p$ = .700), but higher than other positive versions of Joe (morality vs. warmth: $b$ = -0.444, $SE$ = 0.157, $p$ = .005; morality vs. attractiveness: $b$ = -1.354, $SE$ = 0.157, $p$ < .001). This indicates that people perceive a moral (as well as a competent) individual to be most valuable. Furthermore, simple comparisons within the negative condition revealed that immoral Joe was rated the lowest

compared to other versions of Joe (morality vs. warmth: $b$ = 1.076, $SE$ = 0.157, $p$ < .001; morality vs. competence: $b$ = 1.152, $SE$ = 0.157, $p$ < .001; morality vs. attractiveness: $b$ = 2.404, $SE$ = 0.157, $p$ < .001), suggesting that people devalue an immoral individual the most.

Additionally, we examined which dimensions yielded the largest valuation contrast between the positive and negative conditions. Social credit differences scores were calculated for each dimension by subtracting the SCS assigned to the negative condition from the SCS assigned to the positive condition and we used this difference score as a proxy for the weight given to each dimension. We conducted a one-way repeated-measures ANOVA on this difference score, with dimension (morality, warmth, competence, and attractiveness) as the within-subject factor. Participants' valuations varied depending on the dimension, as evidenced by a significant main effect of dimension ($F$2.520, 496.427) = 130.107,
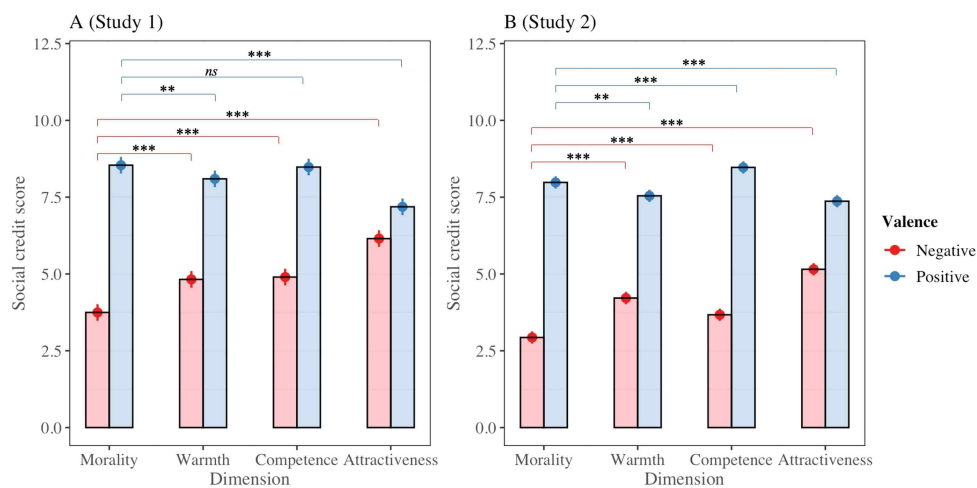


Figure 1. Social credit scores by valence and dimension

† $p$ < .10, * $p$ < .05, ** $p$ < .01, *** $p$ < .001.

Table 2. Results of the mixed model analyses with the social credit score in Study 1

| Predictors | Moderator: SWB | | | Moderator: SWLS | | | Moderator: PA | | | Moderator: NA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $b$ | SE | $p$ | $b$ | SE | $p$ | $b$ | SE | $p$ | $b$ | SE | $p$ |
| (Intercept) | 3.747 | 0.134 | <.001 | 3.747 | 0.134 | <.001 | 3.747 | 0.134 | <.001 | 3.747 | 0.134 | <.001 |
| D_Dummy 1 | 1.076 | 0.156 | <.001 | 1.076 | 0.157 | <.001 | 1.076 | 0.155 | <.001 | 1.076 | 0.157 | <.001 |
| D_Dummy 2 | 1.152 | 0.156 | <.001 | 1.152 | 0.157 | <.001 | 1.152 | 0.156 | <.001 | 1.152 | 0.157 | <.001 |
| D_Dummy 3 | 2.404 | 0.156 | <.001 | 2.404 | 0.157 | <.001 | 2.404 | 0.156 | <.001 | 2.404 | 0.157 | <.001 |
| Valence | 4.793 | 0.156 | <.001 | 4.793 | 0.156 | <.001 | 4.793 | 0.155 | <.001 | 4.793 | 0.157 | <.001 |
| Well-being | -0.095 | 0.057 | .095 | -0.088 | 0.085 | .298 | -0.22 | 0.15 | .144 | 0.223 | 0.159 | .160 |
| Valence × Well-being | 0.248 | 0.067 | <.001 | 0.212 | 0.098 | .031 | 0.668 | 0.175 | <.001 | -0.508 | 0.185 | .006 |
| D_Dummy 1 × Valence | -1.52 | 0.22 | <.001 | -1.52 | 0.221 | <.001 | -1.52 | 0.22 | <.001 | -1.52 | 0.221 | <.001 |
| D_Dummy 2 × Valence | -1.212 | 0.22 | <.001 | -1.212 | 0.221 | <.001 | -1.212 | 0.22 | <.001 | -1.212 | 0.221 | <.001 |
| D_Dummy 3 × Valence | -3.758 | 0.22 | <.001 | -3.758 | 0.221 | <.001 | -3.758 | 0.22 | <.001 | -3.758 | 0.221 | <.001 |
| D_Dummy 1 × Well-being | 0.015 | 0.067 | .822 | 0.018 | 0.099 | .858 | -0.022 | 0.175 | .900 | -0.087 | 0.185 | .638 |
| D_Dummy 2 × Well-being | 0.034 | 0.067 | .610 | 0.006 | 0.099 | .955 | 0.015 | 0.175 | .933 | -0.195 | 0.185 | .293 |
| D_Dummy 3 × Well-being | 0.026 | 0.067 | .696 | -0.044 | 0.099 | .653 | 0.063 | 0.175 | .720 | -0.187 | 0.186 | .314 |
| Valence × Well-being × D_Dummy 1 | -0.096 | 0.094 | .309 | -0.074 | 0.139 | .597 | -0.172 | 0.247 | .487 | 0.303 | 0.262 | .248 |
| Valence × Well-being × D_Dummy 2 | -0.155 | 0.094 | .099 | -0.141 | 0.139 | .312 | -0.285 | 0.247 | .248 | 0.444 | 0.262 | .090 |
| Valence × Well-being × D_Dummy 3 | -0.234 | 0.094 | .013 | -0.183 | 0.139 | .188 | -0.498 | 0.247 | .044 | 0.652 | 0.262 | .013 |
| $R^2$ | .560 | | | .460 | | | .562 | | | .556 | | |

*Note.* The dimensions are represented by dummy variables, where D_Dummy 1 denotes the first dummy-coded dimension variable (0 = morality, competence, attractiveness, 1 = warmth), D_Dummy 2 represents the second dummy-coded dimension variable (0 = morality, warmth, attractiveness, 1 = competence), D_Dummy 3 represents the third dummy-coded dimension variable (0 = morality, warmth, competence, 1 = attractiveness). Valence is also dummy-coded (0 = negative, 1 = positive). SWB = subjective well-being; SWLS = satisfaction with life; PA = positive affect; NA = negative affect.

$p < .001$). Simple comparisons revealed that the difference score was higher for the morality dimension than other dimensions (morality vs. warmth: $b = $ -1.520, $SE = 0.194$, $p < .001$; morality vs. competence: $b = $ -1.212, $SE = 0.194$, $p < .001$; morality vs. attractiveness: $b = $ -3.758, $SE = 0.194$, $p < .001$). Taken together, the results indicate that participants' valuations are influenced most by moral considerations than any other dimension.

## Social credit scores and well-being

Next, we investigated whether and how happy people differ from less happy individuals in the importance they ascribe to morality. To this end, we conducted a mixed model analysis with dimension, valence, well-being, and their interactions as predictors of SCS. The model included dimension (morality, warmth, competence, attractiveness) and valence (positive, negative) as within-subject factors, well-being as a between-subject factor, and the three-way interaction term among dimension, valence, and well-being (see Figure 2 for plots of SCS means by condition and Table 2 for full results of the mixed model analyses). For the dimension factor, we produced three dummy-coded variables with morality as the reference dimension. The first dummy variable represented the difference between morality and warmth, the second represented the difference between morality and competence, and the third represented the difference between morality and attractiveness. Before the analyses, the well-being score was mean-centered. All parameters were estimated using lme4 package in R (Bates,

Mächler, Bolker, & Walker, 2015).

The effect of valence on SCS was significantly moderated by subjective well-being ($b = 0.248$, $SE = 0.067$, $p < .001$). Because morality was the reference dimension, this indicated that the presence or absence of moral traits was evaluated differently depending on the happiness level of the evaluator. Consistent moderation effects were observed across the sub-indices of subjective well-being (valence × satisfaction with life: $b = 0.212$, $SE = 0.098$, $p = .031$; valence × positive affect: $b = 0.668$, $SE = 0.175$, $p < .001$; valence × negative affect: $b = $ -0.508, $SE = 0.185$, $p = .006$). Further simple slopes analyses revealed that participants with higher (vs. lower) subjective well-being assigned higher scores to the moral target ($b = 0.152$, $SE = 0.057$, $p = .008$) while assigning (marginally) lower scores to the immoral target ($b = $ -0.095, $SE = 0.057$, $p = .096$). This was particularly evident with affective well-being: those who experienced greater (vs. less) positive affect rated the moral target more positively ($b = 0.448$, $SE = 0.150$, $p = .003$), and those who experienced less (vs. greater) negative affect rated the moral target more positively ($b = $ -0.285, $SE = 0.159$, $p = 0.073$). However, there was no such significant difference following from the evaluators' level of life satisfaction ($b = 0.124$, $SE = 0.085$, $p = .143$).

We then compared the valence × well-being interaction for the morality dimension with that for the other dimensions. The valence × subjective well-being interaction for the morality dimension was significantly different from that for the attractiveness dimension (dummy 3, morality vs. attractiveness: $b = $ -0.234, $SE = 0.094$, $p = $
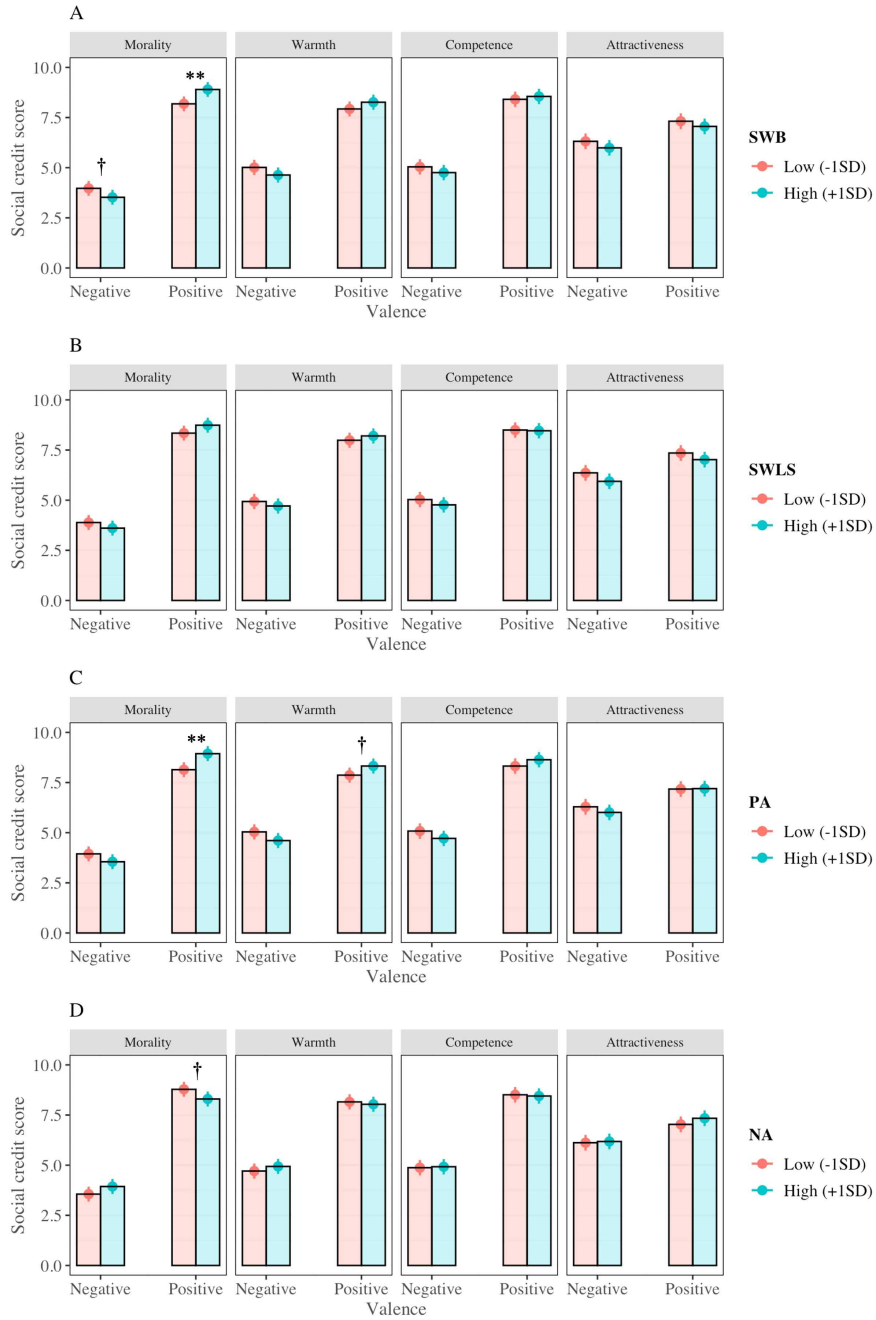
Figure 2. Social credit scores by valence, dimension, and happiness in Study 1

*Note.* SWB = subjective well-being; SWLS = satisfaction with life; PA = positive affect; NA = negative affect.
† *p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.

.013) and marginally significantly different when compared with that for the competence dimension (dummy 2, morality vs. competence: $b$ = -0.155, $SE$ = 0.094, $p$ = .099). Simple slopes analyses revealed that SCS for the attractive (or unattractive) or competent (or incompetent) target was not affected by one's subjective well-being (all $ps$ ≥ .249), in contrast to the significant slope difference found above for moral and immoral targets. However, there was no significant difference in the valence × well-being interaction when comparing across the morality and warmth dimensions (dummy 1, morality vs. warmth: $b$ = -0.096, $SE$ = 0.094, $p$ = .309). Although this statistical insignificance indicates similar patterns between the morality and warmth dimensions, the simple slopes of SCS in the warmth dimension did not significantly differ depending on subjective well-being (all $ps$ ≥ .167). Moreover, similar patterns emerged across the sub-indices of subjective well-being (Table 2 and Figure 2), indicating that the weight given to the other dimensions, such as warmth, competence, and attractiveness, was not significantly associated with the evaluator's well-being.

## Study 2: Korean Sample

In Study 2, we sought to examine whether our findings from Study 1 (i.e., primacy of moral valuations in judgments of human value and the moderating effect of evaluator well-being) would be replicated in a Korean sample. We did not have any a priori predictions regarding cultural differences and used Study 2 to assess whether our earlier findings were specific to the American sample or could potentially be generalized to a different culture. A secondary aim of Study 2 was to test the robustness of the moderating role of evaluator well-being. Because the measure of well-being used in Study 1 (i.e., SWB) was one that is commonly associated with hedonic conceptions of well-being (e.g., Ryan & Deci, 2001), in Study 2, we also included a measure of eudaimonic happiness (i.e., psychological well-being; Ryff & Keyes, 1995). Apart from the additional measure of well-being, the method and procedure for Study 2 were identical to those for Study 1.

## Method

### Participants and design

In Study 2, we recruited 250 Korean adults (125 female, 125 male) from a panel operated by a research firm. Ages ranged from 20 to 69 years ($M$ = 38.72, $SD$ = 12.71), intentionally specified to be similar to the age distribution in Study 1 ($t$(445) = 0.056, $p$ = .955).

### Measures

#### Social credit score (SCS)

Participants read a Korean version of the hypothetical scenario employed in Study 1 and then saw 8 different versions of a target individual named Minjoon (4 dimensions × 2 valence; within-subject design) in a random order. Participants assigned a SCS to each version of Minjoon on a 11-point scale (0 = He won't be

able to survive, 5 = He will live a middle-class life, 10 = He will live like a king).

### Well-being

In addition to Subjective Well-Being (SWB), we measured Psychological Well-Being (PWB) to assess the type of happiness discussed in the eudaimonic tradition (Ryff & Keyes, 1995).

**Subjective well-being.** Participants responded to same scales used in Study 1.

**Psychological well-being.** We measured participants' eudaimonic well-being with the 18-item Psychological Well-Being scale (PWB; Ryff & Keyes, 1995), which consists of six subscales: purpose in life, positive relations, environmental mastery, autonomy, self-acceptance, and personal growth (e.g., "When I look at the story of my life, I am pleased with how things have turned out," "For me, life has been a continuous process of learning, changing and growth."). Items were administered on 5-point scales (1 = completely disagree, 5 = completely agree) and the ratings of all items were averaged to compute the PWB score.

### Results

Descriptive statistics for the social credit scores and well-being measures, along with their intercorrelations, are shown in Table 1. SCS in the negative morality condition was significantly correlated with subjective well-being ($r$ = -.185, $p$ = .003) as well as its sub-indices: positive affect

($r$ = -.159, $p$ = .012) and negative affect ($r$ = .175, $p$ = .006). However, unlike our American sample in Study 1, in the positive morality condition, SCS was not significantly correlated with any of the subjective well-being indices (all $p$s ≥ .100). However, psychological well-being was at least marginally significantly correlated with morality in both the positive ($r$ = .121, $p$ = .057) and negative conditions ($r$ = -.163, $p$ = .010). Overall, these results are consistent with those of Study 1 in that evaluators' happiness is associated with valuations for the morality dimension. Regarding the other dimensions, no other significant correlations were observed with the well-being indices.

### Social credit scores

We first conducted a two-way repeated-measures ANOVA on the SCS with dimension (morality, warmth, competence, and attractiveness) and valence (positive, negative) as within-subject factors, as done in Study 1. There was a significant main effect of dimension ($F_{(2.824, 703.097)}$ = 49.547, $p$ < .001), main effect of valence ($F_{(1, 249)}$ = 1521.592, $p$ < .001) and dimension × valence interaction ($F_{(2.207, 529.427)}$ = 81.816, $p$ < .001). As expected, simple effects analyses revealed that SCS was higher when the target possessed positive traits vs. negative traits (all $p$s < .001).

As displayed in Figure 1, simple comparisons within the positive condition revealed that participants rated moral Minjoon lower than competent Minjoon ($b$ = 0.488, $SE$ = 0.137, $p$ < .001), and higher than other positive versions

Table 3. Results of mixed model analyses for social credit score in Study 2

| Predictors | Moderator: SWB | | | Moderator: SWLS | | | Moderator: PA | | | Moderator: NA | | | Moderator: PWB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | b | SE | p | b | SE | p | b | SE | p | b | SE | p | b | SE | p |
| (Intercept) | 2.932 | 0.102 | <.001 | 2.932 | 0.102 | <.001 | 2.932 | 0.102 | <.001 | 2.932 | 0.102 | <.001 | 2.932 | 0.102 | <.001 |
| D_Dummy 1 | 1.284 | 0.136 | <.001 | 1.284 | 0.137 | <.001 | 1.284 | 0.137 | <.001 | 1.284 | 0.137 | <.001 | 1.284 | 0.136 | <.001 |
| D_Dummy 2 | 0.74 | 0.136 | <.001 | 0.74 | 0.137 | <.001 | 0.74 | 0.137 | <.001 | 0.74 | 0.137 | <.001 | 0.740 | 0.136 | <.001 |
| D_Dummy 3 | 2.22 | 0.136 | <.001 | 2.22 | 0.137 | <.001 | 2.22 | 0.137 | <.001 | 2.22 | 0.137 | <.001 | 2.220 | 0.136 | <.001 |
| Valence | 5.048 | 0.136 | <.001 | 5.048 | 0.137 | <.001 | 5.048 | 0.137 | <.001 | 5.048 | 0.137 | <.001 | 5.048 | 0.136 | <.001 |
| Well-being | -0.122 | 0.044 | .005 | -0.127 | 0.085 | .138 | -0.386 | 0.16 | .016 | 0.374 | 0.141 | .008 | -0.508 | 0.206 | .014 |
| Valence × Well-being | 0.186 | 0.058 | .001 | 0.288 | 0.114 | .012 | 0.477 | 0.214 | .026 | -0.505 | 0.189 | .007 | 0.957 | 0.275 | .001 |
| D_Dummy 1 × Valence | -1.72 | 0.193 | <.001 | -1.72 | 0.193 | <.001 | -1.72 | 0.193 | <.001 | -1.72 | 0.193 | <.001 | -1.720 | 0.193 | <.001 |
| D_Dummy 2 × Valence | -0.252 | 0.193 | .191 | -0.252 | 0.193 | .192 | -0.252 | 0.193 | .192 | -0.252 | 0.193 | .192 | -0.252 | 0.193 | .191 |
| D_Dummy 3 × Valence | -2.832 | 0.193 | <.001 | -2.832 | 0.193 | <.001 | -2.832 | 0.193 | <.001 | -2.832 | 0.193 | <.001 | -2.832 | 0.193 | <.001 |
| D_Dummy 1 × Well-being | 0.059 | 0.058 | .314 | 0.088 | 0.114 | .439 | 0.102 | 0.214 | .633 | -0.208 | 0.189 | .270 | 0.129 | 0.275 | .640 |
| D_Dummy 2 × Well-being | 0.086 | 0.058 | .143 | 0.15 | 0.114 | .188 | 0.133 | 0.214 | .535 | -0.281 | 0.189 | .136 | 0.332 | 0.275 | .228 |
| D_Dummy 3 × Well-being | 0.17 | 0.058 | .004 | 0.237 | 0.114 | .037 | 0.525 | 0.214 | .014 | -0.43 | 0.189 | .023 | 0.468 | 0.275 | .089 |
| Valence × Well-being × D_Dummy 1 | -0.08 | 0.083 | .334 | -0.178 | 0.161 | .268 | -0.04 | 0.303 | .894 | 0.271 | 0.267 | .311 | -0.367 | 0.389 | .345 |
| Valence × Well-being × D_Dummy 2 | -0.181 | 0.083 | .028 | -0.335 | 0.161 | .037 | -0.319 | 0.303 | .292 | 0.53 | 0.267 | .047 | -0.686 | 0.389 | .077 |
| Valence × Well-being × D_Dummy 3 | -0.276 | 0.083 | .001 | -0.449 | 0.161 | .005 | -0.696 | 0.303 | .022 | 0.727 | 0.267 | .006 | -0.906 | 0.389 | .020 |
| R² | .641 | | | .639 | | | .640 | | | .613 | | | .641 | | |

Note. The dimensions are represented by dummy variables, where D_Dummy 1 denotes the first dummy-coded dimension variable (0 = morality, competence, attractiveness, 1 = warmth), D_Dummy 2 represents the second dummy-coded dimension variable (0 = morality, warmth, attractiveness, 1 = competence), and D_Dummy 3 represents the third dummy-coded dimension variable (0 = morality, warmth, competence, 1 = attractiveness). Valence is also dummy-coded (0 = negative, 1 = positive). SWB = subjective well-being; SWLS = satisfaction with life; PA = positive affect; NA = negative affect; PWB = psychological well-being.

of Minjoon (morality vs. warmth: $b = -0.436$, $SE = 0.137$, $p = .001$; morality vs. attractiveness: $b = -0.612$, $SE = 0.137$, $p < .001$). This indicates that whereas our American sample considered morality to be the most important trait, our Korean sample rewarded competence more than morality. In the negative condition, however, simple comparisons showed that immoral Minjoon was rated the lowest (morality vs. warmth: $b = 1.284$, $SE = 0.137$, $p < .001$; morality vs. competence: $b = 0.740$, $SE = 0.137$, $p < .001$; morality vs. attractiveness: $b = 2.220$, $SE = 0.137$, $p < .001$), suggesting that Koreans discredit the immoral target the most, consistent with our finding in Study 1.

To examine which dimensions yielded the largest valuation contrast between the positive and negative conditions, we conducted a one-way repeated-measures ANOVA on the SCS difference score with dimension (morality, warmth, competence, and attractiveness) as the within-subject predictor. There was a main effect of dimension, indicating that participants' valuations varied depending on the dimension ($F(2.207, 549.427) = 81.816$, $p < .001$). Simple comparisons revealed that the difference score for the morality dimension was similar to the competence dimension ($b = -0.252$, $SE = 0.207$, $p = .224$), but greater than the other dimensions (morality vs. warmth: $b = -1.720$, $SE = 0.207$, $p < .001$; morality vs. attractiveness: $b = -2.832$, $SE = 0.207$, $p < .001$). These results suggest that Korean participants' valuations are influenced most by both morality and competence-related attributes.

Social credit scores and well-being

As in Study 1, we conducted a mixed model analysis to examine whether happier (vs. less happy) individuals ascribe greater weight to moral considerations (vs. other dimensions) in human valuations. The model included dimension (morality, warmth, competence, attractiveness) and valence (positive, negative) as within-subject factors, well-being as a between-subject factor, and the three-way interaction term among dimension, valence, and well-being (see Figure 3 for plots of SCS means by condition and Table 3 for the full results of the mixed model analyses). Again, we produced three dummy-coded variables for the four dimensions, with morality as the reference dimension (dummy 1: morality vs. warmth; dummy 2: morality vs. competence; dummy 3: morality vs. attractiveness) and included their interactions with valence and well-being.

Subjective well-being significantly moderated the effect of valence on SCS for the morality (reference) dimension ($b = 0.186$, $SE = 0.058$, $p = .001$). Consistent moderation effects were observed across the sub-indices of subjective well-being (valence $\times$ satisfaction with life: $b = 0.288$, $SE = 0.114$, $p = .012$; valence $\times$ positive affect: $b = 0.477$, $SE = 0.214$, $p = .026$; valence $\times$ negative affect: $b = -0.505$, $SE = 0.189$, $p = .007$). This moderation was also observed with psychological well-being ($b = 0.957$, $SE = 0.275$, $p = .001$). Further simple slopes analyses revealed that participants with higher (vs. lower) subjective well-being penalized to a greater extent the immoral target ($b = -0.122$, $SE = 0.044$, $p = .005$), indicating happier individuals
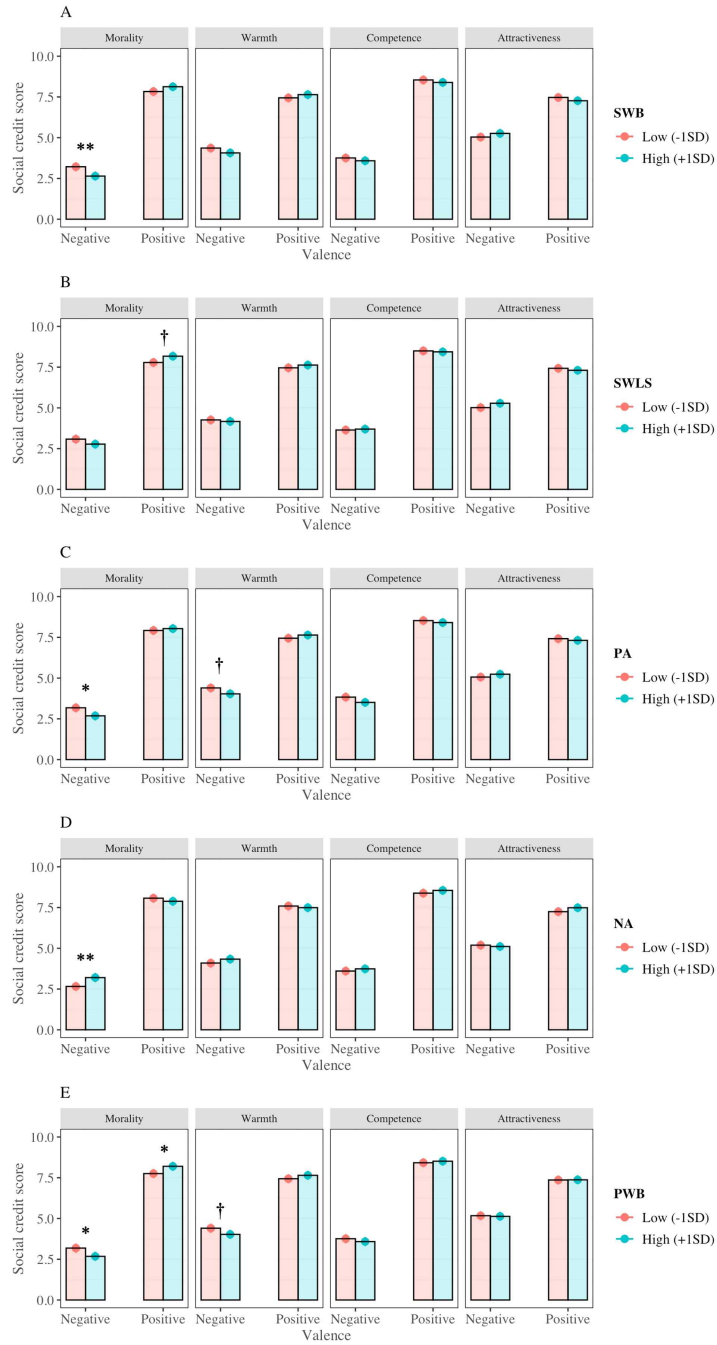
Figure 3. Social credit scores by valence, dimension, and happiness in Study 2.

*Note.* SWB = subjective well-being; SWLS = satisfaction with life; PA = positive affect; NA = negative affect; PWB = psychological well-being.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

are less favorably disposed toward people who display negative traits related to morality. This was particularly evident with affective well-being: those with higher (vs. lower) positive affect assigned lower scores to the immoral target ($b = -0.387$, $SE = 0.160$, $p = .016$), and those with lower (vs. higher) negative affect assigned lower scores to the immoral target ($b = 0.374$, $SE = 0.141$, $p = .008$). However, the simple slope was not significant with life satisfaction ($b = -0.127$, $SE = 0.085$, $p = .138$). The patterns were also consistent for psychological well-being, revealing that those with higher (vs. lower) psychological well-being assigned higher value to the moral target ($b = 0.449$, $SE = 0.206$, $p = .029$) and lower value to the immoral target ($b = -0.508$, $SE = 0.206$, $p = .014$).

In addition, consistent with Study 1, the valence $\times$ subjective well-being interaction for the morality dimension differed from that for the attractiveness dimension (dummy 3, morality vs. attractiveness: $b = -0.276$, $SE = 0.083$, $p < .001$) and competence dimension (dummy 2, morality vs. competence: $b = -0.181$, $SE = 0.083$, $p = .028$). We also found consistent patterns with psychological well-being, wherein the valence $\times$ psychological well-being interaction for the morality dimension was significantly different from that for the attractiveness dimension (dummy 3, morality vs. attractiveness: $b = -0.906$, $SE = 0.389$, $p = .020$) as well as the competence dimension (dummy 2, morality vs. competence: $b = -0.686$, $SE = 0.389$, $p = .077$). Simple slopes analyses showed that SCS for the attractive (or unattractive) or competent (or incompetent) target did not vary depending on well-being (all $p$s $\geq$

.267), unlike the moral dimension where the slopes were significant. Moreover, no significant differences were observed when we compared across the morality and warmth dimensions (dummy 1, morality vs. warmth: $b = -0.080$, $SE = 0.083$, $p = .334$ for subjective well-being; $b = -0.367$, $SE = 0.389$, $p = .345$ for psychological well-being). However, the simple slopes of SCS for the warmth dimension did not significantly vary with subjective well-being or psychological well-being (all $p$s $\geq$ .144), except that those with higher psychological well-being marginally significantly devalued the cold target ($b = -0.380$, $SE = 0.205$, $p = .064$). Similar patterns emerged across the sub-indices of subjective well-being (Table 3 and Figure 3), indicating that human valuations by happy (vs. less happy) individuals are most deeply intertwined with moral considerations.

## General Discussion

### Summary

In the present research, we examined how individuals weigh 4 dimensions (competence, warmth, morality, attractiveness) in determinations of human value and found that information about morality caused the biggest fluctuations in the social credit score. Across two studies with samples from different cultural backgrounds, the valuation difference between the positive and negative condition was most pronounced for the morality dimension than other dimensions, providing support for the notion that morality takes primacy in assessments of human value. This is consistent

with prior research that highlight the primacy of moral considerations in social evaluations (Brambilla et al., 2021; Goodwin et al., 2014). However, in Study 2, we found that participants gave just as much weight to the competence dimension as the moral dimension, suggesting that in South Korea, competence may be just as valued as morality in lay minds. There are many possible reasons for this, such as greater competition (e.g., Douthat, 2023) and stronger survival values (Inglehart-Welzel, 2005) in South Korea vs. the U.S., which could render competence more adaptive than morality, or stronger Rule of Law in Korea vs. the U.S. (World Justice Project, 2023), which could render moral behavior more prevalent and lead individuals to underweight the morality dimension in valuations because they take it for granted. These accounts are purely speculative, and additional research is necessary to validate cultural differences and the responsible mechanism(s). Regardless, in both cultural samples, the evaluator's level of well-being－whether measured with SWB or PWB －moderated the interaction effect of valence and the morality dimension on SCS, such that the import accorded to the moral dimension was amplified for those who reported higher (vs. lower) levels of well-being.

Notably, physical attractiveness emerged as the least important factor, with the smallest valuation difference between the negative and positive condition. This suggests that people did not impute as much value to physical attractiveness in their judgments of the target's human worth as other dimensions. Physical attractiveness is an attribute that is thought to signal fertility and

reproductive success (Grammer et al., 2003; Jokela, 2009), that also affects social evaluations, impression formation, and outcomes such as status and income (Hamermesh, 2011; Palmer & Peterson, 2016; Song & Baek, 2021). However, our findings suggest that compared to morality, it holds little sway in determinations of human value.

## Contributions and Implications

The contributions and implications of the present research are threefold. First, although researchers have primarily considered competence to be the trait that is associated with success in competitive environments (e.g., Bettencourt et al., 2001), our study raises the possibility that morality may be just as important as competence for success, especially in the United States. In the positive condition of Study 1 (American sample), the social credit score assigned to the moral target was not significantly different than that assigned to the competent target, and the positive-negative difference score (i.e., ascribed weight) for the morality dimension was higher than all other dimensions including competence. In the positive condition of Study 2 (Korean sample), although the score assigned to the competent target was higher than that given to the moral target, the positive-negative difference scores were not significantly different, indicating that participants exhibited a tendency to discriminate based on moral cues just as much as competence cues. Given that the social credit score described in the scenario determines the target's socioeconomic status and ultimately the target's level of success

in society, the results suggest that people, especially more so those residing in the U.S., may view an individual that is moral to be just as deserving of success as an individual that is competent. Some existing research indicates that maintaining a positive moral reputation may confer benefits (e.g., Sperber & Baumard, 2012), and as such, it is possible that morality, like competence, may foster success.

Second, we extend the literature on the top-down effects of well-being (e.g., Diener et al, 2018) by identifying another way in which happiness can shape psychological outcomes (i.e., judgments of human value). Specifically, our studies unveil a side to happy individuals that is not often mentioned in the well-being literature: they can be harsher judges than their less happy counterparts. Participants in Study 2 assigned the lowest social credit score to immoral targets and this tendency increased with evaluator happiness, indicating that happier individuals penalized targets more for immorality than their less happy counterparts. Although previous research has shown that happy individuals are more prone to viewing the world through rose-colored glasses and make more charitable judgments (e.g., Bower, 1991; Diener et al., 2018; Lyubomirsky & Ross, 1999; Raila, Scholl, & Gruber, 2015), our findings suggest that the opposite may be true when they are evaluating people who display negative traits related to morality. If so, although yet to be tested, it is also possible that judges in the legal system who exhibit high levels of well-being may administer harsher sentences than their less happy counterparts. We note that in Study 1, the moderation effect of well-being was stronger in

the positive moral condition than the negative moral condition. This may reflect a stronger tendency among Americans (those with independent self-construals) to react to the presence of positive moral traits (i.e., promotion focus) and a stronger tendency among Koreans (those with interdependent self-construals) to base their judgments on whether a target individual lacks negative moral traits (i.e., prevention focus; Lee, Aaker & Gardner, 2000). In this way, our studies additionally shed light on potential cultural variations in the effects of well-being on judgments.

Finally, we conducted an interesting experiment based on ideas emerging in popular media and current events pertaining to determinations of human value. We did so using a hypothetical scenario that asked for explicit valuations of a target individual, with human value operationalized as the SCS, which represents the degree to which the target deserves to live a low, middle or high-class life, and hence viability (i.e., the right to life). This was one of numerous ways in which human value could be operationalized and we chose this approach because social class or rank in society is likely a concept familiar to everyone (e.g., Adler, Epel, Catellazzo, & Ickovics, 2000) and it allowed us to circumvent outrage commonly observed when dealing with monetization of human life (Cameron, 2010). Metaphors are fundamental to how humans think and experience the world around them (Lakoff & Johnson, 2008) and we posit that such metaphorical representations of concepts (e.g., the social credit score representing human value) may allow for nuanced examinations of psychological

processes that people may prefer to keep concealed, such as, explicit value calculations involving people.

## Limitations and future directions

We note several limitations to the present study. First, it is possible that the valence of the traits that we used to describe each dimension were not comparable and that some were more positive or negative than others. We did not use valence-matched traits across conditions given research suggesting that moral traits are generally seen to be more positive in valence than those of other dimensions (e.g., Leach et al., 2007) and theorizations suggesting that valence itself reflects value judgments (e.g., Carruthers, 2018). This would imply that more positive perceptions of moral traits (valence) are what drive higher valuations of the target and the use of valence-equivalent traits could eliminate our observed effects. However, it is yet unclear whether the valence premium for morality-related traits or some other element inherent in morality drives our effects. Thus, additional studies using valence-matched traits across dimensions, or other study designs, such as those in which participants are asked to rate a target on various dimensions (vs. manipulated by the researcher), may help clarify this issue.

Other limitations pertain to the dependent variable. For one, we used a single-item measure of the social credit score. Although we deemed it suitable for our context and it exhibited consistent relationships with other variables across the two studies, future studies using multi-item measures

of value may help further validate our findings. Second, while we intended to measure participants' ascriptions of value based on their own convictions, our operationalization of value as the "deservingness" of the target to occupy higher (vs. lower) rungs of society may have led participants to respond based on norms and what they believe society would dictate. Additional studies using alternative contexts are needed to parse out individual and normative effects. Moreover, the inclusion of both within- and between-subjects designs may help verify the robustness of our findings. Finally, because our study was correlational in nature, it remains difficult to draw conclusions regarding causality. Despite having framed well-being as a moderating variable that influences the weight people give to the morality dimension in valuations of people, we leave open the possibility that placing greater weight on the morality dimension made people happier. The reported research is intended to provide a first step in elucidating how people determine the social value of individuals, and additional studies are needed to address the aforementioned issues.

## Conclusion

What, then, determines human value? More specifically, what makes someone a valuable and worthy member of society? It seems that people ascribe greater value to individuals who are moral, and weigh the presence or absence of moral traits most heavily in such judgments. The primacy of moral considerations also depends on the judge— the happier the person is, the more likely the

individual will prioritize morality. In short, the answer is "a virtuous person."

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# 인간의 가치를 결정하는 것은 무엇인가?
# 도덕적 고려의 우선성과 평가자 행복의 조절 효과

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본 연구에서는 사람들이 인간의 가치를 평가할 때 4가지 주요 대인 지각 차원(유능함, 따뜻함, 도덕성, 매력)을 얼마나 고려하는지, 그리고 평가자의 행복 수준이 이러한 평가에 어떤 영향을 미치는지 조사했다. 미국(연구 1)과 한국(연구 2)의 참가자들은 4가지 차원에서 긍정적 혹은 부정적 특성을 가진 대상에 관한 8개 버전의 설명을 읽고, 각 대상에게 사회적 신용 점수를 부여했다. 분석 결과, 긍정적 조건과 부정적 조건 간의 사회 신용 점수 차이가 도덕성 차원에서 가장 크게 나타났다. 연구 1과 2에서 공통적으로 관찰된 이와 같은 결과는 도덕적 고려가 인간의 가치 평가에 가장 큰 영향을 미치는 주요인임을 가리킨다. 특히, 이 효과가 평가자의 행복 수준에 의해 조절되어, 더 높은 행복을 보고한 참가자들이 도덕성 정보에 더 큰 비중을 둔 평가를 하는 것으로 나타났다. 종합적으로, 본 연구 결과는 도덕성이 인간의 가치 평가에서 핵심 요인이며, 행복한 사람들에게서 그 중요성이 더욱 가중됨을 시사한다.

주요어 : 가치, 도덕성, 사회 인지, 행복, 웰빙