

Journal of Personality and Social Psychology

Beautiful Seems Good, But Perhaps Not in Every Way: Linking Attractiveness to Moral Evaluation Through Perceived Vanity

Da Eun Han and Sean M. Laurent

Online First Publication, June 6, 2022. <http://dx.doi.org/10.1037/pspa0000317>

CITATION

Han, D. E., & Laurent, S. M. (2022, June 6). Beautiful Seems Good, But Perhaps Not in Every Way: Linking Attractiveness to Moral Evaluation Through Perceived Vanity. *Journal of Personality and Social Psychology*. Advance online publication. <http://dx.doi.org/10.1037/pspa0000317>

Beautiful Seems Good, But Perhaps Not in Every Way: Linking Attractiveness to Moral Evaluation Through Perceived Vanity

Da Eun Han¹ and Sean M. Laurent^{1, 2}

¹ Department of Psychology, University of Illinois at Urbana-Champaign

² Department of Psychology, The Pennsylvania State University

For almost 50 years, psychologists have understood that what is beautiful is perceived as good. This simple and intuitively appealing hypothesis has been confirmed in many ways, prompting a wide range of studies documenting the depth and breadth of its truth. Yet, for what is arguably one of the most important forms of “goodness” that there is—moral goodness—research has told a different story. Although greater attractiveness is associated with a host of positive attributes, it has been only inconsistently associated with greater perceived morality (or lesser immorality), and meta-analyses have suggested the total effect of beauty on moral judgment is near zero. The current research documents one plausible reason for this. Across nine experiments employing a variety of methodological and measurement strategies, we show how attractiveness can be perceived as both morally good and bad. We found that attractiveness causally influences beliefs about vanity, which translates into beliefs that more attractive targets are less moral and more immoral. Then, we document a positive association between attractiveness and sociability—the nonmoral component of warmth—and show how sociability exerts a countervailing positive effect on moral judgments. Likewise, we document findings suggesting that vanity and sociability mutually suppress the effects of attractiveness on each other and on moral judgments. Ultimately, this work provides a comprehensive process account of why beauty seems good but can also be perceived as less moral and more immoral, highlighting complex interrelations among different elements of person perception.

Keywords: attractiveness, beautiful-is-good stereotype, halo effects, moral judgment, narcissism


Supplemental materials: <https://doi.org/10.1037/pspa0000317.supp>

One of the most robust and well-known findings in psychology is the “beautiful-is-good” effect. Physically attractive people are believed to be more competent, sociable, and intelligent than less attractive people (Dion et al., 1972; Eagly et al., 1991; Feingold, 1992), and more versus less attractive people are expected to achieve more desirable life outcomes, such as marital happiness and occupational success (Dickey-Bryant et al., 1986). Moreover, the effects of attractiveness relate to a wide variety of real-world outcomes that favor the more attractive over the less attractive (Brand et al., 2012; Langlois et al., 2000; Lorenzo et al., 2010; Stewart, 1985; Udry & Eckland, 1984; Van Leeuwen & Macrae, 2005; Zebrowitz & McDonald, 1991).

Although beautiful-is-good effects have been repeatedly documented, the present research challenges whether they generalize as broadly as might be assumed, presenting evidence that more attractive people are viewed as both less *and* more moral. To support this, we test a process account that explains *how* beauty can

have both positive and negative impacts on the perception of morality. First, we document a causal “beautiful seems less moral and more immoral” effect, based on perceived or expected relationships between beauty and vanity, and between vanity and judgments of morality and immorality. Next, we examine a countervailing process that helps explain why research examining associations between attractiveness and moral judgment has been mixed and why zero-order relationships (i.e., total effects) are frequently near zero. Across nine experiments using different manipulations of attractiveness (e.g., descriptions, pictures), different approaches (e.g., direct and indirect measures, causal chains, moderation of effects), and different types of outcomes (e.g., general evaluations, evaluations of specific behaviors, meta-judgments about targets’ moral attitudes), we show that while the beautiful are assumed to be “good,” they are expected to be less *morally* good than would be otherwise expected, primarily because they are expected to be vain.

Da Eun Han  <https://orcid.org/0000-0001-8699-439X>

Sean M. Laurent  <https://orcid.org/0000-0003-0130-7867>

Sean M. Laurent is now at Pennsylvania State University.

We have no known conflict of interest to disclose.

Da Eun Han played lead role in data curation, formal analysis, software, visualization, and writing of original draft and equal role in conceptualization, investigation, methodology, project administration, and writing of review and editing. Sean M. Laurent played lead role in supervision and

equal role in conceptualization, investigation, methodology, project administration, and writing of review and editing.

All data, analysis scripts, and study materials (including supplemental analyses) for this article have been made publicly available at the open science framework and can be accessed at <https://bit.ly/3Ho9FDI>.

Correspondence concerning this article should be addressed to Da Eun Han, Department of Psychology, University of Illinois at Urbana-Champaign, 603 East Daniel Street, Champaign, IL 61820, United States. Email: daeuneh2@illinois.edu

Theoretical Perspectives Regarding the Beautiful-Is-Good Effect

Implicit personality theory (Berman & Kenny, 1976; Cronbach, 1955; Rosenberg & Sedlak, 1972) assumes that people hold implicit theories about covarying traits. Consistent with this, Eagly et al. (1991) meta-analyzed the effect of attractiveness on a constellation of traits, arguing that physical attractiveness directly leads to inferences of particular traits, which can be labeled as *direct halo effects*. Another theoretical approach to understanding attractiveness halo effects is the general evaluation model proposed by Fiscaro and Lance (1990). This model echoes the classical interpretation of halo effects wherein global evaluations based on one attribute lead to other trait inferences (Lachman & Bass, 1985; Nisbett & Wilson, 1977). The theory predicts that global positive attitudes toward attractive individuals should lead to positive trait inferences in what is essentially an *indirect* halo effect of attractiveness. Another approach to understanding attractiveness effects involves stereotypes (e.g., C. T. Miller, 2011; Rohner & Rasmussen, 2011). Specifically, this approach rests on the notion that overgeneralizations about the positive qualities of attractive people will lead to errors and biases that facilitate information processing when attractive people behave congruently with the stereotypes.

Each of these perspectives offers ways of understanding how the beautiful-is-good effect could impact moral evaluations. Potentially, attractiveness could prompt global positive evaluations while also being associated with specific positive traits such as sociability, with each route leading to enhanced expectations of morality. However, attractiveness may also be conceptually associated with a negative trait which suggests decreased morality. The current research acknowledges how positive global impressions can arise from attractiveness while adopting lessons from implicit personality theory to propose that attractiveness can have both negative and positive impacts on moral evaluations due to its *direct* associations with vanity and sociability, respectively. In addition, applying the stereotype model, we provide evidence that the broader concept of attractiveness is globally associated with positivity in the moral domain (i.e., plausibly facilitating information processing), but that this association can be disrupted somewhat when vanity is made salient.

People Expect the Beautiful to Be Good, but Do They Expect Moral Goodness?

Although beauty is associated with positive evaluations on multiple dimensions, research is mixed on the question of whether attractiveness is associated with perceived morality. Consistent with the beautiful-is-good effect, Buckley and Haefner (1984; see also Darby & Jeffers, 1988) found that physically attractive targets were judged as more moral than less attractive targets. Yet, on dimensions such as integrity (Bassili, 1981) and altruism (Griffin & Langlois, 2006)—both of which are clearly associated with moral character—null effects of attractiveness on moral judgment have been reported (see also Feingold, 1992). Other research has also directly contradicted the beautiful-is-good effect, showing that attractive (vs. unattractive) targets who commit immoral acts are evaluated as *more* immoral (Dermer & Thiel, 1975; Hocking et al., 1982). And some work has revealed mixed results, highlighting the complexity of the attractiveness-morality relationship. Specifically, Sigall and

Ostrove (1975) found differing effects of attractiveness on moral judgments as a function of transgression type. Likewise, Sofer et al. (2015) reported how trustworthiness increases with attractiveness, but only to a point; as faces become less typical, perceived trustworthiness begins to decline.

These inconsistencies resonate with Eagly et al. (1991) meta-analysis, which found that although the effect size of attractiveness on variables such as competence and general positive evaluations was moderate (Cohen's $d = 0.46\text{--}0.68$), it was substantially smaller for integrity (Cohen's $d = 0.13$) and not significant for concern for others (Cohen's $d = 0.01$). Similarly, a meta-analysis by Feingold (1992) found no overall beautiful-is-good effect for morality-related traits, in that honesty, trustworthiness, kindness, morality, genuineness, and sincerity were ascribed to unattractive targets as frequently as to attractive targets.

Finding that attractiveness has null or inconsistent effects on moral judgments is difficult to understand through the general impression model. That is, given strong relations between attractiveness and other evaluative domains, it seems unlikely that positive global impressions for attractive individuals would fail to include moral evaluations. However, if attractiveness directly influences the perception of at least some specific *negative* traits (i.e., implicit personality theory), this could offset an otherwise robust, global, and favorable expected relationship with perceived morality. Put differently, although a direct or indirect halo effect could explain its association with valued characteristics (e.g., competence, sociability), attractiveness might also be directly associated with a less savory personal characteristic that, while not necessarily immoral itself, suggests moral deficiency and a tendency toward immorality, potentially decreasing any positive halo for morality. This account is consistent with the reasoning of Eagly et al. (1991), who explained that although people often associate attractive people with positive traits such as sociability, they may also infer that attractive people are not sensitive to others due to other traits related to attractiveness (e.g., popularity or social power). Next, we argue that vanity, or self-absorption more broadly, is a candidate “other trait” perceived as related to attractiveness and moral judgments.

Defining Vanity and Linking It to Attractiveness

Vanity has been defined as having an inflated view of oneself (especially one's appearance and achievements) and having an excessive concern thereof (Netemeyer et al., 1995). Empirical work on vanity also reveals a similar but broader constellation of traits: having excessive pride in oneself more generally, being overly involved in one's own concerns, and demanding high regard from others (Nuyen, 1999; Rozeboom, 2020). This is reflected in synonyms for vanity, such as arrogant, conceited, egocentric, prideful, self-important, or narcissistic. In the current research, we adopt this broader conceptualization of vanity encompassing inflated self-concept and conceit, although in some studies, we focus more narrowly on physical appearance. To our knowledge, little psychological research on vanity has been conducted outside of marketing and consumer behavior research (e.g., Aydinolu & Krishna, 2012; Wang & Waller, 2006), although there have been studies of similar concepts such as arrogance and hubris (e.g., Akstinaite et al., 2020; Fetterman et al., 2015; Ruvio et al., 2020; X. Wang et al., 2013).

Why would we hypothesize that attractiveness prompts expectations for vanity? In part, this is a culturally established connection and has face validity. Specifically, we expected people to assume that attractive people (a) know they look good and are proud of it, (b) work hard to look good, and (c) are aware of the effect their good looks have on others. And although moderately attractive (or even unattractive) people can be self-involved and think they look great, it seemed probable that people would assume great-looking people are generally *vainer* than less great-looking people. Moreover, we expected that from childhood onward, exposure to popular media such as movies would bolster this perceived association (e.g., the wicked stepmother in “Snow White” or the models in “Zoolander”). However, prior to the present work, this proposition has admittedly not received much empirical attention. Yet, research has found that people high in trait vanity and narcissism—a concept that we will argue is related and superordinate to vanity—do tend to take greater care of their appearance (Ahmed, 2014; Holtzman & Strube, 2013; Netemeyer et al., 1995). Likewise, a meta-analysis (Holtzman & Strube, 2010) revealed a weak but reliable positive correlation between physical attractiveness and narcissistic personality. Importantly, suggesting that people recognize this association, people believe more (vs. less) attractive people are more vain or less modest (Dermer & Thiel, 1975; Feingold, 1992). These findings support the claim that people are likely to assume that attractiveness and vanity covary, and we therefore expected people to draw inferences about vanity from attractiveness.

Vanity: Maybe Not “Morally Bad” but Definitely Not Good

In contrast to vanity, narcissism has received much attention, particularly from investigators interested in interpersonal functioning (e.g., Brunell et al., 2011; Campbell et al., 2002; Emmons, 1987; Grijalva et al., 2015; J. D. Miller et al., 2012; Morf & Rhodewalt, 2001; Wetzel et al., 2017; Wink, 1991) and psychopathology (e.g., Campbell & Miller, 2012; Irwin, 1995; Pincus & Lukowitsky, 2010; Zeigler-Hill et al., 2011). Arguably, narcissism is a broader and more complex concept than vanity, as it describes both grandiose and vulnerable aspects of self-concept (Gore & Widiger, 2016) and is characterized by traits such as attention-seeking, arrogance, low anxiety, entitlement, a lack of empathy, and exploitation of others (e.g., Cain et al., 2008; Kenneth et al., 2012). However, vanity is clearly one facet of narcissism.

Indeed, the concept of psychological narcissism is named for and rooted in the story of Narcissus: a beautiful, cruel, and self-absorbed person who eventually fell in self-love after catching a glimpse of himself in a pool of water. Consistent with this, a commonly used measure of narcissism (e.g., the Narcissistic Personality Inventory; Raskin & Terry, 1988) not only contains items measuring arrogance, manipulation, and attention-seeking (e.g., “I am a born leader,” “I find it easy to manipulate people,” and “I really like to be the center of attention”), but items directly related to vanity (e.g., “I like to look at myself in the mirror,” “I like to show off my body,” and “Modesty doesn’t become me”). Reflecting this, one of four factors of this measure is self-absorption, or vanity according to our definition (Emmons, 2010). The strong correlation ($r = .72$) between vanity and narcissism also illustrates their close connection (Egan & McCorkindale, 2007; see also Netemeyer et al., 1995).

Importantly, vanity on its own is a trait that is viewed quite negatively by others (Leary et al., 1997; Paulhus, 1998), which could potentially influence moral judgments. Moreover, narcissism—the broader constellation of traits of which vanity is one facet—is itself related to other negative personality characteristics including Machiavellianism and psychopathy, which together form the Dark Triad (Paulhus & Williams, 2002). Although Dark Triad components are separable, they also share substantial conceptual overlap and measurement variance (Furnham et al., 2013), leading researchers to sometimes combine them into a single scale (e.g., Jonason et al., 2010). Additionally, it has been hypothesized that common underlying features—such as the tendency to not feel empathy for others, to lack humility, to be interpersonally antagonistic, or to exploit others—may help explain the strong positive correlations among measures of these characteristics (D. N. Jones & Paulhus, 2011; Jonason et al., 2009; Lee & Ashton, 2005; Lynam & Derefinko, 2006). Given the association between narcissism and immoral tendencies, it is plausible that a facet of narcissism, vanity, will shape people’s expectations about a person’s morality.

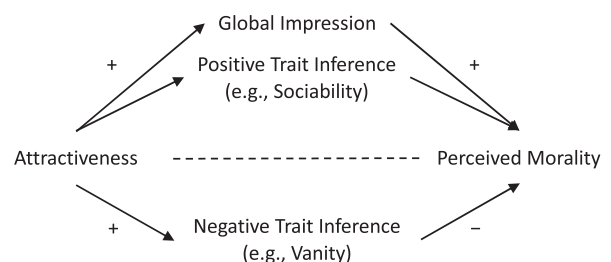
Based on these ideas, we hypothesized that to the extent that people believe that more (vs. less) attractive people are more (vs. less) vain, and also associate vanity with other malevolent traits, people should expect attractive people to be less moral and more immoral. That is, as depicted in Figure 1, although attractiveness may wear a favorable halo in moral judgments because of general positive attitudes toward attractive people or specific associations between attractiveness and positive traits (e.g., sociability), attractiveness may also sport a horn of vanity, which should translate into less favorable moral judgments. This article examines the specific association attractiveness holds with vanity, examining how this countervails the positive effects of attractiveness on moral evaluations.

Methodological Considerations

To better document presumed effects, the current research also addresses several potential methodological concerns. For example, because consistency bias can inflate the scope or strength of effects (Council & Green, 2004), we focused on measuring primary attributes of interest, rather than asking about a wide number of personal attributes (e.g., Dion et al., 1972).

The present work also captures moral judgments with multiple measures, moving beyond previous work that has examined how attractiveness influences evaluations of moral *purity* (e.g., premarital

Figure 1
Theoretical Model Showing How Attractiveness Can Impact Moral Evaluations Through Countervailing Routes



sexual intercourse; see Hocking et al., 1982), which shares a conceptual link with attractiveness (e.g., because attractive individuals are more sexually appealing, they may have more opportunities and offers for sexual engagement). However, we also limited our scope somewhat. For example, although moral foundations theory (e.g., Graham et al., 2013) posits a number of diverse facets of morality, others have proposed the primacy of harm in morality (e.g., Gray et al., 2012), or found that honesty and trustworthiness play primary roles in impression formation (Brambilla et al., 2021). Thus, we measured moral evaluations using traits that were consistent with these latter aspects of moral judgment (e.g., honest, kind, trustworthy, mean, cruel, violent), expecting that most people would consider these to be morality-related traits. Additionally, we used generic measures of moral and immoral character, asked about the likelihood that targets have ever behaved in particular ways (e.g., given money to a charity or intentionally hurt someone's feelings), asked about the frequency of targets' moral or immoral behaviors, and probed meta-judgments that inquired about targets' likely views regarding moral topics (e.g., social justice or animal welfare).

Consistent with past work showing that judgments of positive and negative morality differ in qualitative ways (e.g., Janoff-Bulman & Carnes, 2013; Janoff-Bulman et al., 2009), we included separate measures tapping into aspects of morality and immorality judgments. That is, although some work has reasonably examined traits along a single continuum (e.g., honesty vs. dishonesty; Bassili, 1981), there is also evidence that negative and positive traits are evaluated differently. For example, negative traits tend to be more extreme, less frequent, and more distinctive than positive traits (Baumeister et al., 2001; Mende-Siedlecki et al., 2013; Skowronski & Carlston, 1989; Unkelbach et al., 2020). Thus, work focusing on only good behavior (e.g., honesty, kindness) or bad behavior (deception, cruelty) might be incomplete or fail to capture the extent of the association between beauty and moral judgment. Moreover, it is possible that even essentially bipolar traits such as honesty-dishonesty are not always truly bipolar. For example, perceivers could plausibly believe someone is honest in some ways, at some times, and in some situations, but also expect them to be dishonest in other ways, times, and situations. Finally, by measuring positive and negative aspects of morality separately, this allowed us to examine whether attractiveness has differing influences on perception of morality or immorality. For example, it might be that highly attractive targets are not believed to be more immoral than moderately attractive targets, per se, but are expected to be *less* moral. In one experiment, we also examine the absence versus presence of moral and immoral behavior.

Finally, the present work diverges from past work that compared attractive targets to unattractive targets (e.g., Bassili, 1981; Eagly et al., 1991; Hocking et al., 1982). We considered this approach potentially problematic, in that stereotypes about these groups differ (Griffin & Langlois, 2006), making it difficult to know which beliefs about attractive or unattractive targets would underlie any evaluative differences we found. Although one approach might have been to focus on a broad range of target attractiveness, we used the statistically most likely "broad middle" of the attractiveness distribution (i.e., average attractiveness) as a control (Unkelbach et al., 2019). Our reason for doing so was twofold: First, we were interested in seeking a possible explanation for why the beautiful-is-good effect does not consistently extend to moral judgment, rather than investigating moral evaluations across the full range of

attractiveness. Second, given that unattractive people are negatively stereotyped (Griffin & Langlois, 2006) and might be evaluated negatively in moral terms, it was not clear that the process account we wanted to examine (i.e., vanity) would be as relevant to the evaluation of unattractive targets as we expected it to be for attractive targets. Therefore, we focused on the comparison between attractive people and those who are average in attractiveness.

Overview of Studies and Hypotheses

Experiments 1a–1d establish the causal link leading from attractiveness to vanity to moral judgments. To first test the assumed associations between attractiveness and vanity and between vanity and immorality, the first three experiments separately manipulated each of the three variables: attractiveness in Experiment 1a, vanity in Experiment 1b, and morality in Experiment 1c. If people hold *implicit personality beliefs* that attractiveness and vanity covary, and that vanity and immorality covary, attractiveness should increase attribution of vanity and vice versa. Likewise, vanity should decrease attribution of morality, with the reverse also true. Importantly, this series of experiments allowed us to test the causal chain wherein attractiveness influences vanity, which influences moral judgments. To strengthen the causal argument regarding the underlying effect of vanity, Experiment 1d tested whether describing a target as vain would reduce the effect of attractiveness on morality attribution. In Experiments 1a–1d, written descriptions were used to manipulate attractiveness.

Experiments 2a–2b replicated and extended Experiments 1a–1b using photographs. However, in addition to manipulating attractiveness and vanity, we also measured sociability (i.e., the nonmoral component of warmth), another potentially relevant variable. Specifically, the meta-analysis by Eagly et al. (1991) found that the strongest effect of attractiveness was on social competence (i.e., warmth), followed by adjustment, potency, and intellectual competence. Of these, warmth is clearly the most relevant to moral judgment. In fact, past researchers have sometimes used these terms interchangeably (e.g., Fiske et al., 2007; Wojciszke, 2005). However, an emerging consensus is that the concepts are distinguishable both conceptually and empirically (Brambilla & Leach, 2014; Goodwin et al., 2014; Griffin & Langlois, 2006; see Goodwin, 2015, for a review). Thus, one candidate mechanism for why attractiveness might predict *greater* morality, balancing the hypothesized negative relation to morality through vanity, is the nonmoral component of warmth.

We hypothesized that attractiveness would predict a contrary (i.e., to vanity) moral evaluation through sociability. In Experiment 2b, we predicted that higher (vs. lower) vanity would again predict moral judgments and attractiveness as in Experiment 1b, and that it would also predict decreased attribution of sociability due to its negative valence. Similar to Experiment 1d, Experiment 2c examined the causal influence of sociability by manipulating it alongside attractiveness. We hypothesized that assigning levels of sociability would block the effect of attractiveness on perceived sociability and accordingly, the positive effect of attractiveness on moral judgments (found in Experiment 2a).

Experiments 3a and 3b again focused solely on the role of vanity in the attractiveness-morality association but used a more indirect measurement approach (a single-category implicit association test [SC-IAT] and a modified SC-IAT). Because both attractiveness and

morality represent positively valenced concepts, we predicted that attractiveness-related words would be cognitively associated with morality-related words, but that making vanity salient would attenuate this effect.

Open Practices and Data

We disclose all measures, manipulations, and exclusions in all studies. Sample sizes for Experiments 1a–2c were determined *a priori* with the intention of recruiting enough participants to have 80% power to detect, at a minimum, medium-sized main and simple main effects (e.g., $f = .25$, $d = 0.50$). No data were analyzed until target sample sizes were reached. A detailed description of experimental instructions, stimuli, and analyses are in the online Supplementary Materials (OSM), available at <https://bit.ly/3Ho9FdI>, along with completely deidentified data for all reported studies/experiments.

This research was approved by the Institutional Review Board at the university where the research was carried out. Participants in all experiments were adults recruited from Amazon mechanical Turk (AMT) and paid a small fee for their participation. Participants were residents of the United States (per Internet Protocol address) and always provided informed consent before participating. Although different types of questions were used in different studies to assess attention, few participants failed these questions, so no participants' data were excluded except where mentioned (i.e., in Experiments 3a and 3b). Starting in Experiment 2a, we also adopted practices intended to improve data quality, such as asking participants simple questions about the information they had been exposed to, allowing participants to opt out of studies or review materials when questions were missed, and not allowing consistently nonattentive participants to complete studies. Assignment to experimental condition was always random, and all primary dependent variables were presented in individualized random orders or fixed block orders with randomization within blocks (see the OSM for additional details).

Experiments 1a–1d

Experiments 1a–1d relied on written descriptions, in part to decrease the variability we expected to be associated with specific faces and boost expected effect sizes. In addition, because descriptions might be less likely to drive global impression effects, we assumed that written descriptions might facilitate finding initial evidence that attractiveness can negatively affect moral evaluations through inferences about vanity. Moreover, despite the ubiquity of digital media (e.g., high-resolution pictures on phones), people nevertheless describe others in terms of their attractiveness (e.g., “You should meet my friend, he’s really great-looking!” “The woman I saw this morning was gorgeous!”). Thus, even though this type of situation may be less frequent than those where people meet face-to-face or see photos of someone else, we believe verbal descriptions are one way that people can learn about others' attractiveness. That is, although modern technology makes showing someone a picture much more likely than in the past, in some situations, photographic evidence might not be available and could be problematic to obtain. In cases such as these, descriptions could still prompt third-party judgments of the described person.

Experiments 1a–1c attempted to show that people hold *implicit personality theories* that link attractiveness to vanity and vanity to immorality. Experiment 1a manipulated target attractiveness to

examine its influence on the attribution of vanity and morality. Subsequently, as part of an “experimental-causal-chain” design (Spencer et al., 2005; also see Pirlott & MacKinnon, 2016), Experiment 1b manipulated vanity to examine its influence on moral judgments and additionally tested whether the vanity-attractiveness association was bidirectional. Experiment 1c manipulated morality to examine its effect on the attribution of vanity and attractiveness. We expected that greater immorality and lesser morality would both be associated with greater vanity attribution. To further support our causal argument, Experiment 1d adopted a “moderation-of-process” design (Spencer et al., 2005), testing the effect of attractiveness on moral judgments when targets were described as either vain or when vanity was not made salient (i.e., control).

Experiment 1a

Method

Participants and Design. Participants were 187 adults (90 female, 95 male, 2 other/prefer not to respond; $M_{\text{age}} = 39.29$, $SD = 12.14$) who were randomly assigned to one of four conditions in a 2 (moderately attractive vs. highly attractive) \times 2 (target gender: female, male) fully between-participants design.

Target Descriptions. Names and pronouns varied depending on whether the target was described as a female (Nicole) or a male (Nick). In the highly female attractive target condition, participants were presented with the following:

Nicole is one of those people who is just naturally great-looking. When she walks into a room and people see her, they usually can't help but stop and stare for a moment. She's used to people doing double-takes when they see her, looking at her, looking away, and then pointedly looking back, almost in awe. People frequently think she's a model or movie star, although she is neither. She just happens to be incredibly attractive.

In the moderately attractive female target condition, the passage read as follows:

Nicole is one of those people who is not particularly great-looking. When she walks into a room and people see her, they usually don't give her a second look. She hasn't really experienced someone doing a double-take when they see her, such as looking at her, looking away, and then pointedly looking back. People would probably not mistake her for a model or movie star, even though she is not ugly. She just happens to not be very attractive.

Measures. Participants then responded to dependent measures and then provided demographic information. Question order within question types was always randomized, and measures were presented in a fixed order. As a manipulation check, participants first responded to two questions ($r = .96$) asking, “To what extent would you say that [name] is [physically attractive; beautiful/handsome]?” (1 = *not at all*, 7 = *very*). Using the same 7-point scale, two questions ($r = .91$) then asked about the target's vanity: “To what extent would you say [name] is probably [vain; self-absorbed]?” Next, participants responded (in counterbalanced order) to general questions about the target's morality/immorality and moral/immoral traits. Four general questions asked, “If you had to guess, how often does [name] behave in [moral; immoral] ways (i.e., do [moral; immoral] things?” (1 = *almost never*, 7 = *very frequently*), and “To what extent would you say that [name] is probably a [good; bad] person?” (1 = *not at all good; bad*, 7 = *very good; bad*). Moral and

immoral trait questions asked, “To what extent do you think that [name] has the following characteristics?” (1 = *not at all*, 7 = *extremely*). Moral traits were honest, kind, caring, generous, compassionate, helpful, loving, trustworthy, giving, humble, and loyal. Immoral traits were selfish, rude, evil, dishonest, greedy, mean, cruel, violent, hateful, narcissistic, and manipulative.¹ Finally, participants indicated the extent to which the target cares about moral issues, “How much do you think [name] cares about each of these issues?” The issues were poverty, social justice, the environment, and animal rights. For the brevity of report, we created separate indices for morality ($\alpha = 0.84$) and immorality ($r = 0.73$). Morality was computed by averaging the composites of general morality ($r = 0.60$), moral traits ($\alpha = 0.97$), and moral concerns ($r = 0.73$), and immorality by averaging general immorality ($r = 0.73$) and immoral traits ($\alpha = 0.96$). See the OSM for detailed instructions and items for all experiments.

Results and Discussion

Generally, neither target nor participant gender interacted with the experimental manipulations reported in this article. In the few cases where interactions emerged, they did not meaningfully alter the interpretations of the findings. Therefore, reported analyses throughout collapse across gender. Detailed results involving gender effects can be found in the OSM. Figure 2 displays the M and SD of dependent measures for highly and moderately attractive targets. As expected, the highly attractive target was assumed to be much more attractive than the moderately attractive target, $t(185) = 25.75, p < .001, d = 3.79$.² As hypothesized, the highly attractive target was also evaluated as vainer than the moderately attractive target, $t(185) = 13.55, p < .001, d = 1.99$. The correlation between attractiveness and vanity ratings was strong, $r = .70, p < .001$.

Given past inconsistent effects of attractiveness on perceived morality, we were uncertain whether our attractiveness manipulation would produce a total effect on attributed (im)morality, and if total effects did emerge, in what direction they would be. Results revealed that the highly attractive target was rated as lower in morality and higher in immorality than the moderately attractive target, respectively, $t_s(185) = 5.23$ and $2.49, p_s < .001$ and $.014, d_s = 0.77$ and 0.37 .

Experiment 1a provided initial confirmation of our theorizing. When compared with a target described as not particularly attractive, an attractive target was believed to be substantially vainer, and the correlation between perceived attractiveness and vanity was high. Although we had no firm prediction regarding whether a total effect of attractiveness on moral judgments would emerge or be consistent with the beautiful-is-good effect or the opposite, we found that the more attractive target was expected to be significantly less moral and more immoral. By confirming the first link in a causal chain running from attractiveness through vanity perception to moral evaluations, this experiment provided initial evidence of the proposed model.³

Experiment 1b

To probe the second link in the proposed causal chain, Experiment 1b manipulated vanity and examined its effect on moral judgments. We also examined perception of attractiveness to test an assumed bidirectional relationship between attractiveness and vanity.

Method

Participants and Design. Participants were 190 adults (101 female, 88 male, 1 prefer not to respond; $M_{\text{age}} = 39.19, SD = 11.53$), randomly assigned to one of four conditions in a 2 (vanity: low, high) \times 2 (target gender: female, male) fully between-subjects design.

Target Descriptions. As in Experiment 1a, target names and gender varied by gender condition. In the low vanity male target condition,⁴ targets were described as people who are not particularly vain:

Nick doesn't care overly much about his looks. As many people do, he thinks he looks good, but he doesn't spend much time maintaining his appearance. For example, he only rarely checks his appearance before leaving the house to make sure he is looking good. And although he keeps his hair neat, teeth brushed, clothes clean, and breath fresh, he feels no need to check and recheck to make sure his appearance is all it can be. Nick doesn't spend much time looking in the mirror unless needed. When out and about, Nick rarely checks himself out in reflective surfaces, such as the windows of shops.

In the high vanity male target condition, the target was described as vain and self-absorbed about their looks:

Nick is extremely vain and self-absorbed when it comes to his looks. As many people do, he thinks he looks good. However, unlike some, he spends a lot of time maintaining his appearance. For example, he never leaves the house without making sure everything about him looks good. Hair in place, teeth brushed, nice clothes, fresh, minty breath—every detail must be checked and rechecked to make sure his appearance is all it can be. Nick never passes up a chance to look in a mirror. When out and about, Nick often checks himself out in reflective surfaces, such as the windows of shops.

Measures. Except for slight wording changes for the vanity ($r = .94$) and attractiveness ($r = .85$) scales, measures were identical to Experiment 1a: general morality ($r = .72$), moral traits ($\alpha = .98$), general immorality ($r = .68$), immoral traits ($\alpha = .96$), and moral concern ($\alpha = .93$). These were again reduced to aggregate measures of morality ($\alpha = .91$) and immorality ($r = .78$).

Results and Discussion

As expected, the high (vs. low) vain target was assumed to be much vainer and more attractive, respectively, $t_s(188) = 29.45$ and $3.61, p_s < .001, d_s = 4.30$ and 0.53 . Also, helping to bolster the causal account (i.e., because attractiveness causally influences

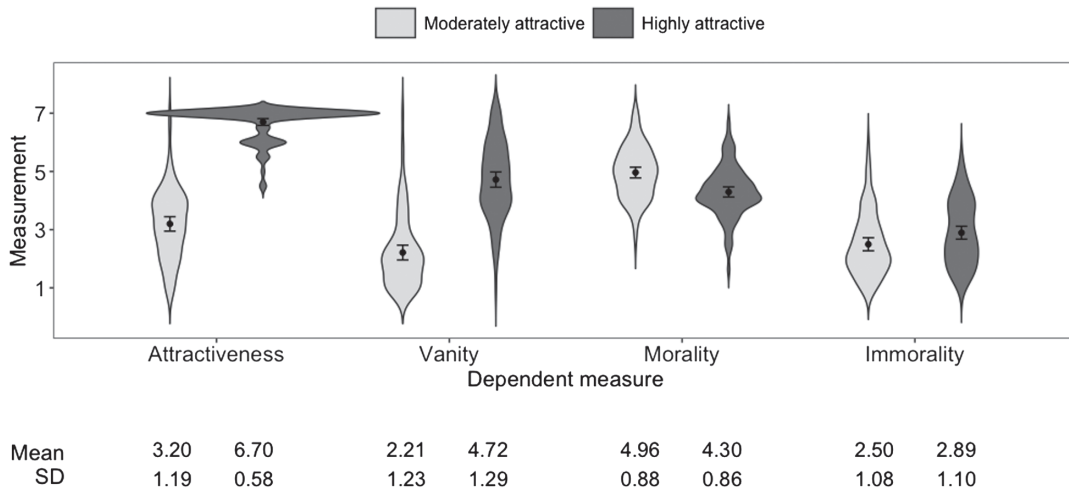
¹ These traits were drawn from the most frequently cited responses to an open-ended prompt in an unrelated study by the authors that asked participants to describe the characteristics of moral and immoral people. To decrease common conceptual variance between the measure of vanity and those of morality and immorality, the terms “humble” and “narcissistic” were excluded when aggregating each scale. Including these variables had no substantive impact on analyses. Also, as noted by an anonymous reviewer, the traits “helpful” and “loving” involve both high morality and high sociability (see also Goodwin et al., 2014).

² For all experiments, we report directional statistics such as t and d as absolute values except in cases where this might decrease clarity.

³ Ancillary analyses were conducted across Experiments 1a–2c to examine indirect effects. Results of these tests are consistent with our hypothesized causal ordering. See OSM for the results.

⁴ Note that “low” vanity corresponds to a relative absence of the trait rather than to its presumed opposite, high humility.

Figure 2
Ratings of Dependent Measures for Highly Attractive and Moderately Attractive Targets in Experiment 1a



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

perceived vanity and vanity causally influences moral evaluations), the high (vs. low) vain target was assumed to be less moral and more immoral, respectively, $t_s(188) = 10.96$ and 9.23 , $p_s < .001$, $d_s = 1.60$ and 1.35 . See Figure 3 for distributions, M , and SD .

Experiment 1c

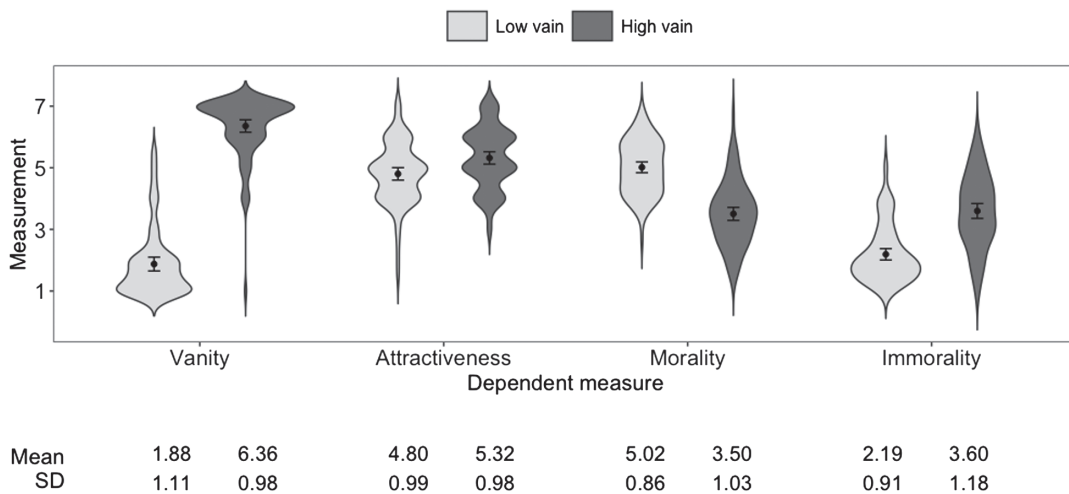
To further confirm that people hold an implicit personality theory that vanity and morality covary, Experiment 1c manipulated morality and tested a bidirectional relationship between vanity and moral judgments. Participants read about a target performing one of four behaviors that were either moral (vs. not moral, but not necessarily *immoral*) or immoral (vs. not immoral, but not necessarily *moral*),

and then rated the targets on measures related to vanity and attractiveness. We hypothesized that less (vs. more) moral and more (vs. less) immoral targets would be expected to be vain. However, because of the good-is-beautiful effect wherein individuals with desirable characteristics are assumed to be more attractive (Gross & Crofton, 1977), we were less certain whether greater immorality or lesser morality would predict greater attribution of attractiveness, cautiously expecting that the reverse would be true.

Method

Participants and Procedure. Participants were 485 adults (223 female, 260 male, 2 unspecified; $M_{age} = 37.86$, $SD = 12.78$),

Figure 3
Ratings of Dependent Measures Across High and Low Vain Conditions in Study 1b



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

randomly assigned to one condition in a 2 (level: low, high) \times 2 (moral valence: moral, immoral) \times 4 (behavior: help/harm, returning/stealing, fidelity/infidelity, kindness/cruelty) fully between-subjects design. Because no gender effects emerged in Experiments 1a–1b, target gender was fixed to be opposite from participants' gender (e.g., female participants evaluated male targets). For participants who chose not to respond to a question about their gender, the target was male.

In each behavior condition, targets were described as in one of four situations that provided opportunities to behave morally or not, or immorally or not. Although failing to behave morally or immorally might be loosely considered as behaving immorally or morally, choosing not to engage in moral/immoral behavior is not necessarily immoral/moral. Thus, in the low moral/immoral conditions, targets considered but did not perform the behaviors. In the high moral/immoral conditions, targets performed the behaviors. Here, we provide one example of the full vignette used in the high and low moral conditions ("help/harm"). In all conditions using this situation, participants first read:

Michael is an avid long-distance runner who had been training for 6 months to compete in his first marathon. His mile pace during practice kept getting better and better and he really wanted to run a fast race. On race day, Michael lined up in the "fast" group, along with all the other runners who expected to complete the race at a very fast pace for amateurs. Soon after the race started, Michael found himself slowed by a runner who was holding several other runners up and who obviously should not have started with the fast group. Michael couldn't get around this runner.

The later part of the story varied across conditions. In the low moral condition, participants read:

Suddenly, the slow runner tripped, knocking over several other runners. Michael thought about stopping to help everyone, but he really wanted to keep to his pace. So, like some others around him, he ran around the fallen runners and increased his pace.

In the high moral condition, participants read:

Suddenly, the slow runner tripped, knocking over several other runners. Michael briefly thought about running on so he could keep to his pace. However, he decided to stop instead and help the other runners to their feet, even though it would hurt his race time. After helping everyone up, Michael ran on and increased his pace.

In the immoral conditions, the first part of the story remained the same, but to get around the slow runner and achieve their goal, the target either trips the runner (high immoral) or considers tripping them, but ultimately does not, instead waiting and passing when an opportunity arises (low immoral). In the remaining conditions (i.e., returning/stealing, fidelity/infidelity, kindness/cruelty), targets similarly choose to behave morally or immorally, or consider behaving morally/immorally but choose not to do so. The OSM contains full descriptions of the text from each condition.

Measures. Two sets of manipulation check were used. Four general morality items checked it directly, varying valence by morality condition ($\alpha = .96$): "To what extent would you say that [name] is a [good, moral/bad, immoral] person?" and "To what extent would you say that [name's] behavior was [moral, correct/immoral, wrong]?" (1 = *not at all*, 7 = *very*). Three moral concern items ($\alpha = .93$) were the same as in Experiments 1a–1b but

left out the "animal rights" item. Six items, with the last two reverse-scored, asked about the targets' vanity ($\alpha = .95$): "To what extent would you say that [name] has the following characteristics? [Name] is probably . . . [vain, self-absorbed, conceited, arrogant, humble, modest]" (1 = *not at all*, 7 = *extremely*). Two items measured attractiveness, with the second item varying as a function of target gender ($r = .84$): "How likely do you think it is that [name] is [physically attractive, handsome/beautiful]?" (1 = *not at all likely*, 7 = *very likely*).

Results and Discussion

Morality manipulation checks varied as a function of level condition, and the interaction of this factor with moral valence was not of theoretical interest. Figure 4 shows the distributions, M , and SD for all measures. Confirming the morality manipulation, high (vs. low) moral targets were seen as higher in general morality and moral concern, respectively, $t_s(242) = 15.79$ and 9.32 , $p_s < .001$, $d_s = 2.03$ and 1.20 . Likewise, high (vs. low) immoral targets were seen as higher in general immorality and lower in moral concern, $t_s(239) = 24.69$ and 7.71 , $p_s < .001$, $d_s = 3.19$ and 1.00 .

Primary dependent measures were originally examined using 2 (level) \times 2 (moral valence) \times 4 (behavior) ANOVAs. Although some significant two-way and three-way interactions emerged, effects of level were always consistent within valence and behaviors. For example, differences in rated vanity were large and significant in both moral valence conditions, but the difference in vanity between low and high immoral targets was greater than between low and high moral targets. For ease of exposition, we therefore collapse across behaviors and report analyses separately for moral and immoral conditions. Analyses based on the full factorial models, including all relevant statistics, are presented in the OSM.

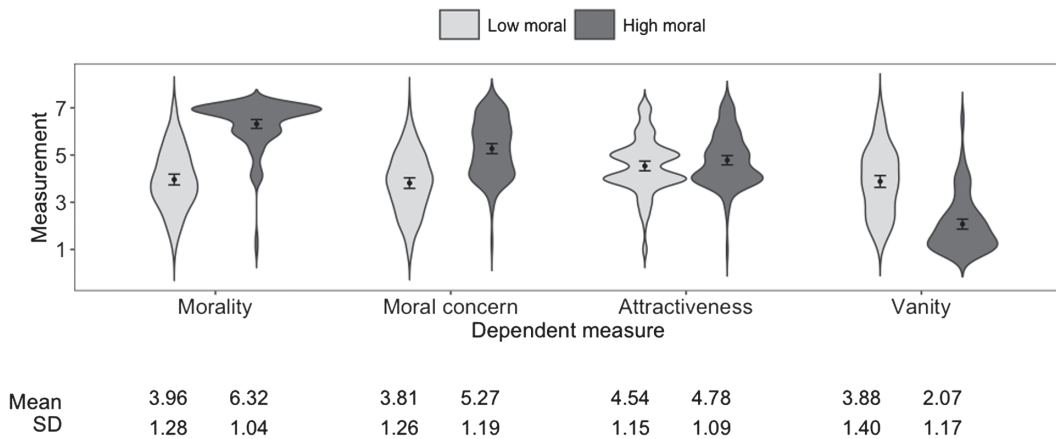
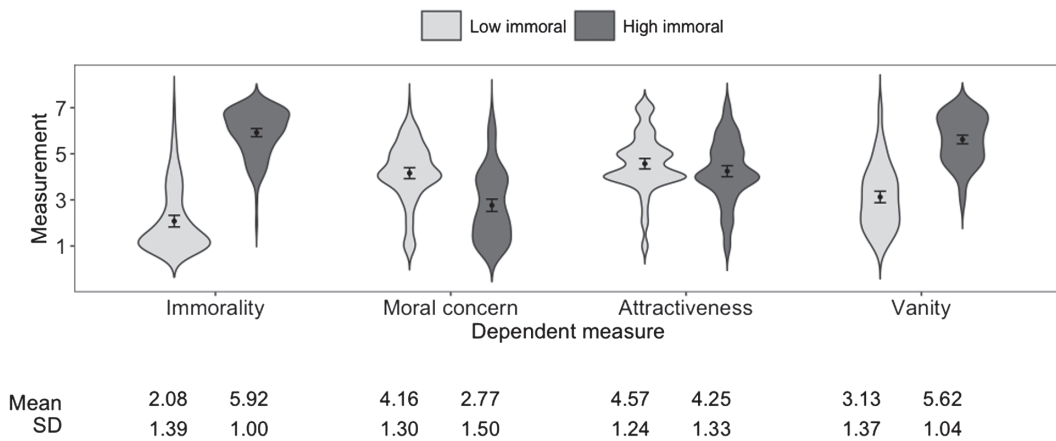
Consistent with our hypothesis, low moral and high immoral targets were expected to be substantially vainer than high moral and low immoral targets, $t_s(242 \text{ and } 239) = 10.93$ and 15.91 , $p_s < .001$, $d_s = 1.41$ and 2.06 . Also, low moral and high immoral targets were both rated as slightly less likely to be attractive than high moral and low immoral targets. However, these effects were not significant, respectively, $p_s = .089$ and $.051$. Notably, although not significant, these effects were reversed in direction from Experiments 1a and 1b, in that the groups assumed to be more attractive (high moral/low immoral) were assumed to be *less* vain. Consistent with this, the correlation between vanity and attractiveness ratings was negative, $r = -.23$, $p < .001$.

Experiment 1d

Following the moderation-of-process design described by Spencer et al. (2005), Experiment 1d manipulated attractiveness and vanity together to test the causal hypothesis that attractiveness affects moral judgments via inferences about vanity. We reasoned that if vanity inferences help explain the effect of attractiveness on moral judgments, this effect would be reduced by provision of vanity-related information. We expected that when describing targets as vain, participants would rely on this information in their vanity judgments rather than inferring it from the targets' described attractiveness, thereby blocking the effect of attractiveness on

Figure 4

Ratings of Dependent Measures for High and Low Morality and Immorality Targets in Experiment 1c

(A) Moral scenarios**(B) Immoral scenarios**

Note. Error bars represent 95% confidence intervals. SD = standard deviation.

perceived vanity. By “knocking out” the effect of attractiveness on vanity in this way, we aimed to test whether this would have a downstream effect on moral judgments. That is, we hypothesized that the negative effect of attractiveness on moral judgments (e.g., Experiment 1a) would be attenuated when vanity information was provided. Therefore, we expected a significant interaction between the vanity and attractiveness manipulations on moral judgments, which would suggest that inferences regarding the vanity of targets with differing levels of attractiveness help explain how attractive people might be evaluated as less moral.

Method

Participants were 602 adults (335 female, 266 male, 1 unspecified; $M_{\text{age}} = 40.62$, $SD = 13.07$), randomly assigned to one condition in a 2 (moderately vs. highly attractive) \times 2 (vanity vs. control) between-subjects design. Target descriptions were the same as in Experiments 1a and 1b, and order of descriptions was

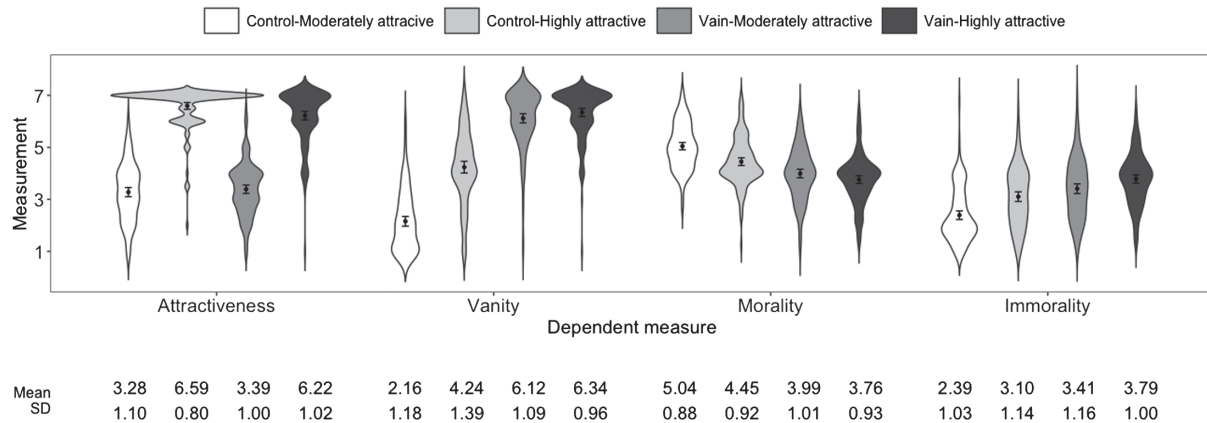
counterbalanced. Target gender was fixed to be opposite from participants' gender. Measures were the same as in Experiment 1a: attractiveness ($r = .93$), vanity ($r = .92$), morality ($\alpha = .86$) and immorality ($r = .76$). Morality was an aggregate of general morality ($r = .67$), moral traits ($\alpha = .98$), and moral concern ($\alpha = .94$), and immorality was an aggregate of general immorality ($r = .64$) and immoral traits ($\alpha = .96$).

Results

Factorial analysis of variances (ANOVAs; all $df = [1, 598]$) were used to explore the effects of the attractiveness and vanity manipulations on all dependent measures. Figure 5 illustrates the distributions for all measures across conditions, also providing M and SD .

Attractiveness. Highly attractive targets were expected to be more attractive than moderately attractive targets, $F = 853.19$, $p < .001$, $d = 3.09$. There was no main effect of target vanity on attractiveness ratings, $p = .327$. The attractiveness and vanity

Figure 5
Ratings of Dependent Measures Within Conditions in Experiment 1d



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

manipulations interacted ($F = 9.17, p = .003, \eta_p^2 = .02$), such that the impact of the attractiveness manipulation was slightly larger in the control condition than the vanity condition, respectively, $t(300) = 29.82$ and $24.35, ps < .001, ds = 3.44$ and 2.82 .

Vanity. High vain targets were expected to be vainer than control targets, $F = 869.99, p < .001, d = 2.21$. Similarly, highly attractive targets were rated higher in vanity than moderately attractive targets, $F = 240.27, p < .001, d = 0.60$. As expected, the factors interacted, $F = 95.40, p < .001, \eta_p^2 = .14$. In the control condition, target attractiveness strongly and significantly influenced vanity ratings, $t(300) = 14.04, p < .001, d = 1.62$. However, as intended, the link from attractiveness to vanity was mostly disrupted when vanity information was provided, $p = .061$.

Moral Judgments. Highly attractive targets were rated as less moral than moderately attractive targets, $F = 36.08, p < .001, d = 0.43$. Vain targets were also rated as less moral than control targets, $F = 118.738, p < .001, d = 1.01$. Importantly, there was a significant interaction between attractiveness and vanity on morality ratings, $F = 7.41, p = .007, \eta_p^2 = .01$. In the control condition, as in Experiment 1a, target attractiveness had a large impact on morality ratings, $t(300) = 6.40, p < .001, d = 0.74$. In the vanity condition, this effect was much smaller, $t(298) = 2.03, p = .044, d = 0.23$. This supports the idea that a target's vanity can play an important causal role in the relationship between attractiveness and moral judgments. However, the small effect of attractiveness on moral judgments that remained even in the vanity condition suggests that the impact of vanity on expected morality may be more powerful for highly (vs. moderately) attractive targets. Consistent with this, highly (vs. moderately) attractive targets were rated descriptively (but not significantly) higher on vanity in the vanity (vs. control) condition.

Immoral Judgments. Similar patterns were observed for immoral judgments. Highly attractive targets were rated as more immoral than moderately attractive targets, $F = 32.84, p < .001, d = 0.48$. Vain targets were also rated as higher in immorality than control targets, $F = 67.16, p < .001, d = 0.77$. The interaction between attractiveness and vanity was near the border of significance, but failed to reach it, $F = 3.69, p = .055, \eta_p^2 = 0.01$. In the control condition, attractiveness had a strong effect on immorality

ratings, $t(300) = 5.72, p < .001, d = 0.66$. In the vanity condition, the effect was around 50% smaller, but was still significant, $t(298) = 3.01, p = .002, d = 0.35$.

Discussion

Given the results of Experiments 1a–1b, we are reasonably confident that perceivers believe that people described as highly (vs. moderately) attractive are vainer, that vainer (vs. less vain) people are more attractive, and that vainer people are less moral and more immoral. Yet, although this pattern suggests greater attractiveness should also be consistently associated with greater expectations for immorality, the tendency to globally associate beauty with goodness likely interferes with this relationship, highlighting a complex relationship among these variables. Although the effects of morality and immorality manipulations on expected attractiveness did not reach significance in Experiment 1c ($ps = .089$ and $.051$), the pattern of means was consistent with a “good-is-beautiful” effect, hinting at a strong generalized expectation that people who behave more morally and have better moral character are also likely to be more attractive. When considered together, these results strongly suggest that a causal link between attractiveness and moral judgments exists, flowing at least in part through expectations that attractive people are vain. The results of Experiment 1d bolster this causal claim, as the impacts of attractiveness on moral judgments were significantly reduced as a function of manipulating vanity.

Experiments 2a–2c

Although using descriptions represents one way of portraying an individual, this method might have undermined any global evaluation effects that exist. Experiments 2a–2b were therefore conducted to increase ecological validity and generalizability by replicating the effects of Experiments 1a–1b using photos of highly and moderately attractive faces as a manipulation (Experiment 2a) and a measure (Experiment 2b). However, we also wanted to examine a second process we believed would represent a *countervailing* link between attractiveness and morality—warmth. Specifically, we wanted to investigate the facet of warmth that is not itself part of moral

evaluation, which we label “sociability” for convenience. We expected that in the same way that attractiveness impacts moral judgments through vanity, it might impact moral judgments in the opposite way through participants’ assumptions that more (vs. less) attractive targets are more sociable. Thus, in Experiments 2a and 2b, we measured sociability using items drawn from Goodwin et al. (2014) that were high on the warmth dimension but low on the morality dimension. In Experiment 2c, by jointly manipulating sociability along with attractiveness, we provide causal evidence for the mediating role of sociability on moral judgments (i.e., similar to Experiment 1d).

Experiment 2a

Experiment 2a replicated Experiment 1a using photographs rather than written descriptions. We hypothesized that attractiveness would positively predict ratings on both vanity and sociability.

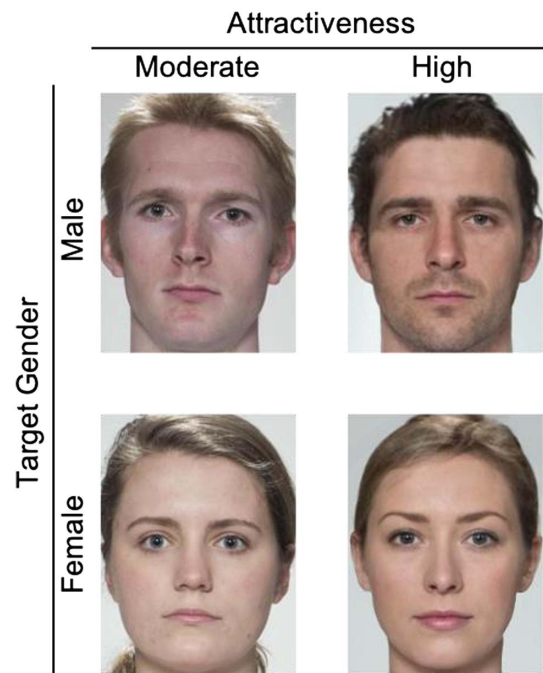
Method

Participants and Procedure. Participants were 404 people (185 female, 213 male, 4 other/prefer not to say; $M_{\text{age}} = 40.00$, $SD = 11.90$), randomly assigned to one of four conditions in a 2 (moderately vs. highly attractive) \times 2 (target gender: female, male) between-participants design. Procedures were similar to Experiment 1a; however, instead of reading about targets described as moderately or very attractive, participants were presented with a photograph of a moderately or highly attractive White female or male drawn from the Face Research Lab London Set (DeBruine & Jones, 2017). In the moderately attractive condition, participants viewed one of six faces with attractiveness ratings near the median in norming data (DeBruine & Jones, 2017). In the highly attractive condition, participants viewed one of two male or female morphed composites that averaged three highly attractive faces (see Figure 6 and the OSM for all face stimuli). Faces were morphed to make sure that the highly attractive targets would be seen as highly rather than moderately attractive, as morphed faces are more attractive than individual faces used to create a composite (Valentine et al., 2004).

Measures. In random order, with the order of items also randomized, participants responded to questions regarding target vanity, morality, and sociability. Unless otherwise noted, responses were always on the same 7-point scale (1 = *not at all* and 7 = *extremely*). Vanity questions asked the extent to which the target was vain, egotistical, and self-centered ($\alpha = .93$). Two types of morality questions were asked. The first involved expectations for general behavioral morality and immorality, asking, “If you had to guess, how often does [name] behave [morally, immorally]?” (1 = *almost never*, 7 = *very frequently*). Moral ($\alpha = .95$) and immoral ($\alpha = .96$) characters were measured using four items each, “If you had to guess, to what extent do you think [name] has the following characteristics?” (ethical, principled, honest, trustworthy, unethical, unprincipled, dishonest, and untrustworthy). As in Experiments 1a–1d, indices of morality ($r = .77$) and immorality ($r = .71$) were again formed by averaging the general behavioral item and the composites of character items. Sociability ($\alpha = .90$) was measured using the same question stem as for moral/immoral character, with five traits rated (sociable, happy, agreeable, easygoing, and playful). Finally, a single item asked how attractive participants thought the target was (1 = *not at all attractive*, 7 = *extremely attractive*).

Figure 6

Example of Faces Used to Manipulate Attractiveness in Experiment 2a



Note. See the online article for the color version of this figure.

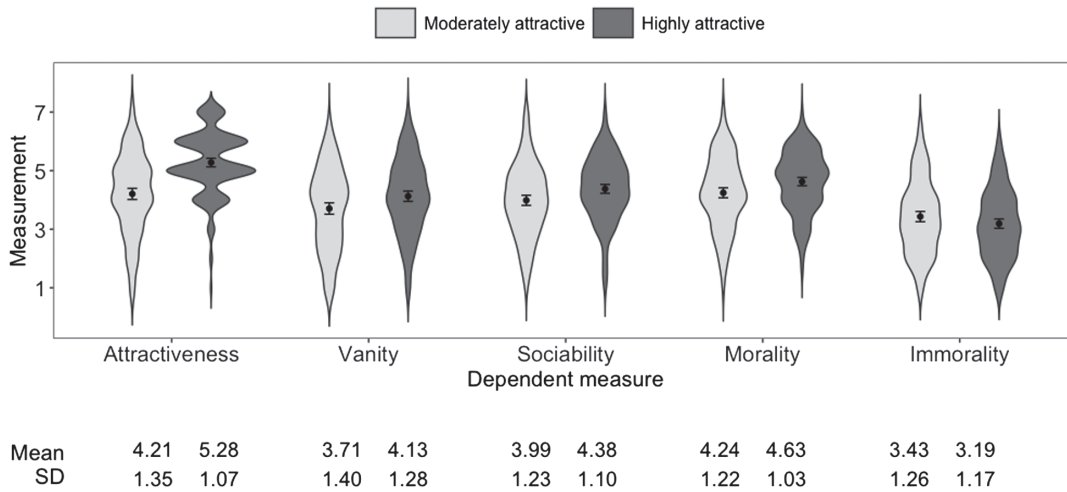
Results and Discussion

Figure 7 provides distributions of all measures along with M and SD . Confirming the manipulation, the highly attractive target was rated as more attractive than the moderately attractive target, $t(402) = 8.85$, $p < .001$, $d = 0.88$. As hypothesized, highly attractive targets were rated as vainer than moderately attractive targets, $t(402) = 3.15$, $p = .002$, $d = 0.31$. Also, highly attractive targets were believed to be more sociable than moderately attractive targets, $t(402) = 3.36$, $p < .001$, $d = 0.34$. Suggesting that these contrary effects (i.e., in terms of valence) may have been suppressing the effects of attractiveness on one another, the correlation between vanity and sociability was negative and significant, $r = -.44$, $p < .001$. The total effects of attractiveness on morality and immorality indices were reversed from what was found in Experiment 1a. Specifically, highly attractive targets were believed to be *more* moral and *less* immoral than moderately attractive targets, respectively, $t_s(402) = 3.41$ and 1.99 , $p_s < .001$ and $.047$, $d_s = 0.34$ and 0.20 .

Experiment 2a replicated Experiment 1a using photos, showing that highly (vs. moderately) attractive people are perceived as vainer. Also, confirming prior work (e.g., Eagly et al., 1991), attractiveness influenced beliefs about sociability (i.e., the nonmoral component of warmth). These results support our argument that people associate attractiveness with both vanity and sociability, suggesting that through each of these variables, attractiveness can have both positive and negative downstream effects on moral judgments.

Notably, in contrast to Experiment 1a, highly (vs. moderately) attractive people were rated as *more* moral and *less* immoral. Potentially, this finding might be due to photos having a stronger

Figure 7
Ratings of Dependent Measures for Moderately and Highly Attractive Targets in Experiment 2a



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

impact on global impressions than descriptions, also prompting stronger trait-to-trait associations. However, these differences across studies also emphasize the previously documented inconsistency of the relationship between attractiveness and morality (e.g., Eagly et al., 1991), suggesting that depending on context or the salience of different forms of information, attractive people might be viewed as either more or less moral.

Experiment 2b

Experiment 2b replicated Experiment 1b, but rather than asking participants how attractive they believed the target was, they were presented with two faces and were asked to guess which of them was more likely to be the person in the written (vanity) description. As in Experiment 1b, we expected manipulated vanity to influence rated attractiveness and moral judgments. Additionally, we wanted to test whether vanity causally influences sociability attribution, to provide additional evidence that beliefs about attractive targets' vanity and sociability may work to each mutually suppresses the effects of the other on moral judgments.

Method

Participants and Procedure. Three hundred one adults (142 female, 158 male, 1 nondisclosed; $M_{\text{age}} = 41.37$, $SD = 12.28$) were randomly assigned to one of four conditions in a 2 (vanity: low, high) \times 2 (target gender: female, male) between-subjects design. Participants read the same target descriptions used in Experiment 1b.

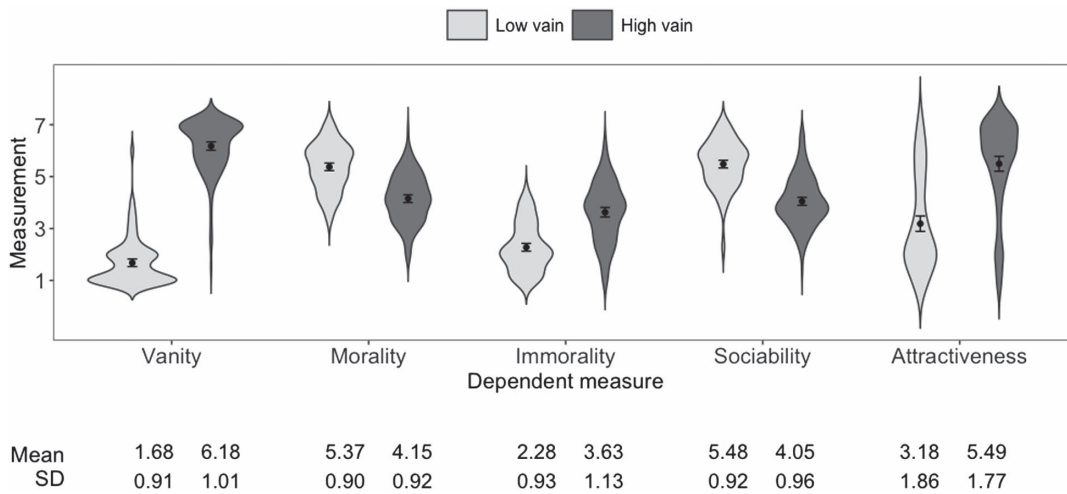
Measures. Measures were the same as in Experiment 2a, with the following exceptions: Vanity was measured using the traits "vain" and "self-absorbed" ($r = .96$), and two additional questions were added regarding general morality ("If you had to guess, how [good, bad] of a person do you think [name] is?"; 1 = *not at all [good, bad]*, 7 = *very [good, bad]*). Again, the general and trait-level morality and immorality measures were, respectively,

aggregated into measures of morality ($r = .84$) and immorality ($r = .78$). Attractiveness was measured by presenting participants with two photographs side-by-side. Gender was fixed within target gender condition, and participants were always presented with one male [female] previously rated as highly attractive and another who was previously rated as moderately attractive (i.e., near the scale median in norming data; DeBruine & Jones, 2017). Faces were randomly drawn from a pool of 24 (12 male and 12 female). Within each gender, six were moderately attractive and the other six were highly attractive. The side on which attractive faces were presented was counterbalanced. Participants were asked which person they thought was more likely to be [name], the person they read about in the description. Higher attractiveness numbers indicate greater belief that the described target was the more attractive person (i.e., higher numbers = more attractive). The order in which participants rated vanity, immorality, sociability ($\alpha = .85$), and attractiveness was randomized. Within construct, order of item sets (e.g., moral and immoral traits vs. moral behavior) was also randomized.

Results and Discussion

As expected, the high vain target was expected to be much vainer than the low vain target, $t(299) = 40.71$, $p < .001$, $d = 4.71$. More importantly, the high (vs. low) vain target was assumed to be less moral and more immoral, respectively, $t_s(299) = 11.65$ and 11.32 , $ps < .001$, $ds = 1.35$ and 1.31 . Likewise, the high (vs. low) vain target was expected to be less sociable and more attractive, respectively, $t_s(299) = 13.28$ and 11.05 , $ps < .001$, $ds = 1.54$ and 1.28 . Figure 8 plots the distributions and provides M and SD for dependent measures. Thus, consistent with Experiment 1b, the vainer target was expected to be substantially less moral and more immoral, but also more attractive. We also found that the vainer target was rated as substantially less sociable, further suggesting that a link

Figure 8
Ratings of Dependent Measures Within Vanity Conditions in Experiment 2b



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

between attractiveness and perceived morality—plausibly transmitted through these mutually suppressive variables—is complex.

Experiment 2c

The results of Experiments 1a–2b make a strong case that attractiveness can influence beliefs in the moral domain via its association with vanity. However, Experiments 2a and 2b also suggest that assessments of target sociability—a positive characteristic also influenced by attractiveness—likely has a countervailing effect in guiding inferences about morality. Experiment 2c further tested this hypothesis. Target attractiveness (photographs or written descriptions) and sociability were manipulated to test the causal role of sociability as a countervailing mediator between attractiveness and moral judgments (similar to Experiment 1d). This design also allowed a test of whether sociability has a reverse causal influence on vanity, similar to the causal influence of vanity on sociability found in Experiment 2b. Finally, we wanted to extend our ability to generalize by adding a new measure assessing beliefs about the likelihood that the target would engage in different moral and immoral behaviors.

Similar to Experiment 1d, we hypothesized that by manipulating sociability to be either high or low, the total effect of attractiveness on moral judgments would be weakened (i.e., a blocking effect). That is, by fixing sociability to be low or high, we expected participants to primarily base their ratings of sociability on the provided information rather than inferring it from target attractiveness. Because of this, we expected the manipulation to hinder the effect of attractiveness on morality, helping support a causal role of sociability in mediating the effects of attractiveness on moral evaluations.

Method

Participants and Procedure. Participants were 600 people (321 female, 273 male, 6 other/prefer not to say; $M_{\text{age}} = 39.81$, $SD = 12.88$), randomly assigned to one cell in a 2 (moderately

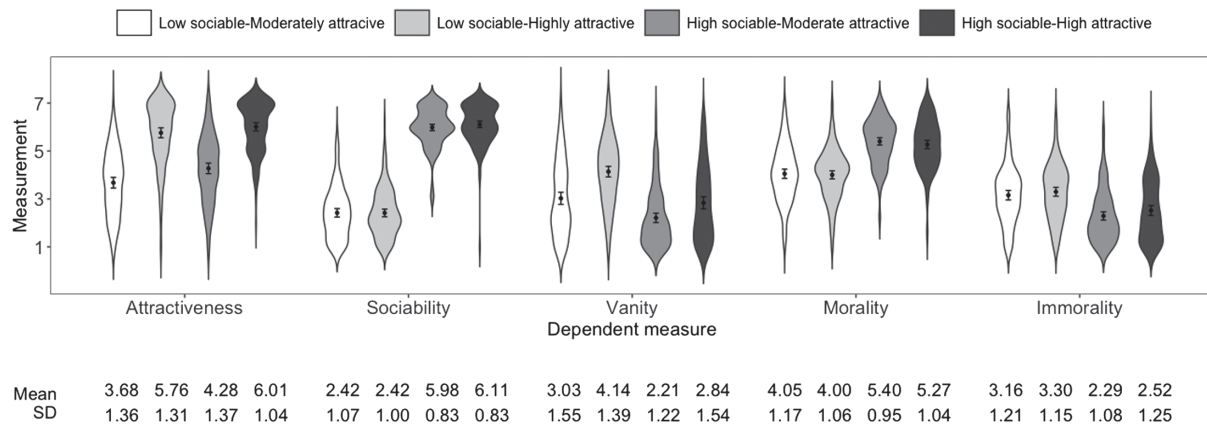
vs. highly attractive) \times 2 (low vs. high sociable) \times 2 (attractiveness manipulation: description, photo) \times 2 (target gender: male, female) between-participants design. In the attractiveness description/photo conditions, participants read the same descriptions from Experiment 1a/saw one of 12 targets (6 female, 6 male) that were previously rated as either highly or moderately attractive. Sociability information was presented either following the attractiveness description or below the photo in the photo conditions. The high sociable target (Aryanna or Andrew) was described as “almost invariably friendly,” “sociable,” “agreeable,” “happy,” “playful,” and “easygoing and fun to be around.” The low sociable target was described as “usually fairly standoffish, especially with strangers,” “not very sociable,” “neutral,” “quiet,” “introverted,” and “not particularly easygoing or fun to be around.” Thus, the low sociable target was not cold and unfriendly, just not particularly friendly.

Measures. Sociability was measured using the same five items as in Experiment 2a ($\alpha = .98$). Vanity was measured using the same three items as in Experiment 2a, but included a fourth trait, “conceited” ($\alpha = .96$). Attractiveness was measured using the same two items from Experiment 1a ($r = .91$). Moral ($\alpha = .96$) and immoral traits ($\alpha = .97$) were measured using the same set of eight items from Experiment 2a. However, additional questions asked how likely it is that the target had ever performed four moral behaviors (give to charity, give food to a homeless person, help a friend when not wanting to, sacrifice something to help someone; $\alpha = .93$) and four immoral behaviors (intentionally hurt someone’s feelings, steal something to see if they could, damage someone’s property in revenge, lie to avoid consequences; $\alpha = .89$). Again, traits and behavior likelihood measures were highly correlated, so the measures were aggregated within each valence into indices of morality and immorality (respectively, $r_s = 0.71$ and 0.67).

Results and Discussion

Although a few interactions involving the type of attractiveness manipulation (i.e., description vs. photo) were significant, none of

Figure 9
Ratings of Dependent Measures Across the Conditions in Experiment 2c



Note. Error bars represent 95% confidence intervals. SD = standard deviation.

these qualified the overall interpretation of any effects. Thus, reported analyses focus on the effects of attractiveness and sociability manipulations. Unless otherwise stated, degrees of freedom for all analyses were (1, 596).

Sociability and Attractiveness. Confirming the manipulation, high sociable targets were assumed to be more sociable than low sociable targets, $F = 2238.59$, $p < .001$, $d = 3.87$. As expected, attractiveness did not have an independent effect on sociability ($p = .406$) and the interaction was not significant ($p = .379$), suggesting that the sociability manipulation successfully blocked the impact of attractiveness on attribution of sociability. Highly attractive targets were also seen as more attractive than moderately attractive targets, $F = 331.80$, $p < .001$, $d = 1.46$ (see Figure 9 for M and SD). Similar to Experiment 2b, people thought high sociable targets were slightly more attractive than low sociable targets, $F = 16.33$, $p < .001$, $d = 0.23$. The interaction was not significant, $p = .097$.

Vanity. Results were consistent with hypotheses. The highly attractive targets were rated as vainer than the moderately attractive targets, $F = 55.77$, $p < .001$, $d = 0.59$. Suggesting again that sociability and vanity work to suppress one another in the context of attractiveness, the low sociable targets were also rated as vainer than the high sociable targets, $F = 82.71$, $p < .001$, $d = 0.72$. The interaction between the factors was significant, $F = 4.35$, $p = .037$, $\eta_p^2 = .01$. Independent t tests showed that the effects of attractiveness were significant in both sociability conditions, with vanity rated as higher in the highly (vs. moderately) attractive conditions, $ps < .001$. However, the difference between conditions was nearly twice as large in the low sociability condition ($M_{\text{difference}} = 1.11$, $d = 0.75$) than in the high sociability condition ($M_{\text{difference}} = 0.63$, $d = 0.45$).

Morality and Immorality. As expected, attractiveness did not have a significant effect on judgments regarding morality and immorality, respectively, $ps = .309$ and $.055$. However, as expected, the effect of sociability on moral judgments was significant and strong, with high (vs. low) sociable targets seen as substantially more moral and less immoral, respectively, $F_s = 229.35$ and 73.98 , $ps < .001$, $d_s = 1.24$ and 0.71 . The interactions of sociability and attractiveness on moral and immoral judgments were not significant, $ps > .632$. Considered alongside the results of Experiment 2a, these

results suggest that inferences about sociability can have a causal role in the link between attractiveness and moral judgments.

Together, Experiments 2a–2c show that like vanity, sociability is influenced by attractiveness, and again like vanity, is likely to provide a route for attractiveness to influence moral judgments. However, because sociability and vanity exert opposing influences and are also negatively associated with one another, it highlights the complexity of the relationship between attractiveness—which is generally seen as “good”—and judgments of morality and immorality. That is, when presented with a target who is highly versus moderately attractive, people are likely to evaluate the more attractive target as vainer but also as more sociable, and these competing effects can lead to expectations that the target is either more or less immoral, probably depending on cues that make one or the other of these characteristics most immediately salient. Although a full accounting of what might prompt one versus the other to be more salient must be left for future investigation, we speculate about possible cues in the General Discussion.

Experiments 3a and 3b

Experiments 3a and 3b examined whether an assumed greater cognitive association of attractiveness with morality than immorality could be attenuated, negated, or reversed by making vanity salient to participants. To examine this, participants were exposed to information related to vanity (vs. control) and completed a single-category implicit association test (SC-IAT; Karpinski & Steinman, 2006; Experiment 3a) or a modified SC-IAT (Experiment 3b). In these tasks, participants classified words related to attractiveness, morality, and immorality (and vanity in the modified SC-IAT) using keys on their computer keyboards. In one block, attractiveness and morality-related words were classified using the same key. In the other block, attractiveness and immorality-related words were classified using the same key. Differences in the response latencies between the two blocks indicate associative strength between attractiveness and morality.

Based on prior research and natural relations between valence of different word categories, we hypothesized that people would

tend to associate attractiveness-related words more strongly with morality-related words than immorality-related words. However, based on our prior studies, we expected this positive association to be disrupted or even reversed when the concept of vanity was made salient. Accordingly, an interaction between word pairing and salience condition was hypothesized (Experiment 3a was preregistered at <https://bit.ly/3uygC4d> and Experiment 3b was preregistered at <https://bit.ly/2TrBqh1>).

Specifically, our hypothesis about a stronger automatic association between attractiveness words and morality (vs. immorality) words—despite our mixed findings—rested on the idea that words related to attractiveness (e.g., gorgeous, beautiful) and morality (e.g., ethical, virtuous) are both positively valenced, while words related to immorality (e.g., deceitful, corrupt) are negative.⁵ Thus, in terms of emotional (e.g., pleasantness) and conceptual (e.g., desired characteristics) associations, attractiveness and morality words belong to a distinctly different group than immorality words, potentially making it quite difficult to overcome this association. If this was the case, by increasing the salience of vanity—a concept associated with both attractiveness and immorality—we expected to interfere with this process.

Experiment 3a

Method

Participants. Three hundred one people (188 female, 110 male, 3 other/prefer not to say; $M_{\text{age}} = 37.78$, $SD = 12.48$) successfully completed the study.

Vanity Salience. Participants were randomly assigned to either read about a vain target (vanity condition) or a target who enjoys a variety of leisure activities (control condition). Participants then rated the target on two items measuring vanity (vain, conceited; $r = .94$), two items related to attractiveness (“If you had to guess, how [physically attractive, good-looking] is Serena?”; 1 = *not at all*, 7 = *extremely*; $r = .88$) and the same eight moral ($\alpha = .95$) and immoral ($\alpha = .96$) character items used in Experiment 2a.

SC-IAT. Participants were then directed to complete a SC-IAT (developed using Inquisit 5 [2018]) where they were asked to classify words as moral, immoral, or as related to attractiveness by pressing the F and J keys on their keyboards. The words “immoral” and “moral” always appeared at the top left and right of the screen (counterbalanced across conditions) and the word “attractive” appeared under these words on either the left or right side of the screen (counterbalanced as to which word it appeared under first). Moral, immoral, and attractive words were, respectively: moral, ethical, virtuous, fair, honest, truthful, trustworthy, principled; immoral, unethical, corrupt, unfair, dishonest, deceitful, untrustworthy, unprincipled; attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, stunning. Participants first completed 12 practice trials with feedback for incorrect responses. This was followed by 24 critical trials of the same type. Then, the location of attractive words switched, followed by another 12 practice and 24 critical trials.

Results and Discussion

The vanity condition target ($M = 6.01$, $SD = 0.98$) was perceived as vainer than the control condition target ($M = 1.72$, $SD = 0.94$),

$t(299) = 38.69$, $p < .001$, $d = 4.47$. As expected, the vain target was also rated as probably more attractive ($M = 5.47$, $SD = 0.94$), less moral ($M = 4.00$, $SD = 1.09$), and more immoral ($M = 3.58$, $SD = 1.33$) than the control target (attractive $M = 4.78$, $SD = 0.90$; moral $M = 5.50$, $SD = 0.94$; immoral $M = 1.87$, $SD = 0.96$), respectively, $t(299) = 6.47$, 12.76 , and 12.78 , $ps < .001$, $ds = 0.75$, 1.48 , and 1.48 .

Consistent with the preregistered analysis plan, we first excluded trials with latencies greater or less than 2.5 times the median absolute deviation (see Leys et al., 2013). Next, we fitted cross-classified multilevel models using the lmerTest package in R (Kuznetsova et al., 2017). This model allowed us to account for the cross-classified structure of the data where words were nested in categories and treated as random effects that were crossed with participants (also treated as random). This analysis method also allows for within-participant differences in response speeds of individual trials to be accounted for, reducing error variance and increasing precision of estimates (see, e.g., Judd et al., 2012; Nezlek, 2008; Richter, 2010) and allows a test of the interaction between a within-participant variable (pairing) and between-participant variable (vanity vs. control). Condition (control = -1 , vanity = 1), word pairing (attractiveness with morality = -1 , attractiveness with immorality = 1), and their interaction were treated as fixed effects. Effect sizes for these models were calculated following procedures outlined by Westfall et al. (2014). Overall, responses were faster by 123 ms when attractiveness and morality words were classified using the same key relative to when attractiveness and immorality were classified together, $t(12992.66) = 40.144$, $p < .001$, $d = 0.29$. The main effect of condition was not significant, $p = .400$. As expected, however, the Condition \times Word pairing interaction was significant, $t(12991.16) = -2.65$, $p = .008$ (see Figure 10). No method factors (i.e., initial pairing with attractiveness, side on which moral vs. immoral appeared) moderated this effect, $ps > .564$.

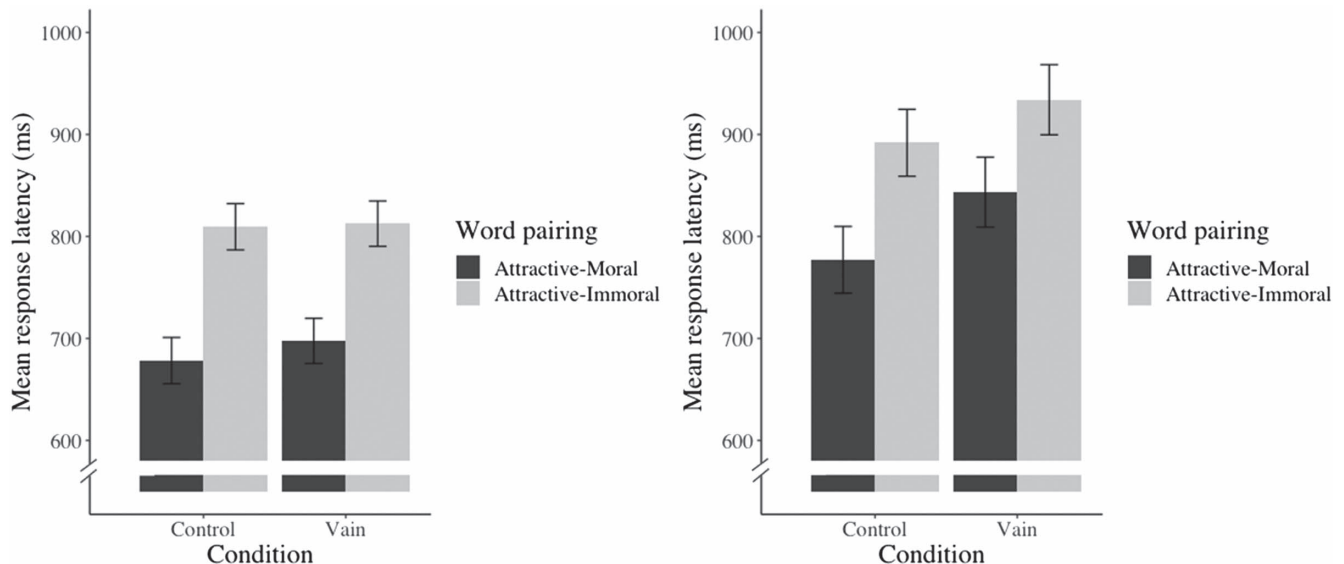
To probe the interaction, we fitted the multilevel model within each condition. In the control condition, response latencies were faster when attractiveness was paired with morality (predicted $M = 678$ ms, $SE = 11$) than with immorality (predicted $M = 809$ ms, $SE = 11$), $t(6277.74) = 30.37$, $p < .001$, $d = 0.63$. Supporting the attenuation hypothesis, although participants continued to make classification decisions more quickly when attractiveness was paired with morality (predicted $M = 697$ ms, $SE = 11$) than with immorality (predicted $M = 812$ ms, $SE = 11$), the discrepancy was smaller in the vanity condition (115 ms) than in the control condition (131 ms), $t(6696.40) = -26.49$, $p < .001$, $d = 0.54$.

Using a more indirect method than in Experiments 1a–2c, an association between attractiveness-related and morality-related

⁵ Our preregistered hypothesis was for attenuation in Experiment 3a, which was conducted after Experiment 3b (the order of presentation here was switched for narrative purposes). Due to the complexity of relationships between attractiveness and morality evaluations, Experiment 3b initially outlined three competing hypotheses regarding the form of the interaction. One assumed that attractiveness words would be more strongly associated with immorality than morality words because of its relationship to vanity and of vanity to moral judgments, and that this effect would be enhanced in a vanity condition. The other assumed similar associations of attractiveness words with morality and immorality words *except* when vanity was made salient. The third hypothesis was for attenuation. After conducting Experiment 3b, our hypothesis for Experiment 3a was accordingly updated.

Figure 10

Predicted Mean Response Latency as a Function of Condition (Vanity vs. Control) and Word Pairing (Attractiveness With Morality vs. Immorality) in Experiments 3a (Left) and 3b (Right)



Note. Error bars represent 95% confidence intervals.

words was found. This is not surprising, given that the valence of both word types is positive. Critically, although participants were clearly faster at classifying attractiveness, morality, and immorality words when attractive and moral (vs. immoral) words were classified using the same key, this association was significantly attenuated after participants read about a vain target and rated this target on vanity, morality/immorality, and attractiveness.

Experiment 3b

Although the associative measure in Experiment 3a was relatively indirect (i.e., response latencies using an SC-IAT), the method of manipulating vanity was relatively direct. That is, as in earlier studies, before completing the SC-IAT, participants read about a target and made explicit inferences about them on standard rating scales. Experiment 3b increased the salience of vanity more subtly, by exposing participants to vanity-related (vs. color-related) words as part of completing a modified SC-IAT. We expected that when vanity-related (vs. color-related) words were also being classified, the association between attractiveness and vanity (and between vanity and morality) might become more accessible, which would interfere with the relatively stronger association between attractiveness-related words and morality- (vs. immorality-) related words.

Method

Participants and Procedure. Two hundred people successfully completed the study (92 female, 107 male, 1 unspecified or other; $M_{\text{age}} = 37.27$, $SD = 12.49$). After consenting to participate, participants were randomly assigned to one of two between-participants conditions (vanity vs. control) of a modified SC-IAT, completed using the same program as in Experiment 3a.

Modified SC-IAT. In addition to classifying words as related to morality, immorality, and attractiveness using keypresses (F and J keys), participants used their spacebar to classify words related to either vanity (vain, superficial, self-absorbed, prideful, egocentric, arrogant, narcissistic, and conceited) or colors (blue, yellow, red, purple, brown, orange, green, and gray). The procedure for the SC-IAT was the same as in Experiment 3a with the following exception: Words related to either vanity (vanity condition) or colors (control condition) were presented. When these words appeared, participants were instructed to classify them using the spacebar. Depending on condition, the word “vain” or “color” appeared at the bottom center of the screen.

Participants first completed 12 practice trials where they only classified morality, immorality, and attractiveness words. This was followed by further practice (16 trials) where they classified all four categories (including vain or color words), and then 32 critical trials. Following this, the side on which attractive words were to be classified switched, and participants again completed 12 three-category practice trials, 16 four-category practice trials, and 32 four-category critical trials. On practice trials, feedback was provided.

Results and Discussion

Following the preregistered analyses plan, we excluded critical trials where participants classified distractor words and trials with latencies greater or less than 2.5 times the median absolute deviation (see Leys et al., 2013). Using the same multilevel modeling approach as in Experiment 3a, we again found that overall, responses were faster (by 103 ms) when attractiveness words were paired with morality (vs. immorality) words, $t(8566.92) = 20.777$, $p < .001$, $d = 0.19$. Suggesting that having to classify words related to vanity (vs. colors) interfered with classification because of its relations with both attractiveness and immorality, responses in the

vanity condition were slower (by 54 ms) than in the color condition, $t(194.87) = 2.49, p = .014, d = 0.10$.

As predicted, the difference in response speeds as a function of word pairing was moderated by condition (see Figure 10), $t(8566.18) = 2.45, p = .014$. In the color condition, participants were faster when attractiveness were paired with morality (predicted $M = 777$ ms, $SE = 16$) than with immorality (predicted $M = 892$ ms, $SE = 16$), $t(4629.31) = 18.08, p < .001, d = 0.46$. In the vanity condition, although participants were still faster when attractiveness was paired with morality (predicted $M = 843$ ms, $SE = 17$) than immorality (predicted $M = 934$ ms, $SE = 17$), the discrepancy (90 ms) was attenuated relative to the control condition (114 ms), $t(3918.50) = 11.84, p < .001, d = 0.30$. No interactions with any method factors were found, $ps > .077$.

The findings in Experiments 3a and 3b are notable for several reasons. First, they show that people more closely associate attractiveness-related words with words related to morality (vs. immorality). This is not strong evidence for an implicit beautiful-is-good effect—particularly since attractiveness-related words are meaningful outside the context of people's looks, and because of substantial hedonic overlap between attractiveness and morality-related words—but it is at least consistent with other previously documented beautiful-is-good effects (or halo effects if the association resulted from a general effect rather than an effect directly linked to morality). We value and feel good about things that are attractive, stunning, and beautiful. Likewise, we prize morality and principle but scorn immorality and corruption. Thus, although negating or reversing the association we found would have been particularly strong evidence for the role of vanity in moral evaluations, we found it nevertheless impressive that simply introducing the concept of vanity disrupted this association, especially given that the revision of implicit associations hardly takes place (Lai et al., 2016) unless added information is highly diagnostic, persuasive, or causes associations to be reinterpreted (Cone et al., 2017).

General Discussion

The beautiful-is-good effect has been firmly established by past research relying on multiple theoretical frameworks. For example, based on the idea that there is a general positivity effect of attractiveness, researchers have found that attractiveness indirectly elicits a wide variety of positive evaluations (Lachman & Bass, 1985; Landy & Sigall, 1974). Another theoretical perspective has focused on a direct correspondence between attractiveness and specific traits, suggested by the particularly strong effects of attractiveness on ratings of social skills, health, and intelligence (Eagly et al., 1991). A third strain of research has suggested that this effect is a cognitive bias because people associate attractiveness with desirable traits (C. T. Miller, 2011; Van Leeuwen & Macrae, 2005), especially when motivated (Lemay et al., 2010) or when the association aligns with cultural values (Wheeler & Kim, 1997). Evolutionary accounts also exist, focusing on the functional benefits of the stereotype (Brewer & Archer, 2007; Moore et al., 2011; Rhodes, 2006; Rhodes et al., 2001), arguing that it emerges because attractiveness signals intelligence (Kanazawa, 2011; Kanazawa & Kovar, 2004), social competence (Goldman & Lewis, 1977; Haas & Gregory, 2005), and genetic fitness (Hume & Montgomerie, 2001; Oberzaucher & Grammer, 2010; Weeden & Sabini, 2005).

Despite this past work, research examining links between attractiveness and *moral* evaluations has revealed weak and inconsistent relations (e.g., Buckley & Haefner, 1984; Bassili, 1981; Dermer & Thiel, 1975; Griffin & Langlois, 2006; Hocking et al., 1982; Muñoz-Reyes et al., 2014; Sanchez-Pages & Turiegano, 2010), and meta-analytic studies have concluded that there is little if any relation between attractiveness and perceptions of target morality (Eagly et al., 1991; Feingold, 1992). We found this puzzling, particularly since goodness and morality are strongly conceptually linked, and attractiveness, morality, and other positive characteristics all share the same valence. While most theoretical models adopted by past researchers suggest there should be a robust positive effect of attractiveness on moral judgments, implicit personality theory proposes that attractiveness does not necessarily have to be associated with positive values. This led us to hypothesize that some negative characteristic(s) directly associated with attractiveness is likely tied to decreased or increased perceptions of morality or immorality, suppressing what should be a natural relationship between beauty and moral evaluations.

The studies presented here consistently found that vanity is one plausible mechanism. Across four studies (Experiments 1a, 1b, 2a, and 2b), we found a causal relationship between attractiveness and vanity and between vanity and moral judgments: Attractive people were viewed as vainer and vainer people were evaluated as less moral and more immoral. Moreover, two studies (Experiments 3a and 3b) found that increasing the salience of vanity disrupted the association between attractiveness- and morality-related words. Additional studies provided evidence that attractiveness is causally linked to moral evaluations through its association with vanity (Experiment 1d) but also revealed a countervailing process between attractiveness and moral judgments (Experiments 2a–2c). Specifically, sociability (i.e., the nonmoral component of warmth; Brambilla & Leach, 2014; Goodwin, 2015; Goodwin et al., 2014; Griffin & Langlois, 2006) is also associated with both attractiveness and moral judgments, and relates to moral judgments in a way that counters the effects of vanity. Adding additional theoretical complexity, Experiments 2a–2c show how vanity and sociability not only provide plausible countervailing routes for attractiveness to impact moral judgments, but document how each variable influences the other, in that vainer people are expected to be less sociable, and more sociable people to be less vain.

Although the attribution of vanity to attractive individuals has been documented (Dermer & Thiel, 1975; Feingold, 1992), there has been little discussion on why this might be the case and how this might impact the general positivity associated with attractiveness. One explanation underlying the attractive-is-vain effect is potentially derived from construing attractiveness as a type of asset.⁶ Like other resources such as having money or power, greater attractiveness should serve to make life easier (at least in some ways) for people. Hence, just as being wealthy and powerful makes people less reliant on others and self-focused (Galinsky et al., 2006; Mead et al., 2018; Piff, 2014), possessing high attractiveness could conceivably make people more egotistical, conceited, and narcissistic. Supporting this account, attractive people are indeed slightly narcissistic (Holtzman & Strube, 2010). Also consistent with this observation, given that advantage in the form of wealth makes

⁶ We thank an anonymous reviewer for their insightful comment about this issue.

people perceive the wealthy as more immoral (and less moral) than the poor (Weiner & Laurent, 2021), advantage in the form of high attractiveness could likewise translate into lesser perceived morality (and greater immorality).

Notably, there may be nothing inherently immoral about having excessive pride in one's own attributes. Despite this, there are plausible reasons that people—as the current research shows—associate vanity with immorality. Vanity is one important component of narcissism (Raskin & Terry, 1988), which is itself part of a larger “dark triad” of personality that also includes Machiavellianism and psychopathy (Paulhus & Williams, 2002). Although each of these constructs has unique aspects, common features such as self-promotion, duplicity, emotional coldness, and aggressiveness tie them together (Furnham et al., 2013; Jonason et al., 2010; Paulhus & Williams, 2002), and each of these traits is likely perceived as related to reductions in moral behavior and increases in immoral behavior. Thus, by virtue of association, the trait of vanity may be viewed as an immoral vice.

Likewise, although being sociable might lead to higher popularity (e.g., Feiler & Kleinbaum, 2015), it does not seem to systematically be related to immoral behavior (Giluk & Postlethwaite, 2015; J. D. Miller & Lynam, 2001). Yet, due to the way that sociability is one component of a broader dimension of warmth that is itself associated with morality, it is likely that sociable people are seen as more likely to be more moral and less immoral, a conclusion that our data support.

Importantly, we acknowledge that there might be other candidate mechanisms linking attractiveness to moral judgments, beyond those we have investigated. However, any candidates should be either directly or indirectly linked to attractiveness. Likewise, other candidate mechanisms would need to be associated with moral judgments but also be distinct from them. For example, even if attractiveness was associated with “boringness” or “popularity,” these might fail as candidate mechanisms if they are associated only weakly (if at all) with perception of morality. Similarly, although “unfaithful” might be a stereotype associated with attractive people, many would consider this a conceptual form of immorality on its own. Finally, it would be important for any new candidates to be relatively distinct from the constructs investigated here (i.e., vanity and sociability). Thus, although “selfishness” might be associated with both attractiveness and moral judgments, it is also similar to our conceptualization of vanity.

Together, this set of studies provides plausible evidence that beauty *is* associated with moral judgments, which counters the conclusions drawn in past meta-analytic work (Eagly et al., 1991; Feingold, 1992). However, because it is linked to moral judgments through its association with opposing processes (i.e., vanity and sociability), total effects of attractiveness on morality judgments may be frequently near zero or might be positive or negative, depending on context or the salience of vanity or sociability.

Limitations and Future Direction

By using multiple measures of morality and immorality across and within studies, including general questions about morality and moral behavior, specific traits, behavioral ratings, and behavioral prediction, as well as indirect methods, we believe the studies reported here are methodologically sound and that the results are

robust and replicable. In addition, given the experimental methods used to test the process account we outlined, we believe the causal account is valid and that it should both complement and advance theory on a well-known psychological phenomenon.

Despite this, some limitations of the work—which we hope represent opportunities for future exploration—should be acknowledged. First, we only explored the positive pole of attractiveness as compared with the middle. That is, although the majority of the literature on beautiful-is-good effects is centered on the effects of being beautiful, evidence also exists for a similar but opposite effect (i.e., “ugly-is-bad”) at the other end of the spectrum for unattractive people (Griffin & Langlois, 2006; Lan et al., 2021). Although a comprehensive examination of the relationship of ugliness to moral judgments is theoretically interesting, as would be showing how this might differ from the relationship of beauty to moral judgments, we considered it beyond the scope of our research. Specifically, given the breadth of literature on beautiful-is-good effects in particular, we were interested in documenting why *attractive* people are viewed positively in so many ways but not in the realm of morality. Moreover, given that the processes by which unattractiveness and attractiveness relate to moral judgments may differ, tackling this interesting topic seemed like a direction best left for future research. Finally, we believe that exploring attractiveness-morality links by comparing the “moderately attractive” to the “very attractive” captures substantial variability in the population, given that most people are moderately attractive (Unkelbach et al., 2019). Echoing this, Hamermesh and Biddle (1994) reported that only 10.14% of 12,824 people were rated as below average in attractiveness.

Second, morality as it was investigated here primarily focused on the domains of harm/caring, trust, and fairness. Therefore, this research cannot answer whether the same patterns would emerge when moral judgments related to other aspects of morality such as loyalty, authority, or purity are the primary focus (see Graham et al., 2013). Despite this concern, some controversy exists as to whether morality is best conceptualized by a number of distinct foundations or strictly as violations related to harm, which may at the very least be the most “prototypical” form of moral violation (e.g., Gray et al., 2012). Likewise, recent work has suggested that trustworthiness and honesty, which suggest the beneficence or harmfulness of intentions, are the primary determinants of impression development (Brambilla et al., 2021). In addition, we did try to examine morality somewhat broadly, such as by using generic measures, using behavioral expectations, using the traits most frequently cited (i.e., in an unrelated study by the authors) as the core characteristics of moral or immoral people, and by asking participants to make inferences about targets' attitudes toward varying moral topics. Nevertheless, we believe it would be interesting for future research to study the attractiveness-morality association using a broader range of moral concerns.

We should also note that although differences in moral ratings were quite consistent regardless of whether we assessed morality or immorality (i.e., differences were more a matter of degree than of kind), there were some differences that future research could explore. In addition, an examination of mean ratings shows that targets were seen as moderately high (i.e., rather than extremely high or low) in morality regardless of condition and relatively low in immorality. Thus, although attractiveness influenced scores on both measures, a conclusion that attractive targets were qualitatively

viewed as “immoral” relative to the moderately attractive would be misguided. A better interpretation of the data is that attractive (vs. moderately attractive) targets were believed to be “less moral” and “more immoral,” but still reasonably moral and not particularly evil.

Third, participants in each of these studies were recruited from an online labor market (Amazon mechanical turk [AMT]) and were mostly Americans and U.S. residents. Beyond the ability to collect data quickly or generalize beyond what we might learn from undergraduate students, there were some benefits to this approach. For example, participants recruited from AMT approximate the demographic characteristics of the general U.S. population (Burnham et al., 2018). In our samples specifically, participants self-reported living in 50 states and varied in their gender identities, racial, ethnic, and cultural backgrounds, and political orientations (see OSM for detailed information). Despite this variability in sample characteristics, we cannot generalize with confidence to other populations in the U.S., to Western culture more broadly, or to populations with different cultural orientations (e.g., with different strengths/contents of attractiveness stereotypes; Dion et al., 1990; Lemay et al., 2010; Wheeler & Kim, 1997).

That is, although there may be stereotypes about the beautiful everywhere, these stereotypes likely differ as a function of culture. Thus, examining hypotheses similar to ours in other cultures would be particularly useful to test the generalizability of the effects we found. Related to this, in the studies where we used photographs, targets were always of White males and females. Given racial and ethnic differences in beauty standards (e.g., Awad et al., 2015; Frith et al., 2004; Makkar & Strube, 1995; Poran, 2002), firmly concluding that evaluations similar to those we found hold true for all targets and participants would be premature. Future research that employs similar designs to ours but varies the race and/or ethnicity of targets and tests hypotheses in more demographically varied samples would be useful.

Despite these limitations, we regard it as likely that attractiveness is associated to some extent with vanity in most cultures and within most groups. For example, holding individual differences in innate attractiveness constant, there is likely an association between the time people spend trying to maximize attractiveness and their actual attractiveness. Thus, people who care more about their looks likely prize their looks more and actually look better. Even if this relationship does not exist, though, people likely assume it does. In addition, because certain predictors of attractiveness are similar across cultures, such as symmetry and averageness (e.g., D. Jones & Hill, 1993; Halberstadt & Rhodes, 2000; Langlois et al., 2000; Rhodes et al., 2002; Thornhill & Gangestad, 1999), it is likely that people everywhere are explicitly or implicitly aware—to some degree—of how attractive they are to others around them (Krantz et al., 1985; Pittenger & Baskett, 1984). Even more importantly, people may *assume* that the people they consider attractive believe they are attractive. To the extent that meta-perception of others’ beliefs about their attractiveness covaries with inferences of vanity, the model we propose is likely to be valid and replicable.

Readers should also note that despite finding moderate to large effect sizes in many analyses, small effects were also common in some instances (e.g., Attractiveness \times Vanity interaction effect of $\eta_p^2 = .01$ in Experiment 1d). Given that the small effects were most often found for interactions, one explanation is that moderation

effect sizes tend to be small in general. For example, a review of 30 years of research involving moderation and categorical variables revealed that the median observed effect size was only $f^2 = .002$ (or $.0019$ when converted to η^2), although most of the tests had sufficient power to detect the small effects (Aguinis et al., 2005). Simulation research (e.g., Aguinis & Stone-Romero, 1997) also suggests that interaction effects tend to be underestimated due to research designs and statistical artifacts. Another consideration is that recruiting online participants, especially AMT participants, can compromise effect sizes due to the increased noise in the data (Gupta et al., 2021). Thus, controlled lab studies on this topic would be a useful direction for future research, especially for studies hypothesizing moderation. It is also noteworthy that Experiment 2a initially had a small effect of attractiveness on vanity that failed to reach a conventional level of significance ($p = .051$), and therefore was replicated using a larger sample size during the review process. Experiment 1d was also a replication of an earlier study using a larger sample, with this replication due to a design issue (i.e., rather than effect size) identified during the process of review.

A final limitation we should note is that proposing how two opposing processes—vanity and sociability—act in countervailing ways to impact moral judgments tells us little about when and why these constructs would become salient as a function of attractiveness. We consider this a very interesting question; however, we can only speculate at present. Plausibly, perceiver characteristics (i.e., a propensity to think about attractive targets’ vanity or sociability), behavioral cues (e.g., a target’s actions prompting consideration of their vanity or sociability), and situational cues (e.g., the context in which a perceiver considers an attractive target) could all play a role. For example, if a person encounters a particularly attractive person at a party, whether sociability or vanity becomes salient would probably depend not only on the target’s behaviors but on the perceiver’s own preconceived notions of what attractive people are “like.” Yet, similar cues and individual differences might lead to a different interpretation if the attractive person was encountered at a funeral. Thus, future investigations should attempt to discover the conditions under which vanity or sociability inferences become more likely.

For example, because warmth inferences are augmented when perceivers are dependent on targets (e.g., cooperation situations; Carrier et al., 2019), competition versus collaboration with an attractive target might differently promote vanity or sociability inferences. In another example, because higher status people are seen as less warm and more immoral (Swencionis et al., 2017; Weiner & Laurent, 2021), ambiguously vain or sociable behavior in attractive targets might be interpreted differently when these targets are high (vs. low) in status. Last, in a focus on perceiver attributes, since diagnosticity is an essential factor in impression formation (Cone et al., 2017), manipulating or measuring perceivers’ beliefs that attractiveness is diagnostic of vanity or sociability could help in identifying the impact of individual differences on which construct would be most salient across situations and target characteristics.

Conclusion

The seminal article by Dion et al. (1972), titled “what is beautiful is good,” has currently been cited almost 5,000 times. This citation rate underlies the substantial amount of interest in this topic over

the years, suggesting many people would understand this conclusion to be valid. The current work adds an important caveat and substantial theoretical nuance when it comes to attractiveness and its relation to perception of morality. Specifically, although beauty may be perceived as generally good, it is unlikely to be consistently perceived as *morally* good, and in fact, through its association with perceived vanity, people may believe that the attractive are not particularly moral and are perhaps even somewhat immoral.

References

- Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (2005). Effect size and power in assessing moderating effects of categorical variables using multiple regression: A 30-year review. *Journal of Applied Psychology, 90*(1), 94–107. <https://doi.org/10.1037/0021-9010.90.1.94>
- Aguinis, H., & Stone-Romero, E. F. (1997). Methodological artifacts in moderated multiple regression and their effects on statistical power. *Journal of Applied Psychology, 82*(1), 192–205. <https://doi.org/10.1037/0021-9010.82.1.192>
- Ahmed, N. (2014). The relationship among vanity trait, shopping values & compulsive buying: An evidence from university shoppers. *European Journal of Business and Management, 6*, 160–170.
- Akstinaitė, V., Robinson, G., & Sadler-Smith, E. (2020). Linguistic markers of CEO hubris. *Journal of Business Ethics, 167*(4), 687–705. <https://doi.org/10.1007/s10551-019-04183-y>
- Awad, G. H., Norwood, C., Taylor, D. S., Martinez, M., McClain, S., Jones, B., Holman, A., & Chapman-Hilliard, C. (2015). Beauty and body image concerns among African American college women. *The Journal of Black Psychology, 41*(6), 540–564. <https://doi.org/10.1177/0095798414550864>
- Aydinolu, N. Z., & Krishna, A. (2012). Imagining thin: Why vanity sizing works. *Journal of Consumer Psychology, 22*(4), 565–572. <https://doi.org/10.1016/j.jcps.2011.12.001>
- Bassili, J. N. (1981). The attractiveness stereotype: Goodness or glamour? *Basic and Applied Social Psychology, 2*(4), 235–252. https://doi.org/10.1207/s15324834basps0204_1
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*(4), 323–370. <https://doi.org/10.1037/1089-2680.5.4.323>
- Berman, J. S., & Kenny, D. A. (1976). Correlational bias in observer ratings. *Journal of Personality and Social Psychology, 34*(2), 263–273. <https://doi.org/10.1037/0022-3514.34.2.263>
- Brambilla, M., & Leach, C. W. (2014). On the importance of being moral: The distinctive role of morality in social judgment. *Social Cognition, 32*(4), 397–408. <https://doi.org/10.1521/soco.2014.32.4.397>
- Brambilla, M., Sacchi, S., Rusconi, P., & Goodwin, G. P. (2021). The primacy of morality in impression development: Theory, research, and future directions. *Advances in Experimental Social Psychology, 64*, 187–262. <https://doi.org/10.1016/bs.aesp.2021.03.001>
- Brand, R. J., Bonatsos, A., D’Orazio, R., & Deshong, H. (2012). What is beautiful is good, even online: Correlations between photo attractiveness and text attractiveness in men’s online dating profiles. *Computers in Human Behavior, 28*(1), 166–170. <https://doi.org/10.1016/j.chb.2011.08.023>
- Brewer, G., & Archer, J. (2007). What do people infer from facial attractiveness? *Journal of Evolutionary Psychology (Budapest), 5*(1), 39–49. <https://doi.org/10.1556/JEP.2007.1002>
- Brunell, A. B., Staats, S., Barden, J., & Hupp, J. M. (2011). Narcissism and academic dishonesty: The exhibitionism dimension and the lack of guilt. *Personality and Individual Differences, 50*(3), 323–328. <https://doi.org/10.1016/j.paid.2010.10.006>
- Buckley, H. M., & Haefner, J. E. (1984). The physical attractiveness stereotype using dress as a facilitator. *Journal of Consumer Studies & Home Economics, 8*(4), 351–358. <https://doi.org/10.1111/j.1470-6431.1984.tb00435.x>
- Burnham, M. J., Le, Y. K., & Piedmont, R. L. (2018). Who is Mturk? Personal characteristics and sample consistency of these online workers. *Mental Health, Religion & Culture, 21*(9–10), 934–944. <https://doi.org/10.1080/13674676.2018.1486394>
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review, 28*(4), 638–656. <https://doi.org/10.1016/j.cpr.2007.09.006>
- Campbell, W. K., & Miller, J. D. (2012). *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Wiley. <https://doi.org/10.1002/9781118093108>
- Campbell, W. K., Rudich, E. A., & Sedikides, C. (2002). Narcissism, self-esteem, and the positivity of self-views: Two portraits of self-love. *Personality and Social Psychology Bulletin, 28*(3), 358–368. <https://doi.org/10.1177/0146167202286007>
- Carrier, A., Dompnier, B., & Yzerbyt, V. (2019). Of nice and mean: The personal relevance of others’ competence drives perceptions of warmth. *Personality and Social Psychology Bulletin, 45*(11), 1549–1562. <https://doi.org/10.1177/0146167219835213>
- Cone, J., Mann, T. C., & Ferguson, M. J. (2017). Changing our implicit minds: How, when, and why implicit evaluations can be rapidly revised. *Advances in Experimental Social Psychology, 56*, 131–199. <https://doi.org/10.1016/bs.aesp.2017.03.001>
- Council, J. R., & Green, J. P. (2004). Examining the absorption-hypnotizability link: The roles of acquiescence and consistency motivation. *International Journal of Clinical and Experimental Hypnosis, 52*(4), 364–377. <https://doi.org/10.1080/00207140490883950>
- Cronbach, L. J. (1955). Processes affecting scores on understanding of others and assumed similarity. *Psychological Bulletin, 52*(3), 177–193. <https://doi.org/10.1037/h0044919>
- Darby, B. W., & Jeffers, D. (1988). The effects of defendant and juror attractiveness on simulated courtroom trial decisions. *Social Behavior and Personality, 16*(1), 39–50. <https://doi.org/10.2224/sbp.1988.16.1.39>
- DeBruine, L., & Jones, B. (2017). *Face research lab london set* (Version 3). figshare. <https://doi.org/10.6084/m9.figshare.5047666.v3>
- Dermer, M., & Thiel, D. L. (1975). When beauty may fail. *Journal of Personality and Social Psychology, 31*(6), 1168–1176. <https://doi.org/10.1037/h0077085>
- Dickey-Bryant, L. A., Lautenschlager, G. J., Mendoza, J. L., & Abrahams, N. (1986). Facial attractiveness and its relation to occupational success. *Journal of Applied Psychology, 71*(1), 16–19. <https://doi.org/10.1037/0021-9010.71.1.16>
- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology, 24*(3), 285–290. <https://doi.org/10.1037/h0033731>
- Dion, K. K., Pak, A. W. P., & Dion, K. L. (1990). Stereotyping physical attractiveness: A Sociocultural Perspective. *Journal of Cross-Cultural Psychology, 21*(2), 158–179. <https://doi.org/10.1177/0022022190212002>
- Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but . . . : A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 110*(1), 109–128. <https://doi.org/10.1037/0033-2909.110.1.109>
- Egan, V., & McCorkindale, C. (2007). Narcissism, vanity, personality and mating effort. *Personality and Individual Differences, 43*(8), 2105–2115. <https://doi.org/10.1016/j.paid.2007.06.034>
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology, 52*(1), 11–17. <https://doi.org/10.1037/0022-3514.52.1.11>
- Emmons, R. A. (2010). Factor analysis and construct validity of the Narcissistic Personality Inventory. *Journal of Personality Assessment, 48*(3), 291–300. https://doi.org/10.1207/S15327752JPA4803_11

- Feiler, D. C., & Kleinbaum, A. M. (2015). Popularity, similarity, and the network extraversion bias. *Psychological Science*, 26(5), 593–603. <https://doi.org/10.1177/0956797615569580>
- Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin*, 111(2), 304–341. <https://doi.org/10.1037/0033-2909.111.2.304>
- Fetterman, A. K., Robinson, M. D., & Ode, S. (2015). Interpersonal arrogance and the incentive salience of power versus affiliation cues. *European Journal of Personality*, 29(1), 28–41. <https://doi.org/10.1002/per.1977>
- Fisicaro, S. A., & Lance, C. E. (1990). Implications of three causal models for the measurement of halo error. *Applied Psychological Measurement*, 14(4), 419–429. <https://doi.org/10.1177/014662169001400407>
- Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, 11(2), 77–83. <https://doi.org/10.1016/j.tics.2006.11.005>
- Frith, K. T., Cheng, H., & Shaw, P. (2004). Race and beauty: A comparison of Asian and Western models in women's magazine advertisements. *Sex Roles*, 50(1–2), 53–61. <https://doi.org/10.1023/B:SERS.0000011072.84489.e2>
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The Dark Triad of personality: A 10 year review. *Social and Personality Psychology Compass*, 7(3), 199–216. <https://doi.org/10.1111/spc3.12018>
- Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, 17(12), 1068–1074. <https://doi.org/10.1111/j.1467-9280.2006.01824.x>
- Giluk, T. L., & Postlethwaite, B. E. (2015). Big Five personality and academic dishonesty: A meta-analytic review. *Personality and Individual Differences*, 72, 59–67. <https://doi.org/10.1016/j.paid.2014.08.027>
- Goldman, W., & Lewis, P. (1977). Beautiful is good: Evidence that the physically attractive are more socially skillful. *Journal of Experimental Social Psychology*, 13(2), 125–130. [https://doi.org/10.1016/S0022-1031\(77\)80005-X](https://doi.org/10.1016/S0022-1031(77)80005-X)
- Goodwin, G. P. (2015). Moral character in person perception. *Current Directions in Psychological Science*, 24(1), 38–44. <https://doi.org/10.1177/0963721414550709>
- Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106(1), 148–168. <https://doi.org/10.1037/a0034726>
- Gore, W. L., & Widiger, T. A. (2016). Fluctuation between grandiose and vulnerable narcissism. *Personality Disorders*, 7(4), 363–371. <https://doi.org/10.1037/per0000181>
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology*, 47, 55–130. <https://doi.org/10.1016/B978-0-12-407236-7.00002-4>
- Gray, K., Waytz, A., & Young, L. (2012). The moral dyad: A fundamental template unifying moral judgment. *Psychological Inquiry*, 23(2), 206–215. <https://doi.org/10.1080/1047840X.2012.686247>
- Griffin, A. M., & Langlois, J. H. (2006). Stereotype directionality and attractiveness stereotyping: Is beauty good or is ugly bad? *Social Cognition*, 24(2), 187–206. <https://doi.org/10.1521/soco.2006.24.2.187>
- Grijalva, E., Newman, D. A., Tay, L., Donnellan, M. B., Harms, P. D., Robins, R. W., & Yan, T. (2015). Gender differences in narcissism: A meta-analytic review. *Psychological Bulletin*, 141(2), 261–310. <https://doi.org/10.1037/a0038231>
- Gross, A. E., & Crofton, C. (1977). What is good is beautiful. *Sociometry*, 40(1), 85. <https://doi.org/10.2307/3033549>
- Gupta, N., Rigotti, L., & Wilson, A. (2021). *The experimenters' dilemma: Inferential preferences over populations*. <https://arxiv.org/abs/2107.05064v2>
- Haas, A., & Gregory, S. W., Jr. (2005). The impact of physical attractiveness on women's social status and interactional power. *Sociological Forum*, 20(3), 449–471. <https://doi.org/10.1007/s11206-005-6597-2>
- Halberstadt, J., & Rhodes, G. (2000). The attractiveness of nonface averages: Implications for an evolutionary explanation of the attractiveness of average faces. *Psychological Science*, 11(4), 285–289. <https://doi.org/10.1111/1467-9280.00257>
- Hamermesh, D. S., & Biddle, J. (1994). Beauty and the labor market. *The American Economic Review*, 84(5), 1174–1194. <https://doi.org/10.3386/w4518>
- Hocking, J. E., Walker, B. A., & Fink, E. L. (1982). Physical attractiveness and judgments of morality following an “immoral” act. *Psychological Reports*, 51(1), 111–116. <https://doi.org/10.2466/pr0.1982.51.1.111>
- Holtzman, N. S., & Strube, M. J. (2010). Narcissism and attractiveness. *Journal of Research in Personality*, 44(1), 133–136. <https://doi.org/10.1016/j.jrp.2009.10.004>
- Holtzman, N. S., & Strube, M. J. (2013). People with dark personalities tend to create a physically attractive veneer. *Social Psychological & Personality Science*, 4(4), 461–467. <https://doi.org/10.1177/1948550612461284>
- Hume, D. K., & Montgomerie, R. (2001). Facial attractiveness signals different aspects of “quality” in women and men. *Evolution and Human Behavior*, 22(2), 93–112. [https://doi.org/10.1016/S1090-5138\(00\)00065-9](https://doi.org/10.1016/S1090-5138(00)00065-9)
- Irwin, H. J. (1995). Codependence, narcissism, and childhood trauma. *Journal of Clinical Psychology*, 51(5), 658–665. [https://doi.org/10.1002/1097-4679\(199509\)51:5<658::AID-JCLP2270510511>3.0.CO;2-N](https://doi.org/10.1002/1097-4679(199509)51:5<658::AID-JCLP2270510511>3.0.CO;2-N)
- Janoff-Bulman, R., & Carnes, N. C. (2013). Surveying the moral landscape: Moral motives and group-based moralities. *Personality and Social Psychology Review*, 17(3), 219–236. <https://doi.org/10.1177/1088868313480274>
- Janoff-Bulman, R., Sheikh, S., & Hepp, S. (2009). Proscriptive versus prescriptive morality: Two faces of moral regulation. *Journal of Personality and Social Psychology*, 96(3), 521–537. <https://doi.org/10.1037/a0013779>
- Jonason, P. K., Li, N. P., & Teicher, E. A. (2010). Who is James Bond? The Dark Triad as an agentic social style. *Individual Differences Research*, 8(2), 111–120.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The Dark Triad: Facilitating a short-term mating strategy in men. *European Journal of Personality*, 23(1), 5–18. <https://doi.org/10.1002/per.698>
- Jones, D., & Hill, K. (1993). Criteria of facial attractiveness in five populations. *Human Nature*, 4(3), 271–296. <https://doi.org/10.1007/BF02692202>
- Jones, D. N., & Paulhus, D. L. (2011). Differentiating the Dark Triad within the interpersonal circumplex. In L. M. Horowitz & S. Strack (Eds.), *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions* (pp. 249–267). Wiley <https://doi.org/10.1002/9781118001868.ch15>
- Judd, C. M., Westfall, J., & Kenny, D. A. (2012). Treating stimuli as a random factor in social psychology: A new and comprehensive solution to a pervasive but largely ignored problem. *Journal of Personality and Social Psychology*, 103(1), 54–69. <https://doi.org/10.1037/a0028347>
- Kanazawa, S. (2011). Intelligence and physical attractiveness. *Intelligence*, 39(1), 7–14. <https://doi.org/10.1016/j.intell.2010.11.003>
- Kanazawa, S., & Kovar, J. L. (2004). Why beautiful people are more intelligent. *Intelligence*, 32(3), 227–243. <https://doi.org/10.1016/j.intell.2004.03.003>
- Karpinski, A., & Steinman, R. B. (2006). The single category implicit association test as a measure of implicit social cognition. *Journal of Personality and Social Psychology*, 91(1), 16–32. <https://doi.org/10.1037/0022-3514.91.1.16>
- Kenneth, L., Ellison, W. D., & Reynoso, J. S. (2012). A historical review of narcissism and narcissistic personality. In W. Keith Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments* (pp. 1–13). Wiley. <https://doi.org/10.1002/9781118093108.ch1>
- Krantz, M., Friedberg, J., & Andrews, D. (1985). Physical attractiveness and popularity: The mediating role of self-perception. *The Journal of Psychology*, 119(3), 219–224. <https://doi.org/10.1080/00223980.1985.10542890>

- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). ImerTest package: Tests in linear mixed effects models. *Journal of Statistical Software*, 82(13), 1–26. <https://doi.org/10.18637/jss.v082.i13>
- Lachman, S. J., & Bass, A. R. (1985). A direct study of halo effect. *The Journal of Psychology*, 119(6), 535–540. <https://doi.org/10.1080/00223980.1985.9915460>
- Lai, C. K., Skinner, A. L., Cooley, E., Murrar, S., Brauer, M., Devos, T., Calanchini, J., Xiao, Y. J., Pedram, C., Marshburn, C. K., Simon, S., Blanchar, J. C., Joy-Gaba, J. A., Conway, J., Redford, L., Klein, R. A., Roussos, G., Schellhaas, F. M., Burns, M., . . . Nosek, B. A. (2016). Reducing implicit racial preferences: II. Intervention effectiveness across time. *Journal of Experimental Psychology: General*, 145(8), 1001–1016. <https://doi.org/10.1037/xge0000179>
- Lan, M., Peng, M., Zhao, X., Li, H., & Yang, J. (2021). Neural processing of the physical attractiveness stereotype: Ugliness is bad vs. beauty is good. *Neuropsychologia*, 155, Article 107824. <https://doi.org/10.1016/j.neuropsychologia.2021.107824>
- Landy, D., & Sigall, H. (1974). Beauty is talent: Task evaluation as a function of the performer's physical attractiveness. *Journal of Personality and Social Psychology*, 29(3), 299–304. <https://doi.org/10.1037/h0036018>
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, 126(3), 390–423. <https://doi.org/10.1037/0033-2909.126.3.390>
- Leary, M. R., Bednarski, R., Hammon, D., & Duncan, T. (1997). Blowhards, snobs, and narcissists. In R. M. Kowalski (Ed.), *Aversive interpersonal behaviors* (pp. 111–131). Plenum Press., https://doi.org/10.1007/978-1-4757-9354-3_6
- Lee, K., & Ashton, M. C. (2005). Psychopathy, Machiavellianism, and narcissism in the Five-Factor Model and the HEXACO model of personality structure. *Personality and Individual Differences*, 38(7), 1571–1582. <https://doi.org/10.1016/j.paid.2004.09.016>
- Lemay, E. P., Jr., Clark, M. S., & Greenberg, A. (2010). What is beautiful is good because what is beautiful is desired: Physical attractiveness stereotyping as projection of interpersonal goals. *Personality and Social Psychology Bulletin*, 36(3), 339–353. <https://doi.org/10.1177/0146167209359700>
- Leys, C., Ley, C., Klein, O., Bernard, P., & Licata, L. (2013). Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median. *Journal of Experimental Social Psychology*, 49(4), 764–766. <https://doi.org/10.1016/j.jesp.2013.03.013>
- Lorenzo, G. L., Biesanz, J. C., & Human, L. J. (2010). What is beautiful is good and more accurately understood. Physical attractiveness and accuracy in first impressions of personality. *Psychological Science*, 21(12), 1777–1782. <https://doi.org/10.1177/0956797610388048>
- Lynam, D. R., & Derefinco, K. J. (2006). Psychopathy and personality. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 133–155). The Guilford Press.
- Makkar, J. K., & Strube, M. J. (1995). Black women's self-perceptions of attractiveness following exposure to White versus Black beauty standards: The moderating role of racial identity and self-esteem. *Journal of Applied Social Psychology*, 25(17), 1547–1566. <https://doi.org/10.1111/j.1559-1816.1995.tb02632.x>
- Mead, N. L., Baumeister, R. F., Stuppy, A., & Vohs, K. D. (2018). Power increases the socially toxic component of narcissism among individuals with high baseline testosterone. *Journal of Experimental Psychology: General*, 147(4), 591–596. <https://doi.org/10.1037/xge0000427>
- Mende-Siedlecki, P., Baron, S. G., & Todorov, A. (2013). Diagnostic value underlies asymmetric updating of impressions in the morality and ability domains. *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience*, 33(50), 19406–19415. <https://doi.org/10.1523/JNEUROSCI.2334-13.2013>
- Miller, C. T. (2011). Categorization and the physical attractiveness stereotype. *Social Cognition*, 6(3), 231–251. <https://doi.org/10.1521/soco.1988.6.3.231>
- Miller, J. D., & Lynam, D. (2001). Structural models of personality and their relation to antisocial behavior: A meta-analytic review. *Criminology*, 39(4), 765–798. <https://doi.org/10.1111/j.1745-9125.2001.tb00940.x>
- Miller, J. D., Price, J., Gentile, B., Lynam, D. R., & Campbell, W. K. (2012). Grandiose and vulnerable narcissism from the perspective of the interpersonal circumplex. *Personality and Individual Differences*, 53(4), 507–512. <https://doi.org/10.1016/j.paid.2012.04.026>
- Moore, F., Filippou, D., & Perrett, D. (2011). Intelligence and attractiveness in the face: Beyond the attractiveness halo effect. *Journal of Evolutionary Psychology (Budapest)*, 9(3), 205–217. <https://doi.org/10.1556/JEP.9.2011.3.2>
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12(4), 177–196. https://doi.org/10.1207/S15327965PLI1204_1
- Muñoz-Reyes, J. A., Pita, M., Arjona, M., Sanchez-Pages, S., & Turiegano, E. (2014). Who is the fairest of them all? The independent effect of attractive features and self-perceived attractiveness on cooperation among women. *Evolution and Human Behavior*, 35(2), 118–125. <https://doi.org/10.1016/j.evolhumbehav.2013.11.005>
- Netemeyer, R. G., Burton, S., & Lichtenstein, D. R. (1995). Trait aspects of vanity: Measurement and relevance to consumer behavior. *The Journal of Consumer Research*, 21(4), 612–626. <https://doi.org/10.1086/209422>
- Nezlek, J. B. (2008). An introduction to multilevel modeling for social and personality psychology. *Social and Personality Psychology Compass*, 2(2), 842–860. <https://doi.org/10.1111/j.1751-9004.2007.00059.x>
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, 35(4), 250–256. <https://doi.org/10.1037/0022-3514.35.4.250>
- Nuyen, A. T. (1999). Vanity. *The Southern Journal of Philosophy*, 37(4), 613–627. <https://doi.org/10.1111/j.2041-6962.1999.tb00885.x>
- Oberzaucher, E., & Grammer, K. (2010). Immune reactivity and attractiveness. *Gerontology*, 56(6), 521–524. <https://doi.org/10.1159/000265559>
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74(5), 1197–1208. <https://doi.org/10.1037/0022-3514.74.5.1197>
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Piff, P. K. (2014). Wealth and the inflated self: Class, entitlement, and narcissism. *Personality and Social Psychology Bulletin*, 40(1), 34–43. <https://doi.org/10.1177/0146167213501699>
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6(1), 421–446. <https://doi.org/10.1146/annurev.clinpsy.121208.131215>
- Pirlott, A. G., & MacKinnon, D. P. (2016). Design approaches to experimental mediation. *Journal of Experimental Social Psychology*, 66, 29–38. <https://doi.org/10.1016/j.jesp.2015.09.012>
- Pittenger, J. B., & Baskett, L. M. (1984). Facial self-perception: Its relation to objective appearance and self-concept. *Bulletin of the Psychonomic Society*, 22(3), 167–170. <https://doi.org/10.3758/BF03333794>
- Poran, M. A. (2002). Denying diversity: Perceptions of beauty and social comparison processes among Latina, Black, and White women. *Sex Roles*, 47(1–2), 65–81. <https://doi.org/10.1023/A:1020683720636>
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890–902. <https://doi.org/10.1037/0022-3514.54.5.890>
- Rhodes, G. (2006). The evolutionary psychology of facial beauty. *Annual Review of Psychology*, 57(1), 199–226. <https://doi.org/10.1146/annurev.psych.57.102904.190208>
- Rhodes, G., Harwood, K., Yoshikawa, S., Nishitani, M., & McLean, I. (2002). The attractiveness of average faces: Cross-cultural evidence and possible biological basis. In G. Rhodes & L. A. Zebrowitz (Eds.), *Advances in visual cognition*, Vol. 1. *Facial attractiveness: Evolutionary, cognitive, and social perspectives* (pp. 35–58). Ablex Publishing.

- Rhodes, G., Yoshikawa, S., Clark, A., Lee, K., McKay, R., & Akamatsu, S. (2001). Attractiveness of facial averageness and symmetry in non-western cultures: In search of biologically based standards of beauty. *Perception, 30*(5), 611–625. <https://doi.org/10.1068/p3123>
- Richter, T. (2010). What is wrong with ANOVA and multiple regression? Analyzing sentence reading times with hierarchical linear models. *Discourse Processes, 41*(3), 221–250. https://doi.org/10.1207/S15326950DP4103_1
- Rohner, J.-C., & Rasmussen, A. (2011). Physical attractiveness stereotype and memory. *Scandinavian Journal of Psychology, 52*(4), 309–319. <https://doi.org/10.1111/j.1467-9450.2010.00873.x>
- Rosenberg, S., & Sedlak, A. (1972). Structural representations of implicit personality theory. *Advances in Experimental Social Psychology, 6*(C), 235–297. [https://doi.org/10.1016/S0065-2601\(08\)60029-5](https://doi.org/10.1016/S0065-2601(08)60029-5)
- Rozeboom, G. J. (2020). When vanity is dangerous. *Philosophy & Public Affairs, 48*(1), 6–39. <https://doi.org/10.1111/papa.12156>
- Ruvio, A., Bagozzi, R. P., Hult, G. T. M., & Spreng, R. (2020). Consumer arrogance and word-of-mouth. *Journal of the Academy of Marketing Science, 48*(6), 1116–1137. <https://doi.org/10.1007/s11747-020-00725-3>
- Sanchez-Pages, S., & Turiegano, E. (2010). Testosterone, facial symmetry and cooperation in the prisoners' dilemma. *Physiology & Behavior, 99*(3), 355–361. <https://doi.org/10.1016/j.physbeh.2009.11.013>
- Sigall, H., & Ostrove, N. (1975). Beautiful but dangerous: Effects of offender attractiveness and nature of the crime on juridic judgment. *Journal of Personality and Social Psychology, 31*(3), 410–414. <https://doi.org/10.1037/h0076472>
- Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin, 105*(1), 131–142. <https://doi.org/10.1037/0033-2909.105.1.131>
- Sofer, C., Dotsch, R., Wigboldus, D. H. J., & Todorov, A. (2015). What is typical is good: The influence of face typicality on perceived trustworthiness. *Psychological Review, 26*(1), 39–47. <https://doi.org/10.1177/0956797614554955>
- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology, 89*(6), 845–851. <https://doi.org/10.1037/0022-3514.89.6.845>
- Stewart, J. E., II. (1985). Appearance and punishment: The attraction-liability effect in the courtroom. *The Journal of Social Psychology, 125*(3), 373–378. <https://doi.org/10.1080/00224545.1985.9922900>
- Swencionis, J. K., Dupree, C. H., & Fiske, S. T. (2017). Warmth-competence tradeoffs in impression management across race and social-class divides. *Journal of Social Issues, 73*(1), 175–191. <https://doi.org/10.1111/josi.12210>
- Thornhill, R., & Gangestad, S. W. (1999). Facial attractiveness. *Trends in Cognitive Sciences, 3*(12), 452–460. [https://doi.org/10.1016/S1364-6613\(99\)01403-5](https://doi.org/10.1016/S1364-6613(99)01403-5)
- Udry, J. R., & Eckland, B. K. (1984). Benefits of being attractive: Differential payoffs for men and women. *Psychological Reports, 54*(1), 47–56. <https://doi.org/10.2466/pr0.1984.54.1.47>
- Unkelbach, C., Alves, H., & Koch, A. (2020). Negativity bias, positivity bias, and valence asymmetries: Explaining the differential processing of positive and negative information. *Advances in Experimental Social Psychology, 62*, 115–187. <https://doi.org/10.1016/bs.aesp.2020.04.005>
- Unkelbach, C., Koch, A., & Alves, H. (2019). The evaluative information ecology: On the frequency and diversity of “good” and “bad.” *European Review of Social Psychology, 30*(1), 216–270. <https://doi.org/10.1080/10463283.2019.1688474>
- Valentine, T., Darling, S., & Donnelly, M. (2004). Why are average faces attractive? The effect of view and averageness on the attractiveness of female faces. *Psychonomic Bulletin & Review, 11*(3), 482–487. <https://doi.org/10.3758/BF03196599>
- Van Leeuwen, M. L., & Macrae, C. N. (2005). Is beautiful always good? Implicit benefits of facial attractiveness. *Social Cognition, 22*(6), 637–649. <https://doi.org/10.1521/soco.22.6.637.54819>
- Wang, P. Z., & Waller, D. S. (2006). Measuring consumer vanity: A cross-cultural validation. *Psychology and Marketing, 23*(8), 665–687. <https://doi.org/10.1002/mar.20123>
- Wang, X., Chow, C. W. C., & Luk, C. L. (2013). Does service employee arrogance discourage sales of luxury brands in emerging economies? *Psychology and Marketing, 30*(10), 918–933. <https://doi.org/10.1002/mar.20655>
- Weeden, J., & Sabini, J. (2005). Physical attractiveness and health in Western societies: A review. *Psychological Bulletin, 131*(5), 635–653. <https://doi.org/10.1037/0033-2909.131.5.635>
- Weiner, D. S., & Laurent, S. M. (2021). The (income-adjusted) price of good behavior: Documenting the counter-intuitive, wealth-based moral judgment gap. *Journal of Experimental Psychology: General, 150*(3), 484–506. <https://doi.org/10.1037/xge0000952>
- Westfall, J., Kenny, D. A., & Judd, C. M. (2014). Statistical power and optimal design in experiments in which samples of participants respond to samples of stimuli. *Journal of Experimental Psychology: General, 143*(5), 2020–2045. <https://doi.org/10.1037/xge0000014>
- Wetzel, E., Brown, A., Hill, P. L., Chung, J. M., Robins, R. W., & Roberts, B. W. (2017). The narcissism epidemic is dead; Long live the narcissism epidemic. *Psychological Science, 28*(12), 1833–1847. <https://doi.org/10.1177/0956797617724208>
- Wheeler, L., & Kim, Y. (1997). What is beautiful is culturally good: The physical attractiveness stereotype has different content in collectivistic cultures. *Personality and Social Psychology Bulletin, 23*(8), 795–800. <https://doi.org/10.1177/0146167297238001>
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*(4), 590–597. <https://doi.org/10.1037/0022-3514.61.4.590>
- Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology, 16*(1), 155–188. <https://doi.org/10.1080/10463280500229619>
- Zebrowitz, L. A., & McDonald, S. M. (1991). The impact of litigants' babyfacedness and attractiveness on adjudications in small claims courts. *Law and Human Behavior, 15*(6), 603–623. <https://doi.org/10.1007/BF01065855>
- Zeigler-Hill, V., Green, B. A., Armau, R. C., Sisemore, T. B., & Myers, E. M. (2011). Trouble ahead, trouble behind: Narcissism and early maladaptive schemas. *Journal of Behavior Therapy and Experimental Psychiatry, 42*(1), 96–103. <https://doi.org/10.1016/j.jbtep.2010.07.004>

Received June 5, 2021

Revision received March 25, 2022

Accepted April 19, 2022 ■