

How Beauty Work Affects Judgments of Moral Character and Consumer Preferences

*(Conditionally Accepted at the Journal of Consumer Research)*

ADRIANA SAMPER

LINYUN W. YANG

MICHELLE DANIELS\*

\* Adriana Samper ([asamper@asu.edu](mailto:asamper@asu.edu)) is assistant professor of marketing at the W.P. Carey School of Business, Arizona State University, Tempe, AZ 85287. Linyun Yang ([l.yang@uncc.edu](mailto:l.yang@uncc.edu)) is assistant professor of marketing at the Belk College of Business, University of North Carolina at Charlotte, 9201 University City Boulevard, Charlotte, NC 28223. Michelle Daniels is a PhD student in marketing at the W.P. Carey School of Business. The names of the first two authors are listed alphabetically; both authors contributed equally. The authors thank Katherine Crain, Kelly Herd and Mary Frances Luce for their helpful feedback on a prior version of this manuscript as well as the W.P. Carey Marketing Behavioral Lab for its support of this research.

## ABSTRACT

Women perform various beauty practices on themselves, or “beauty work”, to enhance their physical appearance, such as applying cosmetics, tanning, or exercising. Interestingly, though it is well documented that physical attractiveness is rewarded, perceptions of both the women who engage in effort to enhance their appearance and the high effort beauty products marketed to them are not well understood. Across seven studies, we demonstrate that consumers evaluate women who engage in certain types of extensive beauty work as possessing poorer moral character. These poorer moral judgments occur only for effortful beauty work that is perceived as transforming appearance and lasting a relatively short time (e.g., cosmetics, tanning) and are mediated by the perception that putting high effort into one’s appearance signals a willingness misrepresent one’s true self. Further, these perceptions translate into negative evaluations of high effort cosmetic products. Several boundary conditions are identified, including the attractiveness of the woman performing the beauty work and whether the beauty work is attributed to internal versus external causes. In examining when and why beauty work elicits moral judgments, we shed light on why women may put significant effort into enhancing their appearance yet shun products that call attention to doing so.

Throughout history, women have gone to great lengths to enhance their physical appearance. Queen Elizabeth I inspired a generation of women to coat their faces with lead to achieve the perfect pale complexion, and Victorian ladies removed their ribs to whittle down their waists (Corson 1972). While modern beauty rituals may be less extreme, consumers continue to engage in extensive “beauty work”, or the beauty practices people perform on themselves to elicit certain benefits within a social hierarchy (Kwan and Trautner 2009). Such practices are often effortful, such as the ten- to seventeen-step Korean skincare regimens gaining popularity worldwide (Chang 2011), or the emergent make-up trends of contouring and strobing, where layers of make-up are carefully applied to create shadows and draw attention to the eyes and cheekbones (Cardellino 2015). Even mundane daily beauty routines such as styling hair or applying cosmetics often require significant time, effort, and care. Interestingly, while recent research has acknowledged that physical attractiveness can be enhanced in many ways through beauty work (Etcoff et al. 2011; Kwan and Trautner 2009; Wong and Penner 2016), it has not examined how the process of attaining beauty is perceived and evaluated or the implications of these judgments for consumers, the focus of the present work.

The incentives for engaging in effortful beauty work are clear—attractive people are assumed to possess more socially desirable personality traits (Dion, Berscheid and Walster 1972; Langlois et al. 2000), hold greater interpersonal influence (Dion and Stein 1978), are more memorable (Kleck and Rubenstein 1975), and even earn higher wages (Hamermesh and Biddle 1994; Landy and Sigall 1974). The impact of beauty is particularly resonant for women, shaping upward mobility through marriage (Elder 1969; Udry and Ecklund 1984) and in the workplace (Dellinger and Williams 1997; Wong and Penner 2016). In pursuit of achieving the feminine beauty ideal, women are often conditioned to assess and work toward enhancing their physical

attractiveness (Chapkis 1986; Gimlin 2002) and feel significant pressure to do so (Byrne, London, and Reeves 1968; Fredrickson and Roberts 1997). Therefore, like most academic work in this domain (e.g., Kwan and Trautner 2009; Segal-Caspi, Roccas, and Sagiv 2012), we focus on how women in particular are judged for engaging in different types of beauty work.

To date, there has been little examination of how effort related to a woman's appearance is evaluated. If advertising campaigns are any indication, then effortful beauty work is likely to be judged negatively. For instance, Maybelline Cosmetics' famous slogan, "Maybe she's born with it. Maybe it's Maybelline," implies their products are so effective that people cannot tell the difference between natural beauty and that attained through their cosmetics. Implicit in this message is that people appreciate beauty, but want it to be unadulterated and natural, not the result of extensive time and effort. Women are also mindful of this expectation. A short pretest revealed that women were more reluctant to tell others how much effort they put into their appearance when they engaged in high relative to low effort ( $M_{\text{High}} = 4.18$  vs.  $M_{\text{Low}} = 2.80$ ;  $F(1, 141) = 14.16$   $p = .0002$ ).<sup>1</sup>

In the present research, we examine how effortful beauty work shapes perceptions of moral character and the implications of these perceptions for beauty enhancement products. While preliminary work suggests that women who wear heavier make-up are perceived as less trustworthy (Etcoff et al. 2011), there has yet to be a systematic examination of how, why or when effortful beauty work shapes perceptions of moral character. We propose that people view effortful beauty work as indicative of poorer moral character when the intended enhancements are seen as misrepresenting one's true self. Importantly, we identify two criteria for effortful

---

<sup>1</sup> Women ( $N=143$ ) were asked to imagine that they had spent either 90 minutes (high effort) or 30 minutes (low effort) getting ready for their morning, including getting dressed, styling their hair, and performing any additional beauty routines. Then they were asked, "To what extent would you be reluctant to tell others how much time you spent getting ready in the morning?" (1 = Not at all, 7 = Very much so).

beauty work to be viewed as misrepresentative: first, the effort must be perceived as transformative—significantly altering a woman’s appearance—and second, the results of such effort must be seen as transient—enhancing a woman’s appearance for only a limited period of time. In this manner, effortful beauty work perceived as only superficially changing, or disguising, a woman’s outward appearance is viewed as indicative of poorer moral character. On the other hand, effortful beauty work practices that do not immediately transform appearance, or are more enduring and hence indicative of true change, are not diagnostic of moral character. These judgments carry over to consumers’ willingness to use and purchase higher effort cosmetic products. Furthermore, our conceptualization distinguishes misrepresentation from physical vanity, or a mere focus on one’s appearance, as a driver of perceived moral character. Finally, we also propose that an awareness of external causes (Kelley 1973) for engaging in beauty work can dampen the dispositional attributions people make regarding morality and transformative, transient beauty enhancements.

In identifying the link between effort and morality within the beauty work domain and its underlying driver and boundary conditions, we contribute to the literature in several ways. First, as described above, though physical attractiveness confers significant benefits (Dion et al. 1972; Langlois et al. 2000) and women engage in various forms of beauty work (Kwan and Trautner 2009), there is little research on how the process of attaining beauty is evaluated. Our framework delineates how, when and why different types of effortful beauty work elicit more negative judgments of morality. In putting forth this framework, we identify extensive beauty work as an underexplored form of effortful behavior that, like other forms of effort expenditure, is controllable and can elicit observer judgments (Weiner 1986; Weiner and Kukla 1970). Further, we extend prior work showing that inferences of moral character can be shaped by information

ostensibly unrelated to morality (Tannenbaum, Uhlmann, and Diermeier 2011), such as the effort spent on innocuous consumer behaviors like beauty work. Finally, in revealing how perceptions of beauty products requiring higher effort shape consumer purchase intentions, we explore the inherent contradiction of why effortful cosmetic use is viewed negatively yet effortful products continue to be commercially successful.

## **CONCEPTUAL FRAMEWORK**

### **Beauty Work and Effort**

In contrast to prior research that has conceptualized beauty as a more biological, fixed trait (e.g., Langlois et al. 2000), recent studies acknowledge that physical attractiveness can be changed and enhanced in many ways through beauty work (Etcoff et al. 2011; Kwan and Trautner 2009; Wong and Penner 2016). Kwan and Trautner (2009) describe how women are “held accountable” for norms dictating how their hair, skin or body shape and size should look, and engage in beauty work to achieve these ideals. In our research, we are interested in the behaviors that women can reasonably perform *on themselves* to enhance their appearance, such as styling hair, applying cosmetics, or exercising to alter body shape. As such, this does not include practices such as learning about make-up techniques or shopping for clothing, since these behaviors do not directly involve performing a specific act on oneself to enhance attractiveness. This also does not include permanent enhancements requiring professional intervention, such as tattooed make-up or plastic surgery, though we discuss these behaviors in the general discussion.

While to our knowledge, earlier conceptualizations of effort in marketing and psychology have not focused on beauty work as a form of effortful behavior, research in organizational behavior and sociology has documented the high effort or “labor” that some people engage in to

enhance their appearance (Witz, Warhurst and Nickson 2003; Wong and Penner 2016). The various practices women perform to enhance their attractiveness can involve high levels of physical and mental exertion, such as strenuous exercise to achieve a slender figure, meticulous skin care regimens, or simply time-consuming make-up and hair practices. Just like other forms of effort, consumers can choose to expend fewer or greater mental and physical resources on beauty work. Still, researchers have not investigated how effort related to improving one's appearance is perceived or its implications for consumption. While prior work has focused largely on consumers' appreciation of their own and others' effort pertaining to products, gifts, and displays (e.g., Cutright and Samper 2014; Kruger et al. 2004; Morales et al. 2005; Moreau, Bonney, and Herd 2011; Wu, Samper, Morales, and Fitzsimons 2017), we examine how and why exerting effort on beauty work can elicit negative judgments of moral character.

### Moral Trait Inferences

Across social contexts and evaluation targets, uncovering a person's moral character is of utmost importance in impression formation (Pizarro and Tannenbaum 2011). A person's moral character signals whether that person will be harmful or helpful to others (e.g., Brambilla, et al. 2011; Wojciszke, Bazinska and Jaworski 1998) and is fundamental to identity and self-worth (Aquino and Reed 2002). As a result, people often make spontaneous inferences of others' morality through observed behaviors on the basis of very little information (Haidt 2001). Importantly, even behaviors traditionally unrelated to morality can elicit moral judgments because they are perceived as diagnostic of a person's moral character and hence predictive of future consequential behaviors (Pizarro, Tannenbaum, and Uhlmann 2012). For instance, a CEO candidate who requested a frivolous perk (i.e., a marble table with his face carved into it) was

rated more poorly on moral character and expected to make unethical and irresponsible business decisions in the future (Tannenbaum, Uhlmann, and Diermeier 2011). At an even subtler level, people judge those who eat unhealthy foods as less moral because they violate Puritan ideals of self-discipline and restraint (Steim and Nemeroff 1995), while judging physically fit individuals as more moral due to positive associations between morality, physical wellness, and self-control (Baumeister and Exline 2000; Whorton 1982). We propose that certain types of beauty work are also used to determine the probability that a woman is moral because they signal the degree to which she is willing to misrepresent her true physical appearance, which we discuss next.

### Physical Appearance and the “True” Self

People often use physical appearance, and attractiveness in particular, to make inferences about others’ personalities, attributing socially desirable personality traits to attractive people (Dion et al. 1972; Langlois et al. 2000). These inferences are frequently made spontaneously, especially for women (Miller 1988). Given that spontaneously inferred traits are perceived to be indicative of an individual’s disposition (Van Overwalle, Drenth, and Marsman 1999) and information that reflects an individual’s stable disposition is seen as diagnostic of that individual’s true self (Johnson, Robinson, and Mitchell 2004), this suggests that people will also see trait inferences based on physical appearance as implicitly diagnostic of fundamental aspects of the self. Bolstering this notion, McCrae and Costa (1994) state that, “Our traits characterize us; they are our very selves; we act most freely when we express our enduring dispositions” (p. 175). We propose that because physical appearance elicits trait inferences and traits are seen as reflecting the true self, a person’s unmodified (pre-beauty work) appearance should also be perceived as reflecting underlying aspects of the self. As a result, certain types of effortful beauty

work may be seen as creating a discrepancy between one's true self and the self presented to others. Because effort is inherently controllable (Weiner 1986), we propose that engaging in effortful beauty work signals a willingness to misrepresent or disguise the true self and is thus construed as a signal of poorer moral character.

Research examining the influence of cosmetics on facial signals also suggests a link between effortful beauty work and misrepresentation. Etcoff and colleagues (2011) found that heavy, glamorous facial cosmetics enhanced perceptions of women's trustworthiness and likeability when male and female participants viewed photographs of the women for 250 milliseconds, but not when they were given unlimited time. Under unlimited time, women were actually judged as less trustworthy (but not less likeable) when wearing heavy, glamorous make-up. These researchers proposed that women are not only judged based on the positive effect cosmetics have on physical attractiveness but also on what make-up use says about their personality and character. Of course, in this work, judgments based on the use of make-up alone are confounded with attractiveness and effort and the authors did not delve into the mechanism underlying this effect or into perceptions of beauty work more generally. However, these findings imply that people may reflect upon the effort that goes into a woman's highly made-up face and question the extent to which it represents who she truly is.

### Beauty Work, Misrepresentation, and Morality

While beauty work is intended to enhance attractiveness (Kwan and Trautner 2009), the magnitude and nature of change to a woman's physical appearance may vary. We argue that changes to appearance resulting from extensive effort must possess two characteristics to be perceived as misrepresentative and hence affect perceived moral character. First, the beauty work

must be perceived as intending to create a discrepancy between a woman's unadulterated physical appearance and the appearance resulting from effortful beauty work, or what we call a transformative change. Second, the beauty work must result in transient or unenduring change, signaling that it is a superficial "disguise" as opposed to an actual change. Importantly, transformativeness and transience lie on a continuum, so the distinction between the low and high ends of these dimensions are matters of degree, rather than discrete categories.

*Transformativeness.* Consistent with the notion that people consider the magnitude of ethical transgressions (Jones 1991; see also Gino and Bazerman 2009), we expect that engaging in high versus low levels of beauty work leads to more negative inferences of moral character exclusively when the effort results in apparent, detectable changes because only these can be perceived as a form of misrepresentation. Thus, if a woman spends a significant amount of time and effort on her appearance using moisturizer or facial masks but does not look immediately different as a result, perceptions of misrepresentation and morality should not be affected. Similarly, if a naturally beautiful woman has an extensive daily cosmetics routine, she may not be perceived as misrepresenting herself to the same degree as a less naturally attractive woman because her resulting enhanced appearance is not very discrepant from her original, already attractive appearance. In this sense, we argue that negative judgments of moral character do not stem from an aversion to excessive (vs. appropriate) amounts of beauty work, but rather result from the discrepancy that effortful beauty work signals. If this intention of creating a discrepancy between a woman's pre- and post-beauty work appearance is not evident, her moral character will not be judged more negatively.

*Transience.* Second, we reason that if a woman's beauty is unenduring, it will be perceived as superficial, and hence, not a true representation of who she is. This is consistent

with research on psychological trait enhancement (Riis, Simmons and Goodwin 2008), which characterizes superficial change as the opposite of fundamentally changing the self. As such, high effort aimed at making temporary changes to increase attractiveness should lead to perceptions of misrepresentation. This distinction is important because it captures a large share of the beauty work that women perform, such as styling hair and applying make-up. Though spending a lot of effort on hair and make-up typically increases attractiveness (and indeed, such promises are heavily marketed to women), these changes are temporary and physical appearance returns to its original state once hair is wet or make-up is washed off. In contrast, behaviors that result in more enduring changes in attractiveness, such as exercise to obtain a more attractive figure, will not be perceived as misrepresentative of a woman's true appearance. As a result, only more transient, temporary changes should elicit higher perceptions of misrepresentation and more negative judgments of moral character.

In delineating what constitutes misrepresentation, we also make clear that perceived misrepresentation and moral character are two distinct constructs: misrepresentation captures the degree to which one is presenting a discrepant version from the innate self to others in the specific context of physical attractiveness, while perceived morality captures the whole of a woman's moral character across various contexts.

### Salience of External Causes

Importantly, we propose that there also are boundary conditions to this effect. While people tend to attribute the causes of behaviors to internal, dispositional factors (Jones and Davis 1965; Gilbert and Malone 1995)—in the present case, we argue that people attribute a woman's effortful beauty work to poorer moral character—these dispositional attributions can be

mitigated if a compelling external or situational reason for the behavior is provided (Kelley 1973; Gilbert and Malone 1995). Skowronski and Carlston's (1987; 1989) cue-diagnosticity approach proposes that behaviors vary in how diagnostic or informative they are in determining an individual's internal characteristics because observers recognize that behaviors and dispositions are not perfectly correlated (e.g., not all people who steal are dishonest; see also Reeder and Brewer 1979). A number of factors can influence the diagnosticity of a given behavior and its impact on impression formation, including how frequently the behavior occurs and whether or not plausible external causes are made salient. Therefore, while people may initially assume that a woman who spends an hour and a half on her beauty routine before a casual get-together is less moral, they may not be as quick to infer this if reminded of situational factors that might drive her behavior, such as the need to make a good impression in that context.

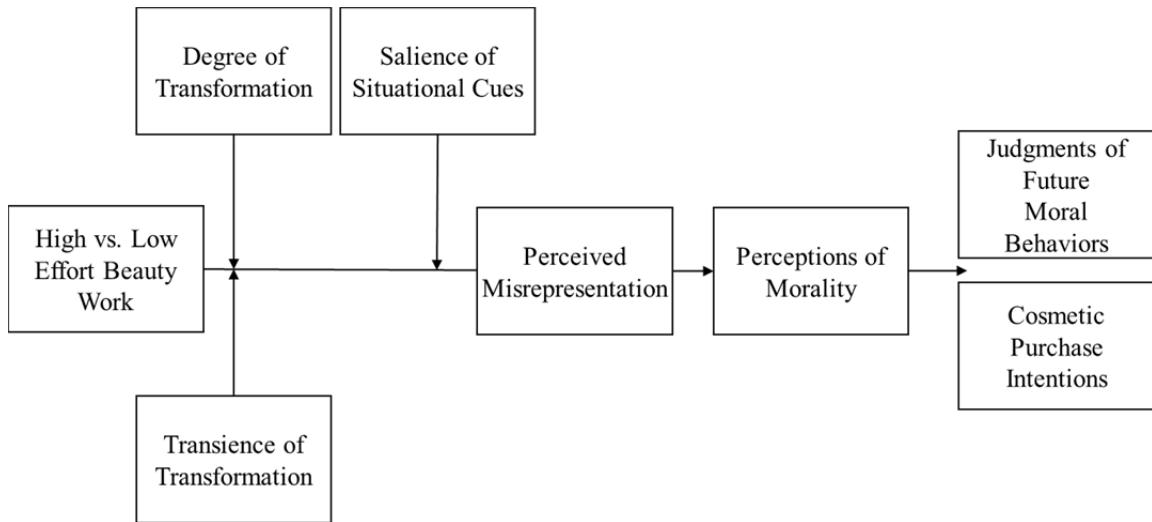
### Beauty Work and Beauty Products

Notably, our focus on beauty-related effort has strong resonance in marketing given that numerous beauty products are promoted as having transformative, appearance-enhancing abilities. We expect that because certain types of effortful beauty work, such as applying make-up, are viewed negatively, users of such beauty products requiring high effort should be perceived as misrepresenting themselves and hence possessing poorer moral character. This negative association, in turn, should lead consumers to avoid such products (White and Dahl 2006). Thus, women should be less likely to purchase high (vs. low) effort cosmetic products. Notably, given the success of the cosmetics industry, it is also important to identify contexts in which women are less likely to eschew high effort beauty products. Consistent with our attributional theorizing, we propose that when consumers view an ad that frames a cosmetic

product as facilitating a situational goal, they should also be less likely to view the product's customers as less moral, and hence less likely to reject the higher effort beauty product.

We present the conceptual model of our full framework and its implications for cosmetic purchase intentions below (Figure 1). We test our model across seven studies. Studies 1A and 1B show that effortful beauty work negatively affects judgments of moral traits and behaviors, and that these judgments are specific to morality rather than reflecting a generalized sense of disapproval. Studies 2, 3, and 4 examine our proposed criteria of transformation and transience as levers of perceived misrepresentation. Studies 3 and 4 also reveal downstream consequences of specific types of effortful beauty work on judgments of future morality-related behaviors. Finally, studies 5 and 6 examine how the salience of external causes serve as a boundary condition for the negative effort-morality link and also the downstream implications for consumers' willingness to purchase high effort beauty products.

FIGURE 1. CONCEPTUAL FRAMEWORK



## STUDY 1A

Study 1A tested the prediction that people view extensive beauty work as a signal of poorer moral character. Participants read a vignette that provided numerous details about a woman named Jenna, including her beauty routine, which was described as requiring high or low effort. To distinguish our effects from a more generalized sense of disapproval of Jenna's behavior, participants were asked to rate Jenna on traits and behaviors related and unrelated to morality. If our conceptualization is supported, we would expect Jenna to be evaluated more negatively for high (vs. low) effort beauty work only on morality-related traits and behaviors.

### Method

102 Mechanical Turk participants (33.3% female,  $M_{Age} = 33.1$ ) completed this study for payment and were randomly assigned to a 2 (effort: high, low, between-subjects) x 2 (trait/behavior domain: positive moral vs. positive filler, within-subjects) mixed experiment. Participants were asked to read a vignette about a woman, "Jenna," and to form an impression of her. Participants were given a number of details about Jenna, including her job, weekend activities, and typical non-beauty related morning routine (e.g., listening to the radio, checking the news). Embedded in these details was information that Jenna usually spends about an hour and forty-five minutes (high effort) or ten minutes (low effort) on her daily grooming routine (hair and make-up; see Appendix A for stimuli). The times were approximately equidistant from the pretested median of 60 minutes that women were expected to spend on grooming each day.<sup>2</sup>

---

<sup>2</sup> We asked 40 women ( $M_{Age} = 36$ ) how much time they believed other women usually spent on grooming routines each day. Participants reported a mean of 56.85 ( $SD = 32.94$ ) minutes, a median of 60 minutes, and a range of 5 minutes to 120 minutes. The 5<sup>th</sup> and 95<sup>th</sup> percentiles were 10 minutes and 120 minutes, respectively. This number is also consistent with the results of a February 2014 Today Show / AOL Body Image Survey revealing that women spend ~ 55 min / day on their appearance (Mannino 2014).

To dampen differences due to vanity inferences, Jenna was described as wanting to look and feel good about her appearance across both effort conditions.

Participants were then presented with eight traits in random order and asked to rate how likely each trait was to describe Jenna based on their impression of her (1 = Unlikely to describe Jenna, 7 = Likely to describe Jenna). These traits included four moral traits (moral, ethical, genuine and sincere) – two items measuring global evaluations of morality (moral, ethical; Goodwin et al. 2014) and two more implicitly associated with morality (genuine, sincere; Walker and Hennig 2004) – and four positive traits identified as less relevant to morality (competent, skillful, sociable, happy; Rosenberg, Nelson, and Vivekananthan 1968; Goodwin et al. 2014).

Next, to see if participants' impressions carried over to behavioral inferences, we asked how likely Jenna was to engage in two moral (i.e., volunteer at a homeless shelter, return a lost wallet) and two positive filler behaviors (i.e., be a top performer at her company, have good taste in music). Participants next completed a manipulation check asking how much effort Jenna put into getting ready each morning (1 = Very low effort, 7 = Very high effort). Finally, to ensure participants could relate to the scenarios and that they were equally realistic across conditions, we asked how similar Jenna was to someone they knew (1 = Not at all similar, 7 = Very similar) and how realistic the scenario was (1 = Not at all realistic and 7 = Very realistic).

## Results and Discussion

Three participants had missing data on the dependent variables and thus were excluded from the analyses, leaving a sample of 99 participants. We predicted that when participants read the high (vs. low) effort vignette about Jenna, they would rate her more negatively on our focal moral traits and behaviors, but not on traits and behaviors unrelated to morality. Of note, initial analyses fully crossing gender did not reveal gender x effort interactions on perceived moral

traits ( $p > .24$ ) or behaviors ( $p > .77$ ), or 3-way interactions with gender (traits,  $p > .54$ ; behaviors,  $p > .92$ ), so we collapsed across this variable. The remaining studies also did not reveal systematic differences in men's and women's responses to our stimuli.

*Manipulation check.* A one-way ANOVA on the effort manipulation check confirmed that our manipulation was successful. Jenna was seen as engaging in higher effort in the high versus low effort condition ( $M_{\text{High}} = 6.56$ ,  $M_{\text{Low}} = 3.94$ ;  $F(1, 97) = 107.98$ ,  $p < .0001$ ).<sup>3</sup>

*Traits.* Because of our repeated measures design and the fact that our filler items were unlikely to be correlated, we conducted mixed-model ANOVAs to analyze trait and behavior ratings. First, we conducted a 2 (effort: low, high (between-subjects) x 2 (trait type: positive moral, positive filler (within-subjects)) mixed-model ANOVA with effort between-subjects and trait type within-subjects. We found main effects of effort ( $F(1, 97) = 4.10$ ,  $p = .05$ ) and trait type ( $F(1, 97) = 53.39$ ,  $p < .0001$ ), qualified by a significant effort x trait type interaction ( $F(1, 97) = 9.32$ ,  $p = .003$ ). Planned contrasts revealed that for the positive moral traits, high (vs. low) effort reduced ratings of trait descriptiveness ( $M_{\text{High}} = 5.13$ ,  $M_{\text{Low}} = 5.62$ ,  $t(97) = -2.90$ ,  $p = .005$ ). For the filler traits, there was no difference ( $M_{\text{High}} = 5.70$ ,  $M_{\text{Low}} = 5.86$ ,  $t(97) = -.93$ ,  $p = .35$ ).

*Anticipated behaviors.* We conducted the same 2 (effort: low, high) x 2 (behavior domain: positive moral, positive filler) mixed-model ANOVA on Jenna's anticipated behaviors. There was no main effect of effort ( $F(1, 97) = .93$ ,  $p = .34$ ) or behavior domain ( $F(1, 97) = 1.88$ ,  $p = .17$ ). However, there was a significant effort x behavior domain interaction ( $F(1, 97) = 13.30$ ,  $p = .0004$ ). Participants rated Jenna as less likely to engage in moral behaviors under high effort ( $M_{\text{High}} = 4.30$ ,  $M_{\text{Low}} = 4.89$ ,  $t(97) = -2.84$ ,  $p = .005$ ); there was no difference in filler behaviors ( $M_{\text{High}} = 4.89$ ,  $M_{\text{Low}} = 4.63$ ,  $t(97) = 1.24$ ,  $p = .22$ ).

---

<sup>3</sup> Please see Web Appendix F for full tables of means and standard deviations.

*Realism.* Finally, a one-way ANOVA revealed that effort did not have an effect on ratings of Jenna's similarity to others ( $F(1, 97) = .28, p = .60$ ) or vignette realism ( $F(1, 97) = .50, p = .48$ ). Moreover, the vignettes elicited high levels of similarity ( $M = 5.00/7$ ) and realism ( $M = 6.02/7$ ), demonstrating that our descriptions resonated with participants.

*Discussion.* Study 1A provides initial support for the negative effort-morality link by showing that effortful beauty work led to negative judgments in the morality domain but not a generalized sense of disapproval. In study 1B, we gather further support for this relationship.

## STUDY 1B

Study 1B was designed to address a few of study 1A's shortcomings. First, we include a control condition where we again describe Jenna as wanting to feel positive about the way she looks, but do not include details about her beauty routine. This allows us to determine whether it is low or high effort beauty work that drives morality judgments. Second, to measure judgments more indirectly, we only ask participants to consider Jenna's suitability as a potential colleague and rate her likelihood of engaging in both immoral and filler workplace behaviors without considering traits beforehand. We expect participants to rate Jenna as more likely to engage in immoral (but not filler) behaviors in the high effort versus low effort and control conditions.

### Method

156 undergraduate students (39.7% female,  $M_{Age} = 21.8$ ) at a large Southwestern university participated in this study for course credit. The study used a 3 (effort: high, low, control) x 2 (behavior domains: immoral, filler) mixed design with effort as a between-subjects factor and behavior domains as a within-subjects factor. Participants were randomly assigned to

read one of three vignettes about Jenna's morning routine, which were nearly identical to those used in study 1A. In the new control condition, no beauty routine details were provided, but Jenna was still described as wanting to feel good about her appearance (for all verbiage, see Appendix B). Immediately after the vignette, participants were asked to imagine they were a hiring manager putting together a project team. In considering whether Jenna would be a good candidate for the team, they were asked to assess how likely she would be to participate in three job-related immoral behaviors (inflate her expense report, lie on her resume, take office supplies; Gino, Norton and Ariely 2010), and three filler behaviors (organize a group happy hour, water the office plants, have a positive attitude about a work project; 1 = Not likely, 7 = Very likely). Finally, as a manipulation check, participants rated how much effort Jenna put into getting ready each morning (1 = Very low effort, 7 = Very high effort).

## Results and Discussion

*Effort manipulation check.* Results revealed the predicted effect of effort ( $F(2, 153) = 64.33, p < .0001$ ). Confirming that our manipulation was successful, the high (vs. low) effort conditions garnered higher effort ratings ( $M_{\text{High}} = 6.21, M_{\text{Low}} = 3.56; F(1, 153) = 125.49, p <.0001$ ). The control condition ratings fell in between, and were significantly different from, the high ( $M_{\text{Control}} = 5.25; F(1, 153) = 16.47, p <.0001$ ) and low effort conditions ( $F(1, 153) = 51.03, p <.0001$ ).

*Immoral behaviors.* We predicted that participants would rate Jenna as more likely to engage in immoral behaviors in the high effort (vs. low effort and control) conditions. We did not expect differences on the filler behaviors. As in study 1A, we conducted a 3 (effort: low, high, control (between-subjects)) x 2 (behavior domain: immoral, filler (within-subjects)) mixed-

model ANOVA on Jenna's anticipated behaviors. There were main effects of both effort ( $F(2, 153) = 4.98, p < .01$ ) and behavior domain ( $F(1, 153) = 711.98, p < .0001$ ), which were qualified by a significant effort x behavior domain interaction ( $F(2, 153) = 3.61, p = .03$ ). Participants rated Jenna as more likely to participate in work-related immoral behaviors when she had a high (vs. low) effort beauty routine ( $M_{\text{High}} = 3.30, M_{\text{Low}} = 2.72; t(1, 153) = 3.55, p < .001$ ). The same pattern emerged when comparing the high effort and control conditions ( $M_{\text{Control}} = 2.74; t(153) = -3.39, p < .001$ ). There was no difference between the control and low effort conditions ( $t(153) = .16, p = .88$ ). Analysis of the filler behaviors showed no differences across the three effort conditions ( $M_{\text{High}} = 5.32, M_{\text{Control}} = 5.13, M_{\text{Low}} = 5.30$ ; all contrasts  $p > .25$ ).

Taken together, studies 1A and 1B show that effortful beauty work negatively affects inferences of moral character. In both studies, we disentangle negative judgments of morality from a more general sense of disapproval by showing that effort had no effect on morality-unrelated traits and behaviors. These results also show the specificity of this effect; it did not emerge when Jenna put too little effort in her appearance or in the absence of effort information. Only with extensive effort does beauty work lead to more negative appraisals of Jenna's moral character. While we purposefully chose not to ask participants about trait inferences in study 1B so as not to influence our behavioral expectation measures, we note that we did run a separate study with a control condition focusing just on traits and found the same pattern of results (see Web Appendix A). Having established our basic effect with hair and make-up (which, for simplicity, we now refer to as 'cosmetics'), which meet our misrepresentation prerequisites of transformativeness and transience, we continue to test our framework by identifying our proposed mediator of perceived misrepresentation and examining beauty work that differs in the extent to which it alters a woman's appearance.

## STUDY 2

In this study, we examine the effect of effort on perceived moral character for three distinct types of beauty work (cosmetics, self-tanning and skincare) pretested as leading to different levels of transformativeness but similar levels of transience. We expect that engaging in high (vs. low) levels of beauty work will lead to more negative inferences of moral character, but only when this work results in transformative, immediate changes (i.e., cosmetics and tanning, but not skincare), because these changes are seen as misrepresentative of the true self. Because men and women differ in familiarity with and perceptions of what entails effortful beauty work within these three domains (O'Riordan et al. 2006), we recruit only female participants for this study. Also, we now ask participants to make judgments of morality based on the description of a single instance of a woman's beauty work rather than a daily routine (S1A, S1B) to show that singular (and not just habitual) beauty work is still seen as diagnostic of moral character. This single-instance presentation is a more conservative manipulation and allows us to focus on the direct change resulting from effortful beauty work (i.e., the immediate effects of cosmetics, tanning, or skincare). Further, rather than providing a time duration of beauty work as a proxy for effort, our effort manipulation now describes beauty work only as more or less effortful (i.e., requiring more care and steps). Finally, we measure perceived excessiveness of effort to rule out the possibility that people are responding negatively to effortful beauty work because it deviates from normative expectations of beauty work effort, as opposed to concerns about misrepresentation.

### Method

300 female Mechanical Turk participants ( $M_{Age} = 41.0$ ) completed this study and were randomly assigned to a 2 (effort: high, low) x 3 (beauty work type: cosmetics, tanning, skincare) between-subjects experiment. Participants again read a passage about Jenna and were asked to form an impression of her. This time, Jenna was going to a barbecue that afternoon and planned to spend either a great deal of or very little effort on cosmetics, self-tanning, or skincare (see Appendix C). Pretests indicated that relative to skincare, cosmetics, and tanning were viewed as higher on transformativeness but not transience<sup>4</sup> and also supported the effectiveness of our effort manipulation.<sup>5</sup> After reading the passage, participants rated to what extent they believed Jenna was genuine, ethical, moral, and sincere (1 = Not at all, 7 = Very much;  $\alpha = .94$ ). Next, participants indicated their agreement with four statements: 1) Jenna is trying to put forth an image of someone she is not, 2) Jenna is misrepresenting herself to others, 3) Jenna is trying to present herself as something that she is not, and 4) Jenna is misrepresenting her innate self (1 = Completely disagree, 7 = Completely agree;  $\alpha = .97$ ). Lastly, to test whether our results might be driven by excessive (vs. extensive) effort, participants indicated how they would rate the amount of effort Jenna spent getting ready for the barbecue (1 = Far too little, 4 = Appropriate, 7 = Excessive).

## Results and Discussion

---

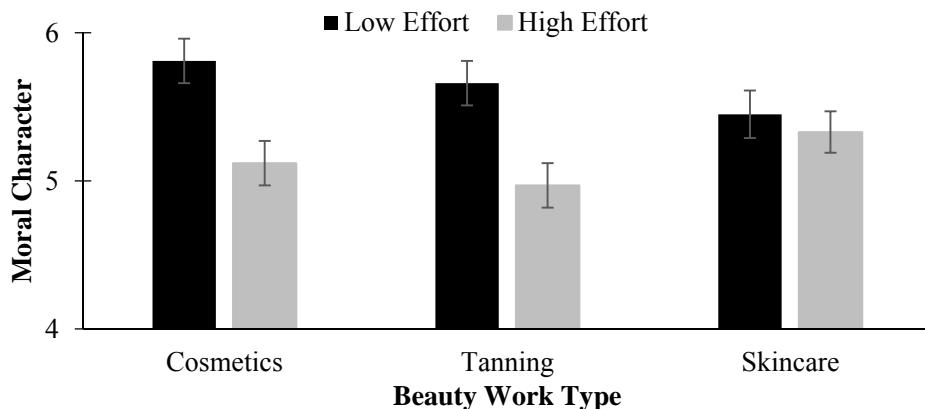
<sup>4</sup>Participants (N = 155) read one of the three vignettes from study 2 with the effort manipulation removed and completed measures of the perceived transience and transformativeness of the beauty work behavior. A one-way ANOVA (cosmetics vs. tanning vs. skincare) on these measures revealed no effect of beauty work type on transience ( $F < 1$ ) but a main effect on transformativeness ( $F(2, 152) = 25.15, p < .0001$ ). Skincare was rated as less transformative relative to cosmetics ( $M_{Skincare} = 3.11, M_{Cosmetics} = 4.78; F(1, 152) = 42.43, p < .0001$ ) and tanning ( $M_{Tanning} = 4.58; F(1, 152) = 32.62, p < .0001$ ). See procedural details, results and measures in Web Appendix B1.

<sup>5</sup>This pretest (N = 187) utilized the same design and vignettes as study 2. A 2 (effort) x 3 (beauty work type) ANOVA revealed that the high (vs. low) effort conditions were viewed as more effortful in the cosmetics ( $M_{High} = 5.45, M_{Low} = 3.22; F(1, 181) = 63.50, p < .0001$ ), tanning ( $M_{High} = 5.73, M_{Low} = 3.82; F(1, 181) = 49.24, p < .0001$ ), and skincare ( $M_{High} = 5.48, M_{Low} = 3.36; F(1, 181) = 39.63, p < .0001$ ) conditions. The effort x type interaction was not significant ( $F < 1$ ). See full details in Web Appendix B2.

We predicted that Jenna would be judged as less moral when she engaged in high (vs. low) effort on cosmetics and tanning, but not skincare, and that these changes would be driven by perceived misrepresentation. To test our predictions, we conducted a 2 (effort: high, low) x 3 (beauty work type: cosmetics, tanning, skincare) between-subjects ANOVA on all dependent variables, followed by serial mediation analyses of our key variables.

*Moral character.* Results revealed a main effect of effort ( $F(1, 294) = 16.69; p < .0001$ ) and a marginal effort x beauty work type interaction ( $F(2, 294) = 2.38; p = .09$ ; see Figure 2). As predicted, Jenna's moral character was rated more negatively when she engaged in high (vs. low) effort on cosmetics ( $M_{\text{High}} = 5.12, M_{\text{Low}} = 5.81, F(1, 294) = 10.52, p = .001$ ) and tanning ( $M_{\text{High}} = 4.97, M_{\text{Low}} = 5.66, F(1, 294) = 10.79, p < .01$ ), but not skincare ( $M_{\text{High}} = 5.33, M_{\text{Low}} = 5.45, F(1, 294) < 1, ns$ ).

FIGURE 2. STUDY 2: EFFORT X BEAUTY WORK TYPE ON MORAL CHARACTER



*Misrepresentation.* We found significant main effects of effort ( $F(1, 294) = 21.65; p < .0001$ ) and beauty work type ( $F(2, 294) = 11.28; p < .0001$ ) as well as a two-way interaction ( $F(2, 294) = 3.01; p = .05$ ). As predicted, Jenna was seen as misrepresenting herself more when she engaged in higher effort on cosmetics ( $M_{\text{High}} = 2.33, M_{\text{Low}} = 1.43, F(1, 294) = 13.24; p <$

.001) and tanning ( $M_{\text{High}} = 3.03$ ,  $M_{\text{Low}} = 2.10$ ,  $F(1, 294) = 14.20$ ;  $p < .001$ ), but not skincare ( $M_{\text{High}} = 1.91$ ,  $M_{\text{Low}} = 1.74$ ,  $F(1, 294) = .45$ ;  $p = .50$ ).

*Moderated mediation.* According to our conceptualization, effortful beauty work signals poorer moral character because it is seen as an attempt to misrepresent one's physical appearance to others. Therefore, misrepresentation should mediate the effect of effort on moral character ratings only within cosmetics and tanning, where high effort leads to immediate, transformative changes to a woman's appearance. After confirming with a factor analysis that the morality and misrepresentation items loaded separately (all coefficients  $> .76$ ; see Web Appendix G for full factor loadings across studies 2-6 showing that morality and misrepresentation consistently load separately), we conducted a moderated mediation analysis to test our predictions. Since effort had the same effect on perceived morality in the cosmetics and tanning conditions and these conditions were not theoretically distinct, we combined them and conducted a moderated mediation analysis using beauty work type (cosmetics/tanning vs. skincare) as the moderator (Model 8; Hayes 2013). As predicted, misrepresentation mediated the relationship between effort and morality within cosmetics/tanning ( $B = -.29$ ,  $\text{CI}_{95} = -.50, -.16$ ) but not within skincare ( $B = -.06$ ,  $\text{CI}_{95} = -.23, .07$ ). Furthermore, our moderated mediation index was significant ( $B = .24$ ,  $\text{CI}_{95} = .06, .47$ ). Of note, this same pattern holds when cosmetics and tanning are analyzed separately.

*Excessiveness.* We only found a main effect of effort ( $F(1, 294) = 59.17$ ;  $p < .0001$ ). The effort x beauty work type interaction was not significant ( $p = .80$ ). Jenna's effort was seen as more excessive under high (vs. low) effort across all beauty work types (all contrasts  $p < .0001$ ). In the high effort conditions, excessiveness did not differ between the three beauty work types ( $M_{\text{Cosmetics}} = 5.02$ ,  $M_{\text{Tanning}} = 5.04$ ,  $M_{\text{Skincare}} = 4.91$ ; all contrasts  $p > .48$ ), suggesting that perceived

excessiveness is not playing a role. Moreover, the mean of 5 in the high effort conditions is closer to the ‘appropriate’ midpoint (4) than to the excessive extreme (7).<sup>6</sup>

*Discussion.* The results of study 2 illustrate the role of transformativeness and perceived misrepresentation in the negative effect of effort on perceived moral character. With cosmetics and tanning, where effort is seen as transformative and leading to immediately visible changes in appearance, high effort reduces perceived moral character, but not with skincare, where effort leads to less apparent change in appearance. Moderated mediation analysis supported our prediction that perceived misrepresentation drove negative judgments of moral character. We also rule out the alternative that perceptions of excessive (rather than extensive) effort might be driving our effect. Next, we examine the effect of transformativeness within a single type of beauty work by testing whether attractiveness attenuates the negative effort-morality link.

### STUDY 3

We have argued that negative judgments of moral character stem from the belief that effortful beauty work signals a willingness to present an enhanced appearance discrepant from one’s true, natural appearance. This also implies that the negative effort-morality link should be attenuated for more attractive women because the enhanced appearance resulting from high effort beauty work is seen as less discrepant from an attractive woman’s true, original appearance. We test this prediction in study 3 using two pictures of the same model, one where she appeared very attractive, and another where she appeared average in attractiveness (Dahl, Argo, and Morales 2012). We also included a no information condition where no image was

---

<sup>6</sup> Of note, we also included this excessiveness question in studies 3 – 5 as well and did not obtain differences between beauty work types across the high effort conditions, despite finding differences in perceived morality, so we do not discuss this additional measure in subsequent studies for brevity.

shown. This study ensures our effects hold when physical appearance is evident and provides more robust evidence of our effects in several other ways. First, to generalize beyond our four-item morality index, we added a nine-item trait measure drawn from Aquino and Reed's (2002) moral identity scale, which reflects the broader measure of traits seen as characteristic of a moral person. Second, we again examine the effect of effort on expectations of future immoral behaviors. Finally, we rule out vanity as an alternative explanation. According to Netemeyer, Burton and Lichtenstein (1995), physical vanity is "an excessive concern for, and/or a positive (and perhaps inflated) view of, one's physical appearance" (p. 612). Thus, extensive effort put toward enhancing physical attractiveness, regardless of baseline attractiveness, should reflect high levels of vanity. However, if attractiveness level (i.e., the perceived degree of discrepancy) and effort interact to affect perceived morality but not vanity, these constructs likely tap into different processes.

## Method

456 Mechanical Turk participants (49.7% female,  $M_{Age} = 36.0$ ) were randomly assigned to a 2 (effort: high, low)  $\times$  3 (attractiveness: high, average, no information) between-subjects design. Participants were asked to form an impression of a woman named "Karen" by reading a passage describing her daily morning routine. These passages were the same as the high and low effort conditions used in study 1B, except that we reduced the time spent on cosmetics in the high effort condition to an hour and a half (from an hour and forty-five minutes) to provide a more conservative test of our predictions. The low effort condition remained at 10 minutes. In the average and attractive conditions, participants were also shown an image of Karen (see

Appendix D).<sup>7</sup> We counter-balanced the order of the passage and image between participants, but order did not interact to affect the dependent variables ( $p > .75$  on perceived morality,  $p > .63$  on perceived misrepresentation and  $p \geq .11$  on anticipated immoral behaviors) so we do not discuss it further. In the no information condition, participants were not shown an image.

After reading this passage, participants completed the same moral character ( $\alpha = .91$ ) and misrepresentation ( $\alpha = .97$ ) measures used in study 2. They also rated Jenna's moral character using Aquino and Reed's (2002) nine-item trait measure (i.e., to what extent do you believe Jenna is [caring, compassionate, fair, friendly, generous, hardworking, helpful, honest, and kind]; Not at all = 1, Very much so = 7;  $\alpha = .96$ ). These traits were identified by Aquino and Reed (2002) to be perceived as characteristic of a moral person and rated as necessary for an individual to possess to be considered a moral person. We next asked participants to rate how likely they thought Jenna would be to engage in four immoral behaviors similar to those used in study 1B except that they were not exclusively work-related (i.e., inflate her business expense report, board a plane before her number was called, lie to an insurance company, lie to a supervisor about progress on a project; 1 = Not likely, 9 = Very likely;  $\alpha = .90$ ; adapted from Gino et al. 2010). To examine vanity, we included the five items adapted from Netemeyer et al.'s (1995) physical vanity scale (e.g., Karen is very concerned about her appearance;  $\alpha = .93$ ; see Appendix E). Finally, as an effort manipulation check, participants rated how much effort they thought Karen put into getting ready in the morning (1 = Very little effort, 7 = Very high effort).

## Results and Discussion

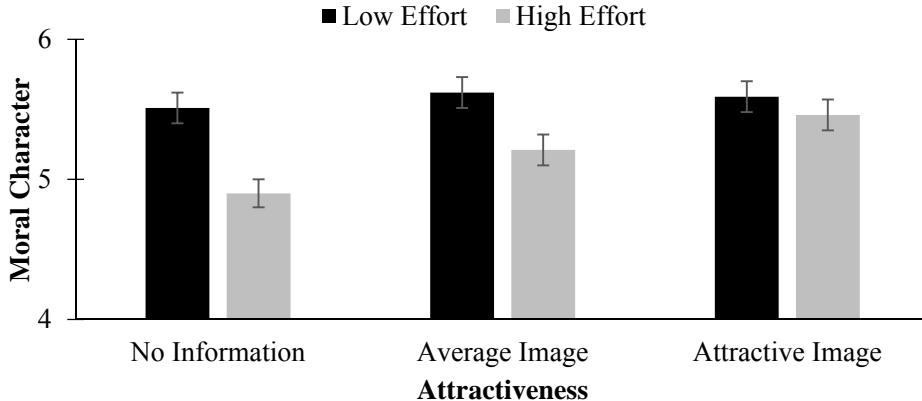
---

<sup>7</sup> A pretest ( $N = 100$ ) showed that the attractive image was rated higher on attractiveness (1 = Not at all attractive, 7 = Very attractive) than the average image ( $M_{high} = 4.98$ ,  $M_{average} = 4.17$ ;  $F(1, 98) = 9.35$ ;  $p < .01$ ).

We predicted Karen would be judged as less moral and more likely to engage in immoral behaviors when her beauty routine entailed high (vs. low) effort, and that this shift would be mediated by perceived misrepresentation. However, we expected these effects to be stronger when Karen was of average attractiveness and when no image of her was shown relative to when she was high in attractiveness. To test our predictions, we conducted a 2 (effort: low, high) x 3 (attractiveness: attractive, average, no image information) between-subjects ANOVA on all dependent variables, followed by serial mediation analyses.

*Moral character.* Analyses of our four-item morality scale and Aquino and Reed's nine-item scale yielded identical results. For brevity, we only report the Aquino and Reed measure in detail here and across all remaining studies; however, we have included the results from our four-item scale across all remaining studies in Web Appendix E. A 3 x 2 ANOVA on perceived moral character revealed main effects of effort ( $F(1, 450) = 19.52; p < .0001$ ) and attractiveness ( $F(2, 450) = 4.40; p = .01$ ), which were qualified by a marginal two-way interaction ( $F(2, 450) = 2.49; p = 0.08$ ; see Figure 3). Karen's moral character was rated more negatively when she engaged in high effort beauty work in both the average attractiveness ( $M_{\text{High}} = 5.21, M_{\text{Low}} = 5.62; F(1, 450) = 7.38, p < .01$ ) and no information conditions ( $M_{\text{High}} = 4.90, M_{\text{Low}} = 5.52; F(1, 450) = 16.18, p < .0001$ ). However, effort level had no effect on moral character in the high attractiveness condition ( $M_{\text{High}} = 5.46; M_{\text{Low}} = 5.59, F(1, 450) = .81; p = .37$ ).

FIGURE 3: STUDY 3: EFFORT X ATTRACTIVENES ON MORAL CHARACTER



*Misrepresentation.* The same analysis revealed main effects of effort ( $F(1, 450) = 90.66; p < .0001$ ) and attractiveness ( $F(2, 450) = 3.05; p = .05$ ) on perceived misrepresentation, which were qualified by a two-way interaction ( $F(2, 450) = 3.83; p = 0.02$ ). Karen was perceived as misrepresenting herself more when she put high effort into her appearance in both the average ( $M_{\text{High}} = 3.03, M_{\text{Low}} = 1.75; F(1, 450) = 41.44; p < .0001$ ) and no information conditions ( $M_{\text{High}} = 3.02, M_{\text{Low}} = 1.67; F(1, 450) = 45.94; p < .0001$ ). This was also the case for the attractive condition, but to a lesser extent ( $M_{\text{High}} = 2.39, M_{\text{Low}} = 1.75; F(1, 450) = 10.65; p = .001$ ), reflecting the significant interaction. These results suggest that people may recognize that all women engage in some degree of misrepresentation through effortful beauty work, but if a woman is attractive, the degree of misrepresentation is more limited and less likely to affect moral character judgments. Consistent with this notion, when Karen engaged in high effort beauty work, she was perceived to misrepresent herself significantly less when she was attractive (vs. average) in appearance ( $F(1, 450) = 10.54; p < .01$ ) and versus when no information was presented ( $F(1, 450) = 9.80; p < .01$ ). However, when Karen engaged in low effort beauty work, attractiveness did not affect misrepresentation (all  $p > .69$ ).

*Immoral behaviors.* We found a main effect of effort ( $F(1, 450) = 27.57, p < .0001$ ) and the predicted two-way interaction ( $F(2, 450) = 4.25, p = 0.01$ ) on anticipated immoral behaviors. Karen was rated as more likely to engage in immoral behaviors under high (vs. low) effort when she was average in attractiveness ( $M_{\text{High}} = 3.55, M_{\text{Low}} = 2.80; F(1, 450) = 9.02, p < .01$ ) and when no image was presented ( $M_{\text{High}} = 3.88, M_{\text{Low}} = 2.60; F(1, 450) = 25.87, p < .0001$ ), but not when she was high in attractiveness ( $M_{\text{High}} = 3.10, M_{\text{Low}} = 2.86; F(1, 450) = .97, p = .32$ ).

*Moderated serial mediation.* Based on our conceptualization, the effect of effortful beauty work on misrepresentation and judgments of moral character should be attenuated when Karen is highly attractive, and further, should have downstream consequences for future immoral behaviors. We conducted a moderated serial mediation analysis (Blanchard, Carlson, and Hyodo 2016) to test our focal pathway: high (vs. low) effort beauty work → perceived misrepresentation → perceived moral character → expectations of immoral behaviors. Because the average attractiveness and no information conditions were not theoretically or empirically distinct, we collapsed across these conditions, though the same results hold if they are examined separately. We compared the serial mediation pathway of the combined average attractiveness and no information conditions to that of the high attractiveness condition in a moderated serial mediation analysis, with effort as the independent variable, attractiveness as the moderator, misrepresentation and moral character as serial mediators, and expectations of moral behaviors as the dependent variable.

We first examine the combined average attractiveness/no information condition. The serial mediation pathway, high (vs. low) effort beauty work → perceived misrepresentation → perceived moral character → expectations of immoral behaviors, was significant ( $B = .24, \text{CI}_{95}: .15, .35$ ). There was also a significant indirect effect solely through misrepresentation ( $B = .74,$

$\text{CI}_{95}$ : .78, 1.27). The indirect effect solely through moral character was not significant ( $B = .04$ ,  $\text{CI}_{95}$ : -.08, .16). In the high attractiveness condition, the same pattern of effects held, but was considerably attenuated, supporting the notion that attractiveness provides a buffer for the negative effort-morality link. Specifically, the serial mediation pathway coefficient was halved ( $B = .12$ ,  $\text{CI}_{95}$ : .05, .22), as was the indirect effect solely through misrepresentation ( $B = .36$ ,  $\text{CI}_{95}$ : .17, .59). As in the combined condition, there was no evidence of mediation solely through judgments of moral character ( $B = -.04$ ,  $\text{CI}_{95}$ : -.20, .10). This suggests that effortful beauty work only affects anticipated immoral behaviors through changing perceptions of misrepresentation.

*Vanity.* Results revealed a main effect of effort on ratings of vanity whereby Karen was rated as more vain in the high (vs. low) effort condition ( $M_{\text{High}} = 6.03$ ,  $M_{\text{Low}} = 4.13$ ;  $F(1, 450) = 344.02$ ,  $p < .0001$ ). There was also a main effect of attractiveness ( $F(2, 450) = 7.42$ ,  $p < .001$ ) whereby Karen was rated as less vain in the average (vs. attractive) condition ( $M_{\text{Avg.}} = 4.80$ ,  $M_{\text{Attractive}} = 5.25$ ;  $F(1, 450) = 12.48$ ,  $p < .001$ ) and versus the no information condition ( $M_{\text{No Info}} = 5.19$ ;  $F(1, 450) = 9.58$ ,  $p < .01$ ). There was no difference in the attractive and no information conditions ( $F < 1$ ). Critically, there was no two-way interaction ( $F(2, 450) = .39$ , *ns*).

*Discussion.* As expected, when Karen was average in attractiveness or no image of her was presented and her cosmetics routine was described as high (vs. low) effort, participants rated her as more misrepresentative, less moral, and more likely to engage in immoral behaviors. However, when Karen was high in attractiveness, her perceived morality and likelihood of engaging in immoral behaviors was no longer affected. Our results suggest that the key difference between average and attractive evaluation targets is how much their effortful beauty work changes perceptions of misrepresentation. When women are average in attractiveness or no appearance information is given, engaging in an effortful cosmetics routine increases

misrepresentation, which leads to derogations of moral character and anticipation of future immoral behaviors. When women are attractive, engaging in effortful beauty work does affect ratings of misrepresentation, but this change is insufficient to shape perceived moral character or behaviors, suggesting that consumers have a tolerance or expectation of some discrepancy between the unadulterated and made-up self. These results provide further support for misrepresentation as the driver of the negative effort-morality link in beauty work. Study 3 also demonstrates that perceived vanity is not operating in the same manner as perceived morality. While perceived morality was moderated by level of attractiveness (i.e., the perceived magnitude of the discrepancy), there was no such interaction for vanity. Having established the moderating role of transformativeness, we next examine the role of transience.

#### **STUDY 4**

In study 4, we build on our findings in two ways. First, we provide further support for our proposed process by manipulating the extent to which effortful beauty work leads to transient changes. As discussed in our theorizing, temporary increases in physical attractiveness are more likely to be construed as superficial and hence, a misrepresentation of one's true self. We compare the effect of effortful beauty work in cosmetics to that in exercise, where the results of extensive beauty work are more enduring. Importantly, in both conditions, we specifically state that the woman engages in the behavior to enhance her appearance (as opposed to other intrinsic goals). We expect that high (vs. low) effort in cosmetics (and not exercise) will increase perceived misrepresentation and subsequent negative judgments of morality because only with cosmetics is physical appearance temporarily changed and therefore misrepresentative of true appearance. With exercise, improvements made to physical appearance are more enduring and

not easily reversed at the end of the day, limiting the sense of misrepresentation. In fact, as alluded to previously, effortful exercise may be seen as a sign of good moral character because of longstanding associations between wellness and morality (Whorton 1982) and exercise and high self-control, which is also associated with strong moral character (Baumeister and Exline 2000). Lastly, we again rule out vanity as an alternative explanation for our effects.

## Method

202 Mechanical Turk participants (38.8% female,  $M_{Age} = 34.4$ ) completed this 2 (effort: high, low)  $\times$  2 (beauty work type: cosmetics, exercise) between-subjects experiment. In the cosmetics condition, participants read the same morning routine passage as in study 3 except the woman's name was Jenna. In the exercise condition, participants read that Jenna spent either an hour and a half doing an intense workout (high effort) or 10 minutes doing low impact exercises (low effort; see Appendix F). In both conditions, participants read that Jenna engaged in the cosmetics or exercise routine because she "likes to make sure that she looks good and feels positive about the way she looks" to make clear that her ultimate goal was to enhance her attractiveness. A pretest confirmed that the cosmetics routine was rated as higher in transience than exercise but the same on transformativeness.<sup>8</sup> Next, participants completed the same measures of morality (four-item:  $\alpha = .92$ , Aquino & Reed:  $\alpha = .95$ ), misrepresentation ( $\alpha = .96$ ), immoral behaviors ( $\alpha = .86$ ), vanity ( $\alpha = .91$ ), and effort used in study 3.

---

<sup>8</sup> Participants ( $N = 104$ ) were randomly assigned to read one of the vignettes from study 4 with the effort manipulation removed. A one-way ANOVA (cosmetics vs. exercise) revealed no difference in transformativeness between the two domains ( $F(1, 102) = .02; p = .89$ ). However, exercise was rated as leading to more permanent (i.e., less transient) outcomes than cosmetics ( $M_{Cosmetics} = 2.94, M_{Exercise} = 5.39; F(1, 102) = 127.09, p < .0001$ ). See Web Appendix C for procedural details, measures and results.

## Results and Discussion

We predicted that Jenna would be judged as misrepresenting herself to a greater extent, less moral, and more likely to participate in immoral behaviors when her morning routine involved high (vs. low) effort, but only for the cosmetics and not the exercise routine. To test our predictions, we analyzed each of our dependent variables with a 2 (effort: high, low) x 2 (beauty work type: cosmetics, exercise) ANOVA.

*Effort manipulation check.* Analysis of the effort manipulation check yielded significant main effects of effort ( $F(1, 197) = 170.31, p < .0001$ ) and beauty work type ( $F(1, 197) = 38.82, p < .0001$ ), as well as a two-way interaction ( $F(1, 197) = 28.86, p < .0001$ ).<sup>9</sup> Confirming that our effort manipulation was successful, the high versus low effort daily routine was rated as more effortful in both the cosmetics ( $M_{\text{High}} = 6.40, M_{\text{Low}} = 3.43; F(1, 197) = 167.22, p < .0001$ ) and exercise conditions ( $M_{\text{High}} = 6.54, M_{\text{Low}} = 5.30; F(1, 197) = 29.92, p < .0001$ ). Consistent with the notion that exercise is generally perceived as effortful (Dishman 1991), the low effort routine was rated as more effortful in the exercise (vs. cosmetics) condition ( $F(1, 197) = 66.33, p < .0001$ ) while this was not the case with the high effort routines ( $F(1, 197) = .37, p = .54$ ). Importantly, because our focus is on the effect of effort within each domain, we do not expect this difference to compromise our results.

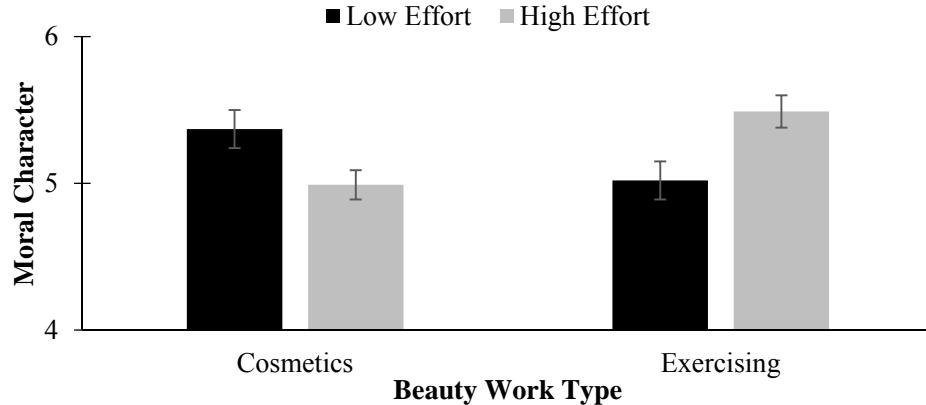
*Moral character.* Analysis of Aquino and Reed's (2002) scale revealed only a significant two-way interaction ( $F(1, 198) = 10.50, p = 0.001$ ; see Figure 4). In the cosmetics condition, participants rated Jenna's moral character less favorably when she engaged in high (vs. low) effort ( $M_{\text{High}} = 4.99, M_{\text{Low}} = 5.37; F(1, 198) = 4.03, p = .05$ ). However, the pattern reversed in the

---

<sup>9</sup> One participant failed to answer the effort manipulation check.

exercise condition such that Jenna's moral character was rated *more* favorably when she engaged in higher effort ( $M_{\text{High}} = 5.49$ ,  $M_{\text{Low}} = 5.02$ ;  $F(1, 198) = 6.67$ ,  $p = 0.01$ ).

FIGURE 4. STUDY 4: EFFORT X BEAUTY WORK TYPE ON MORAL CHARACTER



*Misrepresentation.* Results revealed only a two-way interaction ( $F(1, 198) = 22.99$ ,  $p < .0001$ ). While with cosmetics, participants rated Jenna higher on misrepresentativeness when her routine entailed higher effort ( $M_{\text{High}} = 2.95$ ,  $M_{\text{Low}} = 1.87$ ;  $F(1, 198) = 17.24$ ,  $p < .0001$ ), this effect reversed in the exercise condition ( $M_{\text{High}} = 2.01$ ,  $M_{\text{Low}} = 2.68$ ;  $F(1, 198) = 6.83$ ,  $p < 0.01$ ).

*Immoral behaviors.* Analysis revealed only a significant two-way interaction ( $F(1, 198) = 6.23$ ,  $p = 0.01$ ). While with cosmetics, participants rated Jenna as more likely to engage in immoral behaviors under higher effort ( $M_{\text{High}} = 3.78$ ,  $M_{\text{Low}} = 3.16$ ;  $F(1, 198) = 3.93$ ,  $p = .05$ ), there was only a directional effect with exercise ( $M_{\text{High}} = 3.33$ ,  $M_{\text{Low}} = 3.80$ ;  $F(1, 198) = 3.40$ ,  $p = .12$ ).

*Moderated serial mediation.* As in study 3, we examine the serial mediation pathway: high (vs. low) effort beauty work → perceived misrepresentation → perceived moral character → expectations of immoral behaviors. We expect this mediation pattern to hold only with cosmetics, where effortful beauty work results in more transient change, but not with exercise, where high effort leads to more permanent changes. Employing the same moderated serial

mediation analysis as study 3, we used effort as the independent variable, beauty work type as the moderator, misrepresentation and moral character as serial mediators, and expectations of immoral behaviors as the dependent variable.

We first examine the cosmetics condition. We tested the conditional indirect effect of effort on behaviors through the serial mediation pathway described above and found it was significant ( $B = .14$ ,  $CI_{95}: .06, .29$ ), as was the indirect effect solely through misrepresentation ( $B = .67$ ,  $CI_{95}: .35, 1.10$ ). There was no evidence that morality alone mediated this pathway ( $B = .02$ ,  $CI_{95}: -.14, .19$ ). The exercise condition revealed the reverse pattern: the serial mediation pathway on expectations of immoral behaviors was significant but negative ( $B = -.09$ ,  $CI_{95}: -.21, -.03$ ), as was the sign for the significant indirect effect of misrepresentation alone ( $B = -.41$ ,  $CI_{95}: -.75, -.12$ ). Notably, this reversal of valence reveals that while effort increased misrepresentation ratings within cosmetics, it actually decreased misrepresentation ratings within exercise. The exercise condition also showed no evidence of significant mediation solely through moral character ( $B = -.12$ ,  $CI_{95}: -.33, .01$ ).

*Vanity.* Analysis revealed a main effect of effort ( $F(1, 198) = 126.34, p < .0001$ ). As expected, higher effort led to higher ratings of vanity in both the cosmetics ( $M_{High} = 6.03, M_{Low} = 3.73; F(1, 198) = 164.76, p < .0001$ ) and exercise conditions ( $M_{High} = 6.08, M_{Low} = 5.56; F(1, 198) = 8.78, p < 0.01$ ). A main effect of beauty work type also emerged where Jenna was rated lower on vanity in the cosmetics relative to the exercise domain ( $F(1, 198) = 55.95, p < .0001$ ). Finally, there was also a significant two-way interaction ( $F(1, 198) = 50.28, p < .0001$ ), which was driven by lower ratings of vanity in the cosmetics versus exercise domain in the low effort ( $M_{Cosmetics} = 3.73, M_{Exercise} = 5.56; F(1, 198) = 105.12, p < .0001$ ) but not the high effort conditions ( $M_{Cosmetics} = 6.03, M_{Exercise} = 6.08; F(1, 198) = .08, p = .78$ ). Given the interaction, we

also ran a moderated serial mediation with vanity replacing misrepresentation as the first mediator. The indirect effect was not significant for cosmetics ( $B = -.16$ ,  $CI_{95} = -.47, .10$ ) or exercise ( $B = -.04$ ,  $CI_{95} = -.14, .02$ ), nor was there evidence of a mediating effect solely through vanity for either cosmetics ( $B = -.11$ ,  $CI_{95} = -.63, .42$ ) or exercise ( $B = -.02$ ,  $CI_{95} = -.17, .09$ ). In sum, although effort and beauty work type did interact to influence participants' ratings of vanity, the pattern of results was very different from that found for ratings of morality and misrepresentation.

*Discussion.* The results of study 4 offer further support for the notion that misrepresentation underlies the effect of effort on judgements of morality and extend our previous findings by showing that these effects only hold for beauty work that results in relatively transient changes to one's appearance. Our results show that the key difference between the beauty work performed in cosmetics and exercise is how effort relates to perceptions of misrepresentation. Within cosmetics, where beauty work leads to only temporary changes in appearance, high effort leads to higher perceptions of misrepresentation. In contrast, within exercise, where beauty work leads to more permanent changes to appearance, high effort leads to *lower* perceptions of misrepresentation. This occurs because the transformation that results from exercise reflects a real and lasting change to appearance and is therefore more true to (and hence less misrepresentative of) the self. Even though effort conveys a different signal within cosmetics and exercise, our moderated serial mediation analysis suggests that the relationship between misrepresentation, moral character, and expectations of immoral behaviors remains the same. Within both cosmetics and exercise, misrepresentation was negatively related to perceived moral character, which shaped expectations of immoral behaviors. Finally, our results show that high effort led to higher ratings of vanity within both cosmetics and exercise, contrasting from the

pattern of effects found for our other variables. Further, vanity did not mediate the effect of effort on expectations of moral behavior through ratings of moral character. In sum, perceived vanity does not appear to be a part of the process shaping the effect of effort on perceptions of morality.

## STUDY 5

In our final two studies, we examine our proposed boundary condition – the salience of external causes. According to our theory, a woman's moral character is judged more negatively following effortful beauty work because her actions are assumed to be driven by her internal willingness to misrepresent herself to others. This is consistent with people's tendency to attribute outward behavior to internal dispositions (Jones and Davis 1965; Gilbert and Malone 1995). However, we propose that if observers are provided with a situational rationale for why a woman is engaging in effortful beauty work, this can change how her behavior is interpreted and mitigate dispositional attributions of misrepresentation and poor moral character. We test our predictions in study 5 by introducing a new condition in which Jenna is getting ready for a barbecue where potential employers will be present. We predict that being told that Jenna is hoping to make a good first impression on these individuals will reduce the negative effect effortful beauty work has on judgments of moral character.

### Method

298 Mechanical Turk participants (55.0% female,  $M_{Age} = 34.6$ ) completed this study, which employed a 2 (effort: high, low)  $\times$  2 (beauty work attribution: internal, external) between-subjects design. Participants read the same high and low effort vignettes used in the cosmetics domain from study 2. Participants in the internal attribution condition did not read any additional

information. In the external attribution condition, participants also read that Jenna was hoping to find a sales job, and that the host of the barbecue had invited a number of friends from a medical sales firm that was currently hiring (see Appendix G). Furthermore, she knew that energy and organizational skills were important for the position, and wanted to present herself in a way to highlight these traits. As a conservative test of our predictions, we purposefully did not specify that Jenna was focused on her appearance, but rather on the broader notion of making a good impression within that context. A pretest revealed that this attributions manipulation was successful.<sup>10</sup> After reading the passage, participants completed the same morality (four-item:  $\alpha = .93$ ; Aquino & Reed:  $\alpha = .96$ ) and misrepresentation ( $\alpha = .96$ ) measures used previously.

## Results and Discussion

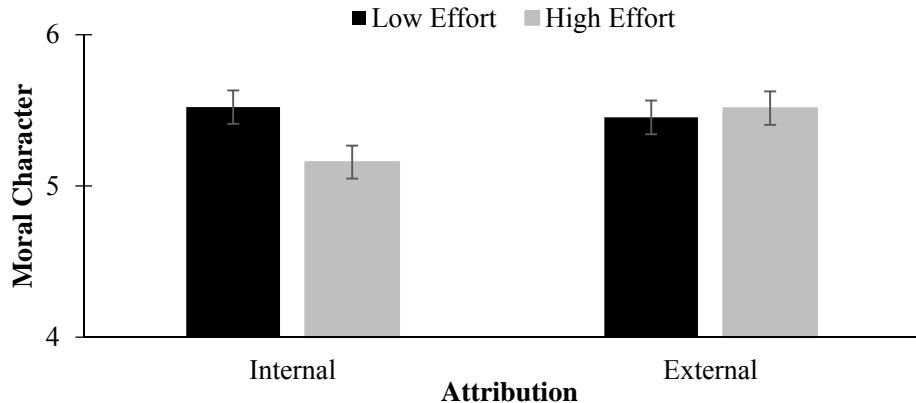
We predicted that engaging in high (vs. low) effort beauty work would lead to more negative judgments of moral character in the (baseline) internal attribution condition, but not in the external attribution condition (i.e., when an external cause was made salient). All dependent variables were analyzed using a 2 (effort: high, low) x 2 (attribution: internal, external) ANOVA.

*Moral character.* For the Aquino and Reed (2002) scale, only a marginal interaction between effort and attribution emerged ( $F(1, 294) = 3.69, p = .06$ ; see Figure 5). In the internal attribution condition, Jenna was rated as less moral in the higher effort condition ( $M_{\text{High}} = 5.16, M_{\text{Low}} = 5.52; F(1, 294) = 5.48, p = .02$ ). However, in the external attribution condition, there were no differences based on effort ( $M_{\text{High}} = 5.51, M_{\text{Low}} = 5.45; F(1, 294) = .15, ns$ ).

---

<sup>10</sup>The pretest ( $N = 159$ ) utilized the same design and vignettes as study 5. A 2 (effort: high vs. low) x 2 (attribution: internal vs. external) ANOVA on our attributions manipulation check measures revealed only a main effect of attribution where participants were more likely to attribute Jenna's behavior to external reasons in the external (vs. internal) condition ( $M_{\text{External}} = 3.58, M_{\text{Internal}} = 3.02; F(1, 155) = 12.19, p < .01$ ). See Web Appendix D for full procedural details, measures, and results.

FIGURE 5. STUDY 5: EFFORT X ATTRIBUTION ON MORAL CHARACTER



*Misrepresentation.* Results revealed only the predicted effort by attribution interaction ( $F(1, 294) = 5.85, p = .02$ ). In the internal attribution condition, participants rated Jenna as misrepresenting herself more in the higher effort condition ( $M_{\text{High}} = 2.44, M_{\text{Low}} = 1.87; F(1, 294) = 8.33, p < .01$ ). There was no difference in the external attribution condition ( $M_{\text{High}} = 2.03, M_{\text{Low}} = 2.15; F(1, 294) = .30, ns$ ).

*Moderated mediation.* We predicted that misrepresentation would mediate the effect of effort on ratings of moral character, but only in the internal attribution condition (i.e., when no external cause was made salient). To test this prediction, we ran a moderated mediation analysis (Model 8, Hayes 2013). As predicted, misrepresentation mediated the pathway between effort and moral character in the internal attribution condition ( $B = -.19, \text{CI}_{95} = -.37, -.05$ ), but not in the external attribution condition ( $B = .04, \text{CI}_{95} = -.08, .16$ ). The moderated mediation index ( $B = .22, \text{CI}_{95} = .05, .45$ ) also indicated that the indirect effect of effort was significantly different in the internal versus external attribution conditions.

*Discussion.* Study 5 provides further insight into how judgments of moral character are inferred from effortful beauty work by manipulating how effort is interpreted and whether the behavior can be attributed to an individual's internal disposition or to situational factors. In the

absence of salient situational causes for behavior and when internal attributions were more likely to be made, we replicated our prior results where exerting high effort on cosmetics increased perceptions of misrepresentation, which drove poorer ratings of moral character. However, when external attributions of Jenna's effort were made salient, effort no longer influenced judgments of misrepresentation or moral character. These results suggest that reinterpreting effortful beauty work as a response to situational factors may also mitigate any morality concerns consumers have related to purchasing beauty products that require high effort. In our final study, we explore this further in a make-up advertising context by manipulating whether the ad's message focuses on being oneself or making a good first impression and examine the consequences of this shift for purchase intent.

## **STUDY 6**

In our final study, we present participants with an ad for a real brand, Colorescience, and manipulate whether this line of make-up is described as requiring high or low effort to use. We examine only women who wear make-up and therefore have experience purchasing these products. We extend the generalizability of our effects by testing whether negative perceptions of women who use high effort beauty products extend to the high effort beauty products themselves. We predict that when Colorescience products are described as requiring high (vs. low) effort, participants will judge women who use Colorescience products as poorer in moral character because they are trying to misrepresent themselves. In turn, these negative judgments will dampen interest in purchasing Colorescience products. Like study 5, we also test the boundary condition of internal versus external attributions of beauty work. We expect reduced purchase intent for higher effort products when the ad emphasizes being oneself (internal

attribution), but when it stresses making a good first impression (external attribution), we expect the negative effect of effort to be mitigated. Because we are employing an ad, we also measure perceived product quality to ensure that effort does not impact perceived quality.

## Method

159 female Mechanical Turk participants ( $M_{Age} = 34.4$ ) completed this study in exchange for payment. The study employed a 2 (effort: high, low)  $\times$  2 (attribution: internal, external) between-subjects design. We created an ad promoting Colorescience that included a banner image, a slogan, and a description of the brand and its products. In the high effort conditions, participants read (in addition to other filler information) that the products typically take several precise steps to use and that most take less than 10 minutes to apply. In the low effort condition, participants read that the products typically take only a few simple steps to use and that most take less than 3 minutes to apply. Both conditions stated that the cosmetic provided flawless results. We manipulated whether participants would make internal versus external attributions for using Colorescience products with the ad's slogan. The internal attribution condition ad used the slogan, "Being Yourself Matters," while the external attribution condition used the slogan, "First Impressions Matter" (see Appendix H).

After reviewing the ad, participants were asked to rate people who used Colorescience on the same morality (four-item scale  $\alpha = .93$ ; Aquino and Reed scale  $\alpha = .95$ ) and misrepresentation ( $\alpha = .97$ ) measures used in our previous studies. Additionally, participants completed three items capturing purchase intent: 1) How interested would you be in learning more about Colorescience products? 2) How interested would you be in purchasing Colorescience products? 3) How much would you want to purchase Colorescience products?; 1 =

Not at all, 7 = Very much;  $\alpha = .96$ ). Participants then completed an effort manipulation check that asked how much effort was required to use Colorescience products (1 = Very little, 7 = Very much). Finally, participants rated whether they thought Colorescience products were of high quality (1 = Not at all, 7 = Very much) to rule out the possibility that our effects are due to people believing that products requiring higher effort are of lower quality. Lastly, to ensure that our participants were representative of potential buyers, we asked participants if they wore make-up (Yes, No).

## Results and Discussion

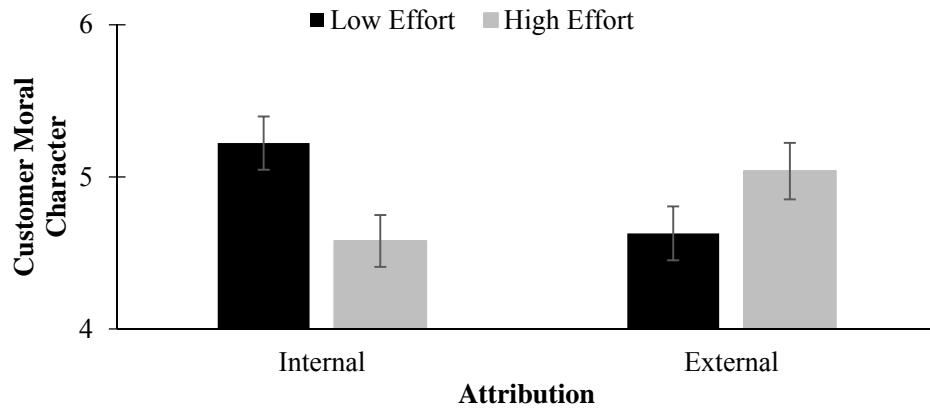
Eighteen participants indicated that they did not wear make-up and were removed from our analyses, leaving 141 female participants. We predicted that high relative to low effort products would lead participants to judge Colorescience customers as less moral and as misrepresenting themselves more in the internal attribution condition, but these effects would be mitigated in the external attribution condition. In turn, we expected these perceptions of misrepresentation and moral character to drive participants' own interest in purchasing Colorescience products. All dependent variables were analyzed using a 2 (effort: high, low)  $\times$  2 (attribution: internal, external) ANOVA, followed by serial mediation analyses.

*Manipulation check.* Confirming that our effort manipulation was successful, participants believed that Colorescience required more effort to use in the high relative to low effort conditions ( $M_{\text{High}} = 4.18$ ,  $M_{\text{Low}} = 2.49$ ;  $F(1, 137) = 47.80$ ,  $p < .0001$ ). There was no main effect of attribution ( $p = .36$ ) nor was there a significant effort  $\times$  attribution interaction ( $p = .33$ ).

*Colorescience customer moral character.* Results for the Aquino and Reed (2002) measure showed only a two-way interaction between effort and attribution ( $F(1, 137) = 8.82$ ,  $p <$

.01; see Figure 6). Planned contrasts revealed that participants in the internal attribution condition viewed Colorescience customers as less moral in the higher effort condition ( $M_{\text{High}} = 4.58$ ,  $M_{\text{Low}} = 5.22$ ;  $F(1, 137) = 6.94, p < .01$ ). However, participants in the external attributions condition showed no such difference ( $M_{\text{High}} = 5.04$ ,  $M_{\text{Low}} = 4.58$ ;  $F(1, 137) = 2.54, p = .11$ ).

FIGURE 6. STUDY 6: EFFORT X ATTRIBUTION ON MORAL CHARACTER



*Colorescience customer misrepresentation.* Results revealed only a main effect of effort ( $F(1, 137) = 6.05, p = .02$ ). Although the interaction was not significant ( $F(1, 137) = .73, p = .39$ ), analysis of planned contrasts revealed that, consistent with our theorizing, in the internal attributions condition, Colorescience customers were seen as misrepresenting themselves to a greater degree in the high (vs. low) effort conditions ( $M_{\text{High}} = 2.95$ ,  $M_{\text{Low}} = 2.12$ ;  $F(1, 137) = 5.62, p = .02$ ), while in the external attribution condition, there was no such difference ( $M_{\text{High}} = 2.95$ ,  $M_{\text{Low}} = 2.55$ ;  $F(1, 137) = 1.16, p = .28$ ).

*Purchase intent.* Results revealed only the predicted two-way interaction ( $F(1, 137) = 7.36, p < .01$ ). In the internal attribution condition, participants who viewed the high effort ad had lower purchase intentions ( $M_{\text{High}} = 4.31$ ,  $M_{\text{Low}} = 5.43$ ;  $F(1, 137) = 9.37, p < .01$ ); there was no difference in the external condition ( $M_{\text{High}} = 5.06$ ,  $M_{\text{Low}} = 4.74$ ;  $F(1, 137) = .69, p = ns$ ).

*Serial moderated mediation.* According to our conceptualization, in the internal attribution condition (i.e., when participants viewed the “be yourself” slogan), the effect of effort on purchase intentions should be mediated through perceived misrepresentation and moral character. However, this mediation pathway should not be significant in the external attribution condition (i.e., when participants viewed the “first impressions matter” slogan). To test this prediction, we again conducted a moderated serial mediation analysis (Blanchard et al. 2016). As predicted, in the internal attribution condition, the high (vs. low) effort → perceived misrepresentation → perceived moral character → purchase intent pathway was significant ( $B = -.10$ ,  $CI_{95}: -.30, -.01$ ). There was also evidence of mediation through only misrepresentation ( $B = -.22$ ,  $CI_{95}: -.51, -.05$ ) and morality ( $B = -.41$ ,  $CI_{95}: -.85, -.02$ ) individually. On the other hand, in the external attribution condition, the serial mediation pathway was not significant ( $B = -.05$ ,  $CI_{95}: -.20, .02$ ).

*Quality.* There were no significant effects of attribution, effort, or their interaction (all  $p > .14$ ) on quality ratings. Furthermore, there were no significant differences between the high versus low effort cosmetics in the internal attributions conditions ( $p = .26$ ) or external attributions conditions ( $p = .34$ ), ruling out the possibility that different perceptions of quality related to products that require high versus low effort contributed to our effects. Additionally, all prior results (including serial mediation) hold when controlling for perceived quality.

*Discussion.* The results of study 6 conceptually replicate study 5 and extend the generalizability of our effects to an advertising context. When Colorescience products were positioned as helping customers “be themselves,” thereby encouraging internal attributions, we replicated the results of our previous studies such that effortful beauty products led participants to rate customers of the advertised brand as engaging in greater misrepresentation and possessing

poorer moral character. In turn, misrepresentation and moral character ratings led to reduced purchase intentions for Colorescience when it required high versus low effort. However, when these products were positioned as helping customers make a good first impression and thus encouraging external attributions, effort did not significantly affect any of these variables. Taken together with study 5, study 6 also provides insight into why consumers might engage in more effortful beauty work and choose more effortful cosmetic products despite viewing them less favorably. That is, external goals may be more salient to participants in their own decisions to engage in transformative and transient beauty work, mitigating the effect effortful beauty work has on their own feelings of misrepresentation and moral character.

## **GENERAL DISCUSSION**

We present a framework that delineates when and why effortful beauty work leads to more negative judgments of moral character. Across seven studies, we show that effortful beauty work that leads to transformative and transient change can negatively impact judgments of moral character and expectations of future morality-related behaviors. This negative effect only holds for moral character judgments, and does not reflect a generalized sense of disapproval (S1A, S1B). Furthermore, we show that judgments of moral character are driven by perceptions of misrepresentation and can have downstream consequences for expectations of future immoral behaviors. Supporting the role of transformativeness (S2), we find that exerting high versus low effort in cosmetics and tanning leads to negative judgments of moral character. However, this is not the case with skincare, in which effort results in less transformative (but equally transient) changes in physical appearance. Bolstering support for the role of transformativeness (S3), these effects are mitigated for an attractive woman for whom effortful beauty work results in less

obvious change to her physical appearance. Focusing on transience (S4), we find that when the effort put toward improving one's appearance is seen as resulting in more enduring (i.e., less transient) changes, such as with exercise (vs. cosmetics), the previous effects of effortful beauty work reverse. We also identify an important boundary condition, showing that negative judgments of moral character are mitigated if effortful beauty work is attributed to situational constraints (in this case, the need to make a good first impression; S5). Furthermore, the negative effort-morality link generalizes to effortful beauty products and the more critical moral character judgments of those who use effortful beauty products influences consumers' own intent to purchase such products (S6).

*Theoretical contributions.* We believe our work makes several important contributions. Prior work has largely focused on the “beauty premium,” or the benefits that beauty garners, such as more positive trait inferences (e.g., Dion et al. 1972; Langlois et al. 2000) or higher wages (Hamermesh and Biddle 1994; Landy and Sigall 1974). However, this past research has assumed a more static notion of beauty. Given the incentives that physical attractiveness provides, it is natural that women invest significant effort to enhance their appearance. Indeed, recent research suggests that grooming plays a larger role in the beauty premium than previously anticipated (Wong and Penner 2016). While prior research has focused on identifying the various forms of beauty work (Kwan and Trautner 2009) and how women can use beauty work to achieve status and other social and professional rewards (Segal-Caspi et al. 2012; Wong and Penner 2016), our research focuses on perceptions of beauty work itself. To our knowledge, we are the first to show that the amount of effort exerted on certain types of beauty work is seen as diagnostic of a woman’s moral character. We demonstrate that the nature of the change resulting from beauty work determines the inferences people make about a woman’s morality. In doing so,

we identify specific beauty work types for which the negative effort-morality link is more (e.g., cosmetics, tanning) or less likely to occur (e.g., skincare, exercise). Furthermore, we show that shifting attributions of effortful beauty work from dispositional to situational mitigates the negative effort-morality link. Our findings contribute to a more nuanced understanding of how, when and why women's efforts to enhance their appearance are rewarded (as delineated by prior research) versus frowned upon (as identified by the present work).

Additional contributions of our research are our classification of beauty work as a specific form of effort that consumers engage in and our examination of the inferences people make surrounding this effort. As highlighted in our theorizing, though beauty work has not been previously conceptualized as effortful behavior, it can require significant time and physical or mental exertion. We find that certain types of effortful beauty work are viewed negatively—seen as misrepresentative and hence indicative of poorer moral character. Notably, this result contrasts with prior work that largely reveals consumers' appreciation of the effort that others put into specific products or displays (e.g., Kruger et al. 2004; Morales et al. 2005). Furthermore, recent work in the domain of nondurable goods (e.g., cupcakes, napkins) has even shown that people value beautiful products precisely because of the effort that went into creating them (Wu, Samper, Morales and Fitzsimons 2017). Interestingly, people have the opposite intuitions when considering the effort exerted to achieve an attractive physical appearance because such effort is seen as dishonest. In other words, while people value the effort put into making a product beautiful, they frown upon certain types of effort that go into making a person beautiful.

Relatedly, in demonstrating that beauty work can shape judgments of moral character, our results add to a growing body of work showing that moral judgments do not just stem from behaviors involving overt violations of moral rules or harm to others (e.g., Haidt, Koller, and

Dias 1993; Pizarro, Tannenbaum, and Uhlmann 2012), but can result from inferences made from relatively mundane consumer behaviors (Olson et al. 2016). In this manner, we integrate literature on personality trait inferences based on physical appearance (e.g., Dion et al., 1972; Langlois et al. 2000) with research on moral trait inferences based on specific behaviors (Reeder and Brewer 1979; Skowronski and Carlston 1979) to understand how physical appearance and behaviors can shape perceptions of morality. Further, by showing that people see enhancements to physical appearance as a misrepresentation of the true self, we suggest that even physical traits (as opposed to only psychological traits; Riis et al. 2008) can be tied to fundamental aspects of the self.

*Practical Implications.* In addition to our various contributions to theory, our work has a number of practical implications. Our studies suggest that to increase the desirability of appearance-enhancing products, marketers should strongly consider making lower effort perceptions more salient. Further, while our findings imply that cosmetics requiring higher effort may present a challenge to marketers and consumers with regard to their acceptability, our work also suggests routes through which effortful beauty work and related products may be made more desirable. Marketers can encourage consumers to view effortful beauty products as leading to more subtle and natural-looking enhancements to one's physical appearance, which may diminish the perceived transformativeness of high effort beauty work. This notion also suggests that products viewed as significantly enhancing or transforming should be framed as requiring lower effort to be more successful, or alternatively, as stemming from an external, situational motivation (e.g., making a good first impression), rather than an internal one. The results of study 6 directly show that emphasizing the role of an external factor in driving effortful beauty

work can minimize perceptions of misrepresentation and reduce consumers' reluctance to purchase beauty products requiring high effort.

*Future work.* We believe that our research can also be extended in various ways. For example, we examine beauty work that involves behaviors that people can reasonably perform on themselves to alter their appearance (i.e., applying cosmetics, styling hair, using self-tanner). Nonetheless, we believe our effects would hold even if these activities were not performed explicitly by oneself, such as getting hair or make-up done at a salon, insofar as the nature of the transformation is the same (i.e., one is not getting make-up tattooed onto their face or surgically changing an aspect of their body). Notably, the broader definition of beauty work (Kwan and Trautner 2009) does encompass behaviors that alter and improve an individual's physical appearance in more enduring ways requiring professional intervention, such as receiving Botox injections from one's doctor, obtaining breast implants, or other forms of plastic surgery. We expect that in these cases, women would be seen as transforming their unadulterated, or true, self in significant and seemingly artificial or synthetic ways, so they would be perceived as misrepresenting themselves to an even greater extent and thus as having poorer moral character. However, we recognize that our "transience" criterion is not fulfilled in that professional interventions make these changes permanent as opposed to fleeting. Thus, we expect that whether the change occurred through external intervention might be a boundary condition regarding the role of transience in our focal effect. Furthermore, there are likely additional antecedents and moderators for plastic surgery that we have not examined in our current work. For example, whether the surgery is performed for medical or aesthetic reasons and whether it was reconstructive or enhancing would likely play substantial roles in subsequent judgments.

While currently beyond the scope of our investigation, this would certainly be a promising avenue for future work as plastic surgery continues to become more popular.

Our research could also be extended to examine other contexts and consumers, namely marketing to aging women and to men. We purposefully focused on younger women because cosmetic use within this segment is most likely to focus on appearance enhancement (vs. anti-aging). However, it would also be interesting to examine how beauty work might be perceived differently if its goal is to restore appearance to how one “used” to look, as may be the case with cosmetics targeted at reducing the signs of aging. In this sense, judgments might be less harsh if effortful beauty work is framed as restoring a woman’s appearance to its original state and therefore recapturing aspects of the true self rather than misrepresenting it. Further, the availability of men’s beauty products, such as concealer or moisturizing products, are indicative of men’s growing concern with their appearance and participation in beauty work. Future research could also explore how beauty work performed by men (vs. women) is perceived.

Additionally, while we currently focus on how low versus high effort beauty work affects consumers’ interests in purchasing cosmetic products, it would be interesting to examine different behavioral outcomes. For example, might women who engage in effortful beauty work be more likely to conceal the amount of time they spend on grooming habits? Our pretest seemed to support this, yet it would be interesting to capture this in an interpersonal setting. Similarly, would someone who engaged in high effort beauty work pursue compensatory prosocial behaviors to be viewed more positively? While our current conceptualization focuses on judgments of others as opposed to oneself, it may be the case that the negative effort-morality link also holds for judgments of one’s own effortful beauty work. Notably, however, when judging one’s own behavior, people have additional access to and value their own internal

thoughts (e.g., intentions, goals; Jones and Nisbett 1972; Pronin 2009), which may shape whether individuals are likely to attribute their own effortful beauty work to internal versus external causes. In this sense, women may see their own effortful beauty work and use of beauty products as driven by specific external goals (e.g., an important meeting, a date, a job interview), which could mitigate the influence of even “misrepresentative” beauty work on moral character. Consistent with this notion, prior research on ability-enhancing products (e.g., ADHD or anti-anxiety medication) has shown that individuals tend to judge the use of these products as more ethical when assessing their own versus others’ behaviors (Williams and Steffel 2014).

Finally, our research on effortful beauty work explicitly focuses on the links between physical appearance, enhancement, and misrepresentation. However, it would also be interesting to explore whether the negative effort-morality link documented within beauty extends to any form of effort aimed at making superficial, surface-level changes as opposed to true, substantial changes. To the extent that such effort is seen as misrepresentative and disguising the true nature of the self, this could be a possibility.

In sum, we integrate research on physical attractiveness, person perception, beauty work and morality inferences to document the negative consequences that many women may face while trying to conform to society’s expectations of attractiveness and femininity. At its broadest level, our work highlights yet another way in which women face inherent contradictions in how they must look and behave already evident within various contexts such as the workplace or romantic relationships (Bernard 2016). We shed new light on the notion that women should appear feminine and attractive (and indeed, have many incentives to do so), yet should not give the impression that they expend extensive effort because doing so elicits more negative perceptions of moral character. These issues are important to consumers and marketers, as the

message that appearance enhancement is misrepresentative if it requires high effort is integral to marketing communications and continues to shape women's consumption patterns and the subsequent manners in which they are judged.

## APPENDIX A: STUDY 1A STIMULI

*Participants in both conditions read the following information:*

Jenna is a 24-year old woman living in a small city. She has a good job and an active social life. On the weekends, she likes to meet up with friends for dinner or drinks, catch up on her Netflix shows, and occasionally go shopping or hiking, depending on her mood.

During the week, Jenna gets up most mornings at 6:30 a.m. She showers and then listens to the radio as she gets ready for the day.

**Low Effort Condition**

She does not put a great deal of effort into her grooming routine. However, she likes to make sure that she looks good and feels positive about the way she looks, so she typically spends about ten minutes doing her make-up and styling her hair.

**High Effort Condition**

She puts a great deal of effort into her grooming routine. She likes to make sure that she looks good and feels positive about the way she looks, so she typically spends about an hour and forty-five minutes doing her make-up and styling her hair.

*Participants in both conditions then read the following information:*

After this, she picks out an outfit and grabs the papers and materials she needs for work. She pours herself a cup of coffee in a to-go mug and heads to the office.

## APPENDIX B: STUDY 1B STIMULI

*Study 1B was identical to 1A except for slight changes in wording to make the passage sound more natural. Thus, only the manipulations are included below.*

**Low Effort Condition**

She does not put a great deal of effort into her grooming routine. However, she likes to make sure that she looks good and feels positive about the way she looks, so she typically spends about ten minutes doing her make-up and styling her hair.

**High Effort Condition**

She puts a lot of effort into her grooming routine--she typically spends about an hour and forty-five minutes doing her make-up and styling her hair. She likes to make sure that she looks good and feels positive about the way she looks.

**Control Condition**

She likes to make sure that she looks good and feels positive about the way she looks.

## APPENDIX C: STUDY 2 STIMULI

*All participants read the following information:*

Jenna is a 24-year old woman living in a small city. She has a good job and an active social life. Jenna is attending a barbecue this afternoon. She needs to do a number of things before she goes out. First, she plans to spend the morning cleaning her apartment. During the early afternoon, she will likely go grocery shopping for the coming week and then catch up on email and news in front of her computer. Around 2 p.m., she'll eat a snack and straighten up the kitchen. Finally, around 4 p.m., Jenna plans to start getting ready to go to the barbecue. She plans to wear a casual top and skirt.

### **Cosmetics/Low Effort**

Though she feels a bit casual, she does not put too much effort into her hair or make-up. Before she heads out, she quickly brushes and styles her hair and applies her make-up. Then, she grabs a jacket and heads out the door.

### **Cosmetics/High Effort**

She feels a bit casual, so she puts a great deal of effort into her hair and make-up. Before she heads out, she takes a fair amount of time to carefully brush and then style her hair and then conscientiously applies her make-up. She finalizes her outfit, grabs a jacket and then heads out the door.

### **Tanning/Low Effort**

Though she feels a bit pale, she does not put too much effort into trying to look more bronzed all over. Before she heads out, she quickly applies some spray-on bronzer to her legs and lets it set briefly. She finalizes her outfit, grabs a jacket and then heads out the door.

### **Tanning/High Effort**

She feels a bit pale, so she puts a great deal of effort into trying to look more bronzed all over. Before she heads out, she takes a fair amount of time to carefully apply spray-on bronzer all over her legs and arms and then waits while it sets. She finalizes her outfit, grabs a jacket and then heads out the door.

### **Skincare/Low Effort**

Though she feels her skin is a bit dry, she does not put too much effort into a full skincare routine. Before she heads out, she quickly applies a skin cleanser and moisturizer to her face. She finalizes her outfit, grabs a jacket and then heads out the door.

### **Skincare/High Effort**

She feels her skin is a bit dry, so she puts a great deal of effort into a full skincare routine. Before she heads out, she takes a fair amount of time to carefully perform a full multi-step cleansing and moisturizing skin routine. She finalizes her outfit, grabs a jacket and then heads out the door.

## APPENDIX D: STUDY 3 IMAGE STIMULI

**High Attractiveness Condition**



**Average Attractiveness Condition**



## APPENDIX E: PHYSICAL VANITY SCALE (NETEMEYER ET AL. 1995)

Participants were asked to rate their agreement with the following items (1 = Completely disagree, 7 = Completely agree):

1. The way Karen looks is very important to her.
2. Karen is very concerned about her appearance.
3. Karen would feel embarrassed if she was around people and did not look her best.
4. Looking her best is worth the effort Karen puts in.
5. It is important to Karen that she always looks good.

## APPENDIX F: STUDY 4 STIMULI

*Participants in the high and low effort cosmetics conditions read the passages from study 1B. Participants in the high and low effort exercise conditions read the information below instead of the cosmetics information.*

### **Exercise/Low Effort**

She does not put a lot of effort into her workout. However, she likes to make sure that she looks good and feels positive about the way she looks, so she typically spends about ten minutes doing some light stretching and sit-ups before she gets ready for work.

### **Exercise/High Effort**

She puts a lot of effort into her workout--she typically spends about an hour and a half doing intense cardiovascular exercise before she gets ready for work. She likes to make sure that she looks good and feels positive about the way she looks.

## APPENDIX G: STUDY 5 STIMULI

*All participants read the following information:*

Jenna is a 24-year old woman living in a small city. She has a good job and an active social life. Jenna is attending a barbecue this afternoon. She needs to do a number of things before she goes out. First, she plans to spend the morning cleaning her apartment. During the early afternoon, she will likely go grocery shopping for the coming week and then catch up on email and news in front of her computer. Around 2 p.m., she'll eat a snack and straighten up the kitchen. Finally, around 4 p.m., Jenna plans to start getting ready to go to the barbecue. She plans to wear a casual top and skirt.

### **Cosmetics/Low Effort**

Though she feels a bit casual, she does not put too much effort into her hair or make-up. Before she heads out, she quickly brushes and styles her hair and applies her make-up. Then, she grabs a jacket and heads out the door.

### **Cosmetics/High Effort**

She feels a bit casual, so she puts a great deal of effort into her hair and make-up. Before she heads out, she takes a fair amount of time to carefully brush and then style her hair and then conscientiously applies her make-up. She finalizes her outfit, grabs a jacket and then heads out the door.

*In the external attribution conditions, participants read the additional paragraph, which appeared immediately before the effort manipulation paragraph.*

Jenna is interested in obtaining a medical sales representative position. She knows that energy and organizational skills are very important for these types of positions. The host mentioned that some friends who currently work in medical sales at a large local firm are planning to attend. She's also heard that the company is currently hiring, so she's excited to meet these people. She really wants to present herself in a way that highlights her energy and organizational skills.

## APPENDIX H: Study 6 Stimuli

### Internal Attribution/Low Effort



Colorescience is a line of cosmetics focused on helping consumers express their true selves, define their personality and shine among a crowd. The brand has a unique lineup of items that dazzle and delight, allowing you to customize your look. **Because being yourself matters.**

If your complexion is less-than-radiant, you don't need to overhaul your skin care routine to find that natural brightness. Instead, simply invest in one of Colorescience's products that can perfect your complexion. **Our products typically take only a few simple steps to use. Most take less than 3 minutes to apply and provide flawless results.**

Find the right Colorescience products for your needs, and enjoy experimenting with new looks. With a few easy techniques, you'll see incredible results in a few simple steps. Effortlessly apply our foundation, adding extra over problem areas. You'll be ready to go in 3 minutes or less. To refresh your look, you can apply powder throughout the day.

**Colorescience: Effortless application, impeccable results.**

### Internal Attribution/High Effort



Colorescience is a line of cosmetics focused on helping consumers express their true selves, define their personality and shine among a crowd. The brand has a unique lineup of items that dazzle and delight, allowing you to customize your look. **Because being yourself matters.**

If your complexion is less-than-radiant, you don't need to overhaul your skin care routine to find that natural brightness. Instead, simply invest in one of Colorescience's products that can perfect your complexion. **Our products typically take several precise steps to use. Most take less than 10 minutes to apply and provide flawless results.**

Find the right Colorescience products for your needs, and enjoy experimenting with new looks. With several precise techniques, you'll see incredible results in a few specific steps. Carefully apply our foundation and gradually add extra over problem areas. You'll be ready to go in 10 minutes. To refresh your look, always apply powder throughout the day.

**Colorescience: Conscientious application, impeccable results.**

## External Attribution/Low Effort



Colorescience is a line of cosmetics focused on helping consumers express their true selves, define their personality and shine among a crowd. The brand has a unique lineup of items that dazzle and delight, allowing you to customize your look. **Because first impressions matter.**

If your complexion is less-than-radiant, you don't need to overhaul your skin care routine to find that natural brightness. Instead, simply invest in one of Colorescience's products that can perfect your complexion. Our products typically take only a few simple steps to use. Most take less than 3 minutes to apply and provide flawless results.

Find the right Colorescience products for your needs, and enjoy experimenting with new looks. With a few easy techniques, you'll see incredible results in a few simple steps. Effortlessly apply our foundation, adding extra over problem areas. You'll be ready to go in 3 minutes or less. To refresh your look, you can apply powder throughout the day.

**Colorescience: Effortless application, impeccable results.**

## External Attribution/High Effort



Colorescience is a line of cosmetics focused on helping consumers express their true selves, define their personality and shine among a crowd. The brand has a unique lineup of items that dazzle and delight, allowing you to customize your look. **Because first impressions matter.**

If your complexion is less-than-radiant, you don't need to overhaul your skin care routine to find that natural brightness. Instead, simply invest in one of Colorescience's products that can perfect your complexion. Our products typically take several precise steps to use. Most take less than 10 minutes to apply and provide flawless results.

Find the right Colorescience products for your needs, and enjoy experimenting with new looks. With several precise techniques, you'll see incredible results in a few specific steps. Carefully apply our foundation and gradually add extra over problem areas. You'll be ready to go in 10 minutes. To refresh your look, always apply powder throughout the day.

**Colorescience: Conscientious application, impeccable results.**

## References

- Aquino, Karl, and Americus Reed II (2002), "The Self-Importance of Moral Identity," *Journal of Personality and Social Psychology*, 83 (6), 1423-40.
- Baumeister, Roy F., and Julie Juola Exline (2000), "Self-Control, Morality, and Human Strength," *Journal of Social and Clinical Psychology*, 19 (1), 29-42.
- Bernard, Daisy (2016), "These Illustrations Show the Conflicting Expectations Women Face Every Day," <http://thetab.com/uk/2016/08/30/illustrations-show-contradictory-advice-given-women-16815>.
- Blanchard, Simon J., Kurt A. Carlson, and Jamie D. Hyodo (2016), "The Favor Request Effect: Requesting a Favor from Consumers to Seal the Deal," *Journal of Consumer Research*, 42 (6), 985-1001.
- Byrne, Donn, Oliver London, and Keith Reeves (1968), "The Effects of Physical Attractiveness, Sex, and Attitude Similarity on Interpersonal Attraction," *Journal of Personality*, 36 (2), 259-71
- Cardellino, Carly (2015), "Why "Baking" Your Makeup Is the Smartest Thing You Could Be Doing to Your Face," *Cosmopolitan*, <http://www.cosmopolitan.com/style-beauty/beauty/how-to/a42810/how-to-bake-your-makeup/>.
- Chang, Bee-Shyuan (2011), "A Longer Stairway to a Better Complexion?" The New York Times, <http://www.nytimes.com/2011/11/17/fashion/new-steps-for-skin-care-regimens-skin-deep.html>.
- Chapkis, Wendy (1986), "Beauty Secrets: Women and the Politics of Appearance," Boston, MA: South End Press
- Corson, Richard (2003), *Fashions in Makeup, from Ancient to Modern Times*. Peter Owen Ltd, 2003.
- Cutright, Keisha M., and Adriana Samper (2014), "Doing it the Hard Way: How Low Control Drives Preferences for High-Effort Products and Services," *Journal of Consumer Research*, 41 (3), 730-45.
- Dahl, Darren W., Jennifer J. Argo, and Andrea C. Morales (2012), "Social Information in the Retail Environment: The Importance of Consumption Alignment, Referent Identity, and Self-Esteem," *Journal of Consumer Research*, 38 (5), 860-71.

- Dellinger, Kirsten, and Christine L. Williams (1997), "Makeup at Work: Negotiating Appearance Rules in the Workplace," *Gender & Society*, 11 (2), 151-77.
- Dion, Karen K., and Steven Stein (1978), "Physical Attractiveness and Interpersonal Influence," *Journal of Experimental Social Psychology*, 14 (1), 97-108.
- Dion, Karen, Ellen Berscheid, and Walster, Elaine (1972), "What is Beautiful is Good," *Journal of Personality and Social Psychology*, 24 (3), 285-90.
- Dishman, Rod K. (1991), "Increasing and Maintaining Exercise and Physical Activity," *Behavior Therapy*, 22 (3), 345-78.
- Elder Jr, Glen H (1969), "Appearance and Education in Marriage Mobility," *American Sociological Review*, 34 (4), 519-33.
- Etcoff, Nancy L., Shannon Stock, Lauren E. Haley, Sarah A. Vickery, and David M. House (2011), "Cosmetics as a Feature of the Extended Human Phenotype: Modulation of the Perception of Biologically Important Facial Signals," *PloS One*, 6 (10), e25656.
- Fredrickson. Barbara, and Tomi-Ann Roberts (1997), "Objectification Theory: Toward Understanding Women's Lived Experiences and Mental Health Risks," *Psychology of Women Quarterly*, 21 (2), 173-206.
- Gilbert, Daniel T., and Patrick S. Malone (1995), "The Correspondence Bias," *Psychological Bulletin*, 117 (1), 21-38.
- Gimlin, Debra (2002), *Body Work: Beauty and Self-Image in American Culture*. University of California Press.
- Gino, Francesca, and Max H. Bazerman (2009), "When Misconduct Goes Unnoticed: The Acceptability of Gradual Erosion in Others' Unethical Behavior," *Journal of Experimental Social Psychology*, 45 (4), 708-719.
- Gino, Francesca, Michael I. Norton, and Dan Ariely (2010), "The Counterfeit Self: The Deceptive Costs of Faking it," *Psychological Science*, 21 (5), 712-20.
- Goodwin, Geoffrey P., Jared Piazza, and Paul Rozin (2014), "Moral Character Predominates in Person Perception and Evaluation," *Journal of Personality and Social Psychology*, 106 (1), 148-68.
- Haidt, Jonathan (2001), "The Emotional Dog and its Rational Tail: A Social Intuitionist Approach to Moral Judgment," *Psychological Review*, 108 (4), 814 -34.

- Haidt, Jonathan, Silvia Helena Koller, and Maria G. Dias (1993), "Affect, Culture, and Morality, or Is It Wrong to Eat Your Dog?" *Journal of Personality and Social Psychology*, 65 (4), 613-28.
- Hamermesh, Daniel, and Jeff E. Biddle (1994), "Beauty and the Labor Market," *The American Economic Review*, 84 (5), 1174-94.
- Hayes, Andrew F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-based Approach*. Guilford Press, 2013.
- Johnson, Joel T., Michael D. Robinson, and Emilie B. Mitchell (2004), "Inferences About the Authentic Self: When do Actions Say More than Mental States?," *Journal of Personality and Social Psychology*, 87 (5), 615-30.
- Jones, Thomas M. (1991), "Ethical Decision Making by Individuals in Organizations: An Issue-Contingent model," *Academy of Management Review*, 16 (2), 366-395.
- Jones, Edward E., and Keith E. Davis (1965), "From Acts to Dispositions the Attribution Process in Person Perception," *Advances in Experimental Social Psychology*, 2, 219-66.
- Jones, Edward E., and Richard E. Nisbett (1972), "The Actor and the Observer: Divergent Perceptions of the Causes of Behavior," In E. E. Jones, D. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the Causes of Behavior* (pp. 79-94). Morristown, NJ: General Learning Press.
- Kelley, Harold H. (1973), "The Processes of Causal Attribution," *American Psychologist*, 28 (2), 107-28.
- Kleck, Robert E., and Carin Rubenstein (1975), "Physical Attractiveness, Perceived Attitude Similarity, and Interpersonal Attraction in an Opposite-Sex Encounter," *Journal of Personality and Social Psychology*, 31 (1), 107-14.
- Kruger, Justin, Derrick Wirtz, Leaf Van Boven, and T. William Altermatt (2004), "The Effort Heuristic," *Journal of Experimental Social Psychology*, 40 (1), 91-8.
- Kwan, Samantha, and Mary Nell Trautner (2009), "Beauty Work: Individual and Institutional Rewards, the Reproduction of Gender, and Questions of Agency," *Sociology Compass*, 3 (1), 49-71.
- Landy, David, and Harold Sigall (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.

- Langlois, Judith H., Lisa Kalakanis, Adam J. Rubenstein, Andrea Larson, Monica Hallam, and Monica Smoot (2000), "Maxims or Myths of Beauty? A Meta-Analytic and Theoretical Review," *Psychological Bulletin*, 126 (3), 390-423.
- Mannino, Brynn (2014), "TODAY/AOL 'Ideal to Real' Body Image Survey Results," February 14, 2014; <https://www.aol.com/article/2014/02/24/loveyourselfie/20836450/>.
- McCrae, Robert R. and Paul T. Costa Jr. (1994), "The Stability of Personality: Observations and Evaluations," *Psychological Science*, 3 (6) 173-5.
- Miller, Carol T. (1988), "Categorization and the Physical Attractiveness Stereotype," *Social Cognition*, 6 (3), 231-51.
- Morales, Andrea (2005), "Giving Firms an "E" for effort: Consumer Responses to High-Effort Firms," *Journal of Consumer Research*, 31 (4), 806-12.
- Moreau, C. Page, Leff Bonney, and Kelly B. Herd (2011). "It's the thought (and the effort) that counts: How customizing for others differs from customizing for oneself." *Journal of Marketing*, 75 (5), 120-133.
- Netemeyer, Richard G., Scot Burton, and Donald R. Lichtenstein (1995), "Trait Aspects of Vanity: Measurement and Relevance to Consumer Behavior," *Journal of Consumer Research*, 21 (4), 612-26.
- O'Riordan, David L., Alison E. Field, Alan C. Geller, Daniel R. Brooks, Gideon Aweh, Graham A. Colditz, and A. Lindsay Frazier (2006), "Frequent Tanning Bed Use, Weight Concerns, and Other Health Risk Behaviors in Adolescent Females (United States)," *Cancer Causes & Control*, 17 (5), 679-86.
- Olson, Jenny, Brent McFerran, Andrea Morales, and Darren Dahl (2016), "Wealth and Welfare: Divergent Moral Reactions to Ethical Consumer Choices," *Journal of Consumer Research*, 42 (6), 879-96.
- Pizarro, David A., and David Tannenbaum (2011), "Bringing character back: How the motivation to evaluate character influences judgments of moral blame," in M Mikulincer and PR Shaver (Eds), *The social psychology of morality: Exploring the causes of good and evil* (pp. 91–108). Washington, DC: American Psychological Association.
- Pizarro, David A., David Tannenbaum, and Eric Uhlmann (2012), "Mindless, Harmless, and Blameworthy," *Psychological Inquiry*, 23, 185-188.

- Pronin, Emily (2009), "The Introspection Illusion," in *Advances in Experimental Social Psychology*, Vol. 41, ed. Mark P. Zanna, New York: Elsevier, 1-67.
- Reeder, Glenn D. and Marilyn B. Brewer (1979), "A Schematic Model of Dispositional Attribution in Interpersonal Perception," *Psychological Review*, 86, 61-79.
- Riis, Jason, Joseph P. Simmons, and Geoffrey P. Goodwin (2008), "Preferences for Enhancement Pharmaceuticals: The Reluctance to Enhance Fundamental Traits," *Journal of Consumer Research*, 35 (3), 495-508.
- Rosenberg, Seymour, Carnot Nelson, and P. S. Vivekananthan (1968), "A Multidimensional Approach to the Structure of Personality Impressions," *Journal of Personality and Social Psychology*, 9 (4), 283-94.
- Segal-Caspi, Lihi, H Sonia Roccas, and Lilach Sagiv (2012), "Don't Judge a Book by Its Cover, Revisited: Perceived and Reported Traits and Values of Attractive Women," *Psychological Science*, 23 (10), 1112-16.
- Skowronski, John J. and Donal E. Carlston (1989), "Negativity and Extremity Biases in Impression Formation: A Review of Explanations," *Psychological Bulletin*, 105 (1), 131-142.
- Skowronski, John J., and Donal E. Carlston (1987), "Social Judgment and Social Memory: The Role of Cue Diagnosticity in Negativity, Positivity, and Extremity Biases," *Journal of Personality and Social Psychology*, 52 (4), 689-99.
- Steim, Richard I., and Carol J. Nemerooff (1995) "Moral Overtones of Food: Judgments of Others Based on What They Eat," *Personality and Social Psychology Bulletin*, 21 (5), 480-90.
- Tannenbaum, David, Eric L. Uhlmann, and Daniel Diermeier (2011), "Moral Signals, Public Outrage, and Immaterial Harms," *Journal of Experimental Social Psychology*, 47, 1249-1254.
- Udry, J. Richard, and Bruce K. Eckland (1984), "Benefits of Being Attractive: Differential Payoffs for Men and Women," *Psychological Reports*, 54 (1), 47-56.
- Van Overwalle, Frank, Tinneke Drenth, and Gooitske Marsman (1999), "Spontaneous Trait Inferences: Are They Linked to the Actor or to the Action?," *Personality and Social Psychology Bulletin*, 25 (4), 450-62.
- Walker, Lawrence J., and Karl H. Hennig (2004), "Differing Conceptions of Moral Exemplarity: Just, Brave, and Caring," *Journal of Personality and Social Psychology*, 86 (4), 629-47.

- Weiner, Bernard (1986), *An Attributional Theory of Motivation and Emotion*. New York: Springer Verlag.
- Weiner, Bernard, and Andy Kukla (1970), "An Attributional Analysis of Achievement Motivation," *Journal of Personality and Social Psychology*, 15 (1), 1-20.
- White, Katherine, and Darren W. Dahl (2006), "To Be or Not Be? The Influence of Dissociative Reference Groups on Consumer Preferences," *Journal of Consumer Psychology*, 16 (4), 404-14.
- Whorton, James C. (1982), *Crusaders for Fitness: The History of American Health Reformers*, Princeton University Press.
- Williams, Eleanor F., and Mary Steffel (2014), "Double Standards in the Use of Enhancing Products by Self and Others," *Journal of Consumer Research*, 41 (2), 506-25.
- Witz, Anne, Chris Warhurst, and Dennis Nickson (2003), "The Labour of Aesthetics and The Aesthetics of Organization," *Organization*, 10 (1), 33-54.
- Wojciszke, Bogdan, Roza Bazinska, and Marcin Jaworski (1998), "On the Dominance of Moral Categories in Impression Formation," *Personality and Social Psychology Bulletin*, 24 (12), 1251-63.
- Wong, Jaclyn S., and Andrew M. Penner (2016), "Gender and the Returns to Attractiveness," *Research in Social Stratification and Mobility*, 44, 113-23.
- Wu, Freeman, Adriana Samper, Andrea C. Morales and Gavan J. Fitzsimons (2017), "It's Too Pretty to Use! When and How Enhanced Product Aesthetics Discourage Usage and Lower Consumption Enjoyment," *Journal of Consumer Research (in press)*.

## Web Appendix

### How Beauty Work Affects Judgments of Moral Character and Consumer Preferences

ADRIANA SAMPER  
LINYUN W. YANG  
MICHELLE DANIELS

This Web Appendix contains the supplementary trait inferences study described in the discussion of study 1B, 4 study pretests (the study 2 and 4 transformative and transience pretests, the study 2 effort manipulation check pretest, and the study 5 attributions pretest), supplementary results for our 4-item morality index across studies 3-6, all study means and standard deviations / errors, and factor analyses for studies 2-6.

## WEB APPENDIX A: SUPPLEMENTARY TRAIT INFERENCES STUDY

This study replicates studies 1A and 1B by once again testing trait inferences of Jenna. Similar to study 1B, this study includes a control condition to further delineate whether changes in perceptions of morality are being driven by high or low amounts of appearance-related effort. In addition, we measure and test whether perceived misrepresentation mediates the negative effect of effort on judgments of Jenna's moral character.

### Method

181 Mechanical Turk participants (51.3% female,  $M_{Age} = 35.9$ ) completed this study in exchange for payment. The study employed a three condition (effort: high, low, control) between-subjects design. Participants first read the vignettes used in study 1B. Next, participants rated Jenna on the four moral traits used in study 1A (moral, ethical, genuine, sincere,  $\alpha = .94$ ). Participants then rated their agreement with four items gauging the extent to which Jenna was perceived as misrepresenting herself: 1) Jenna is trying to put forth an image of someone she is not, 2) Jenna is misrepresenting herself to others, 3) Jenna is trying to present herself as something that she is not, and 4) Jenna is misrepresenting her innate self (1 = Completely disagree, 7 = Completely agree;  $\alpha = .98$ ). Finally, participants completed a manipulation check by rating how much effort Jenna put into her morning routine (1 = Very low effort, 7 = Very high effort).

### Results and Discussion

We predicted that Jenna would be judged as less moral in the high effort condition compared to the low effort or control conditions and that this effect would be mediated by the perception that Jenna was misrepresenting herself. To test our predictions, all dependent variables were analyzed using a three-level (effort: high, low, control) one-way ANOVA, followed by a mediation analysis.

*Manipulation check.* Results revealed a main effect of effort ( $F(2, 178) = 150.92; p < .0001$ ). Confirming that our manipulation was successful, participants believed Jenna put more effort into her routine in the high relative to low effort condition ( $M_{High} = 6.51, SD = .66$  vs.  $M_{Low} = 3.23, SD = 1.38; F(1, 178) = 284.04; p < .0001$ ). The control condition ( $M_{Control} = 5.50, SD = .99$ ) fell between the high and low effort conditions and was significantly different from the high effort condition ( $F(1, 178) = 26.82; p < .0001$ ) and the low effort condition ( $F(1, 178) = 142.28; p < .0001$ ).

*Moral character.* Results revealed a significant main effect of effort ( $F(2, 178) = 8.27; p < .001$ ). As predicted, participants viewed Jenna as less moral in the high versus low effort condition ( $M_{High} = 4.82, SD = 1.08$  vs.  $M_{Low} = 5.58, SD = 1.0; F(1, 178) = 15.49; p < .001$ ) and in the high effort versus control condition ( $M_{Control} = 5.38, SD = 1.05; F(1, 178) = 8.54; p < .01$ ). Importantly, there was no difference between the low effort and control conditions ( $F(1, 178) = 1.07; p = .30$ ), suggesting that high but not low effort changed participants' perceptions of Jenna's moral character.

*Misrepresentation.* Results indicated a significant main effect of effort ( $F(2, 178) = 11.72; p < .0001$ ). As predicted, participants believed that Jenna misrepresented herself to a greater extent in the high versus low effort condition ( $M_{High} = 2.91, SD = 1.50$  vs.  $M_{Low} = 1.76, SD = 1.17; F(1, 178) = 23.06; p < .0001$ ) and the high effort versus control condition ( $M_{Control} =$

$2.19, SD = 1.26; F(1, 178) = 9.18; p < .01$ ). The low versus control conditions were marginally different ( $F(1, 178) = 3.28; p = .07$ ).

*Mediation analysis.* We predicted that perceptions of misrepresentation would drive lower ratings of Jenna's moral character. To test this, we conducted a mediation analysis using effort as the dependent variable, misrepresentation as the mediator, and moral character as the dependent variable (Model 4, Hayes 2013). Because we had three levels in our independent variable, we used multicategorical mediation outlined in Hayes (2013). Specifically, we used argument 1 with the high effort condition set as our reference group. This method tests two pathways. The first (D1) compares the high effort condition to the low effort condition. The second (D2) compares high effort to the control condition. As predicted, the indirect path of effort on moral character through misrepresentation was significant in both pathways (D1:  $B = .44, CI_{95}: .22, .76$ ; D2:  $B = .28, CI_{95}: .10, .57$ ).

*Discussion.* This study further corroborates the results studies 1A and 1B in several ways. First, it replicates and extends the effects of appearance-related effort on ratings of moral traits by including a control condition. We do not find any differences between the control and low effort conditions, but perceptions of moral character are reduced when Jenna expends high effort getting ready. Second, this study demonstrates the mediating role of misrepresentation in the negative effort-morality link.

## WEB APPENDIX B: STUDY 2 PRETESTS

### 1. Transformativeness and Transience across Beauty Work Types Pretest (Cosmetics, Tanning and Skincare)

We conducted a pretest with 155 female MTurk participants ( $M_{Age} = 35.8$ ) to examine the degree to which makeup, self-tanning and skincare were perceived as leading to transient and transformative changes in appearance. This pretest employed a 3-cell between-subjects design (beauty work type: cosmetics, tanning, skincare). The vignettes used were the same as those presented in study 2 (see App. C for vignettes) except that information regarding the amount of effort Jenna spent on her routine was removed.

After reading the vignette, participants answered three questions related to the transience of the beauty work performed: 1) To what extent did [beauty work type: brushing her hair and applying makeup / applying spray-on bronzer / applying skin cleanser and moisturizer] that afternoon permanently change Jenna's appearance for the barbecue? 2) To what extent do you think [beauty work type] had a lasting effect on Jenna's appearance at the barbecue? (both anchored at 1 = Not at all, 7 = Very much so) and 3) how long did the effects of [beauty work type] that afternoon last? (1 = A very short period of time, 7 = A very long period of time;  $\alpha = .75$ ).

Participants then answered three questions related to transformativeness of the beauty work performed: 1) To what extent did [beauty work type] that afternoon alter Jenna's appearance for the barbecue? 2) To what extent did [beauty work type] that afternoon transform Jenna's appearance for the barbecue? and 3) To what extent did [beauty work type] lead to noticeable changes in Jenna's appearance? (all anchored at 1 = Not at all, 7 = Very much so;  $\alpha = .91$ ).

All predictions were tested with a one-way between-subjects ANOVA.

*Transience.* No main effect was found on transience, indicating that all three beauty work types were perceived as resulting in similarly transient changes ( $F(2, 152) = .31, p = .73$ ).

Further supporting this, there were also no significant contrasts between any of the beauty work types ( $M_{\text{Skincare}} = 3.45, SD = 1.45$  vs.  $M_{\text{Tanning}} = 3.25, SD = 1.38$  vs.  $M_{\text{Cosmetics}} = 3.42, SD = 1.32$ ; all  $F's < 1$ ).

*Transformativeness.* As expected, results indicated a main effect of beauty work type ( $F(2, 152) = 25.15, p < .0001$ ). Skincare was rated as less transformative than both tanning ( $M_{\text{Skincare}} = 3.11, SD = 1.44$  vs.  $M_{\text{Tanning}} = 4.58, SD = 1.26; F(1, 152) = 32.62, p < .0001$ ) and cosmetics ( $M = 4.78, SD = 1.17; F(1, 152) = 42.43, p < .0001$ ). Makeup and tanning did not differ in transformativeness ( $F(1, 152) = .65, p = .42$ ).

## 2. Effort Manipulation across Beauty Work Types Pretest

We conducted a pretest with 187 female MTurk participants ( $M_{\text{Age}} = 36.4$ ) to ensure that effort was perceived as greater across high versus low effort conditions within beauty work types, but did not differ across beauty work types. This study employed the same 2 (effort: high, low) x 3 (beauty work type: cosmetics, tanning, skincare) between-subjects design as study 2. After reading the vignette from study 2, participants answered the questions, "How much effort did Jenna put into getting ready for the barbecue?" (1 = Very low effort, 7 = Very high effort).

A two-way between-subjects ANOVA on Jenna's perceived effort revealed the expected main effect of effort ( $F(1, 181) = 149.82, p < .0001$ ), where the high (vs. low) effort condition yielded higher ratings in the cosmetics ( $M_{\text{High}} = 5.45, SD = 1.06$  vs.  $M_{\text{Low}} = 3.22, SD = 1.42, F(1, 181) = 63.50, p < .0001$ ), tanning ( $M_{\text{High}} = 5.73, SD = 1.08$  vs.  $M_{\text{Low}} = 3.82, SD = .93, F(1, 181) = 49.24, p < .0001$ ), and skincare conditions ( $M_{\text{High}} = 5.48, SD = 1.00$  vs.  $M_{\text{Low}} = 3.36, SD = 1.37, F(1, 181) = 39.63, p < .0001$ ). We also found a marginal main effect of beauty work type ( $F(2, 181) = 2.52, p = .08$ ) where tanning was rated as requiring more effort than cosmetics ( $M_{\text{Tanning}} = 4.80, SD = 1.39$  vs.  $M_{\text{Cosmetics}} = 4.29, SD = 1.68; F(1, 181) = 4.60, p < .05$ ) and marginally more effort than skincare ( $M_{\text{Skincare}} = 4.47, SD = 1.59; F(1, 181) = 2.82, p = .09$ ). Cosmetics and skincare domains were not rated differently in terms of effort ( $F(1, 181) = .16, ns$ ). Because our primary focus is on examining the effect of effort within each domain, we do not expect this marginal main effect to compromise our results. We did not find a significant two-way interaction ( $F(1, 181) = .32, ns$ ).

## WEB APPENDIX C: STUDY 4 TRANSFORMATIVENESS AND TRANSIENCE PRETEST ACROSS BEAUTY WORK TYPES (EXERCISE AND COSMETICS)

We conducted a pretest with 104 MTurk participants (51.9% female,  $M_{\text{Age}} = 34.7$ ) to ensure that exercise and cosmetics intended to enhance appearance were perceived as equally transformative, yet cosmetics was perceived as leading to more transient changes than exercise.

The pretest followed a similar structure to the transformativeness/transience pretest used in study 2, except we compared cosmetics to exercise. Paralleling the prior transformativeness/transience pretest, participants were randomly assigned to either the cosmetics or exercise condition where they saw vignettes identical to those of study 4 (see Appendix F) with the effort manipulation removed.

We adapted the transience and transformativeness measures in the study 2 beauty work domain pretest to fit the study 3 vignettes. Participants answered the following measures: 1) To what extent does [beauty work type: brushing her hair and applying makeup / exercising] every morning permanently change Jenna's appearance? 2) To what extent do you think [beauty work

type] every morning has a lasting effect on Jenna's appearance? (both anchored at 1 = Not at all, 7 = Very much so), and "How long do the effects of [beauty work type] every morning last?" (1 = A very short period of time, 7 = A very long period of time;  $\alpha = .82$ ).

Participants then answered three measures to assess the transformativeness of the beauty work type: 1) To what extent does [beauty work type] every morning alter Jenna's appearance? 2) To what extent does [beauty work type] every morning transform Jenna's appearance? 3) To what extent does [beauty work type] lead to noticeable changes in Jenna's appearance?" (all anchored at 1 = Not at all, 7 = Very much so;  $\alpha = .81$ ).

A one-way between-subjects ANOVA showed that using cosmetics was rated as resulting in significantly more transient changes than exercise ( $M_{\text{Cosmetics}} = 2.94$ ,  $SD = 1.11$  vs.  $M_{\text{Exercise}} = 5.39$ ,  $SD = 1.11$ ,  $F(1, 102) = 127.09$ ,  $p < .0001$ ). As expected, there was no difference in transformativeness between the two beauty work types ( $M_{\text{Cosmetics}} = 5.12$ ,  $SD = .93$  vs.  $M_{\text{Exercise}} = 5.15$ ,  $SD = 1.30$ ;  $F(1, 102) = .02$ ;  $p = .89$  ).

#### **WEB APPENDIX D: STUDY 5 ATTRIBUTIONS MANIPULATION PRETEST**

We conducted a pretest with 159 MTurk participants (57.6% female,  $M_{\text{Age}} = 38.2$ ) to test our attributions manipulation. This pretest employed a 2 (effort: high, low) x 2 (beauty work attribution: internal, external) between-subjects design. Participants read the same high and low effort vignettes used in the cosmetics domain from study 2. In the external attribution condition, participants also read that Jenna hoped to make a good first impression on potential employers who would be at the barbecue (see App. G for verbiage). In the internal attribution condition, they did not read any additional information.

Next, participants rated six attribution items adapted from Russell's (1982) Causal Dimension Scale. These consisted of three external attribution items: To what extent was Jenna's behavior driven by 1) external factors, 2) other people, and 3) factors beyond her control, and three internal attribution items: To what extent was Jenna's behavior driven by 1) internal factors, 2) herself, and 3) factors within her control (all anchored at 1 = Not at all, 7 = Very much so). The internal items were reverse coded. All items were combined such that higher values corresponded to greater external attributions ( $\alpha = .80$ ).

A 2 x 2 ANOVA on the attribution index revealed only a main effect of beauty work attribution ( $F(1, 156) = 11.64$ ,  $p < .001$ ) and no significant two-way interaction ( $F(1, 156) = .75$ ,  $p = .39$ ). Participants attributed Jenna's beauty work to external causes more in the external (i.e., when she wanted to make a good first impression) relative to the internal attribution condition (i.e., when no additional information was presented;  $M_{\text{External}} = 3.57$ ,  $SD = .99$  vs.  $M_{\text{Internal}} = 3.03$ ,  $SD = 1.02$ ) confirming that this manipulation was successful.

#### **WEB APPENDIX E: RESULTS FOR 4-ITEM MORAL CHARACTER SCALE ACROSS STUDIES 3-6 (MORAL, ETHICAL, GENUINE AND SINCERE)**

##### **Study 3**

A 2 (effort: high, low) x 3 (attractiveness: attractive, average, no image information) between-subjects ANOVA on our four-item morality index ( $\alpha = .91$ ) revealed main effects of effort ( $F(1, 450) = 32.17$ ,  $p < .0001$ ) and attractiveness ( $F(2, 450) = 2.95$ ,  $p = .05$ ), which were qualified by a significant two-way interaction ( $F(2, 450) = 2.49$ ,  $p = 0.02$ ). Karen's moral character was rated more negatively when she engaged in high relative to low effort beauty work in both the average

attractiveness ( $M_{\text{High}} = 5.05, SD = .99$  vs.  $M_{\text{Low}} = 5.56, SD = 1.08, F(1, 450) = 9.63; p < .01$ ) and no information conditions ( $M_{\text{High}} = 4.67, SD = .96$  vs.  $M_{\text{Low}} = 5.55, SD = .85, F(1, 450) = 29.03; p < .0001$ ). However, in the high attractiveness condition, effort level had no effect on moral character ratings ( $M_{\text{High Effort}} = 5.27, SD = 1.04$  vs.  $M_{\text{Low Effort}} = 5.49, SD = 1.05, F(1, 450) = 1.72; p = .19$ ).

#### **Study 4**

A 2 (effort: high, low) x 2 (beauty work type: cosmetics, exercise) ANOVA on the four-item morality index ( $\alpha = .92$ ) revealed only a significant two-way interaction ( $F(1, 198) = 17.25; p < 0.0001$ ). In the cosmetics domain, Jenna's moral character was rated less favorably when she engaged in higher effort ( $M_{\text{High}} = 4.83, SD = 1.06$  vs.  $M_{\text{Low}} = 5.41, SD = .85, F(1, 198) = 9.45; p < .01$ ). However, the pattern reversed in the exercise domain such that Jenna's moral character was rated *more* favorably when she engaged in higher effort ( $M_{\text{High}} = 5.44, SD = 1.0$  vs.  $M_{\text{Low}} = 4.87, SD = 1.02; F(1, 198) = 7.82, p < 0.01$ ).

#### **Study 5**

A 2 (effort: high, low) x 2 (attribution: internal, external) ANOVA on the four-item morality index ( $\alpha = .93$ ) revealed only a significant two-way interaction ( $F(1, 294) = 5.61, p = .02$ ). As predicted, in the internal attribution condition, Jenna was rated as less moral in the higher effort condition ( $M_{\text{High}} = 5.11, SD = 1.19$  vs.  $M_{\text{Low}} = 5.54, SD = .91; F(1, 294) = 6.79, p = .01$ ). However, in the external attribution condition, participants did not rate Jenna differently based on effort ( $M_{\text{High}} = 5.58$  vs.  $SD = 1.03$  vs.  $M_{\text{Low}} = 5.45, SD = .93, F(1, 294) = .57, p = .45$ ).

#### **Study 6**

A 2 (effort: high, low) x 2 (slogan attribution: internal, external) ANOVA on the four-item morality index ( $\alpha = .93$ ) revealed only a two-way interaction ( $F(1, 137) = 4.87, p = .03$ ). Planned contrasts revealed that as predicted, participants in the internal attribution condition viewed Colorescience customers as less moral in the higher effort conditions ( $M_{\text{High}} = 4.36, SD = 1.30$ ;  $M_{\text{Low}} = 5.07, SD = .94; F(1, 137) = 6.82, p = .01$ ). However, participants in the external attributions condition showed no such difference ( $M_{\text{High}} = 4.89, SD = 1.08$  vs.  $M_{\text{Low}} = 4.73, SD = 1.32; F(1, 137) = .31, p = .57$ ).

## WEB APPENDIX F: STUDY MEANS AND STANDARD DEVIATIONS

All means and standard deviations presented in the manuscript are included. Cases where there were only significant main effects (e.g., manipulations checks), or no significant effects and only a mean score (i.e., no effect of the manipulations on the dependent variable) are specified.

| Study 1A                  | Low Effort         |       | High Effort |       |       |
|---------------------------|--------------------|-------|-------------|-------|-------|
|                           | Dependent Variable | Mean  | SD/SE       | Mean  | SD/SE |
| Effort Manipulation Check | 3.49               | 1.29  | 6.56        | 1.58  |       |
| Positive Moral Traits     | 5.62               | 0.12* | 5.13        | 0.12* |       |
| Positive Filler Traits    | 5.86               | 0.12* | 5.70        | 0.12* |       |
| Positive Moral Behaviors  | 4.89               | 0.14* | 4.30        | 0.15* |       |
| Positive Filler Behaviors | 4.89               | 0.15* | 4.63        | 0.15* |       |
| Mean Realism              |                    |       |             |       |       |
| Realism                   | 5.00               | 1.51  |             |       |       |

\*Standard error is reported for within-subjects measures

| Study 1B                  | Low Effort         |       | Control Effort |       | High Effort |       |       |
|---------------------------|--------------------|-------|----------------|-------|-------------|-------|-------|
|                           | Dependent Variable | Mean  | SD/SE          | Mean  | SD/SE       | Mean  | SD/SE |
| Effort Manipulation Check | 3.56               | 1.46  | 5.25           | 1.07  | 6.21        | 1.01  |       |
| Immoral Behaviors         | 2.71               | 0.12* | 2.74           | 0.12* | 3.3         | 0.12* |       |
| Filler Behaviors          | 5.30               | 0.12* | 5.13           | 0.12* | 5.32        | 0.12* |       |

\*Standard error is reported for within-subjects measures

| Study 2            | Cosmetics  |      |             |      | Tanning    |      |             |      | Skincare   |      |             |      |
|--------------------|------------|------|-------------|------|------------|------|-------------|------|------------|------|-------------|------|
|                    | Low Effort |      | High Effort |      | Low Effort |      | High Effort |      | Low Effort |      | High Effort |      |
| Dependent Variable | Mean       | SD   | Mean        | SD   | Mean       | SD   | Mean        | SD   | Mean       | SD   | Mean        | SD   |
| Moral Character    | 5.81       | 0.86 | 5.12        | 1.08 | 5.66       | 0.87 | 4.97        | 1.23 | 5.45       | 1.05 | 5.33        | 1.17 |
| Misrepresentation  | 1.43       | 0.78 | 2.33        | 1.32 | 2.1        | 1.19 | 3.03        | 1.66 | 1.74       | 1.08 | 1.91        | 1.16 |
| Excessiveness      | 4.14       | 0.87 | 5.02        | 0.95 | 4.27       | 0.94 | 5.04        | 1.09 | 3.96       | 0.97 | 4.91        | 1.01 |

| Study 3                      | High Attractiveness |      |             |      | Average Attractiveness |      |             |      | Control    |      |             |         |  |         |  |
|------------------------------|---------------------|------|-------------|------|------------------------|------|-------------|------|------------|------|-------------|---------|--|---------|--|
|                              | Low Effort          |      | High Effort |      | Low Effort             |      | High Effort |      | Low Effort |      | High Effort |         |  |         |  |
| Dependent Variable           | Mean                | SD   | Mean        | SD   | Mean                   | SD   | Mean        | SD   | Mean       | SD   | Mean        | SD      |  |         |  |
| Moral Character (A & R 2002) | 5.59                | 0.99 | 5.46        | 1.00 | 5.62                   | 0.95 | 5.21        | 0.93 | 5.51       | 0.87 | 4.90        | 0.86    |  |         |  |
| Misrepresentation            | 1.75                | 0.91 | 2.39        | 1.26 | 1.75                   | 0.97 | 3.03        | 1.50 | 1.67       | 0.95 | 3.02        | 1.57    |  |         |  |
| Immoral Behaviors            | 2.86                | 1.43 | 3.10        | 1.70 | 2.80                   | 1.40 | 3.55        | 1.59 | 2.60       | 1.39 | 3.88        | 1.69    |  |         |  |
| Effort (Main Effect)         |                     |      |             |      |                        |      |             |      |            |      |             |         |  |         |  |
| Low                          |                     |      |             | High |                        |      |             | High |            |      |             | Average |  | No Info |  |
| Mean                         |                     | SD   |             | Mean |                        | SD   |             | Mean |            | SD   |             | Mean    |  | SD      |  |
| Vanity                       | 4.13                | 1.15 | 6.03        | 1.06 | 5.25                   | 1.37 | 4.80        | 1.61 | 5.19       | 1.35 |             |         |  |         |  |

| <b>Study 4</b>               | Makeup     |      |             |      | Exercise   |      |             |      |
|------------------------------|------------|------|-------------|------|------------|------|-------------|------|
|                              | Low Effort |      | High Effort |      | Low Effort |      | High Effort |      |
| Dependent Variable           | Mean       | SD   | Mean        | SD   | Mean       | SD   | Mean        | SD   |
| Effort Manipulation Check    | 3.43       | 1.48 | 6.40        | 1.07 | 5.30       | 1.18 | 6.54        | 0.73 |
| Moral Character (A & R 2002) | 5.37       | 0.98 | 4.99        | 0.93 | 5.02       | 0.92 | 5.49        | 0.86 |
| Misrepresentation            | 1.87       | 1.15 | 2.95        | 1.49 | 2.67       | 1.33 | 2.01        | 1.14 |
| Immoral Behaviors            | 3.16       | 1.54 | 3.78        | 1.63 | 3.8        | 1.44 | 3.33        | 1.53 |
| Vanity                       | 3.73       | 1.02 | 6.03        | 0.82 | 5.56       | 0.91 | 6.08        | 0.79 |

| <b>Study 5</b>               | Internal Attribution |      |             |      | External Attribution |      |             |      |
|------------------------------|----------------------|------|-------------|------|----------------------|------|-------------|------|
|                              | Low Effort           |      | High Effort |      | Low Effort           |      | High Effort |      |
| Dependent Variable           | Mean                 | SD   | Mean        | SD   | Mean                 | SD   | Mean        | SD   |
| Moral Character (A & R 2002) | 5.52                 | 0.82 | 5.16        | 1.16 | 5.45                 | 0.8  | 5.51        | 0.98 |
| Misrepresentation            | 1.87                 | 0.96 | 2.44        | 1.6  | 2.15                 | 1.13 | 2.03        | 1.08 |

| <b>Study 6</b>               | Internal Attribution |      |             |      | External Attribution |      |             |      |
|------------------------------|----------------------|------|-------------|------|----------------------|------|-------------|------|
|                              | Low Effort           |      | High Effort |      | Low Effort           |      | High Effort |      |
| Dependent Variable           | Mean                 | SD   | Mean        | SD   | Mean                 | SD   | Mean        | SD   |
| Moral Character (A & R 2002) | 5.22                 | 0.83 | 4.58        | 1.16 | 4.58                 | 1.22 | 5.04        | 0.92 |
| Customer Misrepresentation   | 2.11                 | 1.22 | 2.95        | 1.75 | 2.55                 | 1.61 | 2.95        | 1.42 |
| Purchase Intentions          | 5.33                 | 1.28 | 4.27        | 1.7  | 4.6                  | 1.79 | 4.98        | 1.29 |

| Effort (Main Effect)      |      |      |      |      |
|---------------------------|------|------|------|------|
| Low                       |      | High |      |      |
|                           | Mean | SD   | Mean | SD   |
| Effort Manipulation Check | 2.49 | 1.29 | 4.18 | 1.58 |

**WEB APPENDIX G: FACTOR LOADINGS COMPARING MORALITY AND MISREPRESENTATION**

**Study 2**

Confirmatory Factor Analysis  
Factor Loadings

| Item                      | Morality | Misrepresentation |
|---------------------------|----------|-------------------|
| <i>Morality</i>           |          |                   |
| Sincere                   | 0.95     |                   |
| Moral                     | 0.95     |                   |
| Ethical                   | 0.92     |                   |
| Genuine                   | 0.84     |                   |
| <i>Misrepresentation*</i> |          |                   |
| Image                     |          | 0.95              |
| MisrepSelf                |          | 0.93              |
| Present                   |          | 0.97              |
| MisrepInnate              |          | 0.94              |

\*The four misrepresentation items were:

1. Image: Jenna is trying to put forth an image of someone she is not
2. MisrepSelf: Jenna is misrepresenting herself to others
3. Present: Jenna is trying to present herself as something that she is not
4. MisrepInnate: Jenna is misrepresenting her innate self

**Study 3**

| Item                                     | Confirmatory Factor Analysis Factor Loadings |                   |                   |
|--|--|-------------------|-------------------|
|  | Morality                                     | Misrepresentation | Immoral Behaviors |
| <i>Morality - Four Item</i>              |  |                   |                   |
| Sincere                                  | 0.83   |                   |                   |
| Moral                                    | 0.83   |                   |                   |
| Ethical                                  | 0.80   |                   |                   |
| Genuine                                  | 0.76   |                   |                   |
| <i>Morality - Aquino and Reed (2002)</i> |  |                   |                   |
| Caring                                   | 0.89   |                   |                   |
| Compassionate                            | 0.94   |                   |                   |
| Fair                                     | 0.90   |                   |                   |
| Friendly                                 | 0.81   |                   |                   |
| Generous                                 | 0.89   |                   |                   |
| Helpful                                  | 0.87   |                   |                   |
| Hardworking                              | 0.53   |                   |                   |
| Kind                                     | 0.87   |                   |                   |
| Honest                                   | 0.86   |                   |                   |
| <i>Misrepresentation</i>                 |  |                   |                   |
| Image                                    |  | 0.94              |                   |
| MisrepSelf                               |  | 0.93              |                   |
| Present                                  |  | 0.97              |                   |
| MisrepInnate                             |  | 0.91              |                   |
| <i>Immoral Behaviors**</i>               |  |                   |                   |
| InflateExp                               |  |                   | 0.81              |
| BoardPlane                               |  |                   | 0.84              |
| LieToIns                                 |  |                   | 0.88              |
| LieToSuperv                              |  |                   | 0.78              |

\*\*The four immoral behaviors items were:

1. InflateExp: Inflate her business expense report
2. BoardPlane: Board a plane before her number was called
3. LieToIns: Lie to an insurance company
4. LieToSuperv: Lie to a supervisor about progress on a project

**Study 4**

| Item                                     | Confirmatory Factor Analysis Factor Loadings |                   |                   |
|--|--|-------------------|-------------------|
|  | Morality                                     | Misrepresentation | Immoral Behaviors |
| <i>Morality - Four Item</i>              |  |                   |                   |
| Sincere                                  | 0.82   |                   |                   |
| Moral                                    | 0.91   |                   |                   |
| Ethical                                  | 0.81   |                   |                   |
| Genuine                                  | 0.77   |                   |                   |
| <i>Morality – Aquino and Reed (2002)</i> |  |                   |                   |
| Caring                                   | 0.93   |                   |                   |
| Compassionate                            | 0.84   |                   |                   |
| Fair                                     | 0.88   |                   |                   |
| Friendly                                 | 0.76   |                   |                   |
| Generous                                 | 0.87   |                   |                   |
| Helpful                                  | 0.84   |                   |                   |
| Hardworking                              | 0.43   | -0.48             |                   |
| Kind                                     | 0.84   |                   |                   |
| Honest                                   | 0.87   |                   |                   |
| <i>Misrepresentation</i>                 |  |                   |                   |
| Image                                    | 0.86   |                   |                   |
| MisrepSelf                               | 0.90   |                   |                   |
| Present                                  | 0.91   |                   |                   |
| MisrepInnate                             | 0.90   |                   |                   |
| <i>Immoral Behaviors</i>                 |  |                   |                   |
| InflateExp                               |  |                   | 0.76              |
| BoardPlane                               |  |                   | 0.73              |
| LieToIns                                 |  |                   | 0.90              |
| LieToSuperv                              |  |                   | 0.73              |

**Study 5**

Confirmatory Factor Analysis  
Factor Loadings

| Item                                     | Morality | Misrepresentation |
|--|----------|-------------------|
| <i>Morality - Four Item</i>              |          |                   |
| Sincere                                  | 0.86     |                   |
| Moral                                    | 0.80     |                   |
| Ethical                                  | 0.82     |                   |
| Genuine                                  | 0.81     |                   |
| <i>Morality – Aquino and Reed (2002)</i> |          |                   |
| Caring                                   | 0.96     |                   |
| Compassionate                            | 0.91     |                   |
| Fair                                     | 0.88     |                   |
| Friendly                                 | 0.76     |                   |
| Generous                                 | 0.85     |                   |
| Helpful                                  | 0.89     |                   |
| Hardworking                              | 0.64     |                   |
| Kind                                     | 0.92     |                   |
| Honest                                   | 0.87     |                   |
| <i>Misrepresentation</i>                 |          |                   |
| Image                                    |          | 0.93              |
| MisrepSelf                               |          | 0.94              |
| Present                                  |          | 0.96              |
| MisrepInnate                             |          | 0.92              |

**Study 6**

Confirmatory Factor Analysis  
Factor Loadings

| Item  | Customer<br>Morality | Misrepresentation |
|---|----------------------|-------------------|
|   |                      |                   |
| <i>Customer Morality - Four Item</i>              |                      |                   |
| Sincere   | 0.81                 |                   |
| Moral   | 0.81                 |                   |
| Ethical   | 0.86                 |                   |
| Genuine   | 0.82                 |                   |
| <i>Customer Morality – Aquino and Reed (2002)</i> |                      |                   |
| Caring  | 0.87                 |                   |
| Compassionate                                     | 0.89                 |                   |
| Fair  | 0.84                 |                   |
| Friendly  | 0.83                 |                   |
| Generous  | 0.88                 |                   |
| Helpful   | 0.84                 |                   |
| Hardworking                                       | 0.78                 |                   |
| Kind  | 0.90                 |                   |
| Honest  | 0.66                 |                   |
| <i>Misrepresentation</i>                          |                      |                   |
| Image   |                      | 0.95              |
| MisrepSelf  |                      | 0.95              |
| Present   |                      | 0.96              |
| MisrepInnate                                      |                      | 0.93              |