Online Supplemental Material for

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

[Author names and affiliations blinded for review]

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# EXPERIMENTAL PROCEDURE, INSTRUCTIONS, STIMULI, AND ITEMS

## Experiment 1a

**After providing consent to participate, participants were instructed as follows.**

In this short survey, you will read about different kinds of people and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Attractiveness manipulation*

**Participants were then randomly assigned to a high or moderate attractiveness condition, presented below. Participants were also randomly assigned to a male or female target condition, shown here in brackets.**

High attractiveness condition:

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

Moderate attractiveness condition:

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

*Measures*

**Participants then responded to questions about the target’s attractiveness, presented in random order. Names varied by gender condition.**

To what extent would you say that [Nick/Nicole] is physically attractive?

[Nick/Nicole] is... (1= not at all physically attractive, 7 = physically very attractive)

To what extent would you say that [Nick/Nicole] is [handsome/beautiful]?

[Nick/Nicole] is... (1= not at all [handsome/beautiful], 7 = very [handsome/beautiful])

**Next, participants responded to questions (presented in random order) about the target’s vanity.**

To what extent would you say that [Nick/Nicole] is probably vain?

[Nick/Nicole] is probably... (1= not at all vain, 7 = very vain)

To what extent would you say that [Nick/Nicole] is probably self-absorbed?

[Nick/Nicole] is probably... (1= not at all self-absorbed, 7 = very self-absorbed)

**Participants then responded to the morality and immorality measures below. Order of specific measures and questions within measures were both randomized.**

General morality/immorality:

If you had to guess, how often does [Nick/Nicole] behave in moral ways (i.e., do moral things)?

[Nick/Nicole] would behave in moral ways... (1 = almost never, 7 = very frequently)

To what extent would you say that [Nick/Nicole] is probably a good person? [Nick/Nicole] is probably a ... person. (1 = not at all good, 7 = very good)

If you had to guess, how often does [Nick/Nicole] behave in immoral ways (i.e., do immoral things)? [Nick/Nicole] would behave in immoral ways... (1 = almost never, 7 = very frequently)

To what extent would you say that [Nick/Nicole] is probably a bad person? [Nick/Nicole] is probably a ... person. (1 = not at all bad, 7 = very bad)

Moral traits:

To what extent do you think [Nick/Nicole] has the following characteristics?

[Nick/Nicole] is probably... (1 = not at all, 7 = extremely)

Honest, Kind, Caring, Generous, Compassionate, Helpful, Loving, Trustworthy, Giving, Loyal, Humble (excluded from analyses)

Immoral traits:

To what extent do you think [Nick/Nicole] has the following characteristics?

[Nick/Nicole] is probably... (1 = not at all, 7 = extremely)

Selfish, Rude, Evil, Dishonest, Greedy, Mean, Cruel, Violent, Hateful, Manipulative, Narcissistic (excluded from analyses)

Moral concern:

How much do you think [Nick/Nicole] cares about each of the issues below? (1 = not at all, 7 = very much)

Poverty, social justice, the environment, animal rights

## Experiment 1b

**After consenting to participate, participants were instructed:**

In this short survey, you will read about different kinds of people and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Vanity manipulation*

**Participants were then randomly assigned to a high or low vanity condition. Participants were also randomly assigned to a male or female target condition, shown here in brackets.**

High vanity condition:

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

Low vanity condition:

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

*Measures*

**Following this, participants responded to questions about the target’s vanity, presented in random order.**

To what extent would you say that [Nick/Nicole] is vain?

[Nick/Nicole] is... (1= not at all vain, 7 = very vain)

To what extent would you say that [Nick/Nicole] is self-absorbed?

[Nick/Nicole] is... (1= not at all self-absorbed, 7 = very self-absorbed)

**Next, participants responded to questions about the target’s attractiveness, presented in random order.**

To what extent would you say that [Nick/Nicole] is probably physically attractive?

[Nick/Nicole] is probably... (1= not at all physically attractive, 7 = physically very attractive)

To what extent would you say that [Nick/Nicole] is probably [handsome/beautiful]?

[Nick/Nicole] is probably... (1= not at all [handsome/beautiful], 7 = very [handsome/beautiful])

**Participants then responded to the same morality and immorality questions as were used in Experiment 1a, followed by the same question about attentiveness used in Experiment 1a.**

## Experiment 1c

**After consenting to participate, participants were instructed as follows.**

In this short survey, you will read about different kinds of people and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Morality manipulation*

**Participants were then randomly assigned to one cell of a 2 (behavior: moral vs. immoral) x 2 (level: low vs. high) x 4 (story: help/harm, returning/stealing, fidelity/infidelity, kindness/cruelty). Gender [in brackets] was fixed as opposite from participants’ gender.**

***Help/Harm***

[Michael/Michelle] is an avid long-distance runner who had been training for six months to compete in [his/her] first marathon. [His/Her] mile pace during practice kept getting better and better and [he/she] really wanted to run a fast race. On race day, [Michael/Michelle] lined up in the “fast” group, along with all the other runners who expected to complete the race at a very fast pace for amateurs.

Soon after the race started, [Michael/Michelle] found [him/her]self slowed by a runner who was holding several other runners up and who obviously should not have started with the fast group. [Michael/Michelle] couldn’t get around this runner. [The remainder of this paragraph constituted the manipulation.]

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

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

Low immoral: Frustrated and wanting to keep [his/her] pace, an unwanted thought came to [his/her] mind: Maybe [he/she] could get behind the runner and trip [him/her]. Of course, [Michael/Michelle] didn’t do this. Instead, [he/she] waited until the pack thinned out a little bit, ran around the runner and increased [his/her] pace.

High immoral: Frustrated and wanting to keep [his/her] pace, [Michael/Michelle] managed to get right behind the runner and trip [him/her]. The slow runner fell down, which caused several other runners to also fall. [Michael/Michelle] then ran around the fallen runners and increased [his/her] pace.

***Returning/Stealing***

[Michael/Michelle] was planting vegetables in [his/her] garden one afternoon and realized [he/she] needed to pick up a few things from a garden store to finish the job. [Michael/Michelle] really wanted to finish that afternoon, because otherwise [he/she] would have to do a lot of extra work hauling things inside, cleaning up, and doing it all over again the next day. Worse, [he/she] knew it was probably going to rain soon, which would stop [him/her] as well.

[Michael/Michelle] decided to rush to the store, buy what [he/she] needed, and hurry home. [The remainder of this paragraph constituted the level and morality manipulations.]

Low morality: At the store, [he/she] waited in a long line at the register, payed for [his/her] items, and drove home. However, back at [his/her] house, [he/she] looked at the receipt and realized that the cashier had not charged [him/her] for one of the inexpensive items [he/she] had purchased. [Michael/Michelle] really didn’t feel like driving back to the store, and considered that the cashier had made the mistake, not [him/her]. So, [he/she] did not go back to the store to correct the error.

High morality: At the store, [he/she] waited in a long line at the register, payed for [his/her] items, and drove home. However, back at [his/her] house, [he/she] looked at the receipt and realized that the cashier had not charged [him/her] for one of the inexpensive items [he/she] had purchased. Although [he/she] didn’t feel like it, [he/she] drove back to the store, waited in line at the customer service desk, and eventually paid for the item before driving back home.

Low immorality: At the store, [he/she] easily found the items on shelves outside. Grabbing what [he/she] needed, [he/she] looked around and realized there was a very long line at the register and that storm clouds seemed to be moving in. Because no one from the store seemed to be around, it flashed through [his/her] mind that [he/she] could just take the items without paying. However, [he/she] didn’t do this. Instead, [he/she] got in line, eventually payed for [his/her] items, walked to [his/her] car, tossed them in the trunk, and drove home.

High immorality: At the store, [he/she] easily found the items on shelves outside. Grabbing what [he/she] needed, [he/she] looked around and realized there was a very long line at the register and that storm clouds seemed to be moving in. Not seeing anyone from the store around and not wanting to wait, [he/she] walked to [his/her] car with the items without paying, tossed them in the trunk, and drove home.

***Fidelity/Infidelity***

Low and high moral conditions: A few months ago, [Andrea/Andrew] had broken up with [Michael/Michelle] after they had been together for almost 2 years. [Michael/Michelle] was heartbroken. [Michael/Michelle] hadn’t wanted to break up with [her/him] and still loved [her/him] deeply. However, [Andrea/Andrew] asked [him/her] to understand: an ex-[boy/girl]friend of [hers/his] had just moved back to town, and this was someone [she/he] had a long history with. In fact, [she/he] and [her/his] ex had only broken up when [he/she] had to move out of town for a job. Otherwise, they probably still would have been together. [Andrea/Andrew] loved [Michael/Michelle], [she/he] said, but [she/he] also still had strong feelings for [her/his] ex and felt confused.

One night, [Andrea/Andrew] surprised [Michael/Michelle] by calling and asking if [she/he] could come see [him/her]. [Michael/Michelle] agreed. Sitting on the couch together, [Andrea/Andrew] told [him/her] how much [she/he] had missed [him/her] and moved close to [him/her], starting to kiss [him/her]. There was nothing [Michael/Michelle] wanted more at that moment than to kiss [her/him] back, but [he/she] suspected that [she/he] had started dating [her/his] ex again, and felt like [he/she] had to ask. After a little prodding, [she/he] admitted that they had gotten back together, but that it wasn’t going well. [The rest of this paragraph constituted the level manipulation.]

Low moral: [Michael/Michelle] thought about what [he/she] should do, then decided that [she/he] had called [him/her] and started kissing [him/her], not the other way around. It felt wonderful to have [her/him] in [his/her] arms again, so [he/she] decided to give in and kissed [her/him] back passionately.

High moral: Hard as it was, [he/she] gently pushed [her/him] away and told [her/him] [she/he] shouldn’t be here. If [she/he] broke up with the ex, [he/she]’d be waiting, [he/she] said, but didn’t want to make [her/him] feel guilty or hurt a [man/woman] [he/she] didn’t even know by messing around with [his/her] [girl/boy]friend, no matter how much [he/she] loved [her/him].

Low and high immoral conditions: [Michael/Michelle] has been in a serious, monogamous relationship with [Andrea/Andrew] for 2 years, and the two had moved in together a few months ago. Both enjoyed the new intimacy in their relationship and usually, they preferred to stay in rather than go out like they used to. When [Andrea/Andrew] had to go out of town on a business trip for a week, [Michael/Michelle] knew [he/she] would miss [her/him], but also thought it might be fun to be on [his/her] own for a few days. After taking [her/him] to the airport, [Michael/Michelle] spontaneously decided to have dinner and a few drinks at a bar near the airport.

As [Michael/Michelle] sat at the bar, a [woman/man] [he/she] thought was quite attractive ended up sitting near [him/her]. They struck up a friendly conversation and [Michael/Michelle] found out that [she/he] had been in town for a conference and was leaving the next morning. The [woman/man] seemed to be flirting with [him/her], and [he/she] [The rest of this paragraph constituted the level manipulation.]

Low immorality: resisted the impulse to flirt back, although [he/she] felt attracted to [her/him] and knew that [his/her] [girl/boy]friend would never find out if anything happened between them. When the [woman/man] eventually asked [him/her] if [he/she] was single, [Michael/Michelle] said that [he/she] wasn’t; [he/she] was in a relationship and [his/her] [girl/boy]friend had just left town for a business trip. Eventually, the [woman/man] left to go to [her/his] room and [Michael/Michelle] drove home alone.

High immorality: innocently flirted back a little. However, when the [woman/man] eventually asked [him/her] if [he/she] was single, [Michael/Michelle] surprised [him/her]self by saying that [he/she] was. Eventually, the two left the bar together and [Michael/Michelle] ended up having sex with [her/him] in [her/his] hotel room.

***Kindness/Cruelty***

Soon after [Michael/Michelle] started [his/her] new job, [he/she] realized that [Brenna/Brendan] was attracted to [Nick/Nicole]. However, [Brenna/Brendan] appeared to be slightly developmentally disabled and [Michael/Michelle] could tell [Nick/Nicole] wasn’t really attracted to [Brenna/Brendan]. In fact, [Michael/Michelle] knew that [Nick/Nicole] didn’t like [Brenna/Brendan] very much, although this didn’t stop [him/her] from talking to [her/him] and letting [her/him] flirt with [him/her].

Low and high moral conditions: One afternoon, [Michael/Michelle] overheard [Brenna/Brendan] asking [Nick/Nicole] out for a date. [Nick/Nicole] said yes, that [Brenna/Brendan] should meet [him/her] in the parking lot after work. Later, [Michael/Michelle] heard [Nick/Nicole] laughing about this, telling some coworkers that [he/she] was going to just let [Brenna/Brendan] wait for [him/her] and that [she/he] would eventually realize [he/she] wasn’t coming. [Michael/Michelle] felt sorry for [Brenna/Brendan], as [he/she] knew that [she/he] would probably wait out there for hours before going home. [The rest of this paragraph constituted the level manipulation.]

Low moral: Although [he/she] considered telling [Brenna/Brendan] that [Nick/Nicole] wouldn’t be able to make it, [he/she] decided it was not [his/her] business. So, after work, instead of stopping by the parking lot to tell [her/him] that [Nick/Nicole] wouldn’t make it for their date, [he/she] just went home.

High moral: So, after work and before going home, [Michael/Michelle] stopped by the parking lot and told [her/him] that [Nick/Nicole] was sorry, but wouldn’t be able to make it for their date.

Low and high immoral: One afternoon, [Michael/Michelle] overheard [Brenna/Brendan] asking [Nick/Nicole] out for a date. [Nick/Nicole] said, apparently to be kind, that [he/she] wasn’t sure and would give [her/him] an answer by the end of the day. Later, [Michael/Michelle] heard [Nick/Nicole] laughing about this and telling some coworkers [he/she] hoped [Brenna/Brendan] would forget [she/he] had asked. [The rest of this paragraph constituted the level manipulation.]

Low immoral: [Michael/Michelle] briefly had a thought that [he/she] could easily play a mean joke on [Brenna/Brendan], telling [her/him] that [Nick/Nicole] really wanted to go out with [her/him] and that [she/he] should wait for [Nick/Nicole] in the parking lot after work. [Michael/Michelle] knew if [he/she] told [Brenna/Brendan] this, [she/he] would probably wait out there for hours before going home. However, [Michael/Michelle] never seriously considered actually doing this, knowing it would be cruel.

High Immoral: [Michael/Michelle] decided to play a mean joke on [Brenna/Brendan] so [he/she] told [her/him] that [Nick/Nicole] really wanted to go out with [her/him] and that [she/he] should wait for [Nick/Nicole] in the parking lot after work. [Michael/Michelle] knew [Brenna/Brendan] would probably wait out there for hours before going home.

**After reading this information, participants responded to a comprehension check question below,**[[1]](#footnote-1) **for which correct answer choices varied by conditions. Phrases in curly brackets were correct and varied by condition.**

Which of the following statements is true about [Michael/Michelle]?

Helping/Harming behavior conditions:

[Michael/Michelle]{stopped to help other runners/ran around the fallen runners/tripped the slow runner to speed up/ran around the slow runner}.(correct answer)

[Michael/Michelle] was running slow and causing the traffic.

[Michael/Michelle] has completed the full marathon three times.

Returning/Stealing behavior conditions:

[Michael/Michelle] {drove back to the store to pay for the uncharged gardening items/did not drove back to the store to pay for the uncharged gardening items/took the gardening items from the store without paying/waited to pay for the gardening items}(correct answer)

[Michael/Michelle] was planning to finish the gardening work by tomorrow.

[Michael/Michelle] thought that the gardening tools were too expensive.

Fidelity/Infidelity behavior conditions:

[Michael/Michelle] {did not kiss back [Andrea/Andrew] who is currently in another relationship/ kissed back [Andrea/Andrew] who is currently in another relationship/hooked up with someone [he/she] met at the bar when [his/her] partner was out of town/did not hook up with someone [he/she] met at the bar when [his/her] partner was out of town}.(correct answer)

[Michael/Michelle] hasn’t dated anyone in a while.

[Michael/Michelle] is looking for someone to date.

Kindness/Cruelty behavior conditions:

[Michael/Michelle] {told [Brenna/Brendan] to not wait for [Nick/Nicole]/stayed out of [his/her] coworkers’ business/played a mean joke on [his/her] coworker/decided not to play a mean joke on [his/her] coworker}

[Michael/Michelle] was attracted to [Brenna/Brendan].

[Michael/Michelle] is slightly developmentally disabled.

**Participants who responded correctly (see main text) then responded to the measures below, in individualized random orders. Phrases in curly brackets correspond to differences as a function of morality vs. immorality conditions.**

To what extent would you say that [Michael/Michelle] is {a moral/an immoral} person? [Michael/Michelle] is... (1 = not at all {moral/immoral}, 7 = very {moral/immoral})

To what extent would you say that [Michael/Michelle] is a {good/bad} person? [Michael/Michelle] is... (1 = not at all {good/bad}, 7 = very {good/bad})

To what extent would you say that [Michael/Michelle]’s behavior was {moral/immoral}? [Michael/Michelle]’s behavior was... (1 = not at all {moral/immoral}, 7 = very {moral/immoral})

To what extent would you say that [Michael/Michelle]’s behavior was {correct/wrong}? [Michael/Michelle]’s behavior was... (1 = not at all {correct/wrong}, 7 = very {correct/wrong})

How much do you think [Michael/Michelle] cares about each of the issues below? (1 = not at all, 7 = very much)

Poverty, social justice, the environment

To what extent would you say that [Michael/Michelle] has the following characteristics?

[Michael/Michelle] is probably... (1 = not at all, 7 = extremely)

Vain, self-absorbed, conceited, arrogant, humble, modest

How likely do you think it is that [Michael/Michelle] is physically attractive? (1 = not at all likely, 7 = very likely)

How likely do you think it is that [Michael/Michelle] is [handsome/beautiful]? (1 = not at all likely, 7 = very likely)

## Experiment 1d

**After providing consent to participate, participants were instructed as follows.**

In this short survey, you will read about different kinds of people and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

**Participants were then randomly assigned to read about one of four targets described as moderately vs. high in attractiveness and high in vanity vs. no vanity information (control). Attractiveness and vanity descriptions were respectively identical to those in Experiments 1a and 1b. Target gender was fixed to be opposite of participants’ gender. In high vanity conditions where participants were provided with both vanity and attractiveness information, the order in which participants received attractiveness and vanity information was randomized. Regardless of whether attractiveness or vanity information was presented first, additional information started with the phrases (depending on condition), “[target name] also happens to” or “[target name] also happens to not.” For example, following the moderate or high attractiveness description, the high vanity male description started with, “Nick also happens to be extremely vain.”**

**Participants then responded to measures assessing target attractiveness and vanity. These were identical to measures used in Experiment 1a, except the word “probably” was removed. Next, participants responded to the same morality and immorality measures used in Experiment 1a.**

## Experiment 2a

**After providing consent to participate, participants were instructed:**

In this short survey, you will see pictures of different people and answer a few questions about each person. Please attend closely to details we provide about the pictured people, such as their names and faces, as you may need to respond to questions about them to track your attention to the task.

*Attractiveness manipulation*

**Participants were then randomly assigned to view a moderate or high attractive male or female target. Moderate attractive targets were previously rated as moderately attractive (i.e., near the average for the set of White males and females, drawn from the Face Research Lab London Set; DeBruine & Jones, 2017). The mean rating for males was 2.73 (on a 7-point scale). Targets in the moderate attractive male condition (Figure S1) were rated as 2.79, 2.72, 2.65, 2.63, 2.57, and 2.47. The mean rating for females was 3.55 (on a 7-point scale). Targets in the moderate attractive female condition (Figure S2) were 3.62, 3.55, 3.51, 3.51, 3.48, and 3.24**. **Highly attractive targets were a composite of three separate highly attractive male and female targets. Above the photograph, participants read the following information:**

The person below is named [James/Jennifer]. On the next several pages, we're going to ask you a few questions about [him/her]. Make sure to remember this person’s name, as you will need to recall it on the following screen to assess your attention to the task.

FigureS1 *Moderate and High Attractive Male Targets Used in Experiment 1d*

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*Note*. A = highly attractive male targets (composite of three high attractive males); B = moderately attractive male targets

Figure S2 *Moderate and High Attractive Female Targets Used in Experiment 1d*

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*Note*. A = highly attractive female targets (composite of three attractive females); B =

moderately attractive female targets

**After viewing the target and accompanying information, participants responded to an attention check item.**

What is the name of the person that you saw on the previous page?

[James/Jennifer] [John/Emma], [Alex/Kristine], [Mike/Annie]

**If participants responded incorrectly, they were allowed to review the photograph or could choose to opt out of the study. If they failed a second comprehension check question, they were not allowed to continue with the study. Those who passed were given the following instruction:**

For the following questions, there are no correct of incorrect answers. We are simply interested in your honest opinions.

*Measures*

**Participants then responded to measures assessing perceived vanity, warmth, morality, and immorality. Measures and questions within measures were presented in individually randomized orders. Above each measure, the previously displayed photo was displayed again, accompanied by the following text:**

“Please answer the questions about [James/Jennifer] pictured below.”

Vanity:

If you had to guess, to what extent does [James/Jennifer] have the following characteristics? (1 = not at all, 7 = extremely)

Vain, egotistical, self-centered

Warmth:

If you had to guess, to what extent does [James/Jennifer] have the following characteristics? (1 = not at all, 7 = extremely)

Sociable, happy, agreeable, easygoing, playful

General and trait morality and immorality:

If you had to guess, how often does [James/Jennifer] behave... (1 = almost never, 7 = very frequently)

Morally, immorally

If you had to guess, to what extent do you think [James/Jennifer] has the following characteristics? (1 = not at all, 7 = extremely)

Ethical, Principled, Honest, Trustworthy, Unethical, Unprincipled, Dishonest, Untrustworthy

**Participants were then presented again with the target’s photo and the question below:**

Using the following scale, please rate how attractive you think [James/Jennifer] is.

This person is... (1=not at all attractive, 7 = extremely attractive)

## Experiment 2b

**After providing consent to participate, participants were instructed as follows:**

In this short survey, you will read about different kinds of people and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Vanity Manipulation*

**Participants were then randomly assigned to a low or high target vanity condition. Participants were also randomly assigned to a male or female target condition. Descriptions of low and high vain targets were the same as in Experiment 1b.**

**Following this, participants responded to an attention check item below. The correct response varied by condition.**

Based only on the description you just read about [Nick/Nicole], which of the following statements is true?

{[Nick/Nicole] is quite vain about [his/her] looks/ [[Nick/Nicole] is not at all vain about [his/her] looks}(correct answer)

[Nick/Nicole] likes to run in marathons

[Nick/Nicole] has traveled all around the world

[Nick/Nicole] drinks a lot of coffee

**If participants responded incorrectly, they could review the target description or opt out of the study. If they failed a second comprehension check question, they were not allowed to continue with the study. Participants who passed this question (or a subsequent check question if they failed the first) were instructed as follows:**

For the following questions, there are no correct or incorrect answers. We are simply interested in your honest opinions.

*Measures*

**Participants then responded to measures assessing perceived vanity, sociability, morality, immorality, and attractiveness. Measures and questions within measures were presented in individualized random order.**

Vanity was measured as in Experiment 1a. Sociability was measured as in Experiment 2a.

Morality/immorality:

If you had to guess, how often does [Nick/Nicole] behave in moral ways (i.e., do moral things)?

[Nick/Nicole] behaves in moral ways... (1 = almost never, 7 = very frequently)

If you had to guess, how good of a person do you think [Nick/Nicole] is?

[Nick/Nicole] is probably a ... person. (1 = not at all good, 7 = very good)

If you had to guess, how often does [Nick/Nicole] behave in immoral ways (i.e., do immoral things)?

[Nick/Nicole] behaves in immoral ways... (1 = almost never, 7 = very frequently)

If you had to guess, how bad of a person do you think [Nick/Nicole] is?

[Nick/Nicole] is probably a ... person. (1 = not at all bad, 7 = very bad)

Moral and immoral characteristics were also assessed as in Experiment 2a.

Attractiveness was measured by presenting participants with two White male or female targets (gender depended on condition; drawn from same pool as Experiment 2a; DeBruine & Jones, 2017), side-by-side. Participants saw one of three moderately and one of three highly attractive targets. Target selection was random but constrained such that one target was moderately attractive and the other was highly attractive. The side on which each target appeared was randomly determined. On a 7-point scale, moderately attractive White male targets (Figure S3, top) were rated as 2.72, 2.63, and 2.57 (mean of all White males was 2.73). Highly attractive White male targets (Figure S3, bottom) were rated as 3.92, 3.91, and 3.90. On the same 7-point scale, moderately attractive White female targets (Figure S4, top) were rated as 3.55, 3.51, and 3.48 (mean of all White females was 3.55). Highly attractive White female targets (Figure S4, bottom) were rated as 5.68, 4.86, and 4.61.

Note: Alongside the photos, participants received the previously presented information related to vanity. See instructions below:

Below, we repeat the description of [Nick/Nicole] for your convenience:

*<previously presented target description>*

Below are pictures of two people. Which of them do you think is more likely to be [Nick/Nicole], the person in the description you read earlier (and that is repeated above)? Use the scale below to indicate your answer.

I think the person from the description is ... (1 = almost certainly the person on the left, 2 = probably the person on the left, 3 = slightly likelier the person on the left, 4 = not sure, 5 = slightly likelier the person on the right, 6 = probably the person on the right, 7 = almost certainly the person on the right)

Figure S3 *Male Target Photographs Used for Attractiveness Ratings in Experiment 2b*

|  |  |  |
| --- | --- | --- |
| A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated |

Above: Moderately Attractive White Males (“Moderate Attractive” Condition)

Below: Highly Attractive White Males (“High Attractive” Condition)

|  |  |  |
| --- | --- | --- |
| A person posing for the camera  Description automatically generated | A person looking at the camera  Description automatically generated | A person posing for the camera  Description automatically generated |

Figure S4 *Female Target Photographs Used for Attractiveness Ratings in Experiment 2b*

|  |  |  |
| --- | --- | --- |
| A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated |

Above: Moderately Attractive White Females (“Moderate Attractive” Condition)

Below: Highly Attractive White Females (“High Attractive” Condition)

|  |  |  |
| --- | --- | --- |
| A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated | A person posing for the camera  Description automatically generated |

## Experiment 2c

**After providing consent to participate, participants were instructed as follows:**

In this short survey, you will read about a person and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Manipulations*

**Participants were then randomly assigned either read a description (description condition) of a moderately attractive or high attractive target, or to view a picture (picture condition) of one of three moderate or high attractive White male or female targets. In the description condition, descriptions (except for names) were the same as in Experiment 1a. In the picture condition, targets were the same as were used in Experiment 2b.**

**Directly above the attractiveness description or target photo, participants were also randomly assigned to see a description of either a low or high sociable target. The word “also” <in angle brackets> was used only in the attractiveness description condition.**

High sociability:

[Andrew/Aryanna] is <also> usually fairly warm toward others, even if they are strangers. That’s just who [he/she] is. When talking about [Andrew/Aryanna], people say [he/she] is quite "happy”, “agreeable,” and “playful,” mostly because [he/she] is easygoing and fun to be around.

Low sociability:

[Andrew/Aryanna] is <also> usually somewhat cool towards others, particularly if they are strangers. That’s just who [he/she] is. When talking about [Andrew/Aryanna], people say [he/she] seems a bit “sad,” “disagreeable,” and “serious,” mostly because [he/she] isn’t particularly easygoing or fun to be around.

**Participants then responded to a comprehension check item where the correct answer varied by and depended on condition:**

Earlier, you read a brief description of [Andrew/Aryanna]. Which of the following descriptions summarizes the information you learned about [him/her]? [He/she] was described as…

{warm and agreeable/cool and disagreeable} (correct answer)

{cool and disagreeable/warm and agreeable}

brave and ready for anything

smart and curious

assertive and decisive

**Participants who responded incorrectly could choose to review the target description/photo or opt out of the study. If they failed a second comprehension check question, they were not allowed to continue with the study. Those who passed were given the instruction below:**

For the following questions, there are no correct of incorrect answers. We are simply interested in your honest opinions.

*Measures*

**Participants then responded to questions about attractiveness and sociability, with information about sociability and attractiveness (i.e., description or picture) respectively provided. Order of measures and of items within measures were fully randomized.**

Attractiveness:

To what extent do you think [Andrew/Aryanna] is... (1 = not at all, 7 = extremely)

Attractive, [beautiful/handsome]

Sociability:

To what extent do you think [Andrew/Aryanna] has the following characteristics?

[Andrew/Aryanna] is probably... (1 = not at all, 7 = extremely)

Sociable, happy, agreeable, easygoing, playful

**Finally, participants responded to questions about vanity, morality, and immorality, with measure and item orders randomized.**

Vanity:

If you had to guess, to what extent do you think that [Andrew/Aryanna] is… (1 = not at all, 7 = extremely)

Vain, egotistical, conceited, self-centered

Morality and immorality:

If you had to guess, to what extent do you think [Andrew/Aryanna] has the following characteristics? (1 = not at all, 7 = extremely)

Ethical, principled, honest, trustworthy, unethical, unprincipled, dishonest, untrustworthy

If you had to guess, how likely it is that [Andrew/Aryanna] has ever …? (1 = not at all likely, 7 = highly likely)

given money to a charity, given food to a homeless person, helped a friend even when [he/she] didn't want to, sacrificed something [he/she] wanted in order to help someone else, intentionally hurt someone's feelings after the person annoyed [him/her], stolen something from a store to see if [he/she] could get away with it, damaged someone's property to get back at them, lied to someone to avoid getting in trouble

## Experiment 3a

**After providing consent to participate, participants were instructed:**

This study has two parts. In the first part, you will read about a person and answer a few questions about them. In the second part, you will rapidly categorize different words using buttons on your computer keyboard. To complete the second part, you will need to download a plug-in. More information on this will be provided after you complete the first part. If you would like to continue, click “continue” below. Otherwise, click “opt out.

**Participants who chose to continue were instructed:**

In this part of the study, you will read about a person and answer a few questions about them. We are genuinely interested in your thoughts. Thank you for your attention.

*Vanity Salience Manipulation*

**Participants were then randomly assigned to a vanity (same description as in the high vanity condition of Experiment 1b and 2b, with the name changed) or control condition (see below):**

Control: Serena enjoys a variety of different leisure activities. For example, when Serena is not working, she likes going to movies, going out for a walk when the weather is nice, going shopping for needed items, or just relaxing. On occasion, like many people, Serena might spend the weekend binge-watching a favorite show on television, reading a novel, sleeping in later than usual, or preparing a special meal. Serena also likes to socialize with her friends, throwing a dinner party or going out with a group of people. However, she also values her “alone time” and doesn’t need to be around others all the time to be happy.

**Participants** **then** **responded to an item checking their attention to the materials. Phrases inside curly brackets varied by condition: condition.**

Based only on the description you just read about Serena, which of the following statements is true?

Serena {is quite vain about her looks/ likes to socialize, but also likes being alone}(correct answer)

Serena likes to run in marathons

Serena has traveled all around the world

Serena drinks a lot of coffee

**Participants who responded incorrectly could review the target description or opt out of the study. If they failed a second comprehension check question, they were not allowed to continue with the study. People who passed the question (or the subsequent one if they failed the first and continued) read the following instruction and then responded to the following measures. The vanity measure always came first. The order of the other measures was randomized, with item order within them also randomized.**

For the following questions, there are no correct or incorrect answers. We are simply interested in your honest opinions.

Vanity (2 questions):

To what extent would you say that Serena is [vain, conceited]?

Serena is... (1= not at all [vain, conceited], 7 = very [vain, conceited])

Attractiveness:

If you had to guess, how physically attractive and good looking is Serena? Serena is probably… (1 = not at all, 7 = extremely)

physically attractive, good-looking

Items related to morality and immorality were the same trait measures used in Study 2c

**Next, participants were further instructed:**

You are now finished with the first part of the study. As noted earlier, to complete the next part, you will need to download and use a plug-in from a company called Inquisit (millisecond.com). Please click on “continue” if you would like to continue participating. At the end of the study, you will be provided with a completion code to enter for payment for this HIT. If you do not want to participate, please click opt out.

*SC-IAT*

**Participants who continued were directed to the next part of the study, completed using the Inquisit plugin. Participants were first instructed:**

Instructions:

In this study, you will classify words as quickly as possible, based on the categories they belong to. These words are related to morality, immorality, and attractiveness.

Please place the index fingers of your left and right hands on the F and J keys of your computer, leaving your thumb(s) on the spacebar.

Words will appear in the center of the screen, one-by-one. You will classify these words into categories based on the locations of the categories on the screen: top left or top right. Words belong to only one category. Press the space bar to continue.

When a word belongs to the category on the top left, press the left (F) key; when a word belongs to the category on the top right, press the right (J) key. If you make an error, an X will appear - fix the error by hitting the correct key.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**Participants then completed 12 practice trials if the Single-Category Implicit Associations Test (SC-IAT; see Figure S5 for an example of how the screen appeared). Categories to be classified were “moral,” “immoral,” and “attractive.” During the practice trials, incorrect classifications were highlighted by a red X, which participants could clear by pressing the correct key. In the practice block, participants classified 4 each of moral, immoral, and attractiveness-related words. The side on which the words “moral” and “immoral” appeared was randomized, and whether the word “attractive” appeared below the word moral or immoral was also randomized.**

Figure S5 *Example Screen of the SC-IAT in Experiment 3a*

**Graphical user interface, application

Description automatically generated**

**After the practice trials, participants completed 24 critical trials (8 each of moral, immoral, and attractiveness words). First, they were instructed:**

You will continue with the same sorting task as before. Remember, each word belongs to only one category. The rules have not changed: Words representing the categories will appear one-by-one in the middle of the screen. When a word belongs to a category on the top left, press the left **(F) key**; when a word belongs to a category on the top right, press the right **(J) key.** Items belong to only one category.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar when you are ready.

**After the first critical block, the side on which the label “attractive” was on switched (e.g., from beneath “moral” to beneath “immoral”), and participants completed another set of practice trials (4 each of moral, immoral, and attractiveness words) after being instructed:**

**Attention! The attractiveness label has changed sides.** Continue to place the index fingers of your left and right hands on the F and J keys of your computer. Press the space bar to continue.

When a word belongs to a category on the top left, press the left **(F) key**; when a word belongs to a category on the top right, press the right **(J) key.** Items belong to only one category. **If you make an error, an X will appear - fix the error by hitting another key.**

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**This was followed by an additional 24 critical trials (8 each of moral, immoral, and attractiveness words), prefaced by the following instruction:**

You will continue with the same sorting task as before. Remember, each word belongs to only one group. The rules have not changed: Words representing the categories will appear one-by-one in the middle of the screen. When a word belongs to a category on the top left, press the left (F) key; when a word belongs to a category on the top right, press the right (J) key. Items belong to only one category.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar when you are ready.

**The words used as stimuli to classify were as follows:**

Moral: moral, ethical, virtuous, fair, honest, truthful, trustworthy, and principled

Immoral: immoral, unethical, unfair, deceitful, dishonest, unprincipled, untrustworthy, and corrupt

Attractiveness-related: attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, and stunning

## Experiment 3b

**After providing consent to participate, participants were asked to correctly answer the following question in order to continue:**

To continue with the study and make sure you are a human that is completing the HIT, please select which of the objects in the list below is "soft" (vs. hard).

Hammer, shovel, rock, brick, glass, iron, pillow

**Participants who selected “pillow” were allowed to continue and were given the following instruction:**

To participate in this research, you will need to download and use a plug-in from a company called Inquisit (millisecond.com), which might take a few minutes. At the end of the study, you will be provided with a completion code to enter for payment for this HIT. If you would like to uninstall the program later, please refer to: <https://www.millisecond.com/web/uninstall.aspx>. If you do not want to participate, please click opt out, and if you want to proceed please click proceed.

**Participants who chose to proceed were redirected to the Inquisit part of the study. Instructions differed by condition, indicated by the use of curly brackets.**

In this study, you will classify words as quickly as possible, based on the categories they belong to. These words are related to morality, immorality, and attractiveness. The words in each category are below:

Morality: moral, ethical, virtuous, fair, honest, truthful, trustworthy, principled

Immorality: immoral, unethical, unfair, deceitful, dishonest, unprincipled, untrustworthy, corrupt

Attractiveness: attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, stunning

Press the space bar to continue

Please place the index fingers of your left and right hands on the F and J keys of your computer, leaving your thumb(s) on the spacebar. The words you will classify into categories based on their location at the top left and right of the screen will appear one-by-one in the middle of the screen.

When a word belongs to the category on the top left, press the left (F) key; when a word belongs to the category on the top right, press the right (J) key. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting the other key.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**Participants then completed a set of 12 practice trials that was exactly the same as the practice in Experiment 3a. Following this, participants were instructed:**

As you continue with the task, you will see that a new category of words to classify has been added, related to {vanity/colors}. Although there will now be four categories instead of three, the task remains the same: you will classify words as quickly as possible, based on the categories they belong to.

The words in each category are below:

Morality: moral, ethical, virtuous, fair, honest, truthful, trustworthy, principled

Immorality: immoral, unethical, unfair, deceitful, dishonest, unprincipled, untrustworthy, corrupt

Attractiveness: attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, stunning

{Vanity: vain, superficial, self-absorbed, prideful, egocentric, arrogant, narcissistic, conceited

/Colors: blue, yellow, red, purple, brown, orange, green, gray}

When a word belongs to a category on the top left, press the left (F) key; when a word belongs to a category on the top right, press the right (J) key. When a word belongs to the category at the bottom (i.e., {vanity/colors}), press the space bar. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting another key.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**Participants then completed a second set of practice trials (see Figure S6 for an example screen), classifying 4 each of moral, immoral, attractive, and {vanity/color} (distractor) words.**

Figure S6 *Example Screen from Modified SC-IAT in Experiment 3b*

![Application

Description automatically generated with medium confidence]()

**After this second practice, participants completed the first set of critical trials, which included the classification of 32 words (8 each of moral, immoral, attractive, and {vanity/color}). First, participants were instructed:**

You will do the same sorting task as before. Remember, each word belongs to only one group. The rules have not changed: Words representing the categories will appear one-by-one in the middle of the screen. When a word belongs to a category on the top left, press the left (F) key; when a word belongs to a category on the top right, press the right (J) key. When a word belongs to the category at the bottom (i.e., {vanity/colors}, press the space bar. Items belong to only one category.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar when you are ready

**Next, participants were informed that the side on which the word “attractive” had changed (e.g., if it first appeared below “moral,” it would now appear below “immoral”). Participants then completed another 12 practice trials that did not include the fourth category of {vanity/color}. First, they were instructed:**

Attention! The labels have changed sides. Continue to place the index fingers of your left and right hands on the F and J keys of your computer, leaving your thumb(s) on the spacebar. You will still be classifying different words on the basis of the categories they belong to. Again, there will be the same three categories you started with: Words related to morality, immorality, and attractiveness.

The words in each category are as follows.

Morality: moral, ethical, virtuous, fair, honest, truthful, trustworthy, principled

Immorality: immoral, unethical, unfair, deceitful, dishonest, unprincipled, untrustworthy, corrupt

Attractiveness: attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, stunning

Press the space bar to continue

The words you will classify into categories based on their location at the top left and right of the screen will continue to appear one-by-one in the middle of the screen. When a word belongs to the category on the top left, press the left (F) key; when a word belongs to the category on the top right, press the right (J) key. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting the other key.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**Next, the same new category of words related to vanity or colors was reintroduced and participants completed 16 more practice trials, as above. Participants were first instructed:**

Once again, there will now be four categories of words to classify. The words in each category are repeated below:

Morality: moral, ethical, virtuous, fair, honest, truthful, trustworthy, principled

Immorality: immoral, unethical, unfair, deceitful, dishonest, unprincipled, untrustworthy, corrupt

Attractiveness: attractive, good-looking, gorgeous, handsome, pretty, sexy, beautiful, stunning”

{Vanity: vain, superficial, self-absorbed, prideful, egocentric, arrogant, narcissistic, conceited

/Colors: blue, yellow, red, purple, brown, orange, green, gray}

Press the space bar to continue

When a word belongs to a category on the top left, press the left (F) key; when a word belongs to a category on the top right, press the right (J) key. When a word belongs to the category at the bottom (i.e., {vanity/colors}), press the space bar. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting another key.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar to continue and practice the task.

**Finally, participants completed another 32 critical trials, as in the first half of the study. Participants were instructed:**

You will do the same sorting task as before. Remember, each word belongs to only one group. The rules have not changed: Words representing the categories will appear one-by-one in the middle of the screen. When a word belongs to a category on the top left, press the left (F) key; when a word belongs to a category on the top right, press the right (J) key. When a word belongs to the category at the bottom (i.e., {vanity/colors}, press the space bar. Items belong to only one category.

This is a timed sorting task. RESPOND AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. Press the space bar when you are ready

# DEMOGRAPHIC INFORMATION

Table S1 *Demographic Information for All Experiments*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Exp 1a** | **Exp 1b** | **Exp 1c** | **Exp 1d** | **Exp 2a** | **Exp 2b** | **Exp 2c** | **Exp 3a** | **Exp3b** |
| **Overall** | 187 | 190 | 485 | 602 | 404 | 301 | 600 | 301 | 200 |
| **Gender** |  |  |  |  |  |  |  |  |  |
| Male | 95 (50.80) | 88 (46.32) | 260 (53.61) | 266 (44.19) | 214 (52.97) | 158 (52.49) | 273 (45.50) | 110 (36.54) | 107 (53.50) |
| Female | 90 (48.13) | 101 (53.16) | 223 (45.98) | 335 (55.65) | 185 (45.79) | 142 (47.18) | 321 (53.50) | 188 (62.46) | 92 (46.00) |
| Others/un-specified | 2 (1.07) | 1(0.53) | 2 (0.41) | 1 (0.16) | 5 (1.24) | 1 (0.33) | 6 (1.00) | 3 (1.00) | 1 (0.50) |
| **Age** |  |  |  |  |  |  |  |  |  |
| 18-29 | 44 (23.53) | 40 (21.05) | 147 (30.31) | 122 (20.27) | 74 (18.32) | 50 (16.61) | 139 (23.17) | 92 (30.56) | 59 (29.50) |
| 30-49 | 104 (55.61) | 113 (59.47) | 245 (50.52) | 333 (55.32) | 244 (60.40) | 170 (56.48) | 320 (53.33) | 161 (53.49) | 103 (51.50) |
| 50-64 | 32 (17.11) | 32 (16.84) | 72 (14.85) | 106 (17.61) | 71 (17.57) | 66 (21.93) | 111 (18.50) | 35 (11.63) | 29 (14.50) |
| 65+ | 7 (3.74) | 5 (2.63) | 21 (4.33) | 41 (6.81) | 15 (3.71) | 15 (4.98) | 30 (5.00) | 13 (4.32) | 9 (4.50) |
| **Race/ethnicity** |  |  |  |  |  |  |  |  |  |
| Asian/Asian American | 12 (6.24) | 11 (5.79) | 49 (10.10) | 51 (8.47) | 47 (11.63) | 20 (6.64) | 40 (6.67) | 22 (7.31) | 26 (13.00) |
| Black/African American | 14 (7.49) | 15 (7.89) | 46 (9.48) | 50 (8.31) | 36 (8.91) | 18 (5.98) | 55 (9.17) | 32 (10.63) | 15 (7.50) |
| Hispanic/Latino(a) | 15 (8.02) | 7 (3.68) | 24 (4.95) | 41 (6.81) | 20 (4.95) | 14 (4.65) | 22 (3.67) | 24 (7.97) | 10 (5.00) |
| White/European American | 140 (74.87) | 151 (79.47) | 350 (72.16) | 440 (73.09) | 288 (71.29) | 243 (80.73) | 457 (76.17) | 215 (71.43) | 148 (74.00) |
| Others | 6 (3.21) | 6 (3.16) | 16 (3.30) | 20 (3.32) | 13 (3.22) | 6 (1.99) | 26 (4.33) | 8 (2.66) | 1 (0.50) |
| **Political orientation** |  |  |  |  |  |  |  |  |  |
| Liberal | 94 (50.27) | 110 (57.89) | 249 (51.34) | 306 (50.83) | 192 (47.52) | 143 (47.51) | 286 (47.67) | 164 (54.49) | 107 (53.50) |
| Middle of the road | 41 (21.93) | 37 (19.47) | 106 (21.86) | 128 (21.26) | 84 (20.79) | 62 (20.60) | 142 (23.67) | 52 (17.28) | 45 (22.50) |
| Conservative | 52 (27.81) | 43 (22.63) | 130 (26.80) | 168 (27.91) | 128 (31.68) | 96 (31.89) | 172 (28.67) | 84 (27.91) | 48 (24.00) |

*Note:* Numbers in parentheses are percentages. Liberal/Conservative includes slightly, moderately, and extremely liberal/conservative categories.

# SUPPLEMENTAL RESULTS AND ANALYSES

Here, we report additional results and analyses to supplement the primary findings presented in the main text.

## Supplemental analyses for Experiment 1a

To provide supplemental evidence for the hypothesis that attractiveness would influence perceived immorality through attributed vanity, we examined a mediation model using bootstrapping (10,000 resamples). As predicted, attractiveness (0 = moderately attractive, 1 = highly attractive) significantly and positively predicted vanity attribution, which in turn respectively predicted perceived morality and immorality (see Figure S7 for path coefficients), morality indirect effect b = –0.58 [CI.95 = –0.88, –0.31]; immorality indirect effect b = 0.73 [CI.95 = 0.51, 0.97]. The direct effect of attractiveness on morality attribution was not significant (p = .285), but for immorality, the effect was negative and significant, p = .006. This reversal in sign hints at suppression consistent with a beautiful-is-good (or beautiful-is-not-bad) effect, suggesting that after accounting for the indirect effects of attractiveness on assessment of immorality through vanity, attractiveness may be associated with less perceived immorality.

Figure S7 Indirect Effects of Attractiveness on Morality and Immorality Via Perceived Vanity in Experiment 1a

 

Note. Path coefficients are unstandardized. Coefficients representing the effect of attractiveness controlling for vanity are in parentheses. \*p < .05, \*\*p < .01, and \*\*\*p < .001

## Supplemental analyses for Experiment 1b

Figure S8 Indirect Effects of Vanity on Morality and Immorality Via Perceived Attractiveness in Experiment 1b



Note. Path coefficients are unstandardized. Coefficients representing the effect of vanity controlling for attractiveness are in parentheses. *\** *p* < .05*, \*\* p* < .001

In this model (Figure S8), the direct effect of vanity (0 = low vanity, 1 = high vanity) on immorality was significant and directionally consistent after controlling attractiveness, suggesting that although attractiveness works through vanity to predict moral judgment (i.e., Experiment 1a), vanity exerts strong independent effects on moral judgment that do not change in sign when the effects of attractiveness are controlled. Although not expected, the indirect effect of vanity on the attribution of morality through attribution of attractiveness was also significant, suggesting the vainer target was *more moral* because they were more attractive, morality indirect effect *b* = 0.14 [CI.95 = 0.04, 0.27]. Notably, not only is this consistent with a beautiful-is-good effect, but it suggests an interesting and complex relationship among this set of variables, with both vanity and attractiveness mutually suppressing the relationship of the other variable to moral judgments. However, the indirect effect on immorality attribution was not significant, indirect effect *b* = –0.08 [CI.95 = –0.21, 0.01].

## Supplemental analyses for Experiment 1c

Table S2 *Full Factorial ANOVA Results for Vanity in Experiment 1c*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | **All Participants** | | | | |
| **Predictor** | **SS** | | ***df*** | ***F*** | ***p*** | ***d* ()** |
| Level | | 15.32 | 1 | 11.13 | .001 | 0.19 |
| Moral valence | | 20.47 | 1 | 14.87 | <.001 | 0.85 |
| Behavior | | 50.73 | 3 | 12.28 | <.001 | (0.07) |
| Level × Moral valence | | 477.51 | 1 | 346.73 | <.001 | (0.46) |
| Level × Behavior | | 3.41 | 3 | 0.83 | .481 | (0.005) |
| Behavior × Moral valence | | 28.52 | 3 | 6.90 | <.001 | (0.36) |
| Level × Behavior × Moral valence | | 15.98 | 3 | 3.87 | .009 | (0.02) |
| Residuals | | 645.90 | 469 |  |  |  |
|  | **Moral Condition Only** | | | | | |
| Level | | 161.72 | 1 | 103.73 | <.001 | −1.41 |
| Behavior | | 34.86 | 3 | 7.45 | <.001 | (0.09) |
| Level × Behavior | | 11.41 | 3 | 2.44 | 0.07 | (0.03) |
| Residuals | | 367.92 | 236 |  |  |  |
|  | **Immoral Condition Only** | | | | | |
| Level | | 330.23 | 1 | 276.80 | <.001 | 2.06 |
| Behavior | | 44.93 | 3 | 12.55 | <.001 | (0.14) |
| Level × Behavior | | 7.98 | 3 | 2.23 | 0.09 | (0.03) |
| Residuals | | 277.98 | 233 |  |  |  |

Table S3 *Descriptive and Inferential Statistics for Vanity within Behavior Conditions in Experiment 1c*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Moral valence** | **Type** | **Low** | | | **High** | | ***t*** | ***p*** | ***d*** |
| ***M*** | | ***SD*** | ***M*** | ***SD*** |  |  |  |
| Moral | Helping | | 4.50 | 1.23 | 2.17 | 1.13 | −9.38 | < .001 | −1.99 |
| Returning | | 3.22 | 1.28 | 1.88 | 1.06 | −4.28 | < .001 | −1.17 |
| Fidelity | | 3.45 | 1.37 | 2.05 | 0.93 | −4.21 | < .001 | −1.23 |
| Kindness | | 3.81 | 1.44 | 2.15 | 1.58 | −3.80 | < .001 | −1.12 |
| All | | 3.88 | 1.40 | 2.07 | 1.17 | −10.93 | < .001 | −1.41 |
| Immoral | Harming | | 3.16 | 1.14 | 6.02 | 0.84 | 13.59 | < .001 | 2.90 |
| Stealing | | 2.96 | 1.13 | 5.18 | 1.10 | 7.28 | < .001 | 2.04 |
| Infidelity | | 2.27 | 1.11 | 4.92 | 0.91 | 9.32 | < .001 | 2.66 |
| Cruelty | | 4.19 | 1.65 | 6.12 | 0.85 | 5.10 | < .001 | 1.52 |
| All | | 3.13 | 1.37 | 5.62 | 1.04 | 15.91 | < .001 | 2.06 |

Table S4 *Full Factorial ANOVA Results for Attractiveness in Experiment 1c*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Predictor** | **SS** | ***df*** | ***F*** | ***p*** | ***d* ()** |
| Level | <0.01 | 1 | 0.01 | .69 | −0.03 |
| Moral valence | 0.20 | 1 | 0.15 | .016 | −0.21 |
| Behavior | 46.60 | 3 | 11.88 | <.001 | (0.07) |
| Level × Moral valence | 10.80 | 1 | 8.27 | .006 | (0.02) |
| Level × Behavior | 2.90 | 3 | 0.74 | .53 | (0.005) |
| Behavior × Moral valence | 3.00 | 3 | 1.25 | .29 | (0.005) |
| Level × Behavior × Moral valence | 1.50 | 3 | 0.40 | .76 | (0.002) |
| Residuals | 612.80 | 469 |  |  |  |

*Note. SS* denotes sum of squares, *df* indicates degrees of freedom, *MS* indicates mean square.

Table S5 *Descriptive and Inferential Statistics for Attractiveness within Behavior Conditions in Experiment 1c*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Moral valence** | **Type** | **Low** | | **High** | | ***t*** | ***p*** | ***d*** |
| ***M*** | ***SD*** | ***M*** | ***SD*** |
| Moral | Helping | 4.73 | 0.98 | 4.72 | 0.93 | −0.04 | .967 | −0.01 |
| Returning | 4.13 | 0.80 | 4.5 | 1.16 | 1.38 | .173 | 0.38 |
| Fidelity | 5.12 | 1.26 | 5.32 | 1.02 | 0.60 | .554 | 0.17 |
| Kindness | 4.02 | 1.34 | 4.67 | 1.20 | 1.76 | .085 | 0.52 |
| All | 4.54 | 1.15 | 4.78 | 1.09 | 1.71 | .089 | 0.22 |
| Immoral | Harming | 4.57 | 1.20 | 4.22 | 1.38 | −1.27 | .209 | −0.27 |
| Stealing | 4.44 | 1.11 | 3.94 | 0.80 | −1.88 | .066 | −0.53 |
| Infidelity | 5.38 | 0.97 | 5.10 | 1.03 | −1.01 | .317 | −0.29 |
| Cruelty | 3.85 | 1.31 | 3.71 | 1.62 | −0.32 | .748 | −0.1 |
| All | 4.57 | 1.24 | 4.25 | 1.34 | −1.96 | .051 | −0.25 |

Figure S9 *Indirect Effects of Morality and Immorality on Perceived Vanity and Attractiveness in Experiment 1c*

**

Note. Path coefficients are unstandardized. Coefficients representing the effect of vanity controlling for attractiveness are in parentheses. *\** *p* < .05*, \*\* p* < .01, \*\*\* *p* < .001

These mediation models suggest that vanity plays a stronger role in explaining the connection between attractiveness and morality than attractiveness plays in explaining the connection between morality and vanity. When the effect of immoral condition (0 = low, 1 = high) on vanity through attractiveness rating was examined (Figure S9-a), targets high (vs. low) in immorality were rated as less attractive and attractiveness negatively predicted vanity. However, the indirect effect was not significant (*p* = .11), and the direct effect was quite strong. For morality conditions (Figure S9-b), none of the paths was significant, except the direct effect of moral condition on vanity. In the model reversing this causal ordering, the effects were more robust. As in Figure S9-c, immoral condition significantly predicted vanity which also predicted attractiveness, resulting in a significant indirect effect of immorality, *b* = –0.63, *p* = .001. In the moral conditions (Figure S9-d), the indirect effect was not significant (*p* = .21), because although morality predicted vanity, vanity did not predict attractiveness.

## 

## Supplemental analyses for Experiment 1d

Table S6 *Order × Attractiveness Interaction Effect on Morality among The Vanity Conditions in Experiment 1d*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | ***Vanity Conditions*** | | | | |
| **Predictor** | **SS** | ***df*** | ***F*** | ***p*** | ***d* ()** |
| Attractiveness | 13.16 | 1 | 13.95 | <.001 | 0.23 |
| Order | 11.55 | 1 | 12.24 | <.001 | 0.2 |
| Attractiveness × Order | 9.84 | 1 | 10.43 | 0.001 | (0.03) |
| Residuals | 279.25 | 296 |  |  |  |
|  |  | ***Attractiveness first Condition*** | | | |
|  |  | ***df*** | ***t*** | ***p*** | ***d*** |
| Attractiveness |  | 148 | 3.81 | <.001 | 0.63 |
|  |  | ***Vanity first Condition*** | | | |
|  |  | ***df*** | ***t*** | ***p*** | ***d*** |
| Attractiveness |  | 148 | 0.82 | .415 | 0.13 |

*Note. SS* denotes sum of squares, *df* indicates degrees of freedom, *MS* indicates mean square.

## Supplemental analyses for Experiment 2a

We tested mediational models where the effects of attractiveness on moral judgments were mediated by both vanity and sociability ratings. As expected, attractiveness (0 = moderately attractive, 1 = highly attractive) predicted unfavorable moral judgments via vanity attribution; respectively for morality and immorality, indirect effects *b* = –0.10 [CI.95 = –0.18, –0.04] and *b* = 0.22 [CI.95 = 0.09, 0.38]. In contrast, indirect effects via sociability were reversed; respectively for morality and immorality, *b* = 0.24 [CI.95 = 0.09, 0.40] and *b* = –0.17 [CI.95 = –0.28, –0.07]. See Figure S10 for path coefficients.

Figure S10 *Indirect Effects of Attractiveness on Morality and Immorality Via Perceived Vanity and Sociability in Experiment 2a*



Note. Path coefficients are unstandardized. Coefficients representing the effect of attractiveness controlling for perceived vanity and sociability are in parentheses. *\** *p* < .05*, \*\* p* < .001

## Supplemental analyses for Experiment 2b

FigureS11 *Indirect Effects of Vanity on Morality and Immorality Via Perceived Attractiveness in Experiment 2b*

**

Note. Path coefficients are unstandardized. Coefficients representing the effect of vanity controlling for attractiveness are in parentheses. *\** *p* < .05*, \*\* p* < .001

Vanity (0 = low, 1 = high) significantly predicted attractiveness, but attractiveness did not predict morality or immorality, yielding non-significant indirect effects, *ps* > .451. However, the direct effect of vanity on morality and immorality remained strong.

Figure S12 *Indirect Effect of Vanity on Morality and Immorality Via Perceived Sociability Judgments in Experiment 2b*

**

Note. Path coefficients are unstandardized. Coefficients representing the effect of vanity controlling for attractiveness are in parentheses. *\** *p* < .05*, \*\* p* < .001

In this model, vanity predicted sociability, sociability predicted morality and immorality, and the indirect effects were significant (morality indirect effect *b* = –0.75 [CI.95 = –0.98, –0.54]; immorality indirect effect *b* = 0.67 [CI.95 = 0.43, 0.93]), suggesting that in part, vanity may increase (decrease) perception of immorality (morality) through its impact on sociability. However, the direct effects of vanity on morality and immorality, although descriptively reduced, remained significant.

1. The first 54 participants were not asked this question as it was applied in the middle of the survey to check if participants were paying enough attention to the target description. All the participants who completed this question got the correct answer. [↑](#footnote-ref-1)