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A little appreciation goes a long way: gratitude reduces objectification

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ABSTRACT

Objectification, treating others merely as things or tools while denying their personhood, results in severe consequences. While prior research predominantly focused on the triggers of objectification, we aimed to investigate a possible intervention. We hypothesized that gratitude could reduce objectification toward general others (i.e., people who are not the benefactors). Across three studies ($N = 1007$), our hypothesis was supported. Study 1 showed that dispositional gratitude negatively predicted trait objectification. Studies 2 and 3 further found a causal relationship. Specifically, after heightening participants' state of gratitude, participants showed a lower level of objectification towards others (Study 2). Using a scenario study that described a working context, we further showed the alleviating effect of gratitude on objectification toward a group of factory workers, targets often suffering from objectification (Study 3). Our reported effect is prevalent, such that it is observed across samples from two countries (i.e., the United States and China).

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Objectification refers to treating others merely as things or tools while denying their mind (Fredrickson & Roberts, 1997; Nussbaum, 1995). Studies have consistently shown that women are often the targets of sexual objectification, such that they are perceived and treated as an instrument toward one's sexual pleasure and their mental states are neglected (e.g., Moradi & Huang, 2008; Roberts et al., 2018). However, objectification exists not only in gender relations, and a growing number of studies have shown that objectification is more prevalent than people previously thought. That is, objectification exists in various domains, including the workplace (e.g., Andrighetto et al., 2017; Belmi & Schroeder, 2021), intergroup relations (e.g., Haslam & Loughnan, 2012; Markowitz & Slovic, 2020), medical field (e.g., Boysen et al., 2020; Raja et al., 2015), as well as general social interaction occurring on a daily basis (e.g., Landau et al., 2012; Teng, Chen, Poon, Zhang, Jiang et al., 2016; Wang & Krumhuber, 2017). Needless to say, objectification causes severe consequences, ranging from interpersonal indifference, reduced empathy and helping, aggression and bully, to even killing and genocide (e.g., Čehajić et al., 2009; Obermann, 2011; Poon, Chen, Teng, Wong et al., 2020a; Rai et al., 2017; Stanton, 2013). Given the detrimental outcomes, it is important to find interventions to alleviate objectification, an area that has received little attention from scholars previously (Haslam & Loughnan, 2014). In the current research, we

aimed to investigate this issue by revealing gratitude, an emotion that is experienced by people in most cultures (McCullough et al., 2001), as a possible intervention. Specifically, we tested whether gratitude, either as a stable trait or an induced state, could reduce objectification of general others (i.e., people who are not the benefactors).

Objectification

Objectification refers to treating others merely as things or tools that can aid in one's goal achievement while denying others' autonomy, needs, and feelings (Fredrickson & Roberts, 1997; Nussbaum, 1995). When a target is objectified, this person is figuratively split into parts, with only those traits serving a perceiver's current goal being valued (e.g., Gruenfeld et al., 2008; Wang & Krumhuber, 2017). In other words, it is the usefulness of this target to perceivers that is focused on. In addition, the essential humanity of the objectified targets is deprived. State it differently, when a target is objectified, this person can be perceived as lacking mental capacities, hence being likened to mindless objects (e.g., Loughnan et al., 2010; Vaes et al., 2011). Crucially, studies have consistently found that objectification causes severe consequences. For example, objectification predicts reduced helping and empathy (e.g., Čehajić et al., 2009; Viki et al., 2013). People tend to bully and act

aggressively toward objectified targets, including rape, sexual harassment, and even torture (Obermann, 2011; Poon, Chen, Teng, Wong et al., 2022; Rudman & Mescher, 2012; Viki et al., 2013). Furthermore, a target who has been constantly objectified by others could internalize this process and starts to perceive and treat him/herself as an object or tool that lacks essential humanness, a process known as self-objectification (e.g., Nussbaum, 1995). Clearly, the costs of self-objectification are substantial, and potential consequences include impaired cognitive and physical performance, negative self-evaluations, and health problems (e.g., Baldissarri & Andrighetto, 2021; Heflick & Goldenberg, 2009; Moradi & Huang, 2008; Quinn et al., 2006; Zurbriggen et al., 2011).

Previous empirical studies have found that various factors could trigger objectification, such as the feelings of disgust (e.g., Hodson & Costello, 2007) or uncertainty (Landau et al., 2012), hostile and disagreeable personal characteristics of perceivers (Locke, 2009), targets' social category (e.g., Harris & Fiske, 2006; Kersbergen & Robinson, 2019; Petsko et al., 2021; Rudman & Mescher, 2012), heuristic thinking (Prati et al., 2015), perceived threat (Viki et al., 2013), social power (e.g., Gwinn et al., 2013), motivation for money or even the presence of money (e.g., Teng, Chen, Poon, Zhang, Jiang et al., 2016; Wang & Krumhuber, 2017), economic value (Wang & Krumhuber, 2018), certain work features (Belmi & Schroeder, 2021; Valtorta et al., 2019), and immoral acts or infidelity (e.g., Bastian et al., 2013; Rodrigues et al., 2018).

Existing studies have predominantly focused on dispositional and situational triggers of objectification. Given the detrimental social outcomes, both intra- and inter-personally, it is important to examine the factors that could buffer and alleviate objectification, an area that has been largely neglected by previous scholars. In the current research, we would like to investigate whether gratitude could buffer against objectifying general others (i.e., not the benefactor(s)), which is elaborated on in the following section.

Gratitude and its impact on objectification

Gratitude is often defined as a positive emotion, or more broadly positive psychological response after people receive aid that is valuable and altruistic (Wood et al., 2008c). In other words, it often occurs when people acknowledge that they benefit from other's help, guidance, or gifts which can be costly for the benefactor(s); Emmons et al., 2003). In addition, apart from an interpersonal appreciation of other people's aid (i.e., appreciation of other people), scholars have also considered

gratitude as a part of a wide life orientation towards appreciating the positive aspects of life (e.g., appreciation of what one already has, Wood et al., 2010). As one of the core concepts examined in the field of positive psychology, gratitude has been found to be a predictor of various positive outcomes. At the intrapersonal level, gratitude is associated positively with multiple indexes of mental and physical health, such as lower risks of depression, anxiety, and dependence on nicotine, alcohol, and drug (e.g., Kendler et al., 2003), reduced level of stress (Wood et al., 2008b), improvement in sleep quality (Emmons & McCullough, 2003), and better recovery from trauma (i.e., post-trauma growth, Peterson & Seligman, 2003). On the flip side, gratitude is linked with eudemonic well-being (e.g., autonomy, personal growth, and purpose in life, Wood et al., 2009) and authentic living (Wood et al., 2008a).

At the interpersonal level, we expected that gratitude can reduce objectification due to a couple of reasons. First, according to McCullough et al. (2001), not only is gratitude a response to others' moral behavior (helping others even when there is a cost to oneself), but gratitude also motivates subsequent moral behaviors – behaviors driven by concerns for others. As one of the self-transcendent emotions (i.e., emotions arising out of other-focused appraisals), gratitude has been proposed to shift people's attention from one's own needs and concerns to those of others (Stellar et al., 2017). State it differently, gratitude encourages other-oriented behaviors that are characterized by greater sensitivity and attunement to others. In this vein, gratitude inhibits destructive interpersonal behavior, making people prefer constructive modes of dealing with conflict (Baron, 1984). More interestingly, experiencing gratitude not only makes people demonstrate prosociality toward the person who helped them (Stellar et al., 2017) but also makes people more likely to help others apart from their initial benefactor (Bartlett & DeSteno, 2006; Nowak & Roch, 2007). Meanwhile, objectification often results from self-centeredness or self-interested behavior (i.e., considering how others can be used to achieve one's own goal, Wang et al., 2020) and it naturally leads to indifference and even immoral behavior (Haslam & Loughnan, 2014; Nussbaum, 1995; Rai et al., 2017; Wang & Krumhuber, 2017). Therefore, the moral and other-orientation functions of gratitude can potentially act as a buffer against objectification during interpersonal processes. Secondly, according to find-remind-and-bind theory (Algoe, 2012), gratitude is a 'psychological gel' to increase social bonds, encouraging people to engage in behaviors that bring them and others closer together. In this vein, gratitude facilitates goal contagion, making people adopt the goal implied by a social

other's behavior (Jia et al., 2014). Gratitude is associated with perceived support from peers and family members (Froh et al., 2009a, 2009b), and predicts increased relationship commitment, quality, maintenance, and satisfaction between the benefactors and the gift recipients (Algoe et al., 2008; Joel et al., 2013; Kubacka et al., 2011; Park et al., 2019). Meanwhile, when people show a reduced intention for social connection and bonding, considering or even acknowledging others' personhood becomes less relevant and thus objectification can occur (e.g., Powers et al., 2014; Waytz & Epley, 2012). In contrast, forming social bonding requires people to efficiently attend to others' mental states, and thus gratitude could act as a buffer against objectification.

The present research

In the current research, we aimed to investigate whether gratitude, either as a stable trait or an induced state, could reduce objectification. Specifically, we are interested in whether feeling grateful would reduce the objectification of general others (i.e., not the benefactor(s)). To this end, Study 1 tested whether dispositional gratitude would correlate negatively with the trait objectification. Studies 2 and 3 further examined a causal relationship by manipulating participants' state gratitude. In particular, in Study 2, we manipulated participants' state gratitude by asking them to write a gratitude letter and assessed their subsequent objectification level towards others. Study 3 was to use a scenario study to test further whether the effect of gratitude on reducing objectification could be applied to specific unknown others, that is, a group of factory workers often suffering from objectification (Andrighetto et al., 2017; Valtorta et al., 2019).

Sample Size Determination. We aimed for 200 participants for Study 1 (correlational study) and 200 participants per condition for Studies 2 and 3 (experimental study). Sensitivity power analysis ($\alpha = .05$; $\beta = .80$) revealed that the smallest effect sizes of $r = 0.2$ (Study 1, $N = 202$), $d = 0.28$ (Study 2, $N = 409$), and $d = 0.28$ (Study 3, $N = 396$) could be detected.

Data Availability Statement. Data will be made publicly available (OSF) once the manuscript is accepted for publication. All data exclusion criteria, manipulations, and measures in our studies were reported.

Study 1

Study 1 aimed to provide an initial test on the relationship between gratitude and objectification. We predicted that the dispositional gratitude would correlate negatively with the trait objectification, i.e., perceiving

and treating general others instrumentally and neglecting their inner thoughts and feelings. Besides, several studies have indicated the link between objectification and status-related constructs (e.g., social power; Gruenfeld et al., 2008; Lammers & Stapel, 2011; Yang et al., 2015); thus, we measured participants' subjective social status as a control variable.

Method

Participants. We recruited 202 American participants via Amazon Mturk (118 women, $M_{\text{age}} = 45.58$, $SD = 14.57$, 79% European Americans, 9% African Americans, 8% Asian Americans, and 4% others). Participants were compensated with 0.3 dollars. The study was approved by the Ethics Committee of the University of Hong Kong (EA200212). Informed consent was obtained from all participants in the study on-line.

Procedures and Measures. After providing their informed consent, participants were presented with several questions that first measured their trait gratitude, which was followed that the measure of objectification. Finally, they provided demographic information (i.e., gender, age, and subjective social status). Unless noted otherwise, all questions were responded to on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Finally, participants were debriefed and thanked.

Dispositional gratitude. Participants completed the well-established Gratitude Questionnaire (GQ-6; McCullough et al., 2001), which consists of six items. Example items were 'I have so much in life to be thankful for.'; 'If I had to list everything that I felt grateful for, it would be a very long list.' We averaged the scores to produce an overall gratitude index, with higher scores indicating stronger levels of dispositional gratitude ($\alpha = .89$).

Objectification. The 10-item modified version of Gruenfeld et al. (2008)'s Objectification Scale was used to measure participants' tendency to perceive and treat general others (instead of a particular person) in an instrumental manner. The modified scale has been used in prior studies (e.g., Wang & Krumbhuber, 2017). Example items were 'I would think more about what others can do for me than what I can do for others.'; 'I tend to contact others only when I need something from them.'; 'I am interested in this person's feelings because I want to be close with him/her. (R)' We averaged the scores to produce an overall objectification index, with higher scores indicating stronger levels of objectification ($\alpha = .82$).

Subjective Social Status. Participants' subjective social status was reported using MacArthur's social ladder (Adler et al., 2000), ranging from 1 = *the lowest standing* to 10 = *the highest standing*.

Table 1.

| Variables | <i>M</i> (<i>SD</i>) | 1 | 2 | 3 | 4 |
|--------------------|------------------------|--------------------|------------------|--------------------|---|
| 1. Age | 45.58 (14.57) | - | | | |
| 2. SSS | 5.18 (1.76) | .13 | - | | |
| 3. DG | 5.54 (1.34) | .34 ^{a*} | .23 ^a | - | |
| 4. Objectification | 3.17 (0.99) | -.38 ^{a*} | .19 ^a | -.33 ^{a*} | - |

Note SSS = Subjective social status, DG = Dispositional gratitude
^a $p < .01$, ^{***} $p < .001$

Results and discussion

As expected, participants' dispositional grateful level was negatively associated with objectification, $r(202) = -.33$, 95% CI [-.20, -.44]. This result remained to be significant after controlling for age, gender,¹ and subjective social status, $B = -0.19$, $SE = 0.05$, 95% CI [-0.29, -0.10], $p < .001$. We presented the correlational Matrix in Table 1.

Study 1 provided initial evidence that individuals who are more likely to feel grateful show a reduced tendency to perceive and treat others instrumentally. Given that Study 1 was only able to provide correlational evidence, in the subsequent study, we aimed to further examine the causal relationship by directly manipulating participants' state gratitude.

Study 2

In Study 2, we aimed to investigate whether gratitude can reduce the objectification of general others. To this end, we manipulated participants' state gratitude by asking them to write a gratitude letter. We predicted that participants in the gratitude condition (vs. control condition) would be less likely to objectify general others. All survey items were translated from English to Chinese using accepted translation-back-translation techniques (Brislin, 1970).

Method

Participants. We recruited 410 Chinese participants via Credamo, a data collection platform that is comparable to Mechanic Turk in China. One participant was excluded as he or she did not pass the attention check (i.e., one item embedded in the scale, 'Please select 4.'). leaving 409 participants (234 men, $M_{\text{age}} = 27.95$, $SD = 5.61$) in the final analysis. Participants were randomly assigned to one of the two conditions (gratitude versus control), resulting in 202 people in the gratitude condition and 207 in the control condition. Participants were compensated with 2 Chinese Yuan (approximately equivalent to 0.3 US dollars).

Procedure and Measures. Participants completed the study in Chinese. They first gave their informed consent and reported demographic information (i.e., gender,

age, and subjective social status). Then, we randomly assigned participants to one of two conditions (gratitude vs. control). Following Deichert et al. (2021), in the gratitude condition, participants were instructed to write a gratitude letter to a person for whom they were grateful. In contrast, in the control condition, participants were instructed to write down what they often do each Tuesday. In both conditions, participants were required to provide as many details as they could (writing no less than 50 Chinese characteristics). As a manipulation check, participants responded to two questions: 'I feel grateful to others,' and 'I'd like to express my gratitude to others.' ($r = 0.85$, $p < .001$).

Finally, they completed the seven-item scale developed by Belmi and Schroeder (2021) to measure the extent to which they would like to perceive and treat others in an objectified manner. Example items were 'I would value others primarily for what they can do for me,' and 'I would pay little attention to the wishes and desires of others.' An overall objectification score was calculated by averaging the scores across items, with higher scores corresponding to higher levels of instrumentality ($\alpha = .67$).

Results and discussion

First, participants in the gratitude condition ($M = 6.43$, $SD = 0.81$) reported a greater level of state gratitude than those in the control condition ($M = 5.22$, $SD = 1.36$), Welch's $t(336.61) = 10.95$, $p < .001$, 95% CI [0.86, 1.30], $d = 1.08$, suggesting that our manipulation was successful.

Central to our hypothesis, there was a significant effect of condition on objectification, $t(407) = 2.36$, $p = .019$, 95% CI [0.04, 0.43], $d = 0.23$.² Specifically, participants in the gratitude condition ($M = 3.33$, $SD = 0.93$) reported a reduced level of objectification, perceiving and treating others, compared to those in the control condition ($M = 3.53$, $SD = 0.84$). The results supported our prediction that feeling grateful reduces state objectification of general others.

Study 3

Study 3 was to test whether the effect of gratitude could be applied to an imagined working context, an environment where objectification is most likely to occur (e.g., Belmi & Schroeder, 2021). Specifically, prior findings showed that people are highly likely to objectify factory workers (e.g., Andrighetto et al., 2017; Valtorta et al., 2019). To this end, we first induced gratitude in participants and then measured their objectification toward a group of factory workers (i.e., people like the protagonist in the vignette).

Method

Participants. We recruited 400 American participants from Mechanic Turk. Four participants were excluded from analysis since they did not pass the attention check (i.e., one item embedded in the scale, 'Please select 4. '), leaving 396 participants (192 men, $M_{\text{age}} = 40.89$, $SD = 12.01$, 78% European Americans, 8% African Americans, 10% Asian Americans, and 4% others) in the final analysis. Participants were randomly assigned to one of the two conditions (gratitude versus control), resulting in 197 participants in the gratitude condition and 199 participants in the control condition. Participants were compensated with 0.3 US dollars in the end.

Procedure and measures. Participants first read a brief introduction of a person named Marco. In particular, it was stated: 'Marco is thirty, lives in your city and has two brothers. In the evening, he usually goes out with friends. He works eight hours a day as a factory worker. His work is repetitive and monotonous. He performs the same action about ten times in five minutes.'

Next, we asked the participants to complete a writing task. In the gratitude condition, adapted from Deichert et al. (2021), participants were told that Marco has helped them to complete a task so that they would need to write a thank-you letter to Marco to express their gratitude. In the control condition, participants were instructed to write a personal introduction of Marco.

After the writing task, as a control measure, participants were required to report their affect on PANAS (e.g., interested, upset, and proud, Watson et al., 1988). As a manipulation check, participants also indicated how grateful they felt. Notably, these responses were made on five-point Likert scales (1 = *not at all*, 5 = *very much*).

Next, following Andrighetto et al. (2017), participants indicated the degree to which they perceive factory workers (i.e., people like Marco) were object-like, including being instrumental and non-humanlike. Instrumentality-related words include *instruments*, *tools*, and *things*; humanness-related words include *people*, *individuals*, and *guys* (scores were reversely coded). The examples were 'I perceive factory workers like Marco as instruments,' and 'I perceive factory workers like Marco as individuals.' Participants' responses were made on seven-point Likert Scales (1 = *not at all*, 7 = *extremely so*). We averaged the scores of items with higher scores indicating stronger levels of objectification of the target ($\alpha = .89$). Finally, participants provided their demographic information before they were thanked and debriefed.

Results and discussion

Our manipulation was successful, such that participants who wrote a thank-you letter ($M = 4.52$; $SD = 0.76$) felt more grateful than those who wrote a general introduction ($M = 3.29$; $SD = 1.30$), Welch's $t(320.19) = 11.54$, $p < .001$, 95% CI [0.93, 1.38], $d = 1.16$. In addition, those in the gratitude condition ($M = 1.16$; $SD = 0.42$) felt significantly less negative than those in the control condition ($M = 1.35$; $SD = 0.66$), Welch's $t(332.83) = -3.43$, $p < .001$, 95% CI [-0.54, -0.14], $d = -0.34$, although the effect on the positive affect was not significant, Welch's $t(394) = 0.97$, $p = .335$, 95% CI [-0.10, 0.29], $d = 0.10$.

Central to our hypothesis, participants³ in the gratitude condition reported a significantly lower level of objectification ($M = 1.75$; $SD = 0.93$) of factory workers than those in the control condition ($M = 2.31$; $SD = 1.34$), Welch's $t(353.97) = -4.90$, $p < .001$, 95% CI [-0.69, -0.29], $d = -0.49$. The result remained significant after controlling for negative affect, $F(1, 393) = 13.64$, $p < .001$, $\eta^2 = 0.03$. Therefore, these findings supported our hypothesis that gratitude reduces objectification in a work setting.

General discussion

Objectification refers to treating others merely as things or tools while denying their mind (Fredrickson & Roberts, 1997; Nussbaum, 1995). Needless to say, objectification causes severe consequences, ranging from interpersonal indifference, reduced empathy and helping, aggression and bully, to even killing and genocide (e.g., Čehajić et al., 2009; Obermann, 2011; Rai et al., 2017; Stanton, 2013; Viki et al., 2013). Given the detrimental outcomes, it is important to find interventions to alleviate objectification, an area that has received little attention from scholars previously (Haslam & Loughnan, 2014). In the current research, we tested whether gratitude, either as a stable trait or an induced state, could reduce objectification of general others (i.e., people who are not the benefactors).

Across three studies, our hypothesis was supported. Study 1 showed that dispositional gratitude negatively predicted trait objectification. Studies 2 and 3 further demonstrated a causal relationship between gratitude and objectification. Specifically, after temporarily heightening participants' state of gratitude, participants showed a lower level of objectification towards others. Conceptually replicating the findings of Study 2, Study 3 further showed the alleviating effect of gratitude on objectification in a working context, an environment where objectification is most likely to occur (e.g., Belmi & Schroeder, 2021). It is worth pointing out that our

revealed effect is prevalent, such that it is observed across samples from countries (i.e., the United States and China) that differ in ethnicities, cultures, and social ideologies.

Our study first contributes to the research field of objectification. Previous work has primarily focused on identifying antecedents of objectification, such as work features (Andrighetto et al., 2017; Belmi & Schroeder, 2021), domination and power (Bareket & Shnabel, 2020; Gruenfeld et al., 2008), competition (Wang et al., 2021), misconduct (e.g., Bastian et al., 2013; Rodrigues et al., 2018), and economic contexts (Teng, Chen, Poon, Zhang, Jiang et al., 2016a; Wang & Krumhuber, 2017). However, few studies focused on how to reduce objectification, a psychological process that can lead to various detrimental consequences as explained earlier (Haslam & Loughnan, 2014). Importantly, our findings shed light on the intervention, providing a useful way to reduce objectification. It is worth pointing out that gratitude as a method works not only at the dispositional level but is also effective at a state level (e.g., writing a thankful letter, Studies 2 and 3). Although previous studies suggest that people could intuitively objectify others (e.g., Tyler et al., 2017), our research shows that people can also attenuate objectification by resorting to gratitude. In addition, our research also has practical implications for organizations where objectification is more likely to occur. Organizations could try to create a less objectifying atmosphere by encouraging people to express gratitude towards others.

In addition, the current study extends the positive interpersonal effects of gratitude. Consistent with previous work, gratitude not only promotes positive interaction (e.g., prosocial behavior; Grant & Gino, 2010) but also diminishes negative interaction (e.g., aggression; DeWall et al., 2012). It is worth pointing out that the effect of gratitude is not only limited to the benefactors to whom people should show appreciation. Our research suggests that the positive effect of gratitude can even extend to people who were not involved in the initial interaction (i.e., general others), a finding that is in line with a phenomenon such as upstream reciprocity (e.g., Nowak & Roch, 2007). Importantly, while the feature of interaction pattern of both rounds is identical for upstream reciprocity (i.e., A helps B, and B helps C), our results further suggest that the feature of interaction pattern can be rather different (i.e., A helps B, B become less likely to objectify Cs).

Despite the contributions mentioned above, our study has several limitations worth noting. First, consistent with prior research (e.g., Deichert et al., 2021; Lyubomirsky et al., 2011; Watkins et al., 2003) the writing paradigm (i.e., writing a letter to express one's

gratitude towards someone) has been found effective to induce a grateful state. Future studies could try other manipulation methods to heighten people's gratitude (e.g., the state-of-the-art technologies of virtual reality; Collange & Guegan, 2020). Second, objectification towards factory workers was examined in an imagined working context in the final study. Future studies could try to increase the ecological validity of this result by recruiting and testing real employees. Third, following prior studies, measures of objectification were self-report in nature (e.g., Andrighetto et al., 2017; Belmi & Schroeder, 2021; Gruenfeld et al., 2008); such types of assessment, however, could be subject to the influence of social desirability. To avoid this issue, scholars could try to use and develop other less direct measurements or indexes of objectification, such as neural and physiological responses (e.g., Harris & Fiske, 2006). Finally, gratitude could significantly affect people's mood, which, in turn, might influence objectification. Bearing this in mind, we have controlled for people's mood in Study 3 and showed that the effect of gratitude on buffering objectification goes beyond mood. This is also consistent with previous research that suggests gratitude inductions work above and beyond the effects of positive mood (e.g., DeWall et al., 2012; Sasaki et al., 2020). Still, our studies cannot rule out the possibility that the impact of gratitude on objectification was the result of a more general effect of gratitude on one's view of people. Future studies could investigate whether gratitude reduces objectification as a result of more generally reducing anti-social tendencies, or the impact of gratitude is more specific to objectification.

In conclusion, across three studies, we showed that gratitude, either as a dispositional trait or a temporary state, could effectively attenuate objectification towards general others. Our findings, therefore, shed light on the power of cultivating a sense of gratitude in reducing objectification.

Notes

1. A preliminary test showed that male participants ($M = 3.42$, $SD = 0.96$) reported a greater level of objectification than female participants ($M = 2.99$, $SD = 0.98$), $t(200) = 3.17$, $p < .001$, $d = 0.45$, 95% CI [0.16, 0.74]. However, the interaction between gender and gratitude on objectification was not significant ($p = .850$).
2. Male participants ($M = 3.62$, $SD = 0.95$) reported a greater level of objectification than female participants ($M = 3.18$, $SD = 0.75$), Welch's $t(405.84) = 5.24$, $p < .001$, $d = 0.51$, 95% CI [0.30, 0.71]. However, the interaction between condition (gratitude vs. control) and gender on objectification was not significant ($p = .434$).

3. There was a trend that male participants ($M = 2.14$, $SD = 1.24$) reported a higher level of objectification than female participants ($M = 1.95$, $SD = 1.13$), although the effect was not significant ($p = .423$). No significant interaction effects between gender and other variables (i.e., condition and affects) on objectification was found ($ps > .181$).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

The data described in this article are openly available in the Open Science Framework at <https://osf.io/b2d6g/>.

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