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## It depends on your perspective: The role of self-relevance in stereotype-based underperformance <sup>☆</sup>

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### Abstract

Much research has examined how stereotype threat leads to the underperformance of stereotyped targets. The underlying cause for this effect, however, remains unclear. Some researchers argue that stereotype threat can be explained from a behavioral-priming perspective, while others claim that it necessarily involves concerns about confirming a negative self-relevant stereotype. The current experiment highlights the critical role of self-relevance in distinguishing between stereotype priming and stereotype threat. Results showed that when participants wrote about a stereotyped target from a first-person perspective, both targets and non-targets performed poorly under stereotype threat conditions, because writing from a first-person perspective made the stereotype self-relevant for non-targets. But when participants wrote about a stereotyped target from a third-person perspective, only targets underperformed since the stereotype was already self-relevant. Moreover, when the stereotype was made self-relevant non-targets experienced the same threat-based concerns that targets experience under stereotype threat conditions.

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Considerable research has investigated the adverse effects of negative stereotypes on stereotyped target's test performance. Indeed, this phenomenon, known as *stereotype threat* (Steele, 1997; Steele, Spencer, & Aronson, 2002), is now well documented in the literature (e.g., Croizet & Claire, 1998; Inzlicht & Ben-Zeev, 2000; Marx & Roman, 2002; Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995; Stone, Lynch, Sjomeling, & Darley, 1999). But why do negative stereotypes lead to poor test performance for

stereotyped targets? This question has led to a number of experiments exploring the processes underlying stereotype-based performance (e.g., Ben-Zeev, Fein, & Inzlicht, 2005; Davies, Spencer, Quinn, & Gerhardstein, 2002; Quinn & Spencer, 2001; Schmader & Johns, 2003; Wheeler, Jarvis, & Petty, 2001). One interesting view to emerge from this research is the notion that behavioral priming may be responsible for stereotype threat (Wheeler et al., 2001). According to this priming perspective, behavior follows directly from activation of related constructs or traits. Thus, if participants are primed with a stereotype then they will subsequently behave in stereotype-consistent ways. Because of this it has been reasoned that stereotype threat and stereotype priming effects may be driven by similar mechanisms because stereotype threat situations also activate negative stereotypes that then lead to stereotype-confirming test performance (Wheeler & Petty, 2000).

Appealing as this may be, such a view of stereotype-based underperformance is not entirely consistent with what we already know about stereotype threat. Indeed,

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Steele et al. (2002) claim that “the more one is identified with the group about whom the negative stereotype exists, or the more one expects to be perceived as a member of that group, the more stereotype threat one should feel in situations where the stereotype applies” (p. 391). Thus, by definition, only stereotyped targets should experience stereotype threat, whereas stereotype-priming effects should occur for anyone (Davies, Spencer, & Steele, 2005; Marx & Stapel, 2005a, 2005b). In fact, stereotype threat experiments “always” focus on stereotyped and non-stereotyped targets, whereas priming experiments do not, hence there is no way of knowing whether priming alters target’s behavior to the same extent that it does non-targets. Given this, the goal of the present research was to examine whether stereotype priming affects both targets and non-target’s test performance plus whether priming enhances concerns about confirming a negative stereotype.

### Stereotype threat and stereotype priming

Recently, some researchers have suggested that stereotype threat may be a result of stereotype priming (e.g., Ambady, Paik, Steele, Owen-Smith, & Mitchell, 2004; Dijksterhuis & Bargh, 2001; Wheeler et al., 2001; Wheeler & Petty, 2000). Moreover, Wheeler et al. (2001) have argued that the subjective experience of threat might not be a necessary precondition for stereotype-based underperformance. To test this proposition, they had White participants write a paragraph about the day in the life of “Tyrone” (who was presumably Black) compared to “Eric” (who was presumably White), and after doing so participants took a difficult math test. Results showed that White participants did in fact underperform on the test after writing about Tyrone compared to Eric. This led to the conclusion that stereotype threat might be a consequence of stereotype priming. Although this is an intriguing possibility we believe that this experiment does not provide conclusive evidence for the notion that stereotype priming leads to stereotype threat effects, primarily because stereotyped participants and measures of their threat-based concerns were not included in their design (Marx & Stapel, 2005a, 2005b). Why then did the White participants in the Wheeler et al. experiments underperform in the Tyrone condition compared to the Eric condition, after all these participants were not targeted by the stereotype about Blacks and poor academic ability?

We believe that the answer to this question lies in the manipulation used by Wheeler et al. (2001). Even though they did not purposefully manipulate participants’ perspective taking, subsequent analyses revealed that the effect of the prime was stronger when participants wrote about Tyrone from a first-person perspective (“I”; making the stereotype self-relevant for both targets and non-targets) rather than a third-person perspective (“He”; making the stereotype self-relevant only for fellow targets). Instead of focusing on this self-relevance effect, these researchers suggested that the White participants underperformed not

because the negative stereotype about Blacks became self-relevant, but because the White participants engaged in more active thinking leading the prime to have a greater impact on their performance. This interpretation, however, avoids one of the “core” aspects of stereotype threat, namely the concern about confirming a negative stereotype associated with one’s group. Hence, stereotype priming can occur for anyone whereas stereotype threat only occurs for people who know and are targeted by the relevant stereotype leading them to feel threatened (Marx & Stapel, 2005a, 2005b).

In contrast to the elaboration interpretation, we propose that when writing from the first-person perspective participants actually “become” stereotyped and as a result demonstrate stereotype consistent behavior—poor test performance—in addition to experiencing the same threat-based concerns. This notion is based on prior work showing that perspective taking can lead individuals to experience the same emotional states, attributions, and self-representations as those of the target (e.g., Davis, Conklin, Smith, & Luce, 1996; Regan & Totten, 1975; Smith & Henry, 1996; see also, Wheeler, DeMarree, & Petty, 2005, for a discussion of the active self-concept). Given this research, it seems reasonable to suggest that non-targets could likewise experience stereotype threat if they take the perspective of a stereotyped target.

### Experimental overview

For this experiment we modified the basic Wheeler et al. (2001) design by purposefully manipulating, instead of measuring, participant’s perspective taking (“I” vs. “He”) when writing about a stereotyped target. We also included stereotyped and non-stereotyped targets, as well as examined participant’s threat-based concerns. By including this concern measure we are able to demonstrate that stereotyped target’s concerns will not vary as a function of the prime, but that when non-targets become “targets” via the perspective-taking manipulation they too will experience the same threat-based concerns that targets experience under stereotype threat.

In the current research we focused on the stereotype that men are less emotionally sensitive than women. We did this, in particular, because we wanted to generalize stereotype threat effects to domains other than academics (cf. Leyens, Desert, Croizet, & Darcis, 2000; Stone et al., 1999). Furthermore, if we found effects with our emotion test, then it would add more support to the notion that a history of stigmatization is not a necessary precondition for stereotype threat (Aronson et al., 1999). Accordingly, we manipulated male and female participant’s perspective (“I” vs. “He”) when writing about a stereotyped target then gave them a diagnostic emotion test and afterwards measured their threat-based concerns.

We expected that stereotype threat effects will occur when participants are already targeted by a negative stereotype or when they “become” a stereotyped target. That is,

because male participants are already targeted by a negative stereotype in this context our perspective-taking manipulation should not affect their emotion test performance. However, because female participants are *not* targeted by this negative stereotype, perspective taking should make a difference, such that when they are in an “I” focus mindset these “non-targets” will become “targets” and ultimately underperform. But when female participants are in a “He” focus mindset they should perform better, because the negative stereotype is not self-relevant. We anticipated that female participants in an “I” focus mindset should feel more concern compared to female participants in a “He” focus mindset. Male participant’s threat-based concerns should not vary between the two perspectives since in this context they are already stereotyped targets.

In addition to the performance and threat-based concern measures, we also attempted to assess whether higher elaboration leads to stronger effects of the prime on participant’s test performance (cf. Wheeler et al., 2001). To do this, we purposefully confounded elaboration with our perspective-taking manipulation. For participants in the “He” focus conditions we asked them to write nine detailed sentences about Paul, while participants in the “I” focus conditions only wrote five concise sentences about Paul. Thus, if elaboration were responsible, then participants in a “He” focus mindset should perform worse than participants in an “I” focus mindset due to their engagement in more active thinking. Note that this effect would be exactly opposite to our predictions. We also included a measure of elaboration to assess whether participants felt that they had elaborated more in the “He” versus the “I” focus conditions.

## Method

### *Participants and design*

Participants were 30 female and 30 male Dutch undergraduates who took part in exchange for course credit or pay. For this experiment we used a 2 (Gender of Participant: female, male)  $\times$  2 (Type of Perspective: “I” focus, “He” focus) between-participants design.

### *Procedure*

When participants arrived at the laboratory they were informed that the experiment was comprised of a variety of tasks looking at different aspects of emotional sensitivity. They were then given an envelope, which contained all of the experimental materials.<sup>1</sup>

### *Perspective-taking manipulation*

To manipulate perspective-taking participants were asked to write about the day in the life of a student named

<sup>1</sup> All of the experiments were conducted in Dutch. Throughout this article, examples are the English equivalents of the Dutch materials used in the experiment.

Paul (for similar procedures see, Wheeler et al., 2001). Half the participants were asked to write about Paul from a first-person perspective (“I”), while the other half wrote about Paul from a third-person perspective (“He”). Moreover, participants in the “I” focus condition were instructed to write only five sentences that were as concise and to the point as possible. Participants in the “He” focus condition were instructed to write nine sentences that were as elaborate and detailed as possible. Thus, our perspective-taking manipulation was interlinked with elaboration such that the “I” focus condition was associated with less elaboration and the “He” focus condition with more elaboration. Furthermore, this procedure allowed for a conservative test of our perspective-taking hypothesis, in the sense that if we found effects with our “I”/“He” manipulation it would be difficult to conclude that the effects were due to higher elaboration.<sup>2</sup> After writing about Paul, participants took a (diagnostic) emotion test.

### *Emotion test performance*

Participants were told that the emotion test was diagnostic of emotional sensitivity as well as one that can identify a person’s ability to read and understand other people’s emotions. Similar test description manipulations have successfully created a situation of stereotype threat in past research (Marx, Stapel, & Muller, 2005; Steele & Aronson, 1995). Furthermore, participants were told that they would receive feedback about their test performance at the conclusion of the experiment (in actuality no feedback was given).

The emotion test was comprised of several types of exercises, which were loosely based on other emotional sensitivity measures and exercises (Bar-On, 1997; Schutte et al., 1998). The first exercise consisted of a task in which participants were presented with faces expressing specific emotions. The participants had to indicate which emotion was best captured by the facial expression. There were two faces used in this task, of which one clearly displayed an angry and the other a fearful expression (Ekman, 1992). Participants were then asked to indicate how much each of the following six emotion terms was displayed in the face: angry, disgust, fear, grief, joy, and surprise. Responses were recorded on a (1) *not at all* to (5) *very much* scale. A question was marked as correct if the participant gave the highest rating to the emotion term that was congruent with the facial expression. If a different emotion term had the same rating as the appropriate emotion term then the question was marked as incorrect. For example, if the face displayed

<sup>2</sup> As did Wheeler et al. (2001) we looked for stereotypic content in the participant’s sentences. We found no differences between conditions. This may have occurred because the emotional insensitivity stereotype may not be as strong for men as the inferior academic ability stereotype is for Blacks. Moreover, our task was much more focused than the Wheeler task, given that we directed participants on how to write their sentences rather than allowing them to write spontaneously for 5 min.

an angry expression and participants gave “angry” the highest rating then that response was marked as correct, but if “angry” and “grief” had the same rating, for example, then that response was marked as incorrect. Scores on this exercise could range from 0 to 2.

For the next exercise participants were told that some emotions are more complex than others and thus are often comprised of two or more “basic” emotions. For example, participants were given an emotion word, such as optimism, and then were asked to choose which of four answer choices best captured the basis of this emotion: (a) joy and expectation, (b) complacent and cheer, (c) surprise and cheer, (d) joy and cheer. The correct response for this question was “joy and expectation.” Scores on this exercise could range from 0 to 5.

The final exercise consisted of five questions about how emotions typically develop. Participants were then given a description of an emotion, and then had to indicate which of four answer choices appropriately captured the “final” emotion. For instance, “If you feel more and more guilty and you lose your feeling of self-worth then you feel?”: (a) depressed, (b) fear, (c) shame, and (d) compassion. The correct response for this question was “shame”. Scores on this exercise could range from 0 to 5.

We summed participants’ scores from these three exercises to form a single emotion test performance score. Participants’ test performance could range from 0 to 12.

#### *Emotional sensitivity measure*

The last section of the emotion test booklet consisted of six items about emotional sensitivity (van der Zee & Wabeke, 2004). Specifically, we administered these items to assess whether stereotype threat also affects the way participants think about their emotional sensitivity. For this task participants responded to items like, “I am able to share my intimate feelings with others”. Responses were recorded on a scale anchored with the terms (1) *strongly disagree* and (9) *strongly agree*. We averaged the participants’ responses to form an emotional sensitivity score (Cronbach’s  $\alpha = .82$ ).

#### *Perceived similarity*

To assess perceptions of similarity with Paul, participants were asked to respond to the statement, “To what extent do you see similarities between yourself and Paul”. The scale was labeled on the ends with (1) *no similarities* and (9) *many similarities*.

#### *Perspective taking measures*

According to previous literature, taking someone else’s perspective should lead to merging of one’s self-representations with the target (e.g., Davis et al., 1996), thus participants self-representations should be more “malelike” after writing about Paul from a first-person perspective. Participants completed two perspective-taking items: one for male and one for female attributes.

#### *Male stereotypic attribute*

Our first measure asked participants to respond to a statement about their analytic ability (a trait often associated with men): “I have well developed technical-analytical skills”. Responses were recorded on a 9-point scale labeled on the ends with the terms (1) *strongly disagree* and (9) *strongly agree*. Higher numbers demonstrate that participants saw themselves as more “malelike”.

#### *Female stereotypic attribute*

The second measure asked participants to respond to a statement about their emotional sensitivity (a trait often associated with women): “I consider myself to be emotionally sensitive”. Responses were recorded on a 9-point scale labeled on the ends with the terms (1) *strongly disagree* and (9) *strongly agree*. Lower numbers show that participants perceived themselves as more “malelike”.

#### *Threat-based concerns*

To measure participant’s threat-based concerns we asked them to indicate how much they agreed with the following four statements: “I am worried about how I performed on the emotion test”; “I am worried that my ability to perform well on emotion tests is affected by my gender”; “I am worried that if I perform poorly on this test, the experimenter will attribute my poor performance to my gender”; “I am worried that, because I know the negative stereotype about men and emotional sensitivity, my anxiety about confirming that stereotype will negatively influence how I perform on this test”. Responses were recorded on a 7-point scale labeled on the ends with (1) *strongly disagree* and (7) *strongly agree*. We averaged the responses to form a measure of threat-based concerns (Cronbach’s  $\alpha = .70$ ).

#### *Elaboration*

Beyond purposefully confounding elaboration with perspective-taking (as described earlier) we also asked participants to answer two questions regarding the amount they elaborated about Paul: “How elaborate is the story you wrote about Paul?”; (1) *not at all elaborate* to (7) *very elaborate*, and “How detailed is the story you wrote about Paul?”; (1) *not at all detailed* to (7) *very detailed*. Because these two questions were positively correlated ( $r = .59$ ,  $p < .01$ ) we averaged them to form a single elaboration score.

#### *Task difficulty*

Finally, participants answered a question about how difficult the writing task was for them. Specifically they responded, on a (1) *very difficult* to (9) *very easy* scale, to the following question “How easy was it for you to write about Paul?”.

Upon completion of these measures, the participants were debriefed, paid or given course credit, and thanked for their participation.



## Results

### Manipulation checks

#### Perceived similarity

The participant's perceived similarity scores were analyzed utilizing a 2 (Participant Gender)  $\times$  2 (Perspective) Analysis of Variance (ANOVA) (see Table 1). We only found the expected main effect for Perspective,  $F(1,56)=6.49$ ,  $p=.01$ ,  $\eta=.32$ , indicating that perceived similarity was higher in the "I" focus conditions compared to the "He" focus conditions (other  $F_s < 1.00$ ).

#### Elaboration

The participants' elaboration scores were analyzed using a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA (see Table 1). For this analysis we found the hypothesized main effect for Perspective,  $F(1,56)=11.35$ ,  $p < .01$ ,  $\eta=.41$ , demonstrating that participants accurately indicated that they had elaborated more in the "He" compared to the "I" focus conditions (other  $F_s < 1.00$ ).

#### Task difficulty

Our final manipulation check examined how difficult participants viewed the writing task to be. To do this we conducted a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA on the participant's task difficulty scores (see Table 1). We found no main or interactive effects ( $F_s < 1.00$ ). The fact that we found no effect of task difficulty shows that participants did not find writing about Paul from a first-person perspective as being any more difficult than writing from a third-person perspective, nor did they find writing nine sentences as being any more difficult than writing five sentences.

### Main analyses

#### Male stereotypic attribute

The perspective-taking literature has shown that after perspective taking there is greater self-other overlap in one's self-representations (e.g., Davis et al., 1996). Therefore, if female participants take the perspective of a Paul then their

subsequent self-representations should resemble that of a man. To examine if our manipulation lead to such an effect we conducted a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA on the participants' male stereotypic attribute scores (see Table 1). This analysis revealed a main effect for Participant Gender,  $F(1, 56)=14.45$ ,  $p < .01$ ,  $\eta=.45$ , showing that male participants indicated having better analytic skills than female participants, and a marginal main effect for Perspective,  $F(1,56)=3.43$ ,  $p < .07$ ,  $\eta=.24$ , with participants stating that they possess better analytic skills in the "I" focus relative to the "He" focus conditions. We also found a reliable interaction,  $F(1, 56)=4.19$ ,  $p < .05$ ,  $\eta=.26$ . Female participants in the "I" focus condition ( $M=4.53$ ,  $SD=1.30$ ), reported having better analytic ability compared to female participants in the "He" focus condition ( $M=3.20$ ,  $SD=1.32$ ),  $F(1,56)=7.54$ ,  $p < .01$ ,  $\eta=.34$ . But for male participants there was no difference in their perceived analytic ability between the "I" ( $M=5.13$ ,  $SD=1.64$ ) and "He" ( $M=5.20$ ,  $SD=0.94$ ) focus conditions ( $F < 1.00$ ). Finally, within the "I" focus condition female ( $M=4.53$ ,  $SD=1.30$ ) and male ( $M=5.13$ ,  $SD=1.64$ ) participants indicated that they possessed this attribute to approximately the same degree ( $p > .22$ ).

#### Female stereotypic attribute

We also examined if our perspective-taking manipulation had an effect on a trait typically associated with women (i.e., having more emotional sensitivity). To test this we conducted a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA on participants' female stereotypic attribute scores (see Table 1). Results revealed a main effect for Participant Gender,  $F(1,56)=13.55$ ,  $p < .01$ ,  $\eta=.44$ , demonstrating that female participants considered themselves as more emotionally sensitive than male participants. We also found a two-way interaction,  $F(1,56)=4.00$ ,  $p=.05$ ,  $\eta=.26$ . Female participants in the "I" focus condition ( $M=6.40$ ,  $SD=1.59$ ), reported having *less* emotional sensitivity compared to female participants in the "He" focus condition ( $M=7.47$ ,  $SD=0.74$ ),  $F(1,56)=5.70$ ,  $p=.02$ ,  $\eta=.30$ . For male participants, however, there was no difference between the "I" ( $M=5.87$ ,  $SD=1.25$ ) and "He" ( $M=5.67$ ,  $SD=1.18$ ) focus conditions ( $F < 1.00$ ). Finally, within the

Table 1  
Mean (*SD*) perceived similarity, elaboration, task difficulty, male stereotypic attribute, female stereotypic attribute, emotion test performance, emotional sensitivity measure, and threat-based concerns as a function of perspective type and participant gender

Participant gender	Perspective type			
	"I" focus		"He" focus	
	Male	Female	Male	Female
Perceived similarity	5.27 (3.11)	5.30 (1.40)	3.90 (1.44)	4.17 (0.86)
Elaboration	3.17 (1.70)	2.57 (1.33)	4.23 (1.55)	4.27 (1.75)
Task difficulty	6.60 (2.44)	6.47 (2.07)	7.00 (1.25)	6.27 (2.12)
Male stereotypic attribute	5.13 (1.64)	4.53 (1.30)	5.20 (0.94)	3.20 (1.32)
Female stereotypic attribute	5.87 (1.25)	6.40 (1.59)	5.67 (1.18)	7.47 (0.74)
Emotion test performance	5.13 (1.06)	4.87 (1.55)	4.73 (1.44)	8.60 (1.24)
Emotional sensitivity measure	5.87 (1.53)	5.86 (1.46)	5.46 (1.09)	6.98 (0.91)
Threat-based concerns	2.92 (0.95)	2.63 (0.77)	2.73 (0.85)	1.60 (0.32)

“I” focus conditions female ( $M = 6.40$ ,  $SD = 1.59$ ) and male ( $M = 5.87$ ,  $SD = 1.25$ ) participants indicated that they were approximately equivalent in their emotional sensitivity ( $p > .24$ ). In sum, these findings are consistent with the perspective-taking literature in that participants’ self-representations did show a merging between the self and the target, such that female participants became more “malelike” as a result. The question now, is whether this perspective-taking effect also occurs on participants’ emotion test performance.

#### *Emotion test performance*

The participants’ emotion test performance was analyzed with a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA (see Table 1). This analysis revealed main effects for Participant Gender,  $F(1, 56) = 27.22$ ,  $p < .01$ ,  $\eta = .61$ , with female participants performing better than male participants, and Perspective,  $F(1, 56) = 23.33$ ,  $p < .01$ ,  $\eta = .54$ , showing that participants in the “He” focus conditions outperformed those participants in the “I” focus conditions. As expected the interaction was reliable,  $F(1, 56) = 35.88$ ,  $p < .01$ ,  $\eta = .76$ . When participants were in the “I” focus condition, female ( $M = 4.87$ ,  $SD = 1.55$ ) and male ( $M = 5.13$ ,  $SD = 1.06$ ) participants performed equally as poorly on the emotion test ( $F < 1.00$ ). But when participants were in the “He” focus condition, female participants ( $M = 8.60$ ,  $SD = 1.24$ ) outperformed male participants ( $M = 4.73$ ,  $SD = 1.44$ ),  $F(1, 56) = 62.75$ ,  $p < .01$ ,  $\eta = .76$ . These effects occurred because the female participants had not “become” stereotyped, while for male participants the perspective-taking manipulation did not change the fact that they were already stereotyped within this context. Moreover, these findings clearly underscore the point that non-targets only underperform when they take a stereotyped target’s perspective, which has been suggested elsewhere (cf. Wheeler et al., 2001), but not systematically manipulated until now. Furthermore, it is quite apparent from these results that even though we purposefully confounded our elaboration instructions with the “He” focus conditions, female participants did not underperform despite higher elaboration, hence higher elaboration cannot account for the performance differences we found in the present experiment.

#### *Emotional sensitivity measure*

In addition to showing that participants’ test performance was affected by stereotype threat we wanted to assess whether beliefs about their emotional sensitivity were likewise affected. To do this we analyzed their emotional sensitivity scores using a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA (see Table 1). We found a main effect for Participant Gender,  $F(1, 56) = 5.27$ ,  $p < .03$ ,  $\eta = .29$ , with female participants scoring higher than male participants, and the anticipated two-way interaction,  $F(1, 56) = 5.42$ ,  $p < .03$ ,  $\eta = .30$ . In the “I” focus condition female participants’ emotional sensitivity scores ( $M = 5.86$ ,  $SD = 1.46$ ) were equivalent to the male participants’ scores ( $M = 5.87$ ,

$SD = 1.53$ ),  $F < 1.00$ . But when female participants were in the “He” focus condition ( $M = 6.98$ ,  $SD = 0.91$ ), their scores were considerably higher than male participants ( $M = 5.46$ ,  $SD = 1.09$ ),  $F(1, 56) = 25.31$ ,  $p < .01$ ,  $\eta = .56$ . As before, we believe that this result came about because female participants had not “become” stereotyped in the “He” focus condition, but for male participants this manipulation did not change the fact that they already were stereotyped, thus they showed stereotype threat effects even on this emotional sensitivity measure.

#### *Threat-based concerns*

As a final test of our theoretical framework we also examined participants’ threat-based concerns utilizing a 2 (Participant Gender)  $\times$  2 (Perspective) ANOVA (see Table 1). This analysis revealed main effects for Participant Gender,  $F(1, 56) = 12.88$ ,  $p < .01$ ,  $\eta = .43$ , showing that male participants experienced more threat-based concerns than did female participants, and Perspective,  $F(1, 56) = 9.50$ ,  $p < .01$ ,  $\eta = .38$ , indicating that participants had higher concern scores in the “I” focus conditions compared to the “He” focus conditions. We also found, as predicted, a two-way interaction,  $F(1, 56) = 4.64$ ,  $p < .04$ ,  $\eta = .28$ . Female participants in the “I” focus condition ( $M = 2.63$ ,  $SD = 0.77$ ), indicated feeling more threat-based concerns relative to female participants in the “He” focus condition ( $M = 1.60$ ,  $SD = 0.32$ ),  $F(1, 56) = 13.62$ ,  $p < .01$ ,  $\eta = .44$ . For male participants there was no difference in their threat-based concerns between the “I” ( $M = 2.92$ ,  $SD = 0.95$ ) and “He” ( $M = 2.73$ ,  $SD = 0.85$ ) focus conditions ( $F < 1.00$ .) Finally, within the “I” focus conditions female ( $M = 2.63$ ,  $SD = 0.77$ ) and male ( $M = 2.92$ ,  $SD = 0.95$ ) participants experienced about the same level of threat-based concerns ( $F < 1.00$ ). This pattern of results provides additional support for our theoretical framework; namely, if a person is already a stereotyped target then perspective taking should not matter since the stereotype is already self-relevant. However, for those people who are *not* targeted by a negative stereotype, perspective taking *should* matter, such that when they “become” stereotyped they subsequently experience the same threat-based concerns that stereotyped targets already experience.

## **Discussion**

This experiment provides compelling evidence that stereotype threat and stereotype priming are related to different processes. Specifically, if an individual is already a target of a negative stereotype, then perspective taking does not harm performance any more than does their threat-based concerns. However, for non-stereotyped individuals perspective taking does have a differential effect, such that only when they become stereotyped (i.e., when in an “I” focus mindset) do they underperform. In addition to the effects on performance we also found that non-stereotyped individuals in an “I” focus mindset experienced the same threat-based concerns that stereotyped individuals

experienced when taking a diagnostic emotion test. Though we are not the first to argue this point, the present research demonstrates that one crucial, but overlooked distinction between the stereotype priming and stereotype threat is that of self-relevance (see also, Wheeler et al., 2005, for a related perspective).

### *Stereotype priming and stereotype threat*

The current research was designed to address the question of why negative stereotypes harm the test performance of stereotyped targets. This question has sparked a number of experiments leading to the argument that stereotype threat might occur via stereotype priming and that subjective experiences of threat may not be necessary. Although a reasonable interpretation of stereotyped-based underperformance, this stereotype priming research neglected the necessary factors that would clearly establish whether stereotype threat could be explained via activation of “behavioral instantiations of [negative] stereotype-relevant traits” (Wheeler et al., 2001, p. 179). Namely, past research failed to include the very group to which the stereotype applies, thus they are unable to show that the stereotyped targets’ can benefit from activation of behavioral instantiations of *positive* stereotype-relevant traits—when they write about a non-stereotyped individual from a first-person perspective. Interestingly, the same research that can be used to support the stereotype priming perspective can also be used to refute it. That is, as far as we can tell most of the stereotype priming research (e.g., Bargh, Chen, & Burrows, 1996; Dijksterhuis & van Knippenberg, 1998) did not use stereotyped participants; hence, it is unclear whether in particular situations (such as taking an evaluative test) stereotyped participants would show the same effects as would non-stereotyped participants. Indeed, we believe that stereotype priming can “look” like stereotype threat effects, but only under certain conditions, namely when non-stereotyped participants feel similar to the stereotyped group in question: When the stereotype is self-relevant. This point is further underscored by our finding that female participants’ self-representations were more “malelike” in the “I” focus relative to the “He” focus condition (e.g., Davis et al., 1996; Regan & Totten, 1975; Smith & Henry, 1996).<sup>3</sup>

Moreover, one of the proposed explanations (higher elaboration) for the finding that participants performed worse after writing about stereotyped target compared to a non-target did not play a role in the research reported here (cf. Wheeler et al., 2001). In fact, if higher elaboration were responsible, then participants who elaborated more should show a stronger effect of the perspective-taking manipula-

tion. This was clearly not the case even though we purposefully confounded elaboration with perspective taking. Hence, if elaboration were a viable explanation then participants who wrote more (even if it were from a third-person perspective) should likewise underperform. In closing, the present research extends and refines the work of Wheeler et al. (2001) by showing that priming a negative stereotype only has its affects on non-stereotyped participants, because stereotyped participants already have to deal with the larger concerns about confirming a negative stereotype about their group if they underperform on the test. Therefore, stereotype threat and stereotype priming cannot be treated similarly.

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<sup>3</sup> Some readers may argue that our effects among female participants in the “He” focus condition could be driven by stereotype lift (see Walton & Cohen, 2003). However, we think that this is unlikely given that lift effects are often quite weak and thus do not contribute much to differences in performance (see also, Marx & Stapel, 2005a, 2005b, for a discussion of the boundary conditions for stereotype lift).



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