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Disowning the self: The cultural value of modesty can attenuate self-positivity

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ABSTRACT

Western participants endorse a higher number of positive traits as self-descriptive, but endorse a lower number of negative traits as self-descriptive. They also respond quicker to categorize positive traits as self-descriptive, but respond slower to categorize negative traits as self-descriptive. Is this self-positivity bias qualified by the cultural value of modesty? We induced modesty (vs. punctuality) and assessed self-descriptiveness judgments and response times among Chinese participants. We replicated the self-positivity bias in regards to both self-descriptiveness judgments and response times. In the case of self-descriptiveness judgments, however, the bias was partially qualified by modesty. Relative to control participants, those in the modesty condition endorsed fewer positive traits as self-descriptive and manifested a tendency toward endorsing more negative traits as self-descriptive. In the case of response times, the self-positivity bias was unqualified by modesty. Within both conditions, participants were quicker to categorize positive traits as self-descriptive and were slower to categorize negative traits as self-descriptive. The results speak to the relation between the self-positivity bias and the self-reference effect and illustrate the malleability of self-processing.

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Approximately 40 years after its discovery (Rogers, Kuiper, & Kirker, 1977; see also Kuiper & Rogers, 1979), the self-reference effect (SRE) still continues to generate theoretical and empirical interest. This SRE refers to superior memory for information (e.g., word adjectives) that is encoded under self-referent instructions (i.e., does the word describe you?) compared to other-referent instructions (i.e., does the word describe the experimenter?), structural instructions (i.e., is the word long or short?), phonemic instructions (i.e., does the word have a rhythmic or lyrical sound?), or semantic instructions (i.e., is the word meaningful to you?). The SRE is attributable to the rich and well-organized representation of the self (i.e., self-concept; Kihlstrom, Beer, & Klein, 2002; Sedikides, Gaertner, Luke, O'Mara, & Gebauer, 2013; Sedikides & Gregg, 2003), which enables better trait recognition and more

effective source memory (Cunningham, Brebner, Quinn, & Turk, 2014; Klein & Loftus, 1988; Mitchell & Johnson, 2000).

The experimental tasks used to investigate the SRE have evolved over the years (Symons & Johnson, 1997; Turk, Cunningham, & Macrae, 2008; Watson, Dritschel, Obonsawin, & Jentsch, 2007), but they have persistently focused on self–other comparison. A paradigmatic development relevant to the present work involves a task in which participants judge the self-descriptiveness, or lack thereof, of positive versus negative traits (Craik et al., 1999; D'Argembeau, Comblain, & Van der Linden, 2005; Kwan et al., 2007; Watson et al., 2007). This trait valence variant (SR-valence task) allows researchers to disentangle the endorsement of positive traits versus negative traits as well as the relative speed of such an endorsement

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(i.e., response times). Stated otherwise, the SR-valence task allows for the examination of the self-positivity bias.

The self-positivity bias

The self-concept is not only richly elaborated, but also positive. It contains substantially more positive than negative features (Kendall, Howard, & Hays, 1989; Ogilvie, 1987; R. M. Schwartz, 1986) in both Western and Eastern culture (G. Gaertner et al., 2012; L. Gaertner, Sedikides, & Graetz, 1999; Trafimow, Triandis, & Goto, 1991). This high positivity ratio is, in part, bolstered by motivational processes. In both Western and Eastern culture, individuals are motivated to augment the positivity of the self-concept or diminish its negativity, with the corresponding motives known as self-enhancement and self-protection (Brown, 2010; Chiu, Wan, Cheng, Kim, & Yang, 2011; Sedikides & Gregg, 2008).

The small literature on the SR-valence task—all involving Western participants—has converged in showcasing the self-positivity bias. People endorse more positive traits as self-descriptive and more negative traits as non-self-descriptive (Kwan et al., 2007; Moran, Macrae, Heartherton, Wyland, & Kelley, 2006). In addition, when traits are positive, people claim self-descriptiveness more quickly than non-self-descriptiveness. On the contrary, when traits are negative, people claim self-descriptiveness more slowly than non-self-descriptiveness (Watson et al., 2007).

A positive self-concept is linked to psychological health benefits and higher motivation for goal pursuit in both the West and the East (Alicke & Sedikides, 2009; Dunning, 2014; O'Mara, Gaertner, Sedikides, Zhou, & Liu, 2012; Rathbone, Holmes, Murphy, & Ellis, 2015). However, it is also linked to unrealistic goal-setting and social costs (e.g., exclusion) across the cultural divide (Dufner et al., 2013; Sedikides, Gaertner, & Cai, 2015; Sedikides, Hoorens, & Dufner, 2015; Sedikides & Luke, 2008). As such, it is advantageous for researchers and practitioners to know what the limits or boundaries of self-positivity are. These boundaries can be intrapersonal, interpersonal, or (intra)cultural. Intrapersonal boundaries include introspection (i.e., one is less positive about oneself when reflecting on the reasons or evidence for holding a favourable self-view; Sedikides, Horton, & Gregg, 2007) and mental contrasting (i.e., one is less positive about oneself when mentally contrasting a positive future with a negative reality rather than when indulging in a positive future;

Oettingen, Pak, & Schnetter, 2001). Interpersonal boundaries include relationships (i.e., one is less positive about oneself among friends than among strangers; Tice, Butler, Muraven, & Stillwell, 1995) and accountability (i.e., one is less positive about oneself when accountable than when unaccountable to strangers; Sedikides, Herbst, Hardin, & Dardis, 2002). Finally, and importantly for the purposes of the current research, culture-level boundaries may refer to the influence of cultural values (Chiu et al., 2011; Markus & Kitayama, 1991; S. H. Schwartz, 2006). In this article, we focus on the value of modesty in an Eastern (i.e., Chinese) culture.

Modesty

In reviewing the relevant literature, Sedikides, Gregg, and Hart (2007) concluded that modesty “denotes a *moderate self-view*—seeing oneself as intermediate, rather than as very positive or very negative, on key personal attributes such as personality traits, abilities and skills, physical appearance, and social behavior” (p. 165). A prototype analysis in Chinese samples produced results congruent with this definition (Shi, Sedikides, Gregg, & Cai, 2015; see also: Bond, Leung, & Wan, 1982; Chen, Bond, Chan, Tang, & Buchtel, 2009). Modest persons are regarded as low-key (nonboastful, attention-avoiding), nonarrogant, quiet (shy, introverted), authentic (honest), easy-going (agreeable), and magnanimous (gracious). (A prototype analysis in UK/US samples produced similar results; Gregg, Hart, Sedikides, & Kumashiro, 2008.)

Modesty is valued both in the East and West, as it is linked to a prosocial orientation or relational harmony (Ashton et al., 2004; Davis et al., 2013; LaBouff, Rowatt, Johnson, Tsang, & Willerton, 2012), and it may be valued more so in the East (Chiu et al., 2011; Markus & Kitayama, 1991; Sedikides, Gaertner, et al., 2015). Modesty is thought to minimize a focus on the self and to encourage a broader, self-transcendent perspective (Exline, 2008; Gregg et al., 2008; Kesebir, 2014). As such, modesty may curtail self-positivity.

Modesty and self-positivity

Normative values influence the way members of a culture evaluate themselves above and beyond the influence of personal values (Becker et al., 2014; Kurman, 2010; Lalwani, Shrum, & Chiu, 2009), although typically normative values are internalized and regarded as personal (Chiu et al., 2011; Sedikides,

Gaertner, et al., 2015; Sedikides, Gregg, et al., 2007). We capitalized on the potency of modesty as a cultural (and *not* personal) value in China in devising a modesty induction technique. Specifically, we presented Chinese participants with statements relevant to the value of modesty, and we instructed them to explain why the statements were true and how the statements guided them in everyday life. In the control condition, participants did the same with a value pilot tested to be a *less* culturally relevant value, but *equally* personally relevant; this value was punctuality. Ensuring that the two values—modesty and punctuality—differ in cultural relevance while being equivalent in personal relevance would add confidence that our findings were driven by culture-level (rather than person-level) processes. Following the modesty induction, participants engaged in the SR-valence task. Specifically, they judged the self-descriptiveness of positive and negative traits, while we recorded their response times.

We tested, for the first time, the replicability of the self-positivity bias (as assessed by the SR-valence task) in Chinese culture. In particular, we anticipated that participants would endorse more positive, and fewer negative, traits as self-descriptive than non-self-descriptive (Kwan et al., 2007; Moran et al., 2006). Also, we anticipated that participants would respond faster to positive, but slower to negative, self-descriptive than to non-self-descriptive traits (Watson et al., 2007).

Importantly, however, we expected that these findings would be qualified by the cultural value of modesty. That is, modesty would attenuate self-positivity. More precisely, compared to those in the control condition, participants in the modesty condition would endorse a lower number of positive traits as self-descriptive than non-self-descriptive, but would endorse a higher number of negative traits as descriptive than non-self-descriptive (Hypothesis 1). Furthermore, compared to those in the control condition, participants in the modesty condition would respond slower to positive self-descriptive than to non-self-descriptive traits, but would respond faster to negative self-descriptive than to non-self-descriptive traits (Hypothesis 2).

Pilot study

We assumed that modesty would be an important cultural value and also an important personal value among Chinese participants. As we stated previously,

normative values are typically internalized as personal (Chiu et al., 2011; Sedikides, Gaertner, et al., 2015; Sedikides, Gregg, et al., 2007). Of course, this does not imply that personal values necessarily reflect cultural values. Our goal was to identify an additional characteristic among Chinese participants that would be valued less than modesty at the cultural level, but would be valued as much as modesty at the personal level. The goal of the pilot study was congruent with the broader objectives of our investigation, according to which the cultural (rather than personal) significance of modesty would be primarily responsible for the attenuation of self-positivity. To that effect, and following consultation with colleagues, we selected the characteristic of punctuality.

We tested 40 Chinese university students (23 female, 17 male), most of whom were from the Chinese Academy of Sciences. They completed the study via an online survey hosting site (<http://www.sojump.com>). Participants ranged in age from 20 to 31 years ($M = 24.78$, $SD = 1.91$). They indicated (1 = not at all, 7 = very much), in counterbalanced orders, the degree to which each of modesty and punctuality (a) was valued as a norm by Chinese culture, and (b) was valued by them personally.

Participants perceived modesty ($M = 6.33$, $SD = 0.73$) as a more valued normative trait than punctuality ($M = 4.80$, $SD = 1.18$) in Chinese culture, $t(39) = 7.42$, $p < .001$, $d = 1.68$. Modesty and punctuality ratings were unrelated, $r(38) = .10$, $p = .539$. However, participants perceived modesty ($M = 5.35$, $SD = 1.23$) and punctuality ($M = 5.73$, $SD = 1.22$) as equally important values at the personal level, $t(39) = 1.44$, $p = .157$, $d = 0.32$. Here, once again, modesty and punctuality ratings were unrelated, $r(38) = .14$, $p = .400$.

In conclusion, we identified two characteristics that differed at the cultural level, but not at the personal level. Modesty emerged as a stronger cultural value than punctuality, but modesty and punctuality emerged as equally strong personal values, in China. Based on the results of the pilot study, we proceeded with the modesty induction, which included a punctuality control condition, in the main experiment.

EXPERIMENTAL STUDY

Method

Participants and design

We tested 84 Chinese students (56 female, 28 male) whom we recruited from 16 Beijing-based universities

(mostly from Beijing Forestry University, Chinese Academy of Sciences, China Agricultural University, and University of Science and Technology Beijing). Participants ranged in age from 18 to 28 years ($M = 22.50$, $SD = 2.34$). We deleted data from two participants, because they provided extreme responses (>3 SDs)—a criterion we had set a priori. We randomly assigned participants to the two experimental conditions: modesty ($N = 41$) and control ($N = 41$).

Procedure

We presented all participants with seven statements. In the modesty condition, we derived the statements from the Modesty Response Scale (Whetstone, Okun, & Cialdini, 1992) and the Big Five Modesty Scale (Costa & McCrae, 1992). The statements were: “Modesty is an important value”, “it is not polite to boast oneself”, “no matter how good one is, he/she should not show off”, “I am a modest person”, “I don’t like to talk about myself; if I had to, I tend to apply to talk in a modest way”, “I prefer to praise others rather than being praised”, and “I’m always trying to be modest”. The statements in the control condition were identical, albeit we substituted “punctuality” or “punctual” for “modesty” or “modest”, respectively. Next, we allotted participants 10 min to write down at least three reasons why each statement was true and how they followed it in their lives.

Subsequently, participants engaged in the SR-valence task. It consisted of 240 positive traits and 240 negative traits, which we selected from Anderson’s (1968) list. We presented the traits randomly, and one a time, at the centre of a computer screen. We instructed participants to make self-descriptiveness judgments (i.e., “like me” or “not like me”) by pressing the left key or the right key. We counterbalanced judgment type and response key order. Each word remained on the computer screen until participants responded to it (by pressing the key), while we collected reaction times. We randomized interstimulus intervals (fixation) between 800 ms and 1200 ms, during which we presented a central fixation.

Results

Modesty manipulation check

As a way of manipulation check, two independent coders, who were unaware of condition or hypotheses, coded all participants’ written responses to the seven statements. In particular, the coders were asked: “to what degree do you think each statement is related

to modesty or reflects a modest person?” (1 = not at all, 7 = very much). The coders’ ratings were highly correlated, $r(78) = .89$, $p < .001$, and we thus combined them into a single score. Participants’ written responses in the modesty condition reflected modesty ($M = 5.92$, $SD = 0.60$) to a greater extent than their written responses in the punctuality condition ($M = 3.77$, $SD = 0.25$), $t(80) = 21.30$, $p < .001$, $d = 4.76$. The modesty induction was effective.

Trait endorsement

We entered participants’ judgments into a $2 \times 2 \times 2$ mixed-design analysis of variance (ANOVA). Condition (modesty vs. punctuality) was a between-subjects factor, whereas trait self-descriptiveness (self-descriptive vs. non-self-descriptive) and trait valence (positive vs. negative) were within-subjects factors.

Overall, participants endorsed less number of traits as self-descriptive ($M = 225.51$, $SD = 44.76$) than non-self-descriptive ($M = 254.49$, $SD = 44.76$), trait self-descriptiveness main effect $F(1, 80) = 9.28$, $p = .002$, $\eta_p^2 = .104$. This effect was qualified by two double interactions (Table 1). First, the Trait Self-Descriptiveness \times Trait Valence interaction was significant, $F(1, 80) = 356.33$, $p < .001$, $\eta_p^2 = .817$. Replicating prior findings in Western samples (Kwan et al., 2007; Moran et al., 2006), Chinese participants endorsed more positive traits as self-descriptive than non-self-descriptive, $t(81) = 12.44$, $p < .001$, $d = 1.95$, but they endorsed fewer negative traits as self-descriptive than non-self-descriptive, $t(81) = 18.41$, $p < .001$, $d = 2.89$. Second, the Condition \times Trait Self-Descriptiveness interaction was significant, $F(1, 80) = 7.50$, $p = .008$, $\eta_p^2 = .086$. Participants in the punctuality condition endorsed a similar number of self-descriptive and non-self-descriptive traits, $t(40) = -0.24$, $p = .815$, $d = 0.05$, but participants in the modesty condition endorsed more non-self-descriptive than self-descriptive traits, $t(40) = 3.82$, $p < .001$, $d = 0.85$.

More importantly, the above two-way interactions were qualified by the predicted Condition \times Trait Self-Descriptiveness \times Trait Valence interaction, $F(1, 80) = 9.77$, $p = .002$, $\eta_p^2 = .109$ (Table 1). We broke down this interaction into two: Condition \times Trait Self-Descriptiveness on positive traits and Condition \times Trait Self-Descriptiveness on negative traits. We proceeded to subtract the number of items that participants categorized as non-self-descriptive from the number of items they categorized as self-descriptive, and then to compare the size of this categorization discrepancy

Table 1. Means for trait endorsement and reaction times

Traits	Modesty condition (<i>N</i> = 41)		Control condition (<i>N</i> = 41)		Total (<i>N</i> = 82)	
	TE	RT	TE	RT	TE	RT
Self-descriptive positive traits	163.88 (50.18)	912.00 (203.88)	199.78 (30.41)	715.72 (154.83)	181.83 (45.01)	813.86 (205.22)
Non-self-descriptive positive traits	76.12 (50.18)	1031.76 (285.68)	40.22 (30.41)	860.87 (227.19)	58.17 (45.01)	946.32 (270.52)
Self-descriptive negative traits	48.61 (42.05)	1086.67 (276.65)	38.76 (32.19)	876.99 (223.64)	43.68 (37.54)	981.83 (271.33)
Non-self-descriptive negative traits	191.39 (42.05)	941.98 (213.29)	201.24 (32.19)	794.31 (168.49)	196.32 (37.54)	868.15 (204.95)

Note: TE = trait endorsement (number of traits); RT = reaction time (ms). Standard deviations in parentheses.

between conditions. In the case of *positive traits*, the Condition \times Trait Self-Descriptiveness interaction was significant, $F(1, 80) = 15.35, p < .001, \eta_p^2 = .161$. The discrepancy in the endorsement of positive traits as self-descriptive versus non-self-descriptive was lower in the modesty condition ($M = 87.76, SD = 100.35$) than in the control condition ($M = 159.56, SD = 60.81$), $t(80) = -3.92, p < .001, d = 0.88$. In the case of *negative traits*, the Condition \times Trait Self-Descriptiveness interaction was not significant, $F(1, 80) = 1.42, p = .237, \eta_p^2 = .017$. Nevertheless, we proceeded with exploratory analyses. The results pattern was in the predicted direction. The discrepancy in the endorsement of negative traits as self-descriptive versus non-self-descriptive tended to be lower in the modesty group ($M = 142.78, SD = 84.11$) than in the control group ($M = 152.49, SD = 64.37$), $t(80) = -1.19, p = .237, d = 0.27$. Taken together, participants in the modesty (relative to the punctuality) condition endorsed a lower number of positive traits as self-descriptive than non-self-descriptive, but only manifested a weak tendency toward endorsing a higher number of negative traits as self-descriptive than non-self-descriptive. The results were partially consistent with Hypothesis 1.

Response times

We entered response latencies into a $2 \times 2 \times 2$ mixed-design ANOVA, with condition as a between-subjects factor, and with trait self-descriptiveness and trait valence as within-subjects factors.

A significant condition main effect, $F(1, 80) = 16.45, p < .001, \eta_p^2 = .171$, revealed that modesty participants ($M = 993.10$ ms, $SD = 255.08$ ms) manifested slower response times than control participants ($M = 811.97$ ms, $SD = 204.60$ ms). Also, a significant trait valence main effect, $F(1, 80) = 26.84, p < .001, \eta_p^2 = .251$, indicated that participants responded faster to positive ($M = 859.81$ ms, $SD = 213.69$ ms) than to negative ($M = 936.87$ ms, $SD = 217.04$ ms) traits. The trait descriptiveness main effect was not significant, $F(1, 80) = 0.545, p = .462, \eta_p^2 = .007$.

These significant main effects were qualified by two double interactions (Table 1). First, the Trait Descriptiveness \times Trait Valence interaction was significant, $F(1, 80) = 74.71, p < .001, \eta_p^2 = .483$. In replication of past findings with Western samples (Watson et al., 2007), Chinese participants responded faster to positive self-descriptive than positive non-self-descriptive traits, $t(81) = 7.07, p < .001, d = 1.11$, but they responded slower to negative self-descriptive than negative non-self-descriptive traits, $t(81) = 5.81, p < .001, d = 0.91$. Second, the Condition \times Trait Self-Descriptiveness interaction was marginal, $F(1, 80) = 2.95, p = .090, \eta_p^2 = .036$. Participants in the control condition responded faster to self-descriptive than to non-self-descriptive traits, $t(40) = 2.05, p = .047, d = 0.46$, but participants in the modesty condition did not differ in their speed of responding to self-descriptive and non-self-descriptive traits, $t(40) = 0.61, p = .544, d = 0.14$.

The predicted Condition \times Trait Self-Descriptiveness \times Trait Valence interaction was not significant, $F(1, 80) = 0.41, p = .522, \eta_p^2 = .005$ (Table 1). Participants in the modesty (vs. punctuality) condition did not respond slower to positive self-descriptive than non-self-descriptive traits, and did not respond faster to negative self-descriptive than non-self-descriptive traits. Hypothesis 2 was disconfirmed.

GENERAL DISCUSSION

The self-positivity bias is prevalent in both Eastern and Western culture. The content of the self-concept is predominantly positive across cultures (G. Gaertner et al., 2012; L. Gaertner et al., 1999; Trafimow et al., 1991). A key reason for this content imbalance is motivational. People prefer, solicit, and process favourable self-relevant information, and they detest, avoid, or neglect processing of unfavourable self-relevant information (Hepper, Hart, Gregg, & Sedikides, 2011; Sedikides & Green, 2009; Sedikides & Strube, 1997).

One way to assess the self-positivity bias is through the SR-valence task. People are presented with positive and negative traits, and they are asked to judge whether each trait describes them (“like me”) or does not describe them (“not like me”), while response times for each judgment are being recorded. People judge a higher number of positive traits to be self-descriptive than non-self-descriptive, but they judge a lower number of negative traits to be self-descriptive than non-self-descriptive (Kwan et al., 2007; Moran et al., 2006). Also, they respond faster to positive self-descriptive than non-self-descriptive traits, but they respond slower to negative self-descriptive than non-self-descriptive traits (Watson et al., 2007). Given the costs involved in self-positivity (Alicke & Sedikides, 2009; Rathbone et al., 2015; Sedikides, Gaertner, et al., 2015), researchers have looked into ways that it can be bound. We were concerned with a culture-level boundary—namely, the cultural value of modesty in China.

Summary of findings

Modesty refers to an interpersonal orientation that reflects a moderate, nonboastful, and attention-avoiding self-view (Chen et al., 2009; Sedikides, Gregg, et al., 2007) and is associated with prosociality or relational harmony (Ashton et al., 2004; Gregg et al., 2008). Importantly, modesty is likely to minimize self-focus and foster a self-transcendent perspective (Exline, 2008; Kesebir, 2014). It follows that explicit inductions of modesty are likely to diminish the self-positivity bias. To ascertain that modesty reflected cultural rather than personal values (cf. Becker et al., 2014), we compared it with that of punctuality, a characteristic that a pilot study verified to be equally important to our Chinese participants at the personal level, but less important at the cultural level.

Prior findings involving self-descriptiveness judgments on the SR-valence task revealed that participants considered more positive traits, but fewer negative traits, to be self-descriptive (Kwan et al., 2007; Moran et al., 2006). We replicated this results pattern for the first time in an Eastern culture. Importantly, we proposed that modesty would qualify these findings (Hypothesis 1). Specifically, we hypothesized that participants in the modesty (vs. punctuality) condition would judge (a) fewer positive traits as self-descriptive than non-self-descriptive, but (b) more negative traits as self-descriptive than non-self-descriptive.

The results were partially consistent with the hypothesis. Modesty-infused participants manifested a higher discrepancy in their endorsement of positive traits as self-descriptive than non-self-descriptive than did controls. However, modesty-infused participants manifested only a weak (i.e., nonsignificant) discrepancy in their endorsement of negative traits as self-descriptive rather than non-self-descriptive compared to controls. This latter finding may attest to the potency of self-protection motivation (Sedikides, 2012). It is very difficult for people to accept having negative traits, even when under the influence of modesty. The finding echoes similar results from the introspection literature (Sedikides, Horton, et al., 2007; see also Cheung, Wildschut, Sedikides, & Pinter, 2014). People eagerly rate themselves less favourably when they introspect about the reasons for having positive traits, but they have great difficulty rating themselves less favourably when they introspect about the reasons for having negative traits.

Prior findings involving response times on the SR-valence task revealed that participants respond faster to positive, but slower to negative, self-descriptive than non-self-descriptive traits (Watson et al., 2007). We also replicated this results pattern also for the first time in an Eastern culture. We proposed, however, that modesty, once again, would qualify these findings (Hypothesis 2). In particular, we hypothesized that participants in the modesty (vs. punctuality) condition would respond (a) slower to positive self-descriptive than non-self-descriptive traits, and (b) faster to negative self-descriptive than non-self-descriptive traits. The results were inconsistent with this hypothesis.

Insufficient statistical power may not be a plausible reason for the disconfirmation of Hypothesis 2. The experiment had adequate power to detect the triple interaction on self-descriptiveness judgments and the double interaction on response times, with the triple interaction on response times being far from statistical significance. A more plausible reason may be that an infusion of modesty suffices to attenuate some aspects of the self-positivity bias (i.e., self-descriptiveness judgments) but not others (i.e., response times). In particular, the induction of modesty involved judgment and thus interfaced squarely with self-descriptiveness, which also involved judgment: A judgment is likely to affect another judgment. However, the induction of modesty did not interface well the response times modality and, in fact, was incompatible with it. Here, induction of

modesty via a response times task (i.e., asking participants to respond as fast as possible to modesty-related traits or behaviours) would ensure compatibility. There is a third reason for the disconfirmation of Hypothesis 2. Whereas self-descriptiveness judgments reflect the mechanisms underlying self-referential processing, response times reflect the outcome of such processing. As such, self-descriptiveness judgments may entail relatively deliberate processing, whereas response times may entail relatively automatic processing. The latter type of processing is likely to be more resistant to normative influences. Accordingly, induced modesty had more leeway to impact on deliberate and outcome-oriented processing (i.e., self-descriptiveness judgments), but not on automatic processing (i.e., response times).

Implications

The modesty induction was partially successful in reducing the self-positivity bias. But why so? The infusion of modesty may have altered participants' mindset or self-focus. Focusing on others instead of the self can lower the level of endorsement of positive traits or the denial of negative traits (Pahl & Eiser, 2005). In that way, modesty may constitute an effective and implementable way to curtail the self-positivity bias and hence "quiet the ego" (Wayment & Bauer, 2008). Modesty may be an impactful method to attain a self-transcendent or other-focus orientation, along with such methods as self-compassion (Neff, 2003), an ecosystem perspective (Crocker, 2008), or a hypoegeic approach (Leary & Guadagno, 2011). This is arguably welcome news at an age of rising self-positivity (i.e., narcissism) in both Eastern (i.e., Chinese; Cai, Kwan, & Sedikides, 2012) and Western (i.e., U.S.; Twenge, Konrath, Foster, Campbell, & Bushman, 2008) culture.

Modesty attenuated, but it did not eliminate, self-positivity. That is, participants in the modesty condition still manifested the self-positivity bias, albeit to a moderate degree. This pattern of findings is consistent with the definition of modesty: It does not imply low self-esteem (Gregg et al., 2008; Sedikides, Gregg, et al., 2007). Yet modesty and self-esteem may partially overlap to the extent that the former reflects authentic self-esteem (i.e., securely rooted feelings of self-worth) rather than the overinflated pretences of a fragile self (Kesebir, 2014). If so, the modesty induction may have curbed excessive self-positivity. Some researchers have argued in favour of the quality rather than quantity of self-esteem in

people's lives (Crocker & Knight, 2005; Franck & De Raedt, 2007; Hayes, Harris, & Carver, 2004), and modesty may represent high-quality self-esteem. Indeed, modesty may have advantages over self-positivity in influencing important outcomes. For example, people's anxiety-buffering capacity in the face of death reminders is contingent more on modesty than on self-positivity (Kesebir, 2014).

Our findings join a small set of experimental results that seek to clarify the relation between the self-reference effect and self-positivity (Kwan et al., 2007; Moran et al., 2006; Watson et al., 2007). These findings question the assumption that the self-reference effect (i.e., better memory for self-referent vs. other-referent encoding) is solely due to the superior elaborative and organizational properties of the self-concept (Northoff et al., 2006; Symons & Johnson, 1997). The effect may additionally be due to processing of valenced information about the self (see also: Craik et al., 1999; Fossati et al., 2003), especially given the high ratio of positive-to-negative self-conceptions (L. Gaertner et al., 1999; Trafimow et al., 1991).

Coda

A handful of studies from the emerging field of cultural neuroscience (Kitayama & Park, 2010) have suggested that aspects of self-processing may not be as hard-wired as previously thought, and that they can be turned up or down depending on context. For example, Chinese participants show less of a self–other distinction than Westerners (Sui, Liu, & Han, 2009; Zhu, Zhang, Fan, & Han, 2007; see also Cai, Sedikides, & Jiang, 2013). Our findings complement this view. The self and objects associated with it may be "owned" (Cunningham, Brady-Van Den Bos, & Turk, 2011; Cunningham, Turk, Macdonald, & Macrae, 2008; Cunningham, Vergunst, Macrae, & Turk, 2012), but modesty may partially disown the self.

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